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LECTURE VIII.

THE SENSES.

Animal Magnetism, The Passions, Baths, Exercise, Homœopathy.

GENTLEMEN,

The Causes of Disease, we have already said and shown, can only affect the body through one or more of the various modifications of nervous perception. No disease can arise independent of this—no disease can be cured without it. Who ever heard of a corpse taking the Small-pox? or of a tumor or a sore being healed in a dead body? A dreamer or a German novelist might imagine such things. Even in the living subject, when nerves have been accidentally paralysed, the most potent agents have not their usual influence over the parts which such nerves supply. If you divide the pneumo-gastric nerves of a living dog—nerves which, as their name imports, connect the Brain with the Lungs and Stomach—arsenic will not produce its accustomed effect on either of these organs. Is not this one of many proofs that an external agent can only influence internal parts banefully, at least, by means of its electric power over the nerves leading to them? Through the same medium, and in the same manner, do the greater number of our remedial forces exert their salutary influence on the human frame. But whether applied for good or for evil, all the forces of nature act simply by attraction or repulsion. The Brain and Spinal Column—the latter a prolongation of the former—are the grand centres upon which every medicine sooner or later tells, and many are the avenues by which these centres may be approached. Through each of

THE FIVE SENSES,

the Brain may be either beneficially or banefully influenced. Indeed, take away these, where would be the joys, sorrows, and more than half the diseases of mankind?

We shall first speak of Sight. The view of a varied and pleasant country may, of itself, improve the condition of many invalids—while a gloomy situation has too often had the reverse effect. There are cases, nevertheless, in which pleasant objects only pain and distract the patient by their multiplicity or brightness. Night and darkness, in such circumstances, have afforded both mental and bodily tranquility. The presence of a strong light affects certain people with headache; and there are persons to whom the first burst of sunshine is troublesome, on account of the fit of sneezing it excites. A flash of lightning has caused and cured the palsy. Laennec mentions the case of a gentleman who, when pursuing a journey on horseback suddenly arrived at an extensive plain. The view of this apparently interminable waste affected him with such a sense of suffocation that he was forced to turn back. Finding himself relieved, he again attempted to proceed; but the return of the suffocative feeling forced him to abandon his journey. The common effects of gazing from a great height are giddiness, dimness of sight, with a sense of sickness and terror; yet there are individuals who experience a gloomy joy upon such occasions; and some become seized with a feeling like what we suppose inspiration to be—a prophetic feeling, that leads them to the utterance and prediction of extravagant and impossible things. Others again, under such circumstances, have an involuntary disposition to hurl themselves from the precipice upon which they stand. Sir Walter Scott, in his Count Robert of Paris, makes Ursel say, "Guard me, then, from myself, and save me from the reeling and insane desire which I feel to plunge myself in the abyss, to the edge of which you have guided me." Every kind of motion

upon the body may affect the brain for good or for evil; and through the medium of the eye, novel motion acts upon it sometimes very curiously. You have all experienced giddiness from a few rapid gyrations. Every thing, in the room then appears to the eye, to turn around. If you look from the window of a coach in rapid motion for any length of time, you will become dizzy. The same thing produces sickness with some. Many people become giddy, and even epileptic, from looking for a length of time on a running stream; with others, this very stream gazing induces a pleasurable reverie, or a disposition to sleep. Apply these facts to Animal Magnetism—compare them with the effects of the manipulations so called, and you will have little difficulty in arriving at a just estimate of their nature and mode of action. What is animal magnetism? It consists in passing the hands up and down before the eyes of another slowly, and with a certain air of pomp and mystery; now moving them this way, now that. You must, of course, assume a very imperturbable gravity, and keep your eye firmly fixed upon the patient, in order to maintain your mental ascendancy. On no account must you allow your features to relax into a smile. If you perform your tricks slowly and silently in a dimly-lit chamber, you will be sure to make an impression. What impression?—Oh! as in the case of the stream gazer, one person will become dreamy and entranced; another, sleepy; a third, fidgetty or convulsed. Who are the persons that, for the most part, submit themselves to this mummery?—Dyspeptic men, and hysteric women—weak, curious, credulous persons, whom you may move at any time by a straw or a feather. Hold up your finger to them and they will laugh; depress it, and they will cry! So far from being astonished at anything I hear of these people, I only wonder it has not killed some of them outright—poor fragile things! A few years ago I took it into my head to try this kind of pawing in a case of epilepsy. It certainly had the effect of keeping off the fit; but what hocus-pocus has not done that? I have often done the same thing with a stamp of my foot. In a case of cancer upon which I tried the "passes," as these manipulations are called, the lady got so fidgetty, I verily believe, if I had continued them longer, she would have become hysterical or convulsed! That effects remedial and the reverse, however, may be obtained from them, I am perfectly satisfied. Nor do I mean to deny that in a few—a very few instances, these, or any other monotonous motions, may produce some extraordinary effects—effects which, however, are the rare exception instead of the general rule. Whatever any other cause of Disease may produce on the human body, these manipulations may by possibility occasion— Somnambulism, Catalepsy, or what you please. There is no more difficulty in believing this than there is difficulty in believing that the odor of a rose, or the sight of a cat will make certain people swoon away. This much then I am disposed to admit.—But when the animal magnetiezrs assert that the senses may be transposed,—that the stomach may take the office of the eye, and render that beautiful organ with all the perfect but complex machinery by which it conveys light and shadow to the Brain, a work of supererogation on the part of the Creator, I turn from the subject with feelings of invincible disgust. If it be objected that the magnetizers have produced persons of both sexes who with their eyes closed and bandaged read a book placed upon their stomach by means of that organ, through waistcoat, boddice, and heaven knows what all!—I reply, that the charlatans of all countries every day perform their tricks with a swiftness that altogether eludes the unpractised eye. Thousands of persons have seen the Indian juggler plant a a mango-stone in the ground, and *in* the course of a few minutes do what nature can only do in the course of years, make it successively produce a plant with leaves, blossoms, and lastly fruit! How this trick is done, the witnesses who describe it know no more than I how the magnetizers perform their juggleries; but few who have seen the Indian trick believe in the reality of any one of the various transformations with which their eyes have been cheated. Gentlemen, the transposition of the senses, is only an old whimsy, newly dressed up under the name of "clairvoyance." We read in *Hudibras* of

> ——————Rosicrucian virtuosis
> Who see with Ears and hear with Noses!

The greater part of the influence of external impressions upon the eye, as upon other organs, depends upon novelty solely, for pomp and pageantry affect the actors and the spectators in exactly opposite ways With what different feelings, for example, the courtier approaches his Sovereign, from a person "newly presented." The one, all coolness, looks only for an opportunity of improving his advantages, while the other's only care is not to make a fool of himself. How different the effect of a punishment parade upon the raw recruit and the old soldier! In a regiment of veterans, a thousand strong, not a man will move from his place—not a countenance shall change its cast or hue,

while lash follows lash, and the blood flows in streams from the back of the culprit. The same scene enacted before a body of newly enlisted lads of equal numerical strength, will alter the expression of every face; nay, a dozen or more will drop, some fainting, some vomiting, some convulsed and epileptic. A medical student of my acquaintance, the first time he saw an amputation, not only fainted, but lost his sight for nearly half-an-hour; yet the same student afterwards became celebrated for his manual dexterity, and the coolness and steadiness with which he performed his amputations. To use a vulgar phrase—familiarity breeds contempt. How awkward most persons feel when, for the first time, they experience a ship's motion at sea. The young sailor, like the young surgeon, soon gets cured of his squeamishness; for the disposition to be seasick vanishes after a voyage or two. Now all this ought to convince you of the necessity of changing your remedies in disease; for what will produce a particular effect one day will not always do it another With the body, as with the mind, novelty and surprise work wonders.

Do you require to be told that you can influence the whole corporeal motions through the organ of Hearing? I have stopped the commencing epileptic fit by simply vociferating in the ear of the patient. The atoms of the brain, like the atoms of other parts, cannot do two things at once; they cannot, at one and the same moment of time, maintain the state of arrest which constitutes attention and the state of motion on which the epileptic convulsions depend. Produce cerebral attention in any way you please, and there can be no epilepsy, In this way a word may be as efficacious as a medicine. Certain sounds, on the contrary, set the teeth on edge.

The influence of melody upon the diseases of mankind was so fully believed by the ancients, that they made Apollo the god both of medicine and music; but sweet sounds, like other sweets, are not sweet to every body. Nicano, Hippocrates tells us, swooned at the sound of a flute; what would he have done had he been obliged to sit out an opera? Many people are melancholy when they hear a harp; yet the melancholy of Saul was assuaged by David's harping. Some persons become furious when a fiddle plays,

> And others when the bagpipe sings i' the nose,
> Cannot contain their urine,—for Affection,
> Mistress of Passion, sways it to the mood
> Of what it likes or loathes.—SHAKSPEARE.

Everybody has heard of the wonderful effects of the Ranz des Vaches—that air which, according to circumstances, may either rouse the Switzer to the combat, or stretch him hopeless and helpless upon the sick-bed from which he shall rise no more. Oh! these national airs have marvellous effects with many people! I have known them produce and cure almost every disease you can name; but their influence in this case greatly depends upon association. Captain Owen had more faith in an old song as a remedy for the tropical fever, from which his crew suffered, than in all the physic prescribed for them by the ship's surgeon. The singing of a long remembered stanza, he assures us, would, in a minute, completely change for the better the chances of the most desperate cases. Upon what apparently trifling things does not Life itself often turn!—

> ——————It may be a sound,
> A tone of music, summer's eve or spring—
> A flower, the wind, the ocean, which shall wound,
> Striking the Electric Chain with which we are darkly bound.—BYRON.

How strangely some people are affected by Smell. Who that had never seen or experienced it, would believe that the odor of the rose could produce Fainting? or that the heliotrope and the tuberose have made some men asthmatical? There are persons who cannot breathe the air of a room containing ipecacuan, without suffering from asthma. The smell of musk, so grateful to many people, sickens some. An odor in certain cases may be as good a cordial as wine: every old woman knows the virtue of hartshorn and burnt feathers.

I am almost afraid to speak of Taste, for, you know, de gustibus non est disputandum. Might not the Red Indian, when taunted for devouring vermin, retort upon the "Pale Face" for his mite-eating propensity? The Esquimaux, who rejects sugar with disgust, esteems train-oil a luxury; but though he prefers a tallow candle to butter, he has as perfect a taste for whiskey as any Irishman among us—that is, before Father Matthew and Temperance Societies became the rage. How you would stare if you saw a man in his senses, chewing quick-lime; yet I have seen some hundreds at a time doing that. I allude to the practice of the Asiatics, who first wrap up a little portion of lime in a betel-leaf, and chew both, as our sailors do tobacco. Now, that very tobacco chewing has always seemed to me an odd taste, and I do not wonder that fine ladies have sickened at the sight of a quid. Was there ever such a fancy as that of the Chinese, who eat soup made of birds nests! Morbid in the first instance, such tastes, like other diseases spread by imitation or contagion. In the

West Indies, the negro is liable to a peculiar fever, called from the avidity with which he devours clay, Mal d' Estomac. His whole sensations then are, doubtless, more or less deranged. What extraordinary likings and longings ladies in the family way occasionally take! Some will eat cinders, some have a fancy for rats and mice, and some, like Frenchmen, take to frog-eating! I remember reading of a lady who paid fifty pounds for a bite of a handsome baker's shoulder; the same lady went into hysterics because the poor fellow would not permit her to take another bite, at any price. If you smile, and look incredulous at this, how will you receive what I am now going to tell you? While I was myself studying at Paris, some fourteen or fifteen years ago, a woman was tried for decapitating a child. When asked her motive for a crime so horrible, she replied, "l'envie d'une femme grosse."

Well now, I think we have had quite enough of Tastes—we shall therefore say something of Touch. You will tell me, perhaps, not to trouble you on that subject; —no great good or ill can happen from a touch, you will say. But here you are mistaken: many curious and even dangerous affections may originate in touch simply, provided it be of a novel or unusual kind. Touch the white of the eye, however lightly with your finger, or a feather, and you shall have pain that may last an hour. The application of either the one or the other to the throat or fauces may vomit you as effectually as tartar emetic or ipecacuan; every nurse knows that. A bristle introduced, in the softest manner, into the nose or ear, has thrown some people into fits. Then what extraordinary effects may sometimes follow the most painless touch of the bladder by a catheter or a bougie. I do not know what other medical men have seen, but I have over aud over again witnessed ague, epilepsy, faint, vomit, and diarrhœa all from the mere introduction of the catheter or bougie; and I have even traced rheumatism and eruptions to the same operation. You all know the effect of tickling. Now what is tickling but a succession of short touches? And see how wonderfully it affects most people!—oh, you may drive some men mad by it. Though it has been carried so far, in some cases, as to have produced convulsions and even death itself, Mr. Wardrop actually found it efficacious in some convulsive affections. I have already given you instances where the mere application of a ligature to the arm or leg arrested the fit of mania, epilepsy, &c. Now the influence of that apparently trifling application depends upon the cerebral attention which it excites through the double influence of sight and touch. As I hinted to you before, the lancet has often got the credit for the good effects produced by the bandage. Fear of the operation may also, on some occasions, have aided its efficacy. How many virtues, were at one time attributed to a king's touch!—how many more are still believed to attach to the touch of relics—the bones, rags, and other rattletraps of saints! Priests and Princes, you have by turns governed mankind—justly and well, sometimes—more frequently you have deluded and deceived them. If the credulity and weakness of the masses have in most cases, been your strength, here at least the dupe has not always been a loser by the deceptions you practised. The emotions of Faith and Hope, which your mummery inspired, by exciting new revolutions in the matter of the brain, have assuredly alleviated and even cured the sufferings of the sick. Strange infatuation of mankind, —with whom, where truth fails, imposture may succeed! In what does the adult differ from the infant—gullible man, who gives his gold for an echo, from the child who caresses its nurse when telling lies to please it? Ignorance in degree makes the only difference. Gentlemen, let us now *inquire* into the manner in which the human frame may be influenced through the medium of

The Passions.

What are the passions? Grief, Fear and Joy—what are these?—are they entities or actions—the workings of demons within, or corporeal variations caused by impressions from without? Have not the Passions all something in common, some features or shades of feature so precisely the same as to form a bond of unity by which they may be all linked together? Are not the resemblances, in many instances, so very close that you could not tell one from another? A person is pale in the face, his lip quivers, his whole frame trembles or becomes convulsed. Is this fear, rage, love, or hate? May it not be the effect of a change of temperature simply? Bailly when on the scaffold, was taunted by the bystanders for trembling. Yes he replied, "but it is with Cold." "You are pale, Sir, your fears betray you." "If I am pale, it is with astonishment at being accused of such a crime?" "You blush, Madam, you are ashamed of yourself." "Pardon me, Sir, it is your audacity brings the redness of rage to my cheek." You see then, how like the passions are to each other, and how difficult it is to guess at the causes of them from mere appearance.

Like the various diseases of which we

have had occasion to speak, the Mental Emotions, or rather the corporeal actions so called, have all been associated with particular organs and secretions. Their very names have changed with the changes in medical doctrine. Who among you would dream of placing grief in the liver? That the ancients did so, is evident by the name they gave it. Melancholy literally signifies "black bile." Envy or Spite we still call the "Spleen," and when a person is enraged we say "his Bile is up." Europeans place courage, benevolence and fear in the heart—the heart which has quite enough to do in the performance of its own proper office, namely, that of a vessel to circulate the blood through the system!—The Persians and Arabs associate fear, courage, and benevolence with the liver: "White-liver" is their term for a coward. Shakspeare uses the word lily-livered in the same sense.

People often speak of Temperament, and professors of philosophy tell us there are four kinds. If a man is hasty or violent, his temperament is said to be choleric or bilious; if mentally depressed, melancholic or black bilious; if of a joyful and happy turn of mind, he is of a sanguineous, or full-blooded temperament; if apathetic or listless, the temperament is phlegmatic—a word somewhat difficult to translate, inasmuch as it originated in a fanciful phantom, which the ancients believed to be an element of the body, and which they termed "phlegm." Some add another temperament which they call leuco-phlegmatic, or white phlegm. I wonder they never took the saliva to distinguish a temperament; surely the "salivous temperament" would be quite as rational as the "bilious." What then are all these temperaments—so far at least as their nomenclature goes, but pretty gibberish?—mere sounds, in fact, invented by ignorant knavery, to cheat still more ignorant folly; or in the words of Horne Tooke, "an exemplar of the subtle art of saving appearances and of discoursing deeply and learnedly on a subject with which we are perfectly unacquainted!" It never occurred to the sophists of the schools that man's mental dispositions, like his corporeal attributes, are every day altered by time and circumstance. Need I tell you, that disease has made the bravest man quake at his own shadow, and turned the most joyous person into a moody and moping wretch? When the doctrines of the Humoral School prevailed, the word temperament gave way to humor, and good and bad humor took the place of cheerful and sulky temper. We are in the daily habit of speaking of "the spirits." We say "low spirits," and "high spirits;" which forms of expression may be traced to the period when physicians were so ignorant as to suppose that the arteries, instead of carrying blood, contained air or "spirits," from Spiritus the Latin for breath or air. That was the reason why these blood-vessels were first called aer-teries. The confusion which pervades all language has materially impeded our knowledge both of the physical and moral man. Locke must have felt this when he said, "Vague and insignificant forms of speech, and abuse of language, have so long passed for mysteries of science, and hard or misapplied words, with little or no meaning, have, by prescription, such a right to be mistaken for deep learning and height of speculation, that it will not be easy to persuade either those who speak or those who hear them, that they are but the covers of ignorance and hindrances of true knowledge."

"We cannot entertain a doubt," says Sir H. Davy, "but that every change in our sensations and ideas must be accompanied with some corresponding change in the organic matter of the body. Through the medium of one or more of the five senses must some external circumstance first operate on that part of it called the BRAIN, so as to change the existing relations and revolutions of its atoms, before there can be what we term a Passion. Whatever shall alter the cerebral atoms must alter the actions of every part of the body—some more, some less. According to the prominence and locality of one set of actions or another, do we, for the most part name the passion. The jest that will make one man laugh may enrage another. What are the features common to all passions?—Tremor, change of temperature, change of secretion. Do not these constitute an ague-fit? Shakspeare, with his accustomed penetration, "speaks of this ague-fit of fear," and he stretched the analogy even to the world around him:—

"Some say the earth was fever'd and did shake."

HATE and LOVE are equally remarkable for their ague-like changes. You remember what Hudibras says of Love—that it is only an ague-fit "reversed." The same may be said of Hope, Joy, and Rage; for in all these passions the "hot fit takes the patient first." That at least is the general effect of them, but in particular instances, as in the real ague, coldness and pallor usher in every one of those passionate fits. I care not what be the nature of the Passion, joy, grief, or fear—the constitutional circle of actions is still the same; differing, where they do differ, in shade, place, and prominence solely—but in

no greater degree than one fever differs from another. Moreover, there is no constitutional affection which these passions may not excise or cure. In this respect, also, they resemble the Ague, that type of every disturbed state, whether of man the microcosm, or the globe he inhabits. We have already, to a certain extent, demonstrated the influence of particular passions in the production of certain diseases. We have further proved that the same morbid actions which we recognize under so many different names, when arising from a blow or a poison, may be equally the result of a mental impression: we have established their absolute identity by curing them with the same physical agents. The history of medicine, on the other hand, presents us with innumerable instances of the beneficial agency of these very passions in every kind of disorder, whatever may have been the nature of the primary cause. Faith, Confidence, Enthusiasm, Hope, or rather the causes of them, are as powerful agents in the cure of the sick, as any remedies we possess. Not only, like Bark or Wine, do they often produce a salutary excitement, or mild fever, sufficient to prevent the access of the most malignant diseases—but, like these agents, they have actually arrested and cured such diseases after they had fairly and fully commenced. A stone, or ring with a history real or supposed, a verse of the Koran or the Bible sewn in a piece of silk—these worn, now on one part of the body, now on another, have inspired a mental firmness and induced a corporeal steadiness which have enabled the wearer to defy the united influence of Epidemic and Contagion. If the Arabs have still their talismans, and the Indians their amulets, the Western nations have not ceased to vaunt the cures and other miracles effected by their relics, their holy wells and holy water. When we boast of the success of a particular measure, we say it acted like a Charm. What is a charm?—whence its origin? It is a corruption of the Latin word Carmen—song or verse. In all times and in all countries, there have been men who have found their advantage in playing upon the ignorance of their fellow-men; he that would appear wiser than another has always had recourse to some kind of imposture; and as priest, poet, prophet and physician were often united in one person, it was not wonderful that such person should clothe his mummery and mysticism in verse. To be able to read or spell was, at one time, a mark of superior wisdom, and he who could do so, had only to mutter his "spell" to cure or kill. From the earliest antiquity, we find charms a part of medical practice; Homer in his Odyssey, introduces the sons of Autolycus charming to stanch blood; the physicians of Egypt and India are to this day charmers; the Northmen composed Rhunic rhymes to charm away disease. Indeed, with the Norwegians and Icelanders verse or song was supposed to be all-powerful: one of their poets thus expresses the belief of his time and country in this respect. "I know a song by which I can soften and Enchant the arms of my enemies, and render their weapons harmless. I know a song which I need only to sing when men have loaded me with bonds; for the moment I sing it, my chains fall in pieces, and I walk forth at liberty. I know a song useful to all the children of men; for as soon as hatred inflames them I sing it, and their hate ceases. I know a song of such virtue, that I can hush the winds with it, and subdue the storm to a breath." Such, Gentlemen, was the origin of Enchantment, or Incantation, terms borrowed from the Latin verb, Canto, I sing. With the Jews, the simple enunciation of their mystical word Abracalan, was sufficient to inspire the confidence that baffled disease; nay, Quintus Severinus Simonicus vaunted his success in the cure of the hemitritic fever, by pronouncing mysteriously the word, Abracadabra, a phonic combination of his own invention! At this very hour, the Caffree rain-maker, the Cingalese devil-dancer, and the Copper Indian sorcerer, with their charms and chaunts, are enabled to work changes in the bodies of their several countrymen that put the boasted science of the schoolmen to shame. That these act by inspiring Confidence simply, may be seen from what took place in 1625, at the Siege of Breda. "That city, from a long siege, suffered all the miseries that fatigue, bad provisions, and distress of mind could bring upon its inhabitants. Among other misfortunes, the scurvy made its appearance, and carried off great numbers. This, added to other calamities, induced the garrison to incline towards a surrender of the place, when the Prince of Orange, anxious to prevent its loss, and unable to relieve the garrison, contrived, however, to introduce letters to the men, promising them the most speedy assistance. These were accompanied with medicines against the scurvy, said to be of great price, but of still greater efficacy; many more were to be sent them. The effects of the deceit were truly astonishing. Three small vials of medicine were given to each physician. It was publicly given out that three or four drops were sufficient to impart a healing virtue to a gallon of water [Mark this, Homœopathists!] We now displayed our wonder-working balsams Nor even were the commanders let into the secret of the cheat upon the soldiers. They flocked

in crowds about us, every one soliciting that part may be reserved for his use. Cheerfulness again appears in every countenance, and an universal faith prevails in the sovereign virtues of the remedies. The effect of this delusion was truly astonishing; for many were quickly and perfectly recovered. Such as had not moved their limbs for a month before, were seen walking the streets with their limbs sound, straight, and whole! They boasted of their cure by the Prince's remedy."—[Ives' Journal, 1744.] And what was this remedy?—a mere sham medicine, Gentlemen! After this, do I require to caution you, when you visit your patients, not to put on a lugubrious or desponding look before them. Such conduct, on the part of a medical man, is unpardonable; yet there are practitioners so base and sordid as to make it a part of their policy to represent the malady of every patient as dangerous. These find their profit in croaking; for it is a course of conduct that almost infallibly contributes to keep up disease. To God and their consciences I leave these men.

Such of you as might be disposed to question the depressing influence of a long face upon the sick, may read the history of Lord Anson's voyages with profit. There you will find it recorded, "that whatever discouraged the seamen, or at any time damped their hopes, never failed to add new vigor to the distemper, (the scurvy), for it usually killed those who were in the last stages of it, and confined those to their hammocks who were before capable of some kind of duty." And this is in perfect accordance with the observation of Solomon, that "a merry heart doeth good like medicine, but a broken spirit drieth the bones."

Let me, therefore, counsel you not only to assume a cheerful look in the presence of the sick, but endeavor at the same time in Byron's words,

> To render with your *Precepts* less
> The sum of human wretchedness,
> And STRENGTHEN man with HIS OWN MIND.

What are all your trumpery Pathology and Dissecting-Room knowledge compared with this? You may dissect dead bodies for twenty years and never be one whit the wiser on the mode of influencing the motions of the living. Now, this brings to my mind certain lines of a contemporary poet, the celebrated Beranger; but as some of you may not understand the French language, I shall offer no apology for giving you his sentiments in my own not over poetical English:

> Was ever such an ass as that
> Who hoped by slicing mutton-fat,
> And pulling candle wicks to pieces,
> To tell why *Light* should spring from *Greases*?
> Yes, one—that still more precious fool,
> Who in the anatomic school
> Expected with dissecting knife
> To learn from *Death* the laws of *Life!*
> Ha! ha! I'd rather beg some old
> Domestic nurse to cure my cold,
> Than trust to such pedantic brain
> To wake my lamp's low flame again!

But seriously, gentlemen, I have known a great many first-rate anatomists in my time; yet there are old women who never saw the inside of a dead body, whom I would sooner consult in my own case than any of these hair-splitting gentry. These men are mere geographers, who will point out rivers and towns, if I may say so,—corporeal hills, dales, and plains,—but who know nothing of the manners, customs, or mode of influencing the animated atoms constantly entering into and departing from them. If any such mechanical-minded creature presume hereafter to mystify you on this point, tell him to watch the wounded of contending armies, and ask him to explain to you why the same description of injuries which heal with rapidity when occurring in the persons of the victors, too often prove intractable, or even fatal, to the vanquished! He might dissect their dead *nerves* as clean as he pleased, and never find out that the living body of man may be either weakened or strengthened through the medium of his own mind.

The depressing power of GRIEF is familiar to every body; but there are cases where a reverse effect may take place from it—and Shakspeare, with his usual accuracy, explains the reason of this.

> "In Poison there is Physic—and these news,
> Having been WELL, that would have made me SICK,
> Being Sick, have in some measure made me Well;
> And as the wretch whose fever-weakened limbs,
> Like strengthless hinges buckle under life,
> Impatient of his fit, breaks like a fire
> Out of his keeper's arms, even so my limbs,
> *Weakened* with Grief, being now *Enraged* with Grief,
> Are THRICE THEMSELVES."

The strength imparted to the constitution in cases of this nature, has a relation to the novel atomic revolutions caused by DESPERATION; or that determination to act in an energetic manner, which so often comes upon a man in his extremity. Such reaction resembles the glow that suoceeds the sudden shock of a cold shower-bath. There are persons whom a slow succession of petty misfortunes would worry to death; but who, on sudden and apparently overwhelming occasions, become heroes.

It will be readily admitted, by all who have profited by their experience of life, that one half the world live by taking advantage of the passions and prejudices of the other half. The parent of prejudice is Ignorance; yet there is no man so ignorant but who knows something which you or I may not know. The wisest judges have played the fool sometimes from ignorance; they have

allowed themselves to be gulled by individuals of a class they despise. Poor, decrepid, ill-educated females, calling themselves Witches, have imposed upon the ablest and most learned men of a nation. Lord Bacon and Sir Matthew Hale, for example, believed in witchcraft; nay, the latter judge went so far as to sentence to death wretches supposed to be convicted of it, and they were executed accordingly. Samuel Johnson was a believer in ghosts and the second-sight. Where, then, is the country so enlightened that, upon some points the wisest and best may not be mystified? If such a country exists, it must be England at the present moment; if there is a profession in which deception is never practised, it must be Medicine. Happy England! happy Medicine! where all is perfect and pure—where the public are neither cheated by an echo, nor led by a party for party interests. Here collegiate corruption is unknown, and corporate collusion a mere name; here we have no diplomas or certificates to buy—no reviewers to bribe—no humbug schools—no venal professors: here, having no mote in our medical eye, we can the better distinguish and pluck out that of our neighbors. Who will doubt our superiority in this respect over all the other nations of the earth? Or who will question me in what that excellence principally consists? Scapegrace, sceptic, read Dr. Hawkins—read Dr. Bisset Hawkins' Continental Travels—and you will there find it recorded, that the brightest feature of British medicine—the most distinguishing point of excellence in English treatment—is the copious blood-lettings we practise. "The neglect of copious blood-lettings," quoth Hawkins, "is the great error of the continental Hospitals!" Let us laugh, then, at the do-little "medecine expectante" of the French, ridicule the do-nothing homœopathy of the Germans, and turn up our lip in derision at the counter-stimulant doctrine of the Italians. What are the greatest medical professors of the Continent, in comparison with our own meanest apothecaries even—to say nothing of our leading surgeons and physicians—presidents and vice-presidents of learned societies; Only look at the number of scientific bodies to which these little great men belong—you will find their names enrolled in every (so called!) Literary and Scientific institution throughout the country—Astronomical—Botanical—Geological—Antiquarian—Royal! Amiable and respectable persons! worthy of the carriages in which you ride, and the arms you bear: you are gentlemen—friendly and disinterested gentlemen; you owe your elevation to your own industry; you preserve your position by your incorruptible honesty; you recommend yourselves, and each other, neither by letter nor affection, but upon the score of talent and integrity solely; you are all honorable men. Unlike the "honorable members" of a certain honorable place, who have been purchased, you, the members of an equally "honorable" profession, are unpurchaseable? This, your colleges and coteries declare—this, the discriminating world believes and echoes. Who but the reptiles—the few that never think, never reflect—would answer, "all is not gold that glitters!" Gentlemen, what is the difference betwixt a guinea and its counterfeit? Do not both sparkle with equal brightness? Have they not the same metallic impress, the same form, the same exterior color? Can the eye detect the imposture? No! it is only by a comparative trial of their respective weight and ring that you can make out the difference. Do you think mankind are to be judged in any other way than this? Is it not as necessary for a person to be a successful cheat, that he should borrow the exterior of worth and integrity, as it is for the counterfeit guinea to bear the name and livery of the coin it purposes to be, before it can pass for genuine. Be not, then, satisfied with fine names and appearances only; do not take men for what they pretend to be solely by their manner or title—because they are doctors of this college, or professors of that university. What is a professorship but a Place? "He who has the best talents for getting the office, has most commonly the least for filling it; and men are made moral, [medical] and mathematical teachers by the same trick and filthiness with which they are made tide-waiters and clerks of the kitchen."—*Sydney Smith.* Depend upon it, professors thus elected will always stand by each other—right or wrong, they will always support the same system. In this, they do no more than the members of the swell-mob, who work together by coterie and collusion. Like these professors too, they are all very respectable in their appearance, some of them doing business in a carriage even!

Where is the individual that has not his moral as well as his physical weakness? Upon this point, at least, we are all liable to be overreached. Here we are every one of us imbecile as the infant; for we are placed as completely at the mercy of the Charlatan, as the child is at the disposal of the parent, whose mental ascendancy he acknowledges. Speak to the prattler of the "haunted chamber," his countenance instantly falls. With the adult, assume an air of mystery, mutter darkly and indefinitely, and mark how his brain will reel. Is he sane? he becomes

your tool. Has he come to you in his sickness? you gull him and guide him at your pleasure. But how can you wonder at the effect of this kind of agency on individuals, when you have seen a whole nation similarly hood-winked by a coterie of doctors? I allude to what was done when the Cholera first appeared in England. The influence of Fear, in disposing to spread an epidemic, you know; the effect of Confidence in strengthening the body against its attacks, you also know. What was the conduct of the College of Physicians when the Cholera broke out? Did they try to allay the alarm of the masses? did they endeavor to inspire them with confidence and hope, that their bodies might be strengthened through their minds? No! they publicly, and by proclamation, declared the disease to be Contagious; without a particle of proof, or the shadow of a shade of evidence, they solemnly announced that, like the small pox, it was communicable from man to man! That was the signal to get up their Cholera Boards; and Cholera bulletins, forsooth, must be published. I had just then returned from India, where, though I had seen more cases of Cholera than all the Fellows of the College put together, I never heard of Cholera-Contagion; no, nor Cholera-Boards. In the barbaric East, the authorities, civil, military, and medical, acted with firmness; what they could not arrest they awaited with fortitude; they placed themselves and those committed to their care at the mercy of the great Disposer of events; while in England, enlightened England, the leading law-givers, under the influence of the leading medical men, introduced acts that disgrace the Statute Book, and permitted medical jobs to be got up that did any thing but honor to the medical profession. A new tax was actually levied to defray the salaries of their Cholera-Boards! The consequences of these measures might have been foreseen. Throughout the country universal panic was spread, and universal gloom prevailed. The rich shut themselves up in their houses, each in terror of his neighbor's touch; the middling classes suffered from the general stagnation which ensued in consequence, for every trade, but the drug-trade, languished or stood still; and the poor, when taken ill—for the disease was chiefly confined to that class—were, by act of Parliament, dragged from their homes, and conveyed to Cholera Hospitals,—where, if they did not perish of the prostration induced by their removal, they had *salt* and *water* injected into their *veins* by the medical madmen in charge! Debarred the society of their nearest and dearest relatives, and tortured in every possible way by their pedantic doctors, was it wonderful that few of these unfortunates should escape from the pest-houses in which they had been so inhumanly immured? All this, the leading men of the country, Peers, Judges, and Members of Parliament, saw and permitted, from a puerile dread of the phantom Contagion, which the ignorance or cupidity of the College of Physicians had conjured up. When acted upon by intimidation, to what miseries will not the feeble submit, if

> Even the wisest and the hardiest quail
> To any goblin hid behind a veil.

Is not this a subject for deep reflection! To some it may suggest a feeling like shame. Let me speak of SHAME. Generally speaking, this is a depressing passion, and under its influence men sometimes, and women daily, commit suicide. I will give you an instance where it had the reverse effect. The girls of Miletus, a town in Greece, were seized with a mania that led them to believe self-destruction an act of heroism; and many accordingly destroyed themselves. Physic and argument having been alike ineffectually tried, the authorities, to prevent the spread of this fatal rage, ordered the bodies of the suicides to be dragged naked through the streets of the city. From that moment the mania ceased. But everything depends upon a contingency, whether a particular passion act as a depressant or a tonic in disease. In the case of Shame, the past and the future make a great deal of difference.

Some of you may, perhaps, feel inclined to remind me of the efficacy of Fear in the Cure of diseases; but in this case the fear must neither be a dread of the disease nor its event, but a dread of some circumstance completely unconnected with it. Thus, Sir John Malcom, in his History of Persia, tells us of a certain Hukeem who cured ague by the bastinado. In this case the Persian doctor availed himself of the double influence of fear and pain, neither of which were contingent upon the disease. The effect of Terror in removing tooth-ache is familiar to many who have knocked at a dentist's door. The gout, too, has been cured and caused by every passion you can name. There does not pass a day but we hear of people being frightened into epileptic fits; yet Boerhaave terrified away an epilepsy from a school where it prevailed, by threatening to burn with a red-hot poker the first boy that should have another paroxysm. I have known asthma cured by Rage, and also by Grief; yet, if we may believe what we hear, people occasionally choke of both! Few medical men will dispute the influence of a passion in the cure of Ague. Mention any mental

impression, such as Faith, Fear, Rage, or Joy, as having succeeded in this affection, and they doubt it not; but superadd to the patient's state a palpable change of volume or structure, such as an enlarged gland or ulcer, and they smile in derision at the efficacy of a charm. Extremes in seepticism and credulity are equally diseases of the mind. The healthy brain is ever open to conviction, and he who can believe that the Obi-charm, or the magic of a monarch's touch, can so operate on the nervous system as to interrupt or avert the mutations of motion and temperature constituting an ague-fit, should pause before he denies their influence over an ulcer or a tumor, which can only be developed or removed by or with change of temperature. Indeed, from what we have already said, it is impossible for any individual to be the subject of any mental impression without experiencing a chill or a heat, a tremor or a spasm, with a greater or less change in the atomic relations of every organ and secretion. Baron Alibert gives the case of a Parisian lady, who had a large wen in the neck—a goitre—which, from its deformity, occasioned her much annoyance. That tumor, which had resisted every variety of medical treatment, disappeared during the Reign of Terror—a period when this lady, like many others of her rank, experienced the greatest mental agony and suspense. The agony and suspense in that case referred to a contingency altogether unconnected with her disease The mere act of dwelling upon sickness will keep it up; while whatever withdraws the mind from it is beneficial. In my own experience, abscesses of considerable magnitude have been cured both by fear and joy. Few surgeons in much practice have been without the opportunity of satisfying themselves that purulent swellings may recede under the influence of fear. They have assured themselves of the presence of matter—they propose to open the tumor—the frightened patient begs another day, but on the morrow it has vanished.

Akin to Terror is Disgust, or that feeling which a person naturally entertains when, for the first time, he handles a toad or an asp. This passion has worked wonders in disease, The older physicians took advantage of it in their prescriptions; for they were very particular in their directions how to make broth of the flesh of puppies, vipers, snails, and milipedes. The celebrated Mohawk Chief, Joseph Brandt, while on a march, cured himself of a tertain ague, by eating broth made from the flesh of a rattlesnake! Here the cure must have been altogether the effect of Disgust, for in reality, the flesh of a rattle-snake is as perfectly innocuous, and quite as nutritious as the flesh of an eel. Mr Catlin, in his Letters and Notes on the North American Indians, tells us that when properly broiled and dressed he found the rattle-snake to be "the most delicious food of the land." But when you come to think of the living reptile and the venom of his fang, who among you could at first feed upon such fare without shuddering, shivering, shaking—without in a word, experiencing the horrors and horripulations of ague! Spider-web, soot, moss from the dead man's skull, the touch of a dead malefactor's hand, are at this very hour remedies with the English vulgar for many diseases. With the Romans the yet warm blood of the newly slain gladiator was esteemed for its virtues in epilepsy. Even at this day, in some countries of Europe, the lower orders cure the same disorder by drinking the blood as it flows from the neck of the decapitated criminal. In the last century, a live toad hung round the neck was much esteemed, by the same class of people, for its efficacy in stopping bleeding at the nose. Now that the toad is known to be free from venom, it might not be so successful as it once was in this instance. Any temporary benefit, real or supposed, which has accrued from the employment of the Leech has appeared to me to be in many instances the effect of the Horror the patient very naturally entertained for the reptile.

A consideration of the power by which the Passions cure and cause diseases, affords at once the best refutation of medical error, and the most perfect test of medical truth. By this test, I am willing that my doctrines should stand or fall. Take the influence of Fear simply—what disease has not this passion caused?—what has it not cured? The mode of its action, then, establishes beyond cavil not only the unity of disease, but the unity of action of remedy and cause. What does the proper treatment of all diseases come to at last, but to the common principle of reversing the existing motion and temperature of various parts of the body? Do this in a diseased body, and you have health—do the same in health, and you reproduce disease. Whatever will alter motion will cure or cause disease. This, then, is the mode in which all our remedies act. Just observe the effect of

BATHS.

In what disease have not Baths been recommended?—and in what manner can they cure or ameliorate, but by change of temperature—by change of motion? Put your hand into ice-water—does it not shrink and become diminished in size? Place it in wa-

ter as hot as you can bear—how it swells and enlarges. You see, then, that change of temperature necessarily implies change of motion;—and that change of motion produces change of temperature, you have only to run a certain distance to be satisfied; or you may save yourself the trouble, by looking out of your window in a winter morning, when you will see the hackney coachmen striking their breasts with their arms to warm themselves. Depend upon it, they would not do that for nothing. Heat, then, so far from being itself a material substance, as Black, and other chemists assert, is a mere condition of matter in motion—it is no more a substance than colour, sound, or fluidity. Like all these, it is a motive condition merely, or an association of matter. What can be greater nonsense than an imponderable substance--as heat and light have been sometimes called? That only is matter or substance which can be weighed and measured—and this may be done with invisible as well as visible things,—in the case of a Gas for example.

I am often asked, what baths are safest, as if every thing by its fitness or unfitness is not safe, or the reverse. The value of all *baths* depends upon their fitness; and that, *in many instances*, can only be known by *trial*. It depends upon constitution, more than upon the name of a disease, whether particular patients shall be benefited by one bath or another. Generally speaking, when the skin is hot and dry, a cold bath will do good; and when chilly, a hot bath. But the reverse sometimes happens. For example, I have seen a shivering hypochondriac dash into the cold plunge bath, and come out, in a minute or two, perfectly cured of all his aches and whimsies. But in cases of this nature, every thing depnnds upon the glow or reaction, which the bath produces; and that has as much to do with surprise or shock as with the temperature of the bath. I have seen a person, with a hot dry skin, go into a warm bath, and come out just as refreshed as if he had taken a cold one. In in that case, the perspiration which it excited must have been the principal means of relief.

So far as my own experience goes, I prefer the cold and tepid shower-baths, and the cold plunge-bath to any other; but there are cases in which these disagree, and I, therefore, occasionally order the warm or vapor bath instead.

In diseases termed "inflammatory," what measure so ready or so efficacious as to dash a few pitchers of cold water over the patient—Cold Affusion, as it is called? When I served in the Army, I cut short, in this manner, hundreds of inflammatory fevers—fevers that, in the higher ranks of society, and under the bleeding and starving systems, would have kept an apothecary, and physician—to say nothing of nurses and cuppers—visiting the patient twice or thrice a-day for a month, if he happened to live so long.

Gentlemen, with the cold dash, you also may easily,

"While others meanly take whole months to slay,"
Produce a cure in half a summer's day.*

That being the case, do you wonder that prejudices should still continue to be artfully fostered against so unprofitable a mode of practice? Why do not the gullible public examine for themselves? Why will they continue to bribe their medical men to keep them ill? In their shops and out of their shops, the people of this world generally enact two very different characters. There they take advantage of their customers in every possible way; but the moment they leave their counters, the same persons drop the knave, and become the dupe. The merchant and shop-keeper, who buy cheap and sell dear—the landowner and farmer, who keep up the corn-laws by every possiple sophistry,—the barrister and attorney, who rejoice and grow fat on the imperfections and mazes of the law—the clergyman and his clerk, whose gospel knowledge and psalm-singing, are generally in juxtaposition with tithes and burial fees—become all perfect lambs when they leave their respective vocations—each giving the others credit for a probity and disinterestedness in their particular line, which himself would laugh at as sheer weakness, were any body to practise in his own! With the most childish simplicity, people ask their doctor what he thinks of this practice, and what he thinks of the other—never for a moment dreaming that the man of medicines answer, like the answer of every other man in buisness, will be sure to square with his own interests. Instead of using the Eyes that God has given them, they shut them in the most determined manner, that their Ears may be the more surely abused. "What a delightful person Dr Such-a-one is," you will hear persons say; "he is so very kind, so very anxious about me." Just as if all that affected solicitude, and all that pretty manner of

* I have stated in a former note that "Hydropathy," on a right principle, is an excellent Chronothermal remedy. But in spite of the wrong principle on which it is practised by Priessnitz, I am bound to declare that I think some of the modifications of his application of cold water, not only original and ingenious, but also exceedingly serviceable in many diseases Their is no question of their utility in particular cases.

his, were not part and parcel of the good doctor's stock in trade. Silly, simple John Bull! why will you pin your faith to fallible or fallacious Authority, when you may get the truth so easily by a little personal Examination!—To be able to discriminate in the choice of a physician, and to guard against medical imposture, would not cost you half the time, or any thing like the trouble, of mastering the inflections of verbero, or Amo, amare! Which kind of knowledge is of most use in life I leave to pedants and philosophers to settle between them. Meantime, I shall beg your attention to the subject of

EXERCISE.

The effects of mere motion upon the body are sometimes very surprising. Only think of Horse-exercise curing people of Consumption! A case of this kind, you remember, I gave you, on the authority of Darwin. I knew a gentleman who was affected with habitual asthma, but who breathed freely when in his gig. I know, at this moment, another, afflicted with giddiness, who is immediately "himself again," when on horseback. A dropsical female, who came many miles to consult me, not only felt corporeally better when she got into the coach, but her kidneys acted so powerfully as to be a source of much inconvenience to her during the journey. This corporeal change she experienced every time she came to see me. The motion of the circular swing has cured mania and epilepsy. But what, as we have repeatedly shown, is good for one patient is bad for another. You will not, therefore, be astonished to find cases of all these various diseases, where aggravation may have been the result of horse exercise, and the other motions we have mentioned.

Exercise of the muscles, in any manner calculated to occupy the patient's whole attention, will often greatly alleviate every kind of chronic disease. Dr. Cheyne was not above taking a useful hint on this point from an Irish charlatan. "This person," says Dr. Cheyne, "ordered his (epileptic) patients to walk, those who were not enfeebled, twelve, fifteen, or even twenty miles a-day. They were to begin walking a moderate distance, and they were gradually to extend their walks, according to their ability. In some of the patients, a great improvement took place, both with respect to digestion and muscular strength; and this was so apparent in a short time, that ever since this luminary shone upon the metropolis of Ireland, most of our patients affected with epilepsy, have been with our advice peripatatics." Exercise, then, is one of our best remedial means. Moreover, it may be turned to very great advantage in our common domestic matters. Were I to tell you all at once, that you might keep yourselves warm by a single log of wood all the winter over, you would think I was jesting, but really the thing may be done. I believe we owe the discovery to our friends across the water, the Americans; and I may as well give you the recipe:—"Take a log of wood of moderate size, carry it to the upper garret, and throw it from the window into the street, taking care, of course, not to knock any body on the head; this done, run down stairs as fast as you can; take it up again to the garret, and do as before. Repeat the process until you are sufficiently warm—when—you may lay by the log for another occasion!"

"One of our reverend bishops (who Syndenham tells us, was) famous for prudence and learning, having studied too hard a long while, fell at length into a Hypochondriacal disease; which afflicted him a long time, vitiated all the ferments of the body, and wholly subverted the concoctions. [Such, Gentlemen, was the jargon of the eminents of Syndenham's time.] He (the bishop) had passed through long steel courses more than once, and had tried almost all sorts of mineral waters, with often repeated purges and antiscorbutics of all kinds, and a great many testacious powders which are reckoned proper to sweeten the Blood (?) and so being in a manner worn out, partly by the disease, and partly by Physic used continually for so many years, he was at last seized with a colliquative looseness which is wont to be the forerunner of death in consumption and other chronical diseases when the digestions are wholly destroyed. At length he consulted me; I presently considered that there was no more room for medicine, he having taken so much already without any benefit: for which reason I advised him to ride on horseback, and that first he should take such a small journey as was agreeable to his weak condition. Had he not been a judicious man, and one that considered things well, he would not have been persuaded so much as to try such a kind of exercise. I entreated him to persist in it daily, till in his own opinion he was well, going daily farther and farther, till at length he went so many miles, as prudent and moderate travellers that go a long journey upon bnsiness, use to do, without any regard to meat or drink, or the weather, but that he should take everything as it happens like a traveller. To be short, he continued this method, increasing his journey by degrees, till at length he rode twenty or thirty

miles daily, and when he found he was much better in a few days, being encouraged by such a wonderful success, he followed this course for a pretty many months, in which, as he told me, he rode many thousand miles; so that at length he not only recovered, but also regained a strong and brisk habit of body. Nor is this kind of exercise more beneficial to hypochondriacal people than to those that are in a Consumption; whereof some of my relations have been cured by riding long journeys by my advice; for I knew I could not cure them better by medicines of what value soever, or by any other method. Nor is this remedy proper only in small indispositions, accompanied with a frequent cough and leanness, but also in consumptions that are almost deplorable when the looseness above mentioned accompanies the night sweats, which are wont to be the forerunners of death in those that die of a consumption. To be short, how deadly soever a consumption is, and is said to be—two-thirds of it dying who are spoiled by chronical diseases—yet I sincerely assert that mercury in the French pox, and the Jesuits bark in agues, are not more effectual than the exercise above mentioned in curing a consumption, if the patient be careful and the sheets well aired, and that his journeys are long enough. But this must be noted, that those who are past the flower of their age, must use this exercise much longer than those that have not yet arrived at it; and this I have learned by long experience which scarce ever failed me. And though riding on horseback is chiefly beneficial to people that have a consumption, yet riding journeys in a Coach is sometimes very beneficial."

The poet Coleridge, while at Malta, was in the habit of attending much to those about him, and particularly those who were sent there for pulmonary disease. "He frequently observed how much the invalid, at first landing, was relieved by the climate, and the stimulus of change, but when the novelty arising from that change had ceased the monotonous sameness of the blue sky, accompanied by the summer heat of the clime, acted powerfully as a sedative, ending in speedy dissolution." Is not this a proof of the correctness of my previous observation, that in chronic disorder remedies require to be frequently changed? The benefit to be derived from Travelling, often great in chronic disorders, is partly to be ascribed to the change of motion, and partly to change of air and scene. Like every mode of treatment presenting frequent novelty, travelling therefore offers many advantages to the invalid in every kind of chronic or habitual disease. How often, alas! do we find it recommended, as a last resource, under circumstances where it must inevitably hasten the fatal catastrophe. The breath that might otherwise have fanned the flame, now only contributes to its more rapid dissolution. How much the success of a measure depends upon time and season!

I must say a few words about

PLASTERS, OINTMENTS, &c.

The beneficial influence obtained from all such local applications depends upon the change of temperature they are capable of producing. Their results will vary with constitutions. Most patients, who suffer from chronic disease, will point to a particular spot as the locality where they are most incommoded with "cold chills" This is the point for the application of the galbanum or other "warm plaster." A plaster of this kind to the loins has enabled me to cure a host of diseases that had previously resisted every other mode of treatment. The same application to the chest, when the patient complained of chilliness in that particular part, has materially aided me in the treatment of many cases of phthisis. In both instances, where heat was the more general complaint, cold sponging has been followed by an equally beneficial effect.

The ingredients of plasters, ointments, lotions, &c.—what are they but combinations of the agents with which we combat fever? Their beneficial influence depends upon the change of motion and temperature which they produce by their electrical action on the nerves of the part to which they are directed. Every one of the chrono-thermal agents may be locally employed in certain cases,—sometimes with more and sometimes with less advantage than when given internally.

Gentlemen, I shall employ what remains of our time to-day in a brief notice of the doctrines of Hahnemann, the founder of the Homœopathic School. His pamphlet, entitled, "The Spirit of the Homœopathic Doctrine," commences thus:—"To know the essence of Diseases, and the hidden changes which they effect in the body, is beyond the reach of the human understanding."—Which proposition he contradicts by the following paragraph: "It is necessary that our senses should be able clearly to discern what it is in each malady that must be removed in order to restore health, and that each medicine should express, in a distinct and appreciable manner, what it can cure with certainty, before we can be in a condition to employ it against any disease whatever." From this you perceive that Hahnemann,

like Dr. Holland and the humoral schoolmen, looks upon disease as a fanciful something to be "removed," instead of a state to change; and as he uses the phrase, to "expel disease" in another part of his work, it is evident he does not know in what Disorder consists. Again,—"The material substances of which the human organism is composed, no longer follow, in their living combination, the laws to which matter is subject in the state of non-life; and they acknowledge only the laws proper to vitality —they are then animated and living, as the whole is animated and living. In the organism reigns a fundamental power, indefinable yet every where dominant, which destroys every tendency in the constituent parts of the body to conform themselves to the laws of pressure, of concussion, of vis inertiæ, of fermentation, of putrefaction, &c., which subjects them exclusively to the wonderful laws of life, that is to say, maintains them in the state of sensibility and activity necessary to the conservation of the living whole—in a dynamic, almost spiritual state." Gentlemen, what is the sum of all this? Nothing more nor less than that if you press the soft parts of the body, they will not yield to a resisting substance—that you cannot be shaken by concussion, or have the bone of the leg or arm broken by external agency—that you are in a "dynamic state"—a state "almost spiritual!" What is the meaning of the word dynamic? It signifies "moving power." This you can understand; but when our author, apparently dissatisfied with his own term, would further explain it by the words "almost spiritual," a phrase perfectly indefinite, you see he has only a vague conception that the various parts of the body are in motion. But that the material atoms of the living frame do follow the laws to which all Matter is subject, under the particular circumstances in which the matter composing them is placed, is undoubted. A piece of amber or sealing wax when rubbed, first attracts silk and then repels it, producing alternate motion altogether independent of mechanics. Though not life, this phenomenon is at least, a type of it; for the organic and other motions of an organism termed life, even in the highest grade of animals, when analyzed, will be found to be only modifications of alternate attraction and repulsion. What are the successive conversion of the food into blood, of the blood into the matter of tissue and secretion, but so many instances illustrative of this proposition?—what the alternate inspiration and expiration of the lungs?—the equally alternate contraction and dilation of the heart—sleep and wakefulness, love and hate, ambition, and worldly disgust, but so many modifications or effects of attractive and repulsive influences! When the magnet attracts iron, it does that not contrary to the law of Gravitation, but in obedience to the more comprehensive law of which gravitation is a part—namely, Electricity or Galvanism. But Electricity, like Elective Attraction, is only a fragment of the great doctrine of LIFE. The word LIFE, when applied to animals in their healthy condition, is an abstract term expressive of the sum total of effects produced by the principal forces in nature, when acting together with a perfect harmony of movement in one body. Gentlemen, galvanism, or electricity, chemistry, magnetism, mechanics, play all periodically their respective parts in the happy combination of forces we call life. Life, then, is Electricity in its highest sense, even as the attraction of gravitation is electricity in its lowest sense. The attraction of the magnet is an electrical step in advance of gravitation,—chemical change one step more,—the alternate attraction and repulsion of amber is a still higher link in the electrical chain. Galvanism and Electricity, strictly so called, embrace all the subordinate links, while LIFE or VITAL ELECTRICITY, comprehends the whole. Mere mechanical motion, though it belongs to all animal life, in reality only grows out of it. There is no mechanical movement in the fœtal germ, nor is such movement necessary to the life of the plant. VITAL ELECTRICITY, then, produces changes in every way analogous to the changes that take place in organic bodies, but not the same changes,—for no electricity short of the highest or VITAL kind can produce the electrical and chemical changes constantly going on in a living body, no more than the power of gravitation or the magnet could produce the higher movements of common chemistry. The chemist who, like Liebig, expects by the destructive chemical analysis of dead organs in his laboratory, to be able to produce or explain the very opposite transformations that take place in the organs of the living, will no more improve medicine than the mere anatomist who separates them tissue by tissue with his scalpel. However similar his chemistry and his electricity may be to vital electricity and vital chemistry, however analogous the results of both be to the attractive and repulsive motions that constitute vitality, yet are the transformations not identical,—curiously resembling them certainly, but still so different that they never even approach to organism. The electricity and chemistry of man no more could produce a worm, or a leaf even, than the inferior intellectual power of the

dog or the elephant could produce the Iliad. The same harmony of motion that we behold in animal life we equally find in the life of the vegetable; but the forces employed are fewer in number, and more feeble in their action. The extremes of vegetable and animal life approach each other. In the zoophyte or plant-animal we have the connecting link of both. Both are made up of inorganic matter,—metals, minerals, air, earth, and every other material thing successively become anatomically organized and living in their turn. Man, who stands highest in the scale of animated beings, is a microcosm or little world in himself; yet what is he but a Parasite on the globe's surface—the globe itself but an Atom in the LIFE of the UNIVERSE! But listen to Hahnemann: "The Life of man, and its two conditions, health and sickness, cannot be explained by any of the principles which serve to explain other objects. Life cannot be COMPARED to any thing in the world except itself—no relation subsists between it and an hydraulic or other machine—a chemical operation—a decomposition and production of gas, or a galvanic battery. In a word, it resembles nothing which does not live. Human life, *in no respect* obeys laws which are purely *physical*, which are of force only with inorganic substances." We apprehend, gentlemen, that the whole, or nearly the whole, of this statement is assumption, and if there be truth in nature, that this assumption is a fallacy. If you COMPARE the ossification of the skull with mechanical inventions, you will find it to be an exemplification of the most perfect Carpentry. The joints of the body embrace every principle of the Hinge; —the muscles, tendons, and bones, are so many Ropes, Pulleys, and Levers; the lungs act in Bellows-fashion, alternately taking in and giving out Gas;—the intestinal canal is a containing Tube. Then, in regard to the vascular system, the heart and blood-vessels are to a great extent a Hydraulic apparatus, as you may prove, by tying an artery or compressing a vein; the blood, in the first instance, being arrested in its course from the left chamber of the heart; in the second, being stopped in its progress to the right side of it. What are assimilation, secretion, absorption, the change of the matter of one organ into another—of the fluids into the solids, and vice versa, but operations of vital Chemistry, and the Brain and Nervous System but the Vital Galvanic or Electric apparatus by which these operations are effected? That the human body obeys laws purely physical, is still further exemplified by the fracture of a bone or the rupture of a tendon —and the reunion of both is the result of secretion under the influence of this Electricity through the nerves supplying those parts. If, during childhood, the great nerve of a limb be paralyzed, the growth of that limb becomes arrested, not only in its breadth, but length. The nerves, then, are the moving powers, and if you cut or divide them, neither a broken bone nor a ruptured tendon can re-unite, so as to become useful. And do we not see analogous effects taking place in every kind of matter under the influence of the galvanic wire? By that we produce the decomposition and recomposition of bodies—various changes of motion and temperature—of attraction and repulsion of atoms —which, if we break the chain of the wire's continuity, immediately cease to take place, but which re-commence the moment the wires are again brought into contact. That a living man can in an oven defy a degree of heat that would broil a piece of dead flesh, is perfectly true; but to what is this owing, but to the greater power of attraction which the particles of his body maintain to themselves in their living than dead state. Nevertheless, the degree of heat may be so raised as to decompose portions even of the living body, and finally reduce the whole to a state incompatible with life. And may not the electric state of all bodies, gold and silver for example, be similarly influenced and altered? How, then, can the phenomena embraced by the term LIFE be said to "resemble nothing which does not live!" They resemble everything of which our senses can take cognizance—we can destroy but we cannot imitate them. "There is no agent or power in nature," says Hahnemann, "capable of morbidly affecting man in health, which does not, at the same time, possess the power of curing certain morbid states," But what is this but another mode of expressing Shakspeare's words: "In poison there is physic?" "Now," continues Hahnemann, "since the power of curing a disease and that of producing a morbid affection in persons in health, are inseparable from each other in all medicines, and that these two powers proceed manifestly from one and the same source, that is to say, from the property which medicines have of modifying dynamically the state of man; and that consequently also, these cannot act on the diseased after any other inherent natural law than that which presides over their action on individuals in health; it follows from this, that the power of the medicine which cures the disease in the sick is the same as that which causes it to excite morbid symptoms in the healthy." That the strictly Medicinal substances all kill and cure upon one and the same principle few will dispute who have

listened to these Lectures. But "the property which medicines have of modifying dynamically the "state of man" is merely a Greek expression, signifying that they possess a moving principle. In this there is nothing new, for Shakspeare, as we have seen, said the same thing in good English two centuries before Hahnemann was born. In the course of my next lecture, gentlemen, I shall have the pleasure of demonstrating to you that medicinal substances can only disturb the existing temperature and motion of any organ or atom of the body, by the electrical or galvanic force which they exert upon it through a nervous medium. Of this truth Shakspeare and Hahnemann were equally ignorant.

"As soon," proceeds Hahnemann, "as we have under our eyes the table of the particular morbid symptoms produced in a healthy man by different medicinal substances, it only remains to us to have recourse to pure experiments, which alone are capable of dtermining what are the medicinal symptoms (or the symptoms produced by the medicine in the healthy subject) which always arrest and cure certain morbid symptoms (i. e. diseases) in a rapid and durable manner, in order to know beforehand which of these medicines, the particular symptoms of which have been studied, is the surest method of of cure in each given case of disease."

So here we have only over again the exploded doctrine of SPECIFICS or remedies "which always arrest and cure" certain morbid symptoms! The whole sentence is somewhat confused and paranthetical, but from it and other passages you may nevertheless see that while Hahnemann obtained a glimpse and a glimpse only, of the principle of unity upon which remedies act, not only was he ignorant of the real nature of their power, but also of the utter impossibility of predicating in any one case of disease, what remedy would certainly achieve amelioration, far less a cure. This sentence he never could have written, had he known that every medicinal power being a repulsive force in one individual and an attractive force in another, may act inversely in any two cases of the same disease. If there be a truth more sure than another in physic, then, it is this, that until we have absolutely tried a medicinal agent in an individual case, we cannot possibly tell whether it be a remedy or an aggravant in that particular case. No, gentlemen, the ague-patient may come before you; but whether arsenic or bark, opium or prussic acid, shall arrest his disease, you can no more with certainty predicate than you can determine beforehand whether harsh or soft measures, or either, will reclaim a refractory child, or subdue an ungovernable steed. Trial and experience are your only guides. This much, however, you may, in the majority of cases of any given disease, predict, that such agents as have generally a definite power for good or for evil over definite parts of the body, are the class from which you are to expect most benefit in a disease of such parts—but which of them, the experience of that case itself can only tell you; for how can you know without such experience that opium will vomit, rhubarb excite epilepsy, or ipecacuan cause asthma in particular cases? all of which you are aware they sometimes do. When you order cold bathing, can you tell beforehand whether your patient shall come out all in a glow, happy and comfortable, or chilly and shivering, and not to be comforted? Till you can do this, you cannot with certainty tell by what given means you are to achieve a cure in any given case of disease. So far the art of physic is, and ever will, I fear, remain imperfect.

The principle, *Similia similibus curentur*, or *like* cures *like*, which Hahnemann assumes as his own discovery, was known not only to medical men long before he was born, but was acted upon by the vulgar time immemorial A passage which Shakspeare puts in the mouth of Benvolio in Romeo and Juliet, is a proof that it was practised in his days.

Tut man! one fire burns out another's burning,
One pain is lessened by another's anguish,
Turn giddy, and be holped by backward turning,
One desperate grief cures with another's languish;
Take thou some new infection to thine Eye,
And the rank poison of the old will die.

To the same purpose he says in Hamlet:—

—— Diseases desperate grown,
By desperate appliances are relieved.

What is all this but similia similibus curentur? You see, then, that Hahnemann, instead of being a great discoverer, as he wishes to make out, is only at the most a Reviver of an old principle. Yet upon this principle, strange to say, neither he nor his followers act! They say one thing and do another; for while they declare their readiness to cure by powers having precisely the same action as the causes, how can they reconcile with that statement their practice of treating grave disease—disease proceeding from a grave agency, by the dissimilar agency of infinitesmal physic! What is infinitesmal physic? It is the division of a grain of opium, not into quarters, sixteens, or sixties—no, nor into hundreds nor thousands even,—but into millions and ten millions! And rules and regulations for its proper divisions into such parts are actually given in Homœopathic books! A grain of opium, or the common dose of this drug, is to be converted, forsooth, into medicine

enough for ten thousand men; and upon the same principle, doubtless, a loaf of bread may be made a dinner for an army! Gravely to argue the case—if grave disease could be caused by the millionth or decillionth part of a grain of our common medicinal substances, what apothecary's apprentice, who must be constantly rubbing, shaking, and inhaling medicines in this comminuted state, could possibly enjoy a day's health?—and yet it is by such doses—if opake matter reduced to invisible minuteness can be termed such—that diseases are to be cured! Where, then, is the Similarity of remedy to cause in the Homœopathic treatment?

In his "Organon," Hahnemann tells us, that almost all chronic diseases are the result of a morbific miasm, which he calls the Psoric, or the itch principle, and this, he says, and two other evil miasms, the Syphilitic and the Scrofulous, may be looked upon as the parents of all the diseases of man!—Mere phantoms, Gentlemen, of an excited imagination—mere crotchets of a mind clouded with the ghosts and goblins of those nurseries for grown-up children,—the German Universities. Of his utter ignorance of the true motions and changes of the organic matter of the body, whether in health or disease, and of the thousand morbific causes visible and invisible that daily occur in life, there could be no greater proof than this announcement;—you who are no longer in the dark have only to hold up the torch of truth to dash his day-dream to the dust.

When I first heard of the Homœopathic doctrine of infinitesimal physic, I felt tempted to believe that the whole was a weak invention of those enemies to medical truth, the medical reviewers,—knowing as I do the trickery and misrepresentation in which these gentry indulge when acting on behalf of the professional tradesmen, whose mercenaries they are. His own volume has, however, undeceived me; his own Organon developes the number of shakes and rubs by which the millionth part of a grain of quinine may become one of the deadliest poisons, and the ten millionth part of a grain of opium, a medicine to cause you to sleep your last sleep! But Hahnemann is a disciple of Mesmer—and he tells you to watch the miracles effected by Animal Magnetism. Do that, he says, and you will no longer doubt the cures which may be achieved by infinitesimal physic. Now, so perfectly ready am I to believe what he or his disciples may tell me upon this point, that it is a medical maxim of mine, "Any thing may do any thing," according to the ignorance and credulity of the patient, if it be a charm;—or according to the constitution and exigencies of the case, if it be a physical agent. In which light infinitesimal physic is to be viewed, you, Gentlemen, may decide at your leisure.

What but Faith or a Fancy to try could induce people to put themselves under the hands of a homœopathic practitioner? The influence which Confidence, simply, may produce on the body, we have proved by what took place at Breda in 1625. During the siege of that city, three or four drops of a hocuspocus medicine were said to be sufficiently powerful to impart a healing virtue to a gallon of water! The thing was believed, and the sick immediately took up their beds and walked. To tell the sensible part of mankind that you can cure any disease with the millionth or decillionth part of a grain of opium, bark, or aconite, would only excite their ridicule; but you know how little will influence the minds of the multitude, who, being ignorant, are naturally weak and credulous. You remember what I told you at my last lecture. The same reparative power of nature by which a cut finger is healed, will cure nineteen out of twenty cases of most diseases, without the assistance of any physic at all. Such cases, when treated homœopathically, that is, with hope and humbug, are of course set down as wonderful cures; and wonderful they are, indeed, when compared with the results of the apothecary-system,—a system by which every similar disorder, for the most part, is aggravated through the interference of the routinists, who, partly by playing on the fears of the patient, and partly by making his stomach an apothecary's shop, generally contrive to prolong the case so long as the subject of it will continue to act according to their rules. Here the homœopathic doctor may safely retort on the old practitioner. With the mass of mankind the homœpathic has only to affect a superior knowledge of the visible and invisible world, speak confidently of the cures, real or supposed, effected by his treatment, and talk mysteriously of the rubs and shakes by which he imparts a magical or magnetic virtue to his infinitesimal physic. Should a doubt remain, he may hint at the wonders of Electricity or Galvanism, for a little mixture of truth will make his mummery go down better—just as a little apparent candour will make you more readily give credence to a calumny or a scandal. In both cases a complete want of principle is the chief element of success on the part of the impostor—and faith the weakness or strength of the dupe. If the former can get the latter to listen to him, he may inoculate him with a fancy to try—that of itself implies faith. However small at first, it will be sure to increase by thinking and talking

about the new method. A little opposition is a good thing sometimes—the patient gets heated up by it. If he has a tendency to improve, he will improve the faster—if he finds himself deceived, he will conceal the fact, as he would be sorry that others should not be as great fools as himself. Patients of the class who consult Homœopathic practitioners, generally collect together, talk, discuss, and theorize till they work themselves into a kind of fever—such fever, or rage, by exciting and animating them, will, in many cases, be infinitely more beneficial to their constitution, than the draughts and mixtures inflicted, usually not so much on account of the necessities of the patient as the needy condition of the routine practitioner. Having once become partizans and disciples, they next find a pleasure in making converts. they have now what they had not previously—an object before them; and they work body and mind in the cause. Can you wonder they shou d, in many cases, get well by the new mode of life to which they have taken? This, Gentlemen, is the secret of any success obtained in the course of the Homœopathic treatment. Like the French "medicine expectante," it is a system of placebo. What is new in it is not true; what is true is not new. Savage Landor says rightly, "most disputants drive by truth or over it." In the case of similia similibus, Hahnemann has done both—he adopts it as his motto, but practises on a principle the reverse. What does it mean? Power opposes power. Did we require to be told this by Hahnemann? The doctrine, like cures like, was so obvious as to be a popular axiom in every age—but it is only the minor of a major proposition, or a fragment of the great Abstract Law—ANY GIVEN POWER APPLIED IN A PARTICULAR DEGREE AND AT PARTICULAR PERIODS, MAY CURE, AGGRAVATE, OR ALLEVIATE ANY GIVEN FORM OF DISEASE, ACCORDING TO THE CONSTITUTION OF THE PARTICULAR PATIENT.

[On the publication of the first edition of this work, the Homœopathists accused me of not understanding their principles. My answer to that was, that I had at least read their own books, and if I was such a fool as not to be able to understand their writings, they were greater fools not to write more intelligibly.

"Your true no-meaning puzzles more than sense!"

Since the publication of the second edition they have changed their tune, and say I have borrowed from Hahnemann—to which I reply—the rich seldom borrow, and I have never myself done so without acknowledgment. If the homœpathists will be so good as to put in print the instances in which I have neglected this, I will very much thank them for reminding me of what is right.]

The Late Epidemic of Puerperal Metritis in the Paris Hospitals.

The *Gazette Medicale* contains an interesting account, by M. M. BIDAULT and ARNOULT, internes, of a very fatal epidemic of puerperal fever, which reigned in the Paris hospitals in 1843 and 1844. The opportunities for observation, of these gentlemen, extended over three hospitals, those of Saint Louis, the Hotel Dieu, and the Hotel Dieu Annexe, in each of which there is a small ward devoted to midwifery Epidemics of peurperal fever have been common of late years in Paris, in the midwifery establishments, especially at the Maternite, the large obstetric hospital, at which it reigned with great violence at the time that it was observed by MM. BIDAULT and ARNOULT. At the Hotel Dieu, the epidemic reigned in January, February and March, 1843. There were eleven deaths in forty-five deliveries, in the three months, whereas there had not been one death in the hundred and forty deliveries which had occurred during the previous nine months of the preceding year; at the Hotel Dieu Annexe, out of sixty-seven women delivered, sixteen were attacked, and fourteen died. The epidemic occurred in the months of November and December of the same year, (1843.) The patients had been drafted from the Maternite, on account of the existence in that hospital of a very fatal epidemic The Saint Louis epidemic took place in the months of September, October and November 1844, Some isolated cases had occurred in the year, but it was only during the period mentioned, that the fever assumed the epidemic form. Out of forty-four deliveries, there were nine deaths.

Generally speaking, the morbid symptoms manifested themselves at the period of the milk fever, from the second to the third day. In one case, they appeared a few hours only after delivery; in some few, only four or five days after. Nearly always, the attack commenced by rigors, of greater or less duration, followed by febrile reaction. In some instances, the rigors were absent. febrile heat of the skin, frequency of pulse, restlessness, and abdominal pain, opening the scene. The pulse always became very frequent, its pulsations rising to 110 or 120, and its strength depending on the freedom of the general reaction after the rigors. At the same time, there was cephalalgia, redness and injection of the face, brilliancy of the eyes, anorexia, frequent and laborious breathing, a loaded state of the tongue, which rapidly became dry, bilious vomiting, diarrhœa, or constipation. At Saint Louis obstinate constipation was present in every case, and no intestinal lesions were found after death. At the Ho-

tel Dieu, diarrhœa was, on the contrary, equally universal, and the follicles of Brunner were constantly found hypertrophied. There was generally abdominal pain from the commencement; sometimes the pain was slight, sometimes very severe. The uterus remained voluminous, and there was more or less abdominal tympanitis, especially when the affection assumed at an early period the typhoid character. The lochial discharge was nearly always diminished, but seldom entirely suspended The breasts became flaccid if the milk had previously appeared, if not,it was not secreted. The urinary secretion was diminished, and the excretion was somtimes difficult. Indeed, in some cases, the bladder had to be emptied occasionally by means of the catheter.

The second period of the disease was characterized by symptoms of still greater gravity. All reaction ceased. The face became deeply altered, the eyes were sunk in the orbits, and surrounded by a black circle, the lips livid, the nostrils dry, and filled with particles of dust. Extreme prostration of strength accompanied these symptoms, along with great anxiety of countenance. The abdominal pains disappeared, the tympanitis, at the same time, increasing considerably. The respiration was difficult and laborious, as many as forty-five or fifty respirations being made in a minute; pulse 140 or 150, small, irregular, depressible; alvine evacuations, involuntary; fluids rejected by ingurgitation; tongue dry, and covered with a dark fur; breath fœtid; extremities cyanosed. Death generally followed on the fifth or sixth day of the attack, the patients retaining their intellectual faculties to the last.

In some few cases, there was an apparent remission, which, however, lasted, generally speaking, for a short time only. In the course of a few hours, the disease resumed its fatal progression. With the small number of patients who recovered, the symptoms continued gradually to improve. The respiration became easier, the pulse fuller and slower, the thirst less intense, &c. The convalescence was tedious, and necessitated several months' residence in the hospital In some patients at the Hotel Dieu Annexe, and with all at Saint Louis, there was an intense bronchial catarrh.

The body of the uterus was always found more voluminous than it ought naturally to have been at the period of death. Its cavity contained grey, sanious, fœtid false membranes; on washing them away, the surface which they covered was, however, found white and apparently healthy. The implantation of the placenta was marked by small coagula. The tissue of the uterus was firm and healthy. There was none of the gangrene or putrescence (*putrescentia uteri*) which has been described by German writers. There were not, either, any abcesses. The peritoneum covering the uterus was often inflamed and covered with false membranes. No uterine veins were ever found diseased, but the uterine lymphatics were inflamed and filled with pus, in a great proportion of the cases. At the Hotel Dieu Annexe, the inflammation did not extend beyond the lymphatics of the uterus. At the Hotel Dieu, in some cases, and at Saint Louis in all, a great number of inflamed lymphatics,filled with pus, were found in the lateral ligaments, and on the surface of the ovaries. These inflamnd lymphatics terminated in the pelvic ganglions, which were sometimes themselves softened and filled with pus; the efferent vessels, however, were never found diseased. The lateral ligaments were covered with false membranes; the ovaries, also, were enlarged, and infiltrated with pus; the Graafian vesicles on being incised were often found filled with pus. At the Hotel Dieu, and at the Hotel Dieu Annexe, where the symptoms of peritoneal inflammation were more marked from the onset than at Saint Louis, the peritoneum was also found more extensively inflamed. The peritoneal cavity contained a considerable quantity of purulent serosity, in which floated detached false membranes, and the intestinal folds and lateral ligaments were united by false membranes. In some cases, there was a sub-serous injection on the intestinal folds. At Saint Louis, where the typhoid symptoms predominated, the peritoneum merely contained a white lactescent effusion, without false membranes or adhesion of the intestines. The peritoneum was pale, without any inflammatory injection. In these cases, there was purulent infiltration of the sub-peritoneal cellular tissue of the pelvis, and suppuration of the lymphatics of the lumbar region. The stomach contained an enormous quantity of a greenish fluid, but presented neither inflammation nor softening. The follicles of Brunner, to the alteration of which, in pueperal fever, much attention has been paid of late, were only found diseased at the Hotel Dieu. They presented the appearance of a papular eruption, with a white apex. Whenever they were met with, diarrhœa had existed. At Saint Louis where the intestinal mucous membrane always appeared healthy, there was no diarrhœa, but, on the contrary, obstinate constipation. The liver was never diseased. The spleen was sometimes larger and softer than usual, but not otherwise affected. The parenchyma of the lungs was generally healthy; hypostatic engorgement

was sometimes met with, and appeared to be similar to that of typhus fever. There were no partial pneumoniæ or metastatic abcesses. At Saint Luois, the small bronchi were obstructed by mucus in some cases At the Hotel Dieu Annexe, pleuretic effusions, single or double, were common No lesions were met with in the heart or pericardium In a few instances in which delirium had been present, the membranes of the brain were found slightly injected, as also the surface of some few cerebral convolutions; otherwise, there were no lesions of the nervous system.

These epidemics manifested themselves, as is usually the case, without any appreciable cause. It may be remarked, however, that they all three occurred during the cold months of the year. It would appear, that it is generally during the cold season that epidemics of puerperal fevers manifest themselves in Paris. The fever cannot have been occasioned by unusual crowding of the patients, as, at Saint Louis, the number delivered was smaller than usual, and at the Hotel Dieu, not greater. A circumstance worth noticing is, that of sixty-seven women delivered in the special midwifery ward at the Hotel Dieu Annexe, fourteen died; whereas, out of twenty-one women dispersed in the medical wards, and therein delivered, during the same interval of time, only one died. It must, however, be mentioned, that the sixty-seven females alluded to, had been drafted from the Maternite, where puerperal fever existed, and there they had resided for some time. They may therefore have brought with them a kind of predisposition. Various circumstances occurred during the epidemic which seem to favor the idea of contagion Thus, at Saint Louis, for some time, all the women placed into two small rooms were attacked. A woman operated upon for uterine polypus, and placed in one of the midwifery rooms, was seized two days after the operation with the same symptoms as the other women, and died. On examination, the only lesion found was the lactescent effusion into the peritoneum. The uterus, as also the veins and lymphatics, were perfectly healthy. Ancient authors—Van Swieten, for instance, considers non-lactation as a predisposing cause. Most of the women attacked during these epidemics were not suckling.

The principal means resorted to, were bleeding, general and local, mercury, administered internally and externally, the essential oil of turpentine, ipecacuanha, and the tincture of aconitum. General bleeding which was tried when the reaction was energetic, the pulse full and resisting, was not attended with beneficial results. The pulse soon fell, and extreme prostration followed. Local bleeding, by leeches applied to the parietes of the abdomen, always gave relief, but the amelioration was only momentary, the pains were returning. Calomel was administered internally twenty or thirty grains being given in six doses in the course of the day. It nearly always acted on the bowels, but did not occasion salivation As, however, it was seldom possible to continue it use more than two or three days owing to the short duration of the disease, this is not surprising. At the same time, mercurial ointment was rubbed into the thigh in some cases. In two instances, two pounds were rubbed in within twenty-four hours without preventing a fatal termination. Turpentine was given to three patients without success. Ipecacuanha, which was administered, apparently with great success, by Douchet in an epidemic of puerperal fever at the Hotel Dieu, at the end of the last century, was also resorted to in the first stage. It appeared, in some few cases, to produce slight amelioration for a few hours, but the disease soon resumed its former intensity. In the only two cases that were saved at the Hotel Dieu Annexe, the treatment consisted, at the onset in antiphlogistic measures, and subsequently, in the use of mercury, internally and externally, and in the administration of the tincture of aconitum; at first, one drachm, and afterwards two, in a four ounce mixture during the twenty-four hours. *Lond. Lan.*

(For the Dissector.)

TRACTS ON CONSUMPTION.

NUMBER TWO.

On some New Pathological Views of Tubercular Phthisis.

By J—— G——, M. D.

The literary history of consumption, during the last thirty years, presents many important acquisitions to our knowledge of its pathology, which, whether of value or not to the sufferers from this destructive disease, have been highly interesting to the profession. If it be decided, as it must be, that their utility has not kept pace with the largeness of their promise, it must seem extraordinary that, notwithstanding their supposed perfection, the treatment of consumption could derive little more advantage from them than when its contributary aids were purely conjectural The reason for this unfortunate anomaly must either be, that these improvements are less perfect than they are commonly considered, or that they have not been properly connected with practical medicine. It is quite obvious that if there be error in either of these respects, it is impossible that the treatment of such a disease as Tubular Consumption can be successful; and it is

highly probable, indeed, it may be said to be certain, that both of them present phenomena that are not in accordance with a philosophical view of the injury, or the rational means of remedying it.

The progress of medical science begins clearly to indicate that the whole of the facts connected with it must, sooner or later, be included in some high and simple generalization in place of the complex hypotheses, by which they are at present grouped together. It points to the identity of the vital, chemical, electrical and general physical forces; and though it is not sufficiently clear and distinct to command the assent of all those who are competent to consider the subject, it is equal to the purpose of producing a general impression of its truth.

Influenced by this glimmering view of a fundamental truth, it has become fashionable, with hasty and ambitious generalizers, to form elaborate but crude hypotheses of life and disease, and to attempt to identify them with the fixed laws of physical science:

> "for ever striving to attain,
> By shadowing out the unattainable."

The temporary duration of the vast majority of these conjectures is sufficient evidence of the slender foundation on which they are constructed; while they authorize the inference that it will be many years before we shall be justified in dispensing with the props and supports by the assistance of which the fabric of medical science has been elevated to its present height and dimensions. Convinced of this truth, I have continued to apply the term tubercular phthisis to consumption; and though I consider the importance that has been attached to the existence of tubercles may have no real existence, I have endeavored to speak of them in conformity with the common theories regarding them, and as if they produced the phenomena which have proved so destructive in this disease. But it is impossible to resist or to avoid acting upon the belief, that in proportion as facts have accumulated in this disease, have we been able to diminish the number, and to simplify the explanation of its theories. Towards this simplification it has received much aid from the labors of Dr. Sherwood: and, thus, by comporting with our observations of facts in every science, it has been enabled to concur in advancing the prospect of connecting with one general origin all physiological and physical science, not excepting the vital functions and the universal force of gravity itself.

Consumption is generally recognized, at the present day, as having its origin in a morbid state of the whole animal system. Its external symptoms, though variously influenced by the age, temperament, texture of the skin, and other circumstances of the individual, are distinct and sufficiently recognizable by the experienced practitioner. But in what the internal diseased condition consists is not understood; and yet it exerts so important an influence over the disease, that accurate knowledge of it is indispensable to its treatment on sound principles. Whatever may be the light in which we may look at the character of its remote or predisposing cause, it may be safely alleged that its phenomena are explicable only by regarding them as dependent on general morbid changes of the whole animal economy. The universality of this peculiar condition, necessarily modifies the structure of every part, the nature of every fluid, and the qualities of every secretion; but it is reasonable to believe that one part is affected more than another. Of all the constituents of the human body the blood, from its quantity, from its complicated formation, and from its pervading and entering into the composition of every part of the frame must be considered not only most liable to morbid change, but as necessarily exerting the greatest reciprocating influence over the other tissues of the system. This important fluid has been subjected to many laborious chemical analyses with a view to ascertain the secondary and ultimate elements into which it may be divided; and enquired into pathologically to determine its quantity and composition as it exists in the different parts of the arterial and venous systems under various circumstances of disease. Examined according to these modes, it is stated by Andral to be redundant in serum, and deficient in fibrin and coloring matter, and to exist in a conjested state in tubercular phthisis. Other physiological chemists represent it as abounding in fibrin as well as in serum, and to be deficient in power to transfer nutriment to the tissues.

It is probably very difficult to fix on any state of the blood which is absolutely essential to the pathological condition constituting the phthisical diathesis; yet there is one point of view, both in its healthy and diseased state, from which it has hitherto escaped observation, from which it ought to be examined, and which is unquestionably of importance enough to demand our special attention. I allude to the different electrical states which venous and arterial blood invariably bear towards each other. That these fluids should stand in a negative and positive electrical relation to each other, is in conformity with the universal law, so far as examined, that all bodies possessing different qualities, bear this relation, and it is easily determinable by experiment. From the nature of the subject, as well as the disadvantage of

residence and otherwise under which the writer labors, he has been able to prove this fact, by direct experiment, only on healthy blood; but as the effect of remedies is an acknowledged criterion for aiding in ascertaining pathological conditions, it will be shown, hereafter, from this source, that the electrical relations of venous and arterial blood are more exalted in phthises than in health. Although I readily admit that this is an indirect, and may seem a far fetched mode of ascertaining a fact, yet it must be conceded, that the progress of physic as a science, as well as its advancement as a practical art, is materially dependant upon our knowledge of the effects of remedies.

To demonstrate this fact experimentally, I, in the presence of another physician, poured (in the absence of more appropriate apparatus) into two leyden jars, mounted as usual, equal quantities of fresh venous and arterial blood, obtained from the jugular vein and carotid artery of a lamb. Upon bringing the balls of the connecting rods in proximity to a galvanometer, it was found to be senisbly affected. When to each of the fluids an equal weight of common salt was added, so as to increase their energy without altering their relative properties, a much greater deflection of the needle took place. Which of these is the negative fluid, and which the positive, it would not be difficult, by a suitable modification of the apparatus, to determine; but which, from the inadequacy of means within my power, I am compelled for the present, to leave a subject of inference. If in resting on the conclusion I have drawn, I should seem to deviate from the strict path of demonstrable fact, I must repeat, what in a future communication will be more dwelt upon and explained, that I am borne out by a practical experience of the result of remedies. The experiment advances us one step in physiological science, and affords ground for the hope that by this, and other processes conjoined, we may be able to detect in the blood those changes which indicate the tubercular diathesis, and through them a certain remedy for consumption.

The most prominent phenomenon in phthisis pulmonalis is the production of the morbid growth termed tubercle. The pathology of this extraordinary substance has so often, of late years, been investigated and brought under notice that detailed enquiry into the subject, except so far as it may seem to require views different from those generally adopted, would be quite superfluous. But careful and minute as here been the researches into the morbid nature of tubucle, it is still a subject on which there appears to be a great diversity of opinion, and to offer much light for further elucidation. Notwithstanding the ambiguity, and, indeed, obscurity which involves their origin, I am of the opinion of a large number of pathologists from Sylvius de la Bœ to Broussais, that they commonly arise in phthisis, in a strumous degeneresccnce of the minute lymphatic glands of the lungs. Considered in a general point of view this origin is in conformity with analogy; for it is far more in accordance with morbid actions in the animal system to enlarge natural bodies than to create new growths. The opinion is supported by the character and state of the constitution in which tubercular consumption and scrofula occur; whieh seem to be not simply congenerous but identical. Like the strumous knots on the lymphatics, which may so frequently be felt on the side of the neck of scrofulous subjects, the tubercles of consumption do not, at commencement, necessarily produce any symptoms of disease; nor is their subsidence or removal a check to the course of either disease. The analogy of the morbid process in both maladies is likewise, in favour of the view that both diseases belong to one class. Finally, the position is strengthened by recurring to that process of reasoning deducible from the effects of remedies, and indispensable to a perfect knowledge of many departments of pathology; by which we find that the most successful treatment of scrofula is that which has been found to have the most salutary effect in controlling consumption.

Tubercles, though a disease of the glandular system, seem to arise in those of the serous membranes far more frequently than in those of any other tissue. They are sometimes found in mucous membranes; but in this case, it would seem that, in the majority of instances, their formation is connected with and dependent upon the serous envelopes of the lymphatic glands pervading the tissue. It is not intended to deny that the peculiar matter constituting tubercles may be poured out upon the free surfaces of both serous and mucous membranes; but we should say that its deposition on these membranes is always the result of some extraordinary exciting cause, such as bronchitis, pneumonia, pleurisy, rheumatism, or sometimes common inflammation. Under such circumstances, occurring in a tubercular diathesis, it is possible for either tissue to become the seat of the deposition. Its general prevalence in serous, and its occasional occurrence in mucous tissues may form a ground for a new division of phthisis into two kinds—the one with tubercles of serous tissues, the other with tubercles of mucous membranes—each with a different origin and requiring a differ-

ent mode of treatment. If as is probable the tubercular matter is separated from the blood, and deposited in the glands, as also in the free surfaces of serous and mucous membranes, may it not follow that its presence in one tissue, and its absence in another depends on the attraction induced by the electrical states of these tissues? That there should be a distinction in disease based upon this condition of these membranes is rendered probable from the curious researches of M. Donne, who states, as the result of experiment, that mucous membranes are decidedly electro-negative, and serous membranes electro-positive, and that these relations are sometimes changed by disease * According to this view the chemical nature of the secretions may alter in the same tissue, and in consequence must necessarily react on and modify the different functions of the system. In the tubercular diathesis when the one membrane, which is commonly the serous, is in the state most favorable for attracting from the blood tubercular matter it will be deposited upon it; when the other is in this state it will equally command the preference. Considered merely in this electrical point of view, it is not impossible that we may find the only explanation that the subject admits for the localization of the disease in one tissue, and its absence in the others. Certainly if M. Donne's experiments are correct there is unquestionable ground for supposing that foreign matter in the blood, may be more readily determined to and precipitated upon one membrane than another, while peculiar electrical states of the membrane or the blood may reverse the operation. Remote from ordinary apprehension as this explanation may seem, it is one of many phenomena in phthisis that can be made clear only on physical principles, while it will be seen hereafter, that this mode of explanation affords important practical indications.

In whatever organ tubercles originate, the serous tissue occupies, in our experience, the prevailing situation, both as regards the extent and the frequency of their deposition. I have dwelt upon this fact because it forms a circumstance which is of great value in a diagnostic and therapeutic point of view. It must not be overlooked that the minute ramifications and the frequent proximity of both serous and mucous membranes, may and do render it difficult to determine anatomically to which of the tissues the presence of tubercular matter belongs; or, if there are occasional complications, in which it preponderates. To be able to decide between them is of importance, because the influence of our peculiar therapeutic agents is limited to tubercles and the serous tissue, and the evidence of disease of these structures is the only indication for their employment. This decision, we have shown, in our preceding number, can be made with unerring accuracy by means of the diagnostic symptom afforded by painful sensibility to pressure in the spinal region when serous membranes are diseased, and its absence in all affections of the mucous membranes.

Tubercles, then, to which so much importance has been atrached that they have given name and character to Consumption, are but a secondary effect—the result of a cetain diseased, and, in all probability, fixed electrical condition of the system, in which a peculiar matter, forming them, is repelled from the extreme vessels, and attracted to the glands of the organs, the serous and sometimes mucous tissues of the body. Though their remote or predisposing cause is, manifestly, a diseasad state of the general system, their immediate production is as certainly dependent on some abnormal action of the vessels of the part in which they are deposited. The nature of this action, like the condition of the general system, can in the present state of our knowledge only be conjetcured, and yet they are both so important that the first steps towards treating the disease upon sound principles should be to ascertain their precise state. In a strictly pathological view, few or no diseases can be apparent without an evident implication of the capillary vessels; and it is, therefore, impossible without a knowledge of their condition to establish any principle on which ought to be based the application of therapeutic means. This knowledge is not easily attained in phthisis; but much that is accurate may be deduced from the appearances in morbid dissections contrasted with the phenomena connected with the functions of the parts in health.

In order to understand, with an approach to truth, a subject so remote from the illustrations of common experience, as the actions of a capillary vessel, whether in a healthy or diseased tissue, it is necessary to adopt some hypothesis with regard to the nature of its powers, or the subtle influence by which it manifests its vital properties Nearly all physiologists, acting upon this necessity, have adopted, as a clue to guide them in an explanation of the phenomena of capillaries, the opinion that they are endowed with the power of contracting on and expelling their contents; and have as generally denied to them any opposing force, such as that of expansion, &c. The condition which enables them to be refilled with their natural fluid, is considered one of simple relaxation. Now,

* See Motive Power of the Human System. By H. H. Sherwood, M. D. Page 35, and Dissector, Vol. 1st, Page 164.

it is quite obvious that the latter condition as applied to capillary vessels, cannot exist: and if it could, it is highly probable that, even conjoined with contraction, it would not present us with the real process, or mechanism of capillary action.

In this instance, as in so many others of a similar nature, the human mind, in its effort after knowledge has overstepped the true point of wisdom, by attempting to refine too much on the supposed simplicity of nature. The physical axiom that in reasoning upon natural causes, we are to assign no more than are sufficient to explain the phenomena is undoubtedly true; but from its tendency to make us take too limited a view of causes, it has, in many instances, acted in retarding instead of advancing knowledge. Recent researches have rendered it highly probable that Newton himself was misled by the overweening propensity of human nature to simplify.* Though Brewster, in his life of this illustrious man, has furnished some evidence that he shrewdly suspected motion must be the result of two constantly acting forces—the attractive and repulsive—this error of our nature led him to a general explanation of its phenomena by the supposed laws of one. It is true, that in accounting for his centrifugal motion, it presented such difficulties, that he was compelled to call in the aid of a primary impulsion, and that of so wildly conjectural a character as scarcely to entitle it to be classed with the emanations of a philosophical mind. In an analogous department of physical science, Franklin was led aside from the true path of knowledge, by an over effort at simplicity in reducing the two forces of electricity to one—in a plus or minus state. The idea of a single fluid or force which, when accumulated in excess in bodies, tends constantly to escape, and seek a restoration of equilibrium, by communicating itself to any others where there may be a deficiency, is that which occurs most naturally to a mind charged with the notion that cause is necessarily a unit, and the natural condition of bodies a state of rest. But the phenomena accompanying the motion of electricity from body to body, and the state of equilibrium it affects under various circumstances appear to require the admission of two distinct forces antagonist to each other, each attracting the other and repelling itself. This view of electricity, it has been proved by M. M. Coulomb and Poisson, admits the application of strict mathematical reasoning to the conclusions we would draw from it—a character which must give superior value to every theory, and indispensable to the perfect proof of one in any department of physical science. On the other hand M. Prevosts' theory of the radiation of heat, which conceives that this effect of caloric goes on at all times, and from all substances, whether their temperature be the same or different from that of surrounding objects, has avoided the error of Newton and Franklin, while it affords a beautiful illustration of the constant operation of the two forces of repulsion and attraction. Though the peculiar actions which we are called upon to contemplate, by an examination of the above theories, may be referable to other powers inherent in matter, yet M. Prevost s theory furnishes a far better explanation of the action of attraction and repulsion on matter, as well as all the phenomena connected with the radiation of heat, than the supposition of a single force, whether attractive or repulsive.

If the most profound philosophers have been led into doubt or error in regard to the primary laws of a department of science which is considered so simple and comprehensive as that of natural philosophy, how much more difficult must it be to trace with accuracy the operation of those apparently subtle mysterious principles of motion which regulate the actions of animal life. Living matter exhibits all the physical properties which are found in inanimate substances, and pays implicit obedience to the same laws; but in addition to them, it is superadded they are endowed with a set of properties too complicated and intangible to admit of the principles of inductive philosophy being applied to their investigation. To these properties have been applied the vague terms, vital principles, vital actions, powers, faculties or forces. In a simply philosophical point of view the chief difference between organized and inorganic bodies is, that the laws of the former have never been subjected to the rules of calculation—a process to which the latter have been, or are susceptible of being. Obscure and inexact as the subject unquestionably is, the philosophical mind cannot doubt but that, if it could be divested of the intricacy with which, from our confused method of looking at it, it appears endowed, it would be found as dependent on precise and comprehensive laws as those of gravitation, heat, electricity or galvanism. Indeed, the late rapid advance of phisiological science seems to countenance the opinion that our ability to take this simple view of the subject is fast approaching. In conformity with this view it is expected that vital laws will be found to be nothing more than a combination of those that give motion to matter in general. If we can once trace a connection betwen the vital principles and

* See Dissector, Vol. 1st, Page 136, et Sequelæ.

physical and chemical laws, we shall have attained data by which we may arrive at sufficiently accurate knowledge of circumstances to predict a result, subject the phenomena of the functions to calculation, and thus subvert the only important difference between the laws of organized and unorganized matter. It would be essential to the solution of the question this enquiry involves, to determine whether vital motion consists in the simple principle of contractility, or depends upon two forces—the centripetal and centrifugal, contraction and expansion, attraction and repulsion *quocunque nominibus gaudes.*

On the ground of mere probability it is certainly as reasonable to suppose that there is a vital expanding force as that there is a vital contracting one, while it receives as much support from every known fact connected with the motions of a living body. Nor am I aware that there are any in opposition to a function which afford an easier explanation of, and seems to be necessary for fulfiling the duties of the living state. If it be said that there are thus two theories by which physiologists may explain the facts connected with living phenomena with equal probability, and that consequently neither of them can be true, we must then direct our attention to the discovery of some other and probably more simple law, by which without the intervention of either media, the actions of the animal functions may be understood. But until this is discovered we must continue to employ the ideas and use the terms which constitute, at present, the science of physiology.

The evidence of the operation of a vital expanding force is perhaps most apparent in the motions of the heart. It is, indeed, so evident that the laws of expansion and contraction act upon this organ, that many physiologists, who are otherwise advocates for a unity in vital action, have been compelled to acknowledge their existence. A number of physiologists have shown, by direct experiment on living animals, that positive effort, and not simple relaxation, is exerted at the time of the dilitation of the cavities Who that has taken into his hands the heart of an ox, after removal from the body, and felt it dilate under his pressure, can doubt that it has an active power of expansion? In a case of monstrosity, reported by Dr Robinson, the evidence of this force was strikingly shown in the human system; for he found that the power exerted in the diastole of the heart was equal to if not greater than that of the systole.*

(*To be continued.*)

* Dunglison's Physiology, Vol. 2, Page 163.

(Communicated for the Dissector.)

Thomasville, Geo, Nov. 27th, 1845.

Dr. Sherwood,

In the October number of the N. Y. Dissector, a letter to the Editor was noticed from De Roy Sunderland, containing an assertion relative to the *alleged Revelations* of *Emanuel Swedenborg*, so entirely opposed to the real opinions of all receivers of his doctrines, that it would seem to require, that a fair statement should follow, containing some of the views of this class of christians on the subject, which are undoubtedly entitled to respect. W. H.

Swedenborg not a Clairvoyant.

That many even among the learned, should have considered the illustrious Swedenborg as a gifted *Clairvoyant*, is the natural consequence of imperfect knowledge or unjust appreciation of the real nature of his mission.

Hence it is, that the extraordinary claims of that great and good man have been so disregarded, and his wonderful relations of Heaven and Hell classed in the same category with the *dreaming delusions* of *French Prophets*, *Mormons* and other impostors of a like character.

But with those who are more deeply imbued with the spirit of his writings, who have felt the force of the truth of his "beautiful theories," among whom are to be found several of the profoundest thinkers of the age, a wide distinction between the state of his mind, and that of a mere *clairvoyant* or *somnambulist*, is clearly perceived. For, the duties of the station, which his followers from the evidences afforded, are induced to believe he was called to fulfil, as the herald of a new dispensation of Divine Truth, are seen to require a far more exalted state than it is possible for a mere *clairvoyant* ever to arrive at.

'Tis true, that a conviction of the truth of Swedenborg's statements, as to the *source* from which he claims to have derived his knowledge of Spiritual and Divine things, (the possibility of which disclosure will not here be touched upon,) requires to be rationally admitted, in order to obtain a full and perfect understanding of his doctrine. It being of importance that as correct an idea as possible, should be entertained of the psychological state into which Swedenborg was brought, in order to his reception of the disclosures vouchsafed him, a few extracts from his writings shall here be appended, containing his own statements on this head, which have never been disproved, and are undoubtedly entitled to attention.—"I am well aware that many who read the following pages, and the *Memorable Relations* annexed to the

chapters, will believe that they are fictions of the imagination: but I protest in truth that they are not fictions, but were truly done and seen; not seen in any state of the mind asleep, but in a state of full wakefulness; for it has pleased the Lord to manifest himself to me, and to send me to teach the things relating to the New Church, which is meant by the New Jerusalem in the Revelation; for which purpose he has opened the interiors or my mind and spirit; by virtue of which privilege it has been granted to me to be in the spiritual world with angels, and at the same time in the natural world with men, and this now for twenty-five years." Congugal Love, 1.

Again, in a letter to the King,—"The Lord our Saviour manifested himself to me in a sensible personal appearance, and has commanded me to write what has already been done, and what I have still to do: and he was afterwards graciously pleased to endow me with the privilege of conversing with spirits and angels, and to be in fellowship with them. It is not in my power to place others in the same state in which God has placed me, so as to be able to convince them, by their own eyes and ears, of the truth of those deeds and things I publicly have made known. I have no ability to capacitate them to converse with angels and spirits, neither to work miracles to dispose or force their understandings to comprehend what I say. When my writings are read with attention and cool reflection (in which many things are to be met with as hitherto unknown,) it is easy enough to conclude, that I could not come to such knowledge but by a real vision, and by conversing with those who are in the spiritual world. This knowledge is given to me from our Saviour, not from any particular merit of mine, but for the great concern of all christians' salvation and happiness."

One extract from the work on Heaven and Hell shall be given. "For the sake of illustrating the fact of man's being a spirit as to his interiors, I will relate a case from experience, as to the manner in which man is withdrawn from the body, while in the natural world. The case is this: Man is brought into a certain state, which is a middle state, between sleep and waking, and when he is in this state he cannot know any other than that he is altogether awake, all his senses being awake as in the highest wakefulness of the body, both the sight and hearing, and what is wonderful, the touch, which, on this occasion, is more exquisite than it is possible to be in the wakefulness of the body; in this state also spirits and angels are seen altogether as to the life; they are likewise heard, and, what is wonderful, touched, as in this case, scarcely any thing of the body intervenes: this is the state which is called being *withdrawn from the body*, and of which it is said by one who experienced it. *that he knew not whether he was in the body or out of the body.* Into this state I have been let only three or four times, that I might just know what was its quality, and at the same time that spirits and angels enjoy every sense, as doth man also as to his spirit when he is withdrawn from the body." H. & H. N. 439—'40.

Hence says a distinguished writer, "The state above described, is so strikingly analogous with that produced by Mesmerism, that it can scarcely be regarded otherwise than as an actual developement of the interior condition brought about by that mysterious agency. This, however, is merely o e of hundreds of intimations scattered throgh the writings of Swedenborg, going to show that he was well acquainted with the *phylosophy* of that remarkable class of phenomena, though the name was of course unknown to him. as he died several years before Mesmer went to Paris to divulge his discoveries. The coincidence referred to has led many to suppose that Swedenborg's own state was merely that of a gifted *Clairvoyant*, and thus implied nothing supernatural. But his own words assert a clear distinction, as this was a state into which he was only occasionally "*let*," that he might learn its nature, his ordinary state being altogether of a higher character. Such an imputation is a virtual disparagement of his claims, which his followers unanimously repudiate. At the same time they readily admit that the Mesmeric trance is a sufficiently near approximation to his to prove its possibility as a psychological fact, and they gratefully accept the evidence which the Lord's divine providence is thus unexpectedly affording, to the very senses of men, that neither they nor their illustrious teacher are merely *dreaming* of an impossible intercourse with the spiritual world. If multitudes are so staggered by the simple *facts* of Mesmerism, what will be their surprise should the truth finally turn out to be, that the *design* of these marvellous manifestations is no other than to pave the way for the universal admission of Swedenborg's claims?"

"In their structure, warts differ altogether from corns, as they arise directly from the true skin, and appear to be composed of an elongated bundle of its papillæ, enclosed in sheaths of cuticle, whereas corns are a disorder of the epidermis alone."

On the Coincidence of Tubercle and Cancer.

It has been stated that tubercle and cancer mutually exclude each other. LIBERT, however, has not only met with a certain number of cases where the two diseases existed together, but has convinced himself that one in no way arrests the march of the other. In proof of this he communicates the following facts:—

1 A child, aged four years had encephaloid tumours in the right kidney, and was also affected with cerebral and pulmonary tubercles.

2. A woman, sixty years of age, had schirrhous tumours in the mammary glands, in the liver, and in the lungs. At the same time she had softened tubercles at the summit of the left lung.

3. The lungs of a woman, aged sixty-two years, contained tumours in various stages, and even several cavities in the superior lobe of the right lung. In the peritoneum existed encephaloid masses, together with numerous tubercles. The cancer had all the form of encephaloma. The tubercle had, throughout, the form of the yellow or caseous infiltration. The microscope enabled him readily to distinguish the corpuscles of tubercle from those of the encephaloma, and to determine the evidence of their existence.—Muller's Archives, 1844, Hift. 2.

Dr. MARTIN, of Munich, has more recently related the following case:—A woman, aged fifty-four, died in the Poly-Clinic, of ascites. The summit of the right lung was occupied by a tubercular cavern. The apex of the left lung contained several calcareous tubercles, the size of peas and beans. The cavity of the abdomen was distended with a turbid flocculent serum; the omentum was thickened. Externally, it was covered with masses, of exudation; internally, it was yellowish, pultaceous, and, under the microscope, it presented the characteristic appearance of tubercle in its different stages. The intestines and walls of the abdomen were more or less united together; the greatest portion of the uterus was composed of a whitish mass, the size of a man's fist; some portions of it were of cartilaginous consistence, others soft and fungoid, and its centre was more or less diffluent. Under the microscope, it presented caudated cells, with nuclei and nucleoli, numerous oil globules, round cells with and without nuclei, and crystals of cholesterine.—Allgeimeine Zeitung fur Chirurgie, &c., 1844, No. 51.

These are examples of tuberculosis in which the disease of the lymphatic system has in some places, extended to the contiguous tissues and developed the cancerous degeneration.—*Ed. Dis.*

SWEDENBORG'S ANIMAL KINGDOM.

Introductory Remarks by the Translator,
JAMES JOHN GARTH WILKINSON,
Member of the Royal College of Surgeons of London.

[*Continued from page* 204.]

Thus in the living body sense and motion are universal, and mutually suppose each other, just as is the case in the mind with the will and the understanding. The deprivation of anyone of these predicates in any part of its own sphere, amounts to the death of that part, and either involves its elimination, or the death of the whole system.

But as every part of the body is a free individual, dependent upon the whole, and yet independent in its own sphere, so the body itself, although sustained generally by the external universe, in its interiors is altogether exempt from the power and jurisdiction of the latter. It is so far under the mundane law of gravitation, that we are forced to make our dwelling-place, build up our abodes, and institute our communities, upon the soil of the earth: but intrinsically the microcosm dominates over the macrocosm. The substances and fluids in its interiors do in fact gravitate, although not to the centre of the planet, but to that of the particular motion in whose current they are involved. This centre of motion may be either upward or downward, speaking according to those relations as existing in the surrounding world; for in the body the centre of motion is always the upward; for the body itself is nothing but a stupendous series of motions, in whose everlasting currents its solids are ranged and its fluids are fluent. When any substance has attained one centre of motion, it is then at rest in the viscus or organ in whose sphere it was moving: but that very centre is only a point in the circumference of another sphere, to the centre of which the substance is now again drawn and impelled; and so forth. In short, all things in the bodily system are tending from centre to centre, and do not begin to tend to the centre of the planet, until they arrive in the last, lowest, and most general centre of motion of the microcosm, where a mixed action commences between it and the macrocosm, as is the case in the bladder and the rectum. In illustration of this multiple centripetency, the fluids in the gyrating intestines tend first to their parietes, and then into their cellular coat, which is their centre of motion: this centre of motion is the circumference of the mesentery, which now, by its attraction, draws the fluids to

its most quiet station or centre of motion, namely, to the receptaculum chyli. Here again, in reasoning from the external world to the internal, we may see the use of cultivating in the mind a principle of flexibility, which will enable us to modulate from the order of one sphere into that of another; for each individual subject has its own essence and peculiarities which must never be overlooked, and although formed on the model of the universe, derives its determinations from its own principles, as much as the universe does from its own principles. All things are under the law of gravitation, but the gravitation of one is not the gravitation of another, because the motion is not the same, nor the end for which the motion is instituted.

Thus in the body we have a perpetual illustration of the law, that fluids always tend from unquiet to more quiet stations; analogous to the rule in physics, that fluids always find their level; and to the principle in the spiritual world, that every man gravitates, "per varios casus, per tot discrimina rerum," to the final state of his ruling love.

This may give us some idea of the body as a machine of ends, in which there is not the least point but flows from a use, and tends to a use, and so through perpetual revolutions. For every part of the organism is a centre in itself, in that the whole body conspires to supply and maintain it; and a circumference, since being only a part, it yields its uses primarily to the whole, and only secondarily to itself. The external universe, in all its spheres, communicates with the body by a similar law. These centres, arranged according to the laws of forms, order, degrees, and series, constitute diameters and circumferences, in a word, make up the human frame, which therefore is a world of centres, or speaking generally, is the central work of creation. For there is nothing in nature but man, to which all things can minister a use.

The body is exempt not only from the gravitation but from the chemistry of the circumambient world. It has its own heat, of which there are various degrees, and which is as distinct from the heat that vivifies external nature, as its gravitation is distinct from the gravitation of nature. It has its own distinct imponderable fluids, its own atmospheric elements, its own fluids, and its own solids. It has its own complete organic chemistry, in which organization is the only end. No chemical changes that occur in the extremes of the system, (where a mixed action commences, of the microcosm and the macrocosm,) no chemical analysis of the excrements or the excretions, no experiments on the dead fluids or tissues, empowers us in the slightest degree to reason to similar chemical effects in the interiors of the body. The organs of the body themselves are the only workmen, appliances, and laboratories, by which and in which organic chemistry is performed; the contemplation of those organs and their products by the rational mind is the only path to the knowledge of such chemistry. In this chemistry there is indeed decomposition or decombination, but instead of a destruction of form and series, a purification from those elements that mar their harmony, and in the decombination, an evolution of higher forces, and an elevation into a more perfect order similar to that of the compound; and last of all, invarably a recombination. But to take a part or product of an organic being, and subject it to destructive analysis,—such a procedure can only be termed disorganic chemistry, as expressing that it is the very reverse of what goes on in the body. For this process is analogous to putrefaction, and not to formation.

Throughout nature every general is made up of its own particulars. These particulars are its unities, and constitute the limits of its series. For instance, the pulmonary vesicles are the unities of the lungs, or the essential parts from which the pulmonary series commences: the vessels and nerves that construct these vesicles are not the unities of the lungs, because they are not peculiar to the lungs, but form the groundwork of the whole body. Men and women are the unities or atoms of human society, not that they are indivisible, but that they are the simplest forms of their own series. The unities of each organ in the body are so many little organs homogeneous with their compound: the unities of the tongue are little tongues; those of the stomach are little stomachs; those of the liver are little livers; and so forth. These leasts or unities are not necessarily identical with their compounds in form, but only in function; for in the field of leasts (in campo minimorum), similitude of use determines homogeneity, and similitude of shape is of no consequence. As every general is the sum of its particulars as a form, so it is also as a power, force or cause. The function represented by an organ is performed more freely, perfectly, and efficiently, by its unities or leasts, than by its common form. For the leasts are the subjects of higher influences, they are more proximately related to the series above them from which the power of the whole is derived, more easily exempted from the laws of gravity, and more gently and distinctly recipient of external forces. They are nearer to the substance of substances, and as it were more divine. They are the all in all of their own series; the essences of which the general is the

form; the actives of which the compound is the passive. In the expressive language of Swedenborg, "all power resides in the least things," and again," nature is greatest in what is least, and least in what is greatest." The field of leasts is the field of universality, where an action communicated pervades the entire sphere as though it were but a point of space; for the more internal the sphere, the more intense the association. The stream of creative influx enters the compound through the gate of its leasts. The difference between the latter and the former is as between the ideal and the real; the ideal being represented in the leasts; the real, with its complications, and subservience to secondary laws and external circumstances, in the compound. Let us recur for an example to the highest and simplest instance; to the case as existing between an individual man, and a society or a nation. In the individual, the body is the very manifestation of the mind; the servant is the obedient and accurate image of the master. The will, as the ground of activity, flows through a series of intellectual means evoked from itself, with the smallest diminution of force and efficiency into the bodily actions, there being no separate or self interest to absorb it either in the understanding or the body; and thus the monarchy of the first principle is pervading, absolute, and complete. But how different are the actions of a society or compound individual; its interests how divided; its instruments how insubordinate; how great the distance between its legislative and executive, its will and its actions; through what inept meditations the former must pass into the latter; what an absorption is there of the first force in the passage; what a refraction and dispersion of the intentions of the government before they can ultimately be applied to the governed. Now the same is true with the simples and compounds of every series in creation, as with the simples and compounds of humanity.

We come now to speak of the formation of the body, which takes place by a gradual descent from the higher to the lower forms, or by the perpetual derivation, composition, and convolution of simples. Speaking in generals, the spiral form may illustrate the progression. For this purpose let us assume the primary fibre of the brain, without going deeper, or to the spherules of which that first fibre is composed. This fibre, named by Swedenborg the fibre of the soul, involves the spiral form and force, and carries the animal spirit. By its evolution, or what amounts to the same thing, its circumvolution into a new spiral, it forms the nervous fibre, which carries the true purer blood, or nervous fluid; and this again (for it likewise is a spiral force), by its circumvolution generates the blood-vessel, which carries the fluid of the third degree or sphere, namely, the red blood. Hence every artery involves a triple series of circulations, wonderfully alternating with each other. For the nervous fibre, in its expansion and constriction, is precisely alternate with, or the inverse of, the primary fibre; and the same relation of harmonious discord subsists again between the blood-vessel and the nervous fibre. Thus the cause of expansion in the one sphere, is the cause of constriction in the sphere above it: to convert the expansion of the blood-vessels into constriction, the nerves are approached by an expansile agent adapted to their own subtle and active nature; for by the law of inversion, the expansion of the one—the constriction of the other. The play of this inversion, in its perfect form, is a condition of health; but in man's present state the equilibrium is too often lost, there being, in the words of Swedenborg, "a perpetual battle and collision between the three spheres of the body, namely, between the blood and the spirits, and between the spirits and the soul."

The last subject on which it will be necessary to say a few words in this department of our remarks, is the distinction between the life before birth, and the life after birth In the fœtus, nature, that is to say, the soul, as an end and formative power, alone rules, and all things proceed in natural order, from the highest or innermost sphere to the lowest or outermost, by the synthetic way, or a priori ad posteriora. But after birth, the will rules over nature, and drives her from her throne, and all operations proceed in inverse order, by the analytic way, or a posteriori ad priora. These opposite states require a medium to reconcile between them, which medium is supplied by the opening of the lungs; the animations of the brains being synchronous with the respirations after birth, but with the pulsations of the heart during uterine life. In the fœtus, the higher spheres act, and the lower react; whereas after birth the lower act, and the higher only react. In the former case all operations are universal and most individual, conspiring by intrinsic harmony, and in perfect freedom, and proceed outwards from the brains; in the latter they are in the first place general, and proceed inwards to the sphere of particulars through the coverings, membranes, or bonds, of the body and its organs. But the reader will not acquire a satisfactory understanding of this wonderful doctine by anything short of an attentive study of Swedenborg himself.

There are certain organs in the body which have always been looked upon as the oppro-

bria of physiologists, who indeed appear to fail wherever nature does not speak by an ultimate fact; that is to say, wherever there is a clear field for the understanding as apart from and above the senses. The absence of an excretory duct is sufficient to consign an organ in perpetuity to the limbo of doubt. Surmise indeed respecting its functions is still allowed, but proof is considered impossible. We might as well pretend to know the nature of the world of spirits as to know the functions of the spleen. We should be as rank visionaries in the one case as in the other, since we should be placing an implicit dependence upon reason, in a matter where the bodily senses give no direct information. Swedenborg did pretend to know both, and ill he fared in consequence with the scientific world, and with the first reviewer of his "Animal Kingdom" in the "Acta Eruditorum Lipsiensia" They said he was "a happy fellow," and laughed outright. Without stopping to do more than direct the reader's particular attention to his doctrine of the spleen, the suprarenal capsules, and the thymus gland, as being satisfactory and irrefragable, it may be wondered why the physiologists shou'd single out those organs as especial subjects whereon to make confession of ignorance. There is modesty in their confession, but it ought in justice to have embraced more. These organs are closely connected to others, and ignorance respecting them involves ignorance respecting the others also. Connexion of structures in the body is also connexion of functions, forces, modes, and accidents. If the function of the spleen be unknown, so precisely to the same extent are the functions of the pancreas, the stomach, the omentum, and the liver; if the functions of the succenturate kidneys be unknown, so are the functions of the diaphragm, the kidneys, the peritonæum, and indeed of the whole body; for the body is a continuous tissue, woven without a break in nature's loom. To be ignorant of a part, is to be ignorant of something that pervades the whole. The disease that affects the spleen, affects the whole, for the spleen is in all things. and all things are in the spleen. To recur to the liver: what is the amount of knowledge respecting its functions? Precisely this, that the hepatic duct proceeds from it, and carries bile into the duodenum. The bile and the duct are the sum and substance of the modern physiology of the liver; it is prorsus in occulto why either bile or duct should exist. The truth then is, that there is as much known about the liver as about the spleen, and no more; in the one case it is known that there is an excretory duct, in the other that there is none. Alas! the scientific mind is steeped in the senses, and is the drudge of their limited sphere.

Swedenborg's analysis is professedly supported upon the foundation of the old anatomists, who flourished in the Augustan age of the science. At his time nearly all the great and certain facts of anatomy were already known; such for example as the circulation of the blood, and the existence of the lymphatics and the lacteals. Anatomy, too, had long been cultivated distinctly in the human subject, and was to a great extent purified of the errors that crept into it at first from the habit of dissecting the lower animals. Many of the old anatomists were men of a philosophic spirit, who proposed to themselves the problem of the universe, and solved it in their own way, or tried to solve it. They were the first observers of nature's speaking marvels in the organic sphere, and described them with feelings of delight, which shewed that they were receptive of instruction from the great fountain of truth. They worked at once with the mind and the senses in the field of observation. There was a certain superior manner and artistic form in their treatises They believed instinctively in the doctrine of use. They expected nature to be wonderful, and supposed therefore that the human body *involved* much which it required the distinct exercise of the mind to discover. Hence their belief in the existence of the animal spirits; a belief which they based upon common sense, or what amounts to the same thing, upon the general experience of effects; at the same time that they recognized its object as beyond sensual experience, and not to be confirmed directly by sight.* They used the microscope to assist and fortify the eye, and not to substitute it, or dissipate its objective sphere. Even the greatest among them, who addicted himself to the bare study of structure and the making of illustrative preparations, expressed a noble hope that others would complete his labors, by making as distinct a study of uses.†

But the picture is not without its darker side. Although they had strong instincts and vivid glimpses of truth, yet when they attempted to carry their perceptions out, they degenerated into mere hypotheses, and systems of hypotheses. They did not ascend high enough before they again descended, nor did they explore nature by an integral method; and hence they had no means of pursuing analogies without destroying the everlasting distinctions of things They stopped in that midway where scepticism easily overtook them, and where, when that

* See Heather. † Rorsch.

enemy of the human intellect had once penetrated, there was no possibility of maintaining themselves, but the fall to the sensual sphere was inevitable. The reason of this was, that they had not conceived the laws of order, and therefore could not claim the support which nature gives to all her truths. Nay, it was so impossible that they should proceed further without the tincture of a universal method, that their minds came to a stand still; the truths already elicited were rendered unsatisfactory, and mere progress demanded their fall. They fell therefore, and a race which knows them not is dwelling now in tent and hut among their mighty ruins.

At the very crisis of their fate, Swedenborg took the field for the end that has been already mentioned, and at once declared, that unless matters were carried higher, experimental knowledge itself would perish, and the arts and sciences be carried to the tomb, adding that he was much mistaken if the world's dsstinies were not tending thitherwards. The task that he undertook was, to build the heaps of experience into a palace in which the human mind might dwell, and enjoy security from without, and spiritual prosperity from within. He brought to that task requisites, both external and internal, of an extraordinary kind. He was a naturalized subject in all the kingdom of human thought, and yet was born at the same time to another order and a better country. To the various classes of schoolmen he appears never to have attached himself, excepting for different purposes from theirs. He pursued mathematics for a distinctly extraneous end. As a student of physiology he belonged to no clique or school, and had no class prejudices to encounter. In theology he was almost as free mentally, as though not a single commentator had written, or system been formed, but as though his hands were the first in which the Word of God was placed in its virgin purity. Add to this that he by no means disregarded the works of others, but was learned in all useful learning. He had a sound practical education. and was employed daily in the actual business of life for a series of years He was thoroughly acquainted with mechanics, chemistry, mathematics, astronomy, and the other sciences known in his time, and had elicited universal truths in the sphere of each. From the beginning he perceived that there was an order in nature. This enabled him to pursue his own studies with a view to order. He ascended from the theory of earthy substances to the theory of the atmospheres and from both to the theory of cosmogony, and came gradually to man as the crowning object of nature. He brought the order of macrocosm to illustrate the order of the microcosm. His dominant end, which he never lost sight of for a moment, was spiritual and moral, which preserved his mind alive in a long course of physical studies, and empowered him to see life and substance in the otherwise dead machinery of the creation. He was a man of uncommon humbleness, and never once looked back, to gratify self-complacency, upon past achievements, but travelled onwards and still onwards, "without fatigue and without repose," to a home in the fruition of the infinite and eternal. Such was the competitor who now entered the arena of what had, until this time, been exclusively medical science; truly a man of whom it is not too much to say, that he possessed the kindliest, broadest, highest, most theoretical and most practical genius that it has yet pleased God to bestow on the weary ages of civilization.

Swedenborg perceived that the permanence of nature depends upon the excellence of its order; that all creation exists and subsists as one thing from God; that divine love is its end: divine wisdom, its cause; and divine order, in the theatre of use, the simultaneous, or ultimate form of that wisdom and love. He also perceived, that the permanence of any human system, whether a philosophy or a society, depends upon the coincidence between its order and the order of creation; and that when this coincidence exists, the perceptions of reason have a fixed place and habitation on the earth, from which it will be impossible to dislodg them by anything short of a crumbling down of all the faculties, both rational and sensual; a result which, if the human heart be imdroving, the belief in a God forbids us to anticipate. But Swedenborg did not rest, as the philosophers do, in a mere algebraical perception of the truth, or in recognizing a want without supplying it; but like a good and faithful servant he actually expounded a system of principles at one with nature herself, and which will attest their order and their real Author by standing for ages of ages.

But his still small voice commanded no attention, and what he predicted took place: the sciences were carried to the tomb, where they are now buried, with the mind their subject, in the small dust of modern experience. This brings us to say a few words of the physiology of the day

Facts are the grand quest of the present time, and these, particular facts: general facts are less recognized now than they were at the beginning of the last century; for short-sightedness has so increased upon us, that we must look close in order to see dis-

tinctly, and hence extended surfaces do not fall under our vision. The physiologist defers reasoning until the accumulation of facts is sufficiently great, to suggest reasons out of its own bosom. This is a step beyond ordinary materialism. The individual materialist considers that matter must be organized into the form of a brain before it can think and will; but that compound materialist, the scientific world, expects dead matter to open its mouth and utter wisdom, without any such previous process. It thinks that at present there is not matter enough, or this result would ensue; little dreaming that there is a fault in itself, and that the larger the stores it possesses, the more impossible it will be to evolve their principles, or to marshal them under a theory The common facts of the body having been pretty well explored, the physiologists go inwards, and gather further facts. Without waiting to ascertain the import of these, they submit them to the microscope, and again decompose them; and so on, to the limits prescribed by nature to the optician, and by the optician to the scientific enquirer. But this is the field of lenses more easy to discern than that of compounds; or if we cannot read nature's secret in her countenance, can we expect to divine it from her very brains? The truth is, that the modern state of physiology is a universal dispersion of even sensual knowledge: its pretended respect for facts is not real; otherwise it would enquire into their general significance before resolving them into further elements. It perpetually illustrates the principle that facts cannot be duly respected unless they are seen as agents of uses, and results of ends and causes; and that if they are not so regarded, they become mere playthings, to which novelty itself can lend scarcely a momentary charm.

But as every end progresses through more means than one, so science is undergoing dispersion in another direction also Not only are the generals of anatomy forgotten for its particulars, but the human frame itself is in a great measure deserted for comparative anatomy. The so called human physiologist pursues his diffuse circle from animal to animal, from insect to insect, and from plant to plant. Man is confounded with the lower and lowest things, as if all the spheres of creation were in one plane of order The consummation of this tendency is already more than indicated above the horizon, when the lowest range of existence will be the standard of all, and then the chaos of organic nature will become the legitimate property of the chemists, to be by them resolved into gases and dead materials of the earth.

Another characteristic of the times is the almost total breach of continuity between the present and the past. The terminology of science is so much altered that it is impossible to read the older works with benefit, unless after a course of study something like that requisite for learning a dead language. In consequence, the mere anatomical value of the fathers of anatomy is not at all understood; their rich mines of observation are no longer worked, and their forgotten discoveries are now and then again discovered, with all the pains of a first attempt, by their ill-informed successors. Can anything be less human than this,—that the parents should transmit so little to the children, or rather that the children should be willing to receive so little from the parents? It exchanges the high destiny of man for the fate that attends the races of animals, in which each generation lives for itself alone, and again and again repeats the same limited series, without improvement or the possibility of evolution.

In the midst of this humiliating condition, what loud sounds do we not hear of "march of intellect" and "progress of the species," —so many discharges from the impotent artillery of self-conceit. This indeed is the last and worst sign of a decadent science. The poor sick sufferer is delirious, and possesses for a moment superhuman strength in his own exhaustion.

The present cultivators of science boast themselves followers of Bacon in the inductive method, apparently grounding their claim on the fact, that they dwell in effects or in proximate causes to the exclusion of final causes. It is a remarkable circumstance, that each age since Bacon's time has considered itself especially as his follower, and that the present age, besides laying this unction to its soul, denies the genuineness of the Baconianism of all preceding ages. Meanwhile there can be no doubt, that if Bacon himself were to publish his works now for the first time, he would be ranked among the mesmerists, the phrenologists, and the other poor gentiles who are banished by common consent to the far islands of the scientific world, and would be exterminated from it altogether if they were not preserved in some mysterious way,—perhaps by having the truth on their side. Bacon himself would belong to these gentiles; but would their antagonists then lay an exclusive claim to his phylosophy? We apprehend not. The inductive method would be far from fashionable if its larger tendencies were seen, or if the scientific beliefs to which Bacon himself was led by it, could be currently reported.

Would it not freeze a Royal Society to the very marrow, to be identified in any way with a man who believed, as the great Lord Bacon did, in witchcraft, and the medicinal virtues of precious stones?

Notwithstanding the unpromising state of things in science, the natural theologians have adventured to deduce from it "the power, wisdom, and goodness of God as manifested in the creation." Truly the creation is an effluence and argument of divine wisdom. But in the present range of scientific insight, it is not seen to do more than approximate to the works human skill. The mechanics of the watch are more wonderful to man than the mechanics of the ear or eye; the arch is the antetype of which the convex skull is but the type. Natural theology based on such science, can attribute nothing to God which does not belong in a superior degree to man Its discoveries are not worth making, because they are so infinitely transcended by the perceptions of common sense in all nations and ages. Now Swedenborg, in his scientific works, was a natural theologian, but he began where human skill terminates, and by the application of guiding doctrines, followed the ever-expanding order of creation inwards to the point where mechanics and geometry are realized in more universal laws of wisdom and providence; and where at last the human mind itself recognizes the very source of life in its humiliaton before the throne of God.

But it would be far from the present line of argument, to maintain that the moderns are performing no useful function in the "progress of the species." Such a proposition would be incompatible with what we know of the divine economy, in which human degeneracy itself is converted into a new point in the circle of uses Nay, the moderns have their direct value; in the first place, they have enlarged the catena of observation in many departments. In the second, they have corrected innumerable minute errors in their predecessors, who were more intent upon general than particular accuracy. And thirdly and chiefly, although in this respect no credit attaches to them, they have gone so low in their enquiries, that as it is even physically impossible to go lower, so by the law of the contact of extremes a revolution may now take place, and the ascending passage be commenced, as it were from the skin to the brain, or from the lowest sphere to the highest.

It would be interesting to trace the successive stages by which the physiology of the ancients declined into that of the moderne, to review the grounds on which great doctrines were given up, and to test the sufficiency of the reasons which were adduced for the change. The state delineated in the well-known lines—

> "I do not like thee, Doctor Fell,
> The reason why, I cannot tell;
> But this alone I know full well,
> I do not like thee, Doctor Fell,"

—this state was the moving cause of it. In short, it was a change in the human will, and not primarily in the underatanding, which faculty appears to have been called upon subsequently, to confirm the new turn of the inclinations. Such at any rate we know to be the case with the doctrine of the animal spirits, which, as Glisson said, was in his time believed in "by nearly all physicians, and by all philosophers." It might have been supposed that the animal spirits were demonstrated out of existence by some beneficent genius who substituted something better in their place; at least that they fell honorably in a well fought field of argument. No such thing; they fell by the treachery of the human heart loving the sensual sphere more than the intellectual. Is such mere waywardness as this a part of the "progress of the species?" The ancients believed in the existence of the animal spirits without pretending that they could become objecs of sight. "Tam subtile sit concipiendum [fluidum hoc subtilissimum]," says Heister, ". . . ut instar lucis velocissime se diffudat; quod profecto non oculis, sed ex effectibus et phænomenis, . . . ope judicii sive mentis oculis cognoscendum . . . . Ita aerem, animam, et multa non videmus, quæ tamen ex effectibus, quemadmodum spiritus animales, esse et existere intelligimus."* But the moderns reject whatever they do not see, and will credit the existence of nothing that absolutely outlies, and must in its conditions for ever outlie, the senses. It is needless to say that a state like this is based upon neither reaons nor sensations, but is purely negative or sceptical, and must be referred to sheer will without any admixture of wisdom.

The Radical Cure of Hernia by Injection.

We find in the *British and Foreign Review*, as an extract from Dr. Pancoast's Operative Surgery, the following description of an operation, which, if not altogether new, is not practised in this country The results are such as to claim for it the attention of our operative surgeons:—

"The contents of the hernia must be completely returned into the cavity of the abdomen, for the process is only appropriate to cases of reducible hernia, and those which are not of large size. The apparatus re-

* Comp. Anat., n. 301, not. a.

quired is a minute trocar and canula, a small graduated syringe, capable of containing a drachm of fluid, well fitted to the end of the canula, and a good-fitting truss for the purpose of making compression. The patient is to be placed on his back; the viscera are then to be reduced, and the truss applied over the external ring for the purpose of keeping them up, as well as to prevent the possibility of the small quanity of fluid thrown in from getting into the cavity of the abdomen. The surgeon then presses with the finger at the external ring so as to displace the cord inwards and bring the pulpy end of the finger on the spine of the pubis. At the outer side of the finger he now enters with a drilling motion the trocar and canula till he feels the point strike the horizontal portion of the pubis just to the inner side of the spine of that bone. The point is then to be slightly retracted and turned upwards or downwards; the instrument is then to be further introduced till the point moves freely in all directions, showing it to be fairly lodged in the cavity of the sac. The point of the instrument should now be turned into the inguinal canal, for the purpose of scarifying freely the inner surface of the upper part of the sac, as well as that just below the internal ring. The trocar is now to be withdrawn, and the surgeon, again ascertaining that the canula has not been displaced from the cavity of the sac, throws in slowly and cautiously with the syringe, which should be held nearly vertical, half a drachm of Lugol's solution of iodine, or half a drachm of the tincture of cantharides, which should be lodged as nearly as may be at the orifice of the external ring. The canula is now to be removed, and the operation is completed. A compress should be laid above the upper margin of the external ring, pressed down firmly with the finger, and the truss slid down upon it. The patient is to be kept from changing his position during the application of the truss, and should be confined for a week or ten days to his bed, with his thighs and thorax flexed, keeping up steadily as much pressure with the truss as can be borne without increasing the pain, in order to prevent the viscera from descending and breaking up the new adhesions while they are yet in the forming state, or avoiding the risk of their becoming strangulated or being rendered irreducible by the lymph effused into the cavity of the sac.

"The author has practised this operation in thirteen different cases, in but one of which there was any peritoneal soreness developed that excited the slightest apprehension, and in this case it subsided under the application of leeches and fomentations. In several of these cases a single operation appeared to be perfectly successful. In others—where the sac was larger, or the patient was less careful in keeping the truss steadily applied during the first week, or from a cautiousness in introducing in the first cases a more limited amount of fluid—the effect was merely to narrow the sac, rendering a repetition of the process necessary for the cure. Of the permanency of the cure, during *several years after the operation*, the author is unable to speak, most of the patients operated on being temporary residents of the Philadelphia Hospital, and passing after a few months beyond the reach of enquiry. While under the cognisance of the author, they were employed without a truss as labourers on the farm attached to the institution, and in no one of the cases, during this period, had the hernial tumour recurred."

Phosphorus Paste for the Destruction of Rats and Mice.

By M. Simon, of Berlin

The Prussian government issued an ordonnance on the 27th of April, 1843, directing the following composition to be substituted for arsenic, for destroying rats and mice, enjoining the authorities of the different provinces to communicate, at the expiration of a year, the results of the trials made with it, with the view of framing a law on this subject.

The following is the formula for this paste, as published in the *Berliner Medicinische Zeitung*:—

Take of phosphorus, eight parts, liquify it in 180 parts of luke-warm water, pour the whole into a mortar, and add immediately 180 parts of rye-meal; when cold, mix in 180 parts of butter melted, and 125 parts of sugar.

If the phosphorus is in a finely-divided state, the ingredients may be all mixed at once, without melting them.

This mixture will retain its efficacy for many years, for the phosphorus is preserved by the butter, and only becomes oxydized on the surface.

Rats and mice eat this mixture with avidity, after which they swell out and soon die.

M. Simon has employed this mixture for many years, with constant success, by placing it in places frequented by those animals. According to him, the phosphorus is less dangerous than arsenic, for supposing the mixture to be badly made, and the phosphorus imperfectly divided, the oxydation which would take place in a few days would render it nearly inactive; and it would be almost impossible to employ it for the intentional poisoning of human beings.—*Journal de Chimie Medicale.*

PUBLIC REWARDS FOR NEW MEDICINES.

To the Editor of THE LANCET.

SIR,—In connection with those portions of medical polity which require reform, there is one point yet unnoticed, which, though it may be considered of minor import, should not, I think, escape attention.

According to the present state of the law, any discovery, or special improvement in the arts, may be protected and secured for the advantage of the individual from whom it has emanated. It has been attempted to extend the same principle to medicines, but in a different, and erroneous, manner; pretended discoveries in the shape of medicinal compositions being at once protected and recommended by a government stamp, without regard to intrinsic merits. Thus the public is cursed with the monstrous evil of quack medicines, of varied denominations; and ignorant and unprincipled individuals fatten on the credulity and misery of their victims. But, on the other hand, if a new and useful simple remedy is to be introduced to the profession, or any important modification of an old one suggested, what will it avail the originator? A chemist may fairly retain his secret, though perchance he can turn it to little advantage; but odium and discredit will accrue to the professional man who attempts to retain the fruit of his mental labour to his own benefit. Philanthropy is compulsory on him, and he must give up the produce of his mind with but little chance of any return accruing to him, in the shape of emolument, or even of reputation, which may be filched from him by those whose position, or fictitious professional rank, enable them to turn the discovery to advantage, and who, themselves, possesing no original ideas, are apt to make free with those of others, and kindly adopt them as their own.

Should a Board of Health constitute an element in the future re-organization of the profession, might it not be empowered to recognise and reward such medicinal discoveries as should be deemed of sufficient value.

I am, Sir, Your obedient servant,

BUTLER LANE, Surgeon.

FROM A CORRESPONDENT.

Mr. Power, dentist, Stephen's Green, Dublin, has found it desirable, in the course of his professional duties, after the extraction of a tooth, that the gum should not be closed, as the natural spreading of the adjoinihe teeth on either side of the tooth which has been extracted is thereby prevented. When the jaw has received injury, in the course of a rude operation, it is judicious to bring the parts into contract.

PROF. MOTTS CLINIQUE.

At the Medical Department of the University of N. Y., Saturday, Sept 6th, 1845.

SPINAL IRRITATION.

1st CASE was a female, ætat 30, unmarried, said that about sixteen years ago, when walking very fast, she suddenly felt a severe pain in her back, (lumbar region,) down the thighs, and about the public region, which has continued ever since Her general health is pretty good most of the time. There appeared to be no uterine derangement. The case seemed to partake more of spinal irritation than any thing else, although the diagnosis was rather obscure. Recommended *counter irritants* to the spine.

ANGULAR PROJECTION OF THE SPINE.

II Boy, aetat 4, general health pretty good, has had disease of the spine about three years, angular projection, Maladie de Pott of the French. The Professor gave an interesting history of the disease, and of Dr. Potts' discovering the mode of treating it by issues, by mere accident, in observing a case in which there was a spontaneous issue formed by nature, whereby the patient recovered. He spoke very much against the practice which some physicians are in, of applying pressure on the angular projection, a disease totally different from curvature of the spine, and hence a different mode of treatment must be pursued. Spoke of the importance of explaining fully the nature of the disease to parents of such children, as are afflicted with this most tedious and troublesome disease; never promise too much.

In the present case he recommended a generous diet, and keeping the patient, as much as possible, lying on his abdomen, and a pea issue to be applied on one side of the projection at first, and in a little time, put one on both sides and keep them constantly discharging. All patients having this disease are of a scrofulous diathesis, which must always be kept in view in the treatment.

HIP JOINT DISEASE.

III. Little girl, aetat. 6, has incipient morbus coxalgia. She first complained of a pain in her right knee, some two or three weeks since, which has been so severe at times, that she could not stand or walk on that limb; she said nothing of any ailment of the hip, which is usual in such cases. The affected thigh appears longer at first, and by pressing on the anterior part of the capsular ligament, by raising up the limb, causes pain. Prognosis rather uncertain. Recommended three leeches to be applied just back of the trochanter major, and three near the groin. R. Mag. Sulph. Mag. Cal.

in small doses, and counter irritants hereafter about the hip joint.

Prof. Parker's Clinique.

At the College of Physicians and Surgeons, Monday, Sept. 8th, 1845.

BEFORE commencing, the Doctor exhibited a truss, which he said possessed some advantages over most others, it having a ball and socket joint to hold the pad, which was convex. The truss was invented in New Orleans, quite recently, and has not got into general use yet.

SCROFULOUS ABSCESS.

II. Female, aetat. 23, married,—has an abscess in the calf of the leg, of one year's standing. Patient is of a scrofulous habit, general health delicate, has considerable irritation of the stomach, enlarged lymphatic glands, &c., with the usual symptoms of scrofula.

The sore presents something of a syphilitic taint,—indurated and ragged edges, and partakes a little of a cancerous appearance, but the Professor thought it was neither; it being merely a scrofulous abscess in the skin and cellular tissue, about the size of the top of a tea-cup. There was a similar one on the other leg, although it had never softened down like this. She has taken a great variety of medicine. The Professor recommended constitutional and alterative treatment, but if there was any tendency to disease of the lungs, avoid the use of mercurials; use Iod, potass, Iod. ferri., rumex. and taraxacum. He does not think there is much virtue in sarsaparilla. Use as a lotion either black or yellow wash. Exercise by riding, but avoid walking as much as possible,— use a generous diet. The prognosis was somewhat doubtful.

FISTULO INANO.

III. Boy. aet. 7,—has been troubled with it since he was two years old. The Professor made an examination, but could not detect any ulceration into the gut; concluded to defer an operation; and recommended keeping the bowels free. The Professor made some remarks about Sir Benj. Brodie's paper of a few years since, which says that such cases always commence from an ulcer on the inside of the gut.

ABSCESS OF THE RIGHT MAMMA.

IV. This was a very interesting case, in as much as such cases are exceedingly rare. The subject is nearly forty years of age, and is now in her sixth month of pregnancy. About two years since, she had an abscess in the axilla of that side, which she refers to having sawed wood; it opened of itself and discharged, after which, she says there came a "lump in her breast," which was opened and healed up. Now since there has been a new action excited in the parts by her present condition, the former difficulty returns Treatment; recommended poulticing for a few days and then open it, and after a little time, he thought best to draw in a seton. He thought that by careful treatment, she might be enabled to get along without further difficulty of the kind.

OSTEO. SARCOMA.

V. Patient, aet 28,—has been a man of intemperate habits, had the venerial disease two or three times, and has been troubled with pains in the different joints for two years, but for the last fifteen months the pain has settled down into his left knee. Patient has thought his disease rheumatic, and resorted to various kinds of treatment for it, none of which has done him any good. The pain has been so intense for a short time past, that he has been obliged to take large doses of laudanum. There is no discoloration of the skin about the knee, although there appears to be some little effusion about the joint. The line of demarkation could be distinctly felt about two inches from the knee joint on the femur; the bone being a little enlarged. The Professor advised the patient to have the limb amputated; but as he declined that, the doctor recommended the free application of Tinct. iodidi, daily, but gave it as his opinion, that the leg would have to be amputated sooner or later.

DOUBLE INGUINAL HERNIA.

VI. Double inguinal hernia in a child eight months old. Professor deferred the case for a while, on account of age.

There were several other cases, but as they were of so little importance, we will not give them. A large number of patients were in waiting to take their turns, but as the hour had expired, they were prescribed for in the back room.

Prof. Mott's Clinique.

Saturday, Sept. 27th, 1845.

HÆMOPTYSIS.

IST CASE. Patient was born in Canada, aet. 22,—has had shooting pains through the chest, and some cough, for four or five years past, but quite recently he has had several attacks of bleeding from the lungs, followed by an increase of cough. His general health appears quite good. Professor recommended him to go south if he could make it advantageous, in a pecuniary way,— use a generous vegetable diet, to sustain the

general system, and have an issue applied to the chest. He spoke of the old American practice of using calomel, squill and opium, in such cases where there was much bronchial affection. The practice is peculiar to this country, although the English are beginning to adopt it. In this case, he advises small doses of calomel, to be given as an alterative, but not to go so far as to salivate him.

CONJUNCTIVITIS.

II. A little girl, aet. 8,—has had the disease for some weeks past. Ordered three leeches to be applied to each temple, and an effusion of poppy-heads to bathe the eyes daily Keep the bowels free by the use of Mag, Sulph.

STAMMERING.

III. A boy was brought from the country to be operated on for stammering, but after hearing an explanation of the operation, and not receiving much encouragement as to the result, he declined it.

It may be well for us to state that the Doctor does not perform the operation for stammering, as often as he did soon after his return from Paris. The operation does not prove as successful as was thought at first, although there have never been any bad results from it to our knowledge —Ed.

AN UNUSUAL ENLARGEMENT OF THE LYMPHATIC GLANDS.

IV. Patient, aet. 47, blacksmith by trade, —has been a very hard working man, but sometimes indulged in intemperate habits. The disease commenced about five years ago, and the glands of the neck, axilla, and groin, have continued to enlarge gradually up to the present time; they are now about the size of a hen's egg, on an average, but some are larger, particularly those of the axilla and groins.

There has been of late, a little tendency to anasarea, although the general health is pretty good. Patient said he had always been remarkably healthy, and his children also were very healthy. The Doctor thought it a scrofulous affection. Recommended the external use of Tinc, Iodi, and Iod, potass., to be taken internally, in a decoction of yellow dock. The disease was quite too extensive to think of operating.

SPONTANEOUS PARAPLEGIA.

V. Patient, aet. 57, born in Scotland,—in the early part of his life, followed mining. The disease came on about eight years ago, and has remained about the same ever since; he has no use of the legs: bowels costive, and the usual inconvenience, attendant on such cases. Recommended an issue in the lumbar region, electro-magnetism, and the use of the Rhus toxicodendron.

The use of this remedy seems lately to have been revived in the treatment of paralysis.—Ed.

ENLARGEMENT OF THE LYMPHATIC GLANDS

VI. Female, aet. 25, married,—has enlargement of the lymyhatic glands of the neck, which commenced about two years ago, during her accouchment, and have somewhat increased since The disease is purely scrofulous. Recommended generous living, and a tonic course to be pursued.

℞. Tinct. cinchon. f. ℥ viij.
Hydrar. bichlorid. gr. iv.
Dose, a tea-spoon full three times a day.

℞. Hydrar bichlorid, gr. vj.
Adipis, ℥ j.
M. ft. ung.

Rub the enlarged glands morning and evening, with the ung., and apply oiled silk.

STRABISMUS.

VII. Patient, female, aet. about 20,—she has had converging squint since she was a year and a half old. The Professor operated successfully.

Prof' Parker's Clinique.

Mooday, Sep!, 29, 1845.

SPINA BIFIDA.

1st Case. An infant, four weeks old, well formed and healthy; has a tumor about the size of a large hen's egg, situated in the upper part of the dorsal vertebrae. The base of the tumor is of the natural color of the skin, but the top has a diaphanous appearance. The Professor made some remarks about the disease in general. It is called, spina bifida, because the vertebrae are not able to unite on account of the watery tumor. We more frequently see them in the sacral or lumbar region, but they do occur at all parts of the spine, and sometimes in the whole length at once; but very seldom in the cervical region. The pathology of the disease is a hydropic condition of the parts, arising from congenital hydrocephalus. The water, descending from the brain, along the spinal canal, before the arches of the vertebrae are formed, accumulates, and thus a tumor is produced. The fœtus is subject to many other diseases in utero, among which may be mentioned convulsions which are probably the cause of congenital club foot.

Treatment: various kinds of treatment have been tried in the disease, but commonly they all fail; compression would cause convulsions and kill the patient; ligation has

been tried, and sometimes successfully, but there is a great objection to it on account of the bundle of nerves which is always present, and is liable to be involved in the ligature. Acupuncturation is another mode of treating them, which is the most approved of, now-a-days; it is done by taking a fine needle and puncturing the tumor thirty or forty times, and letting the water off, which causes inflammation and thickening of the walls The operation must be repeated several times, or as often as the water accumulates.

STRABISMUS.

II Patient, boy, æta. 7,—Professor operated successfully. He made some remarks about the operation having been brought into disrepute, by being done by those who do not understand it fully,—it is much more of an operation, than many suppose. The operation may fail, if done in the best manner, owing to the paralysis of the opposite recti muscle. The operation sometimes, has to be repeated several times before the eye is fully straightened.

TUBERCULATED TONSILS.

III. Patient, female, ætat. 28,—general health good. On first examining the tonsils, they presented the appearance of having had nitrate of silver applied to them, but upon a more close examination, they were found to contain hard cheesy matter. The Professor took away a portion of the matter with the forceps, and ordered the throat to be gargled with some of the mineral acids, either the nitric or muriatic diluted.

SECONDARY SYPHILIS.

IV. Patient, æt. 41,—been married nineteen years, has not had the primary disease since he was married. About two years ago, he had pains, which he thought were rheumatic, and have continued since they first begun, in the shafts of the bones instead of the joints, and across the forehead. There is an eruption about the nose, and ulcers about the ankles.

Syphilytic rheumatism may be distinguished from common rheumatism, by the pains coming on in the afternoon between three and five o'clock, and also, from ifs being in the shafts of the bones instead of the joints; whereas, in the latter disease, the pain generally comes on after the patient goes to bed, and is confined to the joints generally. Prescribed good full diet, keep the bowels free, and put him on the use of Hydriod. potass., cicuta, rumex and taraxicum.

DISLOCATION OF THE SHOULDER.

V. Patient, æt. 34,—is a carpenter by trade, and is a strong athletic man; says he has had it out of place an hundred times within a year past; it slips out frequently when he is at work at his trade He very commonly secures the arm in his work vice, and puts the bone in the place. There is considerable soreness about the joint, which is owing to some inflammation; probably a portion of the lower part of the capsular ligament is torn away, and hence the head of the bone slips out of the socket so easily. The Professor put it out and in its place, two or three times, to fully satisfy himself as to its nature. Ordered: cupping over the joint, and bathing it in warm water for a few days, and then use the cold douche.

ENLARGEMENT OF THE TONSILS.

VI. Patient, æt. 12,—constitution delicate, has had enlargement of the tonsils for a year or more, without much diminution in size from the first. Enlarged tonsils in children should always be attended to early—the enlargement obstructs the breathing, and often gives rise to pulmonary disease. Such children frequently are "pigeon breasted," owing to their position in sleeping, throwing the thorax forward, head back, and mouth open. The Professor removed a part of the gland, with an instrument for that purpose. It is always better to use the tonsil instrument in children; but in an adult, a common bistoury and hook, will do equally as well.

NECROLIS AND SEPARATION OF THE LOWER JAW.

VII Patient, æt. 50,—had been in the Hospital in Montreal, Canada, three months, where he was profusely salivated, but did not seem to know for what purpose, or even why he went to the hospital at all,—appears to be a very worthless fellow. He came out of the Hospital in Montreal, about six weeks since, and is now suffering from the effects of ptyalism.

The inferior maxilla is divided at the symphysis, and one of the incisor teeth has been taken out at this point. The Professor recommended him to go to the hospital, as he had no home; but said he should merely have the fissure injected with some of the diluted mineral acids.

The New York Hospital.

Attendance of Dr. John H. Driscon.

VIOLENT CHOREA ST. VITI;—CURED BY STRICHNINE.

The subject of the following history, presented the most violent case of St. Vitus' Dance we have ever seen. It will be recollected by many students, and others who witnessed it, as having been characterised by the peculiar jactitation of the extremities,

particularly the lower, when walking, from which it was called the "Polka case."

Eliza Holstappen, aged 19, born in Germany, single. Entered July 24, 1845. Is of large frame and robust appearance. Has had amenorrhœa four months, but otherwise has enjoyed good health, until about three weeks since her friends noticed a twitching of muscles. This increased until there was involuntary motion of all her limbs Upon admission, she was unable to remain in bed, so that she was obliged to be kept on the floor. Her bowels being opened, she was put upon Fowler's Solution, gtt. iv. ter in die. This was increased to every two hours by the fourth day, but her motions became more frequent and strong, so that she could not be restrained on the mattress, and tore her clothes from her body. Her nights were sleepless, and she constantly screamed, although perfectly sensible.

On the 2d of August, she was put upon Carb. Ferri, which was continued for three days, the patient being at the same time freely purged with Croton and Castor Oil. This did not produce much benefit. As soon as evening came on, her motions became more and more convulsive, and her *screams* loud and incessant. For several *nights* in succession, she was obliged to be tied hand and foot to the bedstead, perfectly naked, as no covering could be kept on her. During the day, she was more pacific.

On the 12th, we began the use of Pil. Strychnine, gr, 1-16, ter in die. The effect of this was almost immediate and very marked. It was continued four days, in the above quantity with evident improvement, her nights being more quiet, and some sleep obtained.

On the 16th, the pill was increased to 1-12 gr. This night she slept for an hour or more together, in a chair.

17th, Last night she slept in bed quietly for several hours, and this morning *was able to sew.* She walks about, although her motions are still violent. Has been on the use of the medicine just one week.

19th, The last two nights the patient has slept perfectly well during the whole night, without any noise; walks now tolerably straight; and visits the other wards. Her appetite is very great. During the whole of the attack, her mind has been entirely free from any delusion. She still continues the Strychnine 3 gr. ter in die, with progressive improvement. During the last two days she has occasionally complained of headache.

Sept. 1st. Our patient rapidly improved under this treatment, continued until within a few days, when she being apparently *well*, it was stopped, and no symptom of a relapse appearing, she was to day *discharged cured.*

The pathology of Chorea, is among the mysteries of the science. The arsenical and ferruginous preparations, and drastic purgatives, which have either one or the other, generally succeeded in relieving the symptoms, having in this case entirely failed, the determination to try the Strychnine was made on the supposition of the condition of the nerves in this disease being analogous to that in Paralysis. In the latter case, there is a total loss of power over the muscles, in the other a partial loss only. If the rapid and felicitous result of the use of Strychnine in this case should lead to its further administration in Chorea, some light may perhaps be thrown on the pathology of the disease.

Chorea St. Viti is tubercular disease of the Cerebellum as determined by the magnetic symptoms, in which the processus vermicularis or organ of motion in the median line of the cerebellum, and consequently the muscles are involved.

The above case is interesting from the fact that the disease was acute or inflammatory, or one that is rarely seen. If it had been one of chronic disease, the strichnine would have had little or no effect, as its power has been often tested in these cases.

PROF. PARKER'S CLINIQUE.

At the College of Physicians and Surgeons, Monday, Nov. 24th, 1845.

REPORTED BY GEO. A. PETERS.

On Thursday of last week, the Doctor removed two large polypi from the nasal fossæ of a young man who presented himself before the class. He remarked at the time, that nasal polypi, when they exist, will always be found attached to the turbinated bones and never to the vomer; this fact should be borne in mind, and a proper direction given to the forceps when introduced. The patient was much relieved by the operation.

Case I. This was the young man from whose neck a tumor was removed last Monday, before the class. Union by first intention had taken place to a considerable extent. The sutures were removed, and adhesive straps re-applied.

II. Male, æt. 35, (Ireland.) This patient has been suffering from a severe attack of gonorrhœal ophthalmia, from which he has but just recovered. The power of vision is not at all impaired in the left eye, but upon examining the right eye, we find that fibrin has been extravasated somewhat deeply into

the substance of the cornea, constituting that variety of opacity known as albugo. We often observe this condition, as a sequence of violent acute ophthalmia.

Gonorrhœal ophthalmia is one of the most violent forms of inflammation to which the eye is subject, often destroying it entirely in twenty-four or forty-eight hours. It requires the most active anti-phlogistic treatment.

Albugo is more difficult to cure in proportion to its duration and to the age of the individual; the activity of the absorbents being greater in youth.

As there seemed to be no inflammation existing in this case, the Doctor recommended the use of gentle stimulants to excite absorption. A solution of argent. nit. iv., to ʒ j, of water, or the insufflation into the eye, of calomel and loaf sugar finely levigated. If these should fail, he recommended that trial should be made of the solution of the sulphate of cadmium, in the quantity of a grain to two grains to an ounce of water,

III. Female, æt. 42, widow, (Ireland.)

This was a well marked case of carcinoma of the right mamma. Has had two children, the youngest is now fifteen years of age. Has been in this country thirteen years. Her husband died about two years since. Her courses are regular, and she says that she has never suffered from any disorder of the menstrual function She is not aware that any of her relatives have ever suffered from cancer. Several years since she received a blow upon the breast from a rocking chair, which caused at the time a little pain and uneasiness in the part. About a year after this she first observed the tumor, the pain became more severe, accompanied by an occasional slight discharge of blood, from the nipple.

Upon examining the part you will feel a globular tumor, occupying the right mamma, of stony hardness, and irregular and unequal in its surface. It has now passed into the second stage of the disease, the superimposed integument has assumed a dusky or livid hue; the nipple is also retracted. The glands in the axilla are enlarged and hardened, thus showing that they have become involved in the disease.

Cancer of the breast is a disease more frequently occurring among women who have never borne cdildren, than among mothers, who are more likely to suffer from that disease attacking the uterus.

The only hope of a radical cure in cancer, consists in extirpation with the knife, or by destroying the part by cauterization. The knife is by far the least painful of the two remedies. I can by no means promise a radical cure, even if the breast be extirpated, but as in this case the disease appears to be of local, and not constitutional origin, I should consider the prognosis favorable, if she would submit to an operation. At any rate, it would probably prolong her life for several years.

Patients frequently live several years after the operation, and then the disease returns in the cicatrix, or attacks some other organ. In one case in which I operated, the woman lived ten years, when the disease returned, attacked the liver and she died. The suffering attending its attack upon internal organs is not so severe as when it exists externally. The Doctor strongly urged upon the woman the importance of an operation, as her only hope of cure, and advised her by no means to resort to external applications. except those of the mildest kind. The patient was not prepared to submit to the operation today, but promised to come again.

IV. Male, æt. 40. Fistula in ano. This person is a mason by trade;—has at various times suffered much from constipation of the bowels. He suffered for three weeks in the month of July last, from dysentery, following which attack, he first observed a small abscess pointing a short distance to the left of the anus, this was opened with a lancet, its contenrs discharged, and the opening still remains fistulous. A probe was passed into it, and it was found to communicate with the rectum. Patient says thatgas from the bowel frequently passes through it. An operation is the only treatment which offers any prospect of success. The man is poor and does not reside in the city, and as it is important that it should be properly dressed at suitable intervals, after the operation, he was advised to apply for admission into the Hospital.

V. Girl, æt. 3. This was a case of scrofulous synovitis, affecting the left knee, which commenced about five months ago. The joint was not injured by external violence. Child evidently of a scrofulous diathesis, her mother is said to be affected with tubercles in the lungs.

Upon exposing the limb, the knee was found to be evidently increased in size, the muscles above and below the joint were atrophied, and the temperature was much higher than that of the other joint. Complained bitterly when motion of the part was attempted.

The child has been reared in an ill-ventilated apartment, situated in a crowded part of the city, its appetite for candies and other sweets, also for gravy, has been gratified, The Professor remarked, that so long as this course of life was foltowed, the child would never recover. He would allow the child

bread and milk for breakfast, meat, potatoes, and other vegetables for dinner, and bread and milk again at evening. Tea and coffee, also sweets of all kinds, should be interdicted. By furnishing the stomach with nutritious food, good healthy chyle would be elaborated, and thus the blood would be supplied with plenty of fibrin. The child ought also to be removed to the country. Ablution with salt water night and morning, followed by friction all over the surface of the body, should also be resorted to. Rhubarb, the bicarbonate of soda, and blue mass in small doses, should be administered occasionally at night, to be followed, if necessary, by castor oil in the morning. Decoct. sarsa. comp. will also be found of advantage. As there still exists considerable heat in the part, the scarificator should be applied freely, and the bleeding encouraged by warm poultices. After heat and pain has subsided, three or four issues should be established about the joint.

The joint should be kept perfectly at rest by means of the tin splint, which I have so often recommended to you in such cases.

VI. Boy. Enlargement of both tonsils of one year's standing.—The Doctor removed them by means of the forceps and bistoury.

VII. Child, æt 2. Talipes varus affecting both feet. Doctor P. divided the tendo-Achillis and the tendon of the tibialis anticus. The child is to wear Scarpa's shoe.

VIII. Boy æt. 9. The patient had strabismus convergens affecting the right eye. The internal rectus muscle was divided, and the eyé came into good position; he was directed to apply cold water freely, and present himself for inspection next Monday. Dr. Parker operated for strabismus upon a sister of this boy two weeks ago;—she presented herself before the class to-day;—the operation has proved successful, her eye now being perfectly straight. A small fungus growth has appeared in the situation where the wound was made through the conjunctiva, this the Doctor snipped off with the scissors, and applied stick of nitrate of silver. It will probably give her no farther trouble.

IX. Female, æt. 17 This girl has been laboring under spinal irritation for several months, for which she has been blistered along the spine, and had a seton introduced, but without experiencing much relief. Upon questioning the mother of the girl, we learn that her daughter commenced to menstruate at the age of thirteen years and that her courses are now regular as to the period of their return, but are accompanied by great pain, and that there is a paucity of the discharge. For several years past she has reside in the country and been accustomed to hard work, during which time she never experienced any of this spinal irritation from which she now suffers. Last May she removed to the city, since which time she has been attending school and leading a sedentary life. Upon examination, you will observe that she complains when pressure is made over any point of the spinal column; indeed, by merely passing the fingers lightly along its course, you perceive how she shrinks from the touch. There is no curvature existing, neither is she at all emaciated. She suffers much from palpitation, and complains of cold hands and feet. The tongue is somewhat furred, and the papillæ are very long and prominent, indicating a high degree of nervous excitation.

From the history of the case, and from the examination which we have made, we must conclude that there is no disease existing in the spine, but that this irritation is merely sympathetic, depending upon disease existing in some other organ. The girl evidently affected with dysmenorrhœa, and this irritation is merely sympathetic with that disease. The connection between the uterus and spinal marrow, is established through the medium of those nerves which are of spinal origin, and indirectly through the filaments derived from the sacral ganglia which inosculate with the anterior branches of the sacral nerves.

In the treatmeut of this case, we find that she has experienced but little, if any relief, from the counter irritation which has been employed. *The true way is to treat the disease upon which the irritation depends, and when you have removed the cause the effect will cease. Several years ago it was much the fashion to treat all cases of spinal irritation, by friction along the spine with ung. ant. tart., but this practice is now pretty much abandoned.*

The cold bath, night and morning, would be found serviceable in this case, also the warm douche and friction to the spine. She should be warmly clothed with flannel. The bowels should be kept in a soluble state; leeches applied to the vulva or upon the inside of the thighs. In fact, she should be treated for dysmenorrhœa.

X. Female. This was a case of hard tuberculous swelling upon the calf of the right leg, involving the skin and cellular tissue beneath, which had existed about four years. She was advised to try the emp. hydrarg. ammon. with compress and roller bandage.

NEW METHOD OF FILLING TEETH.—Mix thirteen parts of finely powdered caustic lime, with twelve parts of anhydrous phosphorrc acid. This powder is moist during the mixing, and while in that condition is to be introduced into the decayed tooth.

Dr. Motts Clinical Lecture.

Saturday, Dec. 6, 1845.

Dr. Mott remarked at the commencement of the Lecture, that unless more of his friends came in during its progress, than had yet made their appearance, he should be able to experience the delightful reflection that he had cured them almost all, if it was not the cold weather that had done it. Before the close of the usual hour, however, he had to acknowledge that neither himself nor the cold had cured all the ailing, for a sufficient number came in to supply the occasion with its usual interest.

The first case was that of a woman who has already been several times before the class, and has been meantime subjected to successful treatment for foul ulcers of the nose, and caries of the roof of the mouth from syphilitic disease. Dr. M. remarked that it was a case of never ceasing interest, from various circumstances; among them, from the frequently baffling obstinacy of this disease in its secondary forms, and the variety of treatment which it may require in the different stages of its progress, and for the different success which different practitioners of equal skill, or the same one at different times, will meet with. Thus, one may direct the remedies that are employed as specifics, and which are most relied upon for its cure, when from the action of those remedies, as causes of irritation upou an already debilitated system, the disease is rather aggravated than benefitted, and the general debility is increased. A second practitioner, of no greater skill or ability than the first, when consulted in such a case—and these cases are apt to pass through the hands of a variety of doctors—and learning the history of the case and its previous treatment, advises to omit the medicine that has been used—although it is the remedy of all others—the "Samson" of the Materia Medica—in the control of these diseases, and to resort to tonics; and this change in the course of treatment is followed by immediate amendment. In such a case, by no means an unfrequent one, though they may be equally worthy, the last doctor gets all the credit and the first all the blame; and from such we must learn to shift our course, when any particular one fails of its object, from specifics to tonics and perhaps anodynes, and from these back again to specifics, keeping up the strength and the patience, till time shall have wrought a cure.

II. Girl. Strumous disease of the Meibomian glands, causing the eye lashes to fall off, &c. Dr Mott prescribed an article which he said he would designate by its old familiar name without any chemical elucidation, viz: "tutty," to be applied to the edges of the lids in the form of an ointment, Let the "tutty" be finely pulverized and mixed with spermaceti ointment, two scruples to the half ounce.

III. Man, age 45: has the appearance of being much older. Has two or three abscesses, evidently containing a fluid, upon the chest, probably from the pouting, patulous aputum of an open ulcer there, connected with a portion of dead bone. It has exceedingly the appearance of syphilitic disease, but from his statement with the appearance of honesty that he never had the "disease of gentleman at large," it is concluded to be scrotulous: and it is certain that in some of their forms the fruits of these two *cachexiae* are wonderfully alike. As there is fluid here it should be early discharged by an artificial opening; for if retained it can do no good, and may do harm. He should be put upon a nutritious diet; for I do not believe that strumous disease was ever cured or even benefitted by depletion, or even by the antiphlogistic regimen. For medicine let him have the hydriodate of potass, and yellow dock root tea.

I have alluded to the similarity there is between *struma* and *syphilis;* there is also another disease which is intimately connected with the latter. I mean tne present terrific disease of the East, leprosy. If this is not identical with *lues venerea,* it certainly has a monstrous similarity to it. When travelling in those countries as an invalid, or rather as a convalescent, I was greatly interested in every thing pertaining to the profession, and therefore zealously availed myself of the abundant opportunities which I enjoyed of observing the Grecian leprosy and the Arabian leprosy on their own ground, in Greece and Egypt; and as the result of that observation I have to declare my full conviction of their complete identity. The leprous sore throat has the same character, the ulcers have the same thickened, hardened, and everted edges, as the syphilitic sore throat with which we have to deal, and I must declare myself utterly unable to distinguish between them. The pretended histories of *lues,* assigning to it a comparatively recent origin, are idle tales. I believe it has always existed, and every where, even since the human family peopled the earth. How soon it was introduced after our first parents were driven from their supposed residence in the Garden of Eden, I cannot tell; but I think it may be conclusively shown from the sacred volume itself, that some of the patriarchs, even good old Jacob, if they had not it, at least had something very bad. I look upon it as the great progenitor of all

these forms of disease. They have also in the East along with the leprosy, other and mild—and they are wonderfully mild—forms of syphilitic disease.

4. Little girl. Strumous Conjuuctivitis of several months continuance. The obstinacy of the disease, and the extreme intolerance of light, which causes her to keep her eyes constantly covered, and pertinaciously to resist every attempt to examine them, indicate with sufficient distinctness the character of the disease. It will be the best combatted by remedies addressed to the constitution; for example, two grs. perchloride of mercury dissolved in three ounces tincture of Peruvian bark: dose, a teaspoonful twice or three times a day.

5. Man. Syphilitic *pericranitis:* remedy, hydriodate of potassa.

6. Young man, native of Ireland. Has strumous enlargement of the glands of the neck, which have been three years in progress. Complaints also of difficulty of breathing by turns about an hour every night, loss of appetite, night sweats, and pains in the lower part of his back. He may be considered as a fair candidate for consumption—for strumous disease of the lungs. The pains in the back however indicate a tendency of the disease to locate in that region, in which case it would assume the form of *psoas* or lumbar abscess. The difficulty of breathing, supposing it to be caused by the incipient disease in the psoas muscles, may be explained by the anatomy of relation. Those muscles lie directly upon the *crusa* of the diaphragm. When the latter through its proximity, partakes of the disorder of the former, the function of respiration which is dependant upon it, is necessarily impeded. This case has been treated by cupping and leeches, which were all wrong; he requires tonics, not depletion. Revulsion however, by issues, would be proper; and a course of the hydriodate of potassa, with a view rather to give tone to the system than to operate directly on the disease. As for the tumors on the neck, cover them with a piece of oil silk, and let them alone: it will do injury rather than good to attempt to disperse them; therefore put nothing on, unless you can find a seventh son; let him rub them as much as you please.

7. Girl. Hip-joint disease. Commenced with pain in the knee, which has abated since the hip began to swell, a good illustration of the truth that suppuration, which is now evident by fluctuation, is the most efficient means to relieve the prominent symptoms, and the same holds true whether the suppuration be natural or artificial. The case has been neglected, it is now in the second stage, and has not been medically treated at all. Revulsion would now do no good, for the suppuration which that measure is designed to divert from within outwards, has already taken place in the joint, and its progress cannot now be arrested. All that we can do at present is to support her strength, and let the process go on. Give her plenty of food and that which is good, and the following medicine: Super sulpbate of quinine one drachm, aromatic sulphuric acid two drachms, water or ginger syrup two ounces. Take a teaspoonful twice a day.

8. Young man. Palsey of the left wrist from lead. Has had lead cholic three times, and now exhibits the blue line on the gums—the recently discovered symptom of this disease. We will try Dr. Pemberton's plan of support by means of splints, and at the same time rub the palsied muscles with an ointment of strychnine ten grs. to the ounce, and administer the same remedy in doses of one twelfth of a grain internally.

9. Man. Syphilitic and varicose ulceration of the leg. Directed to be treated with the yellow wash externally, and the hydriodate of potassa internally, and to abstain from intoxicating liquors.

10. Girl. Tonsils very much enlarged. One of them was removed by the bistonry, which, Dr. M. remarked, was the quickest and best mode of operation in adults and in children who are large enough to hold still. In smaller children, an instrument devised for the purpose, and so contrived as not to inflict any wounds in consequence of their struggles, must be employed. Such an instrument—the invention of a surgical instrument maker of this city, in all respects very well got up—I now exhibit before you; but, I must say, that an operation performed with any instrument of this kind will be very likely to prove an unsatisfactory one. In operating with the bistonry, care must be taken not to cut too deep: the carotid artery lies close on the outer side of the gland, and I have heard of its having been cut. The gland must be well pulled out from the *pharynx* while it is cut.

12. Man. Lost one eye seven years ago, from a blow with a pound weight. The sight of the remaining eye began to fail about two years since, and is now lost for all valuable purposes. The peculiar features principally to be noticed are, that the pupil is small and irregular; the cornea is preternaturally convex, and he has a good deal of headache and dizziness. On the whole, it is a very unpromising case Insert an issue in the back of the neck.

13. Girl. Nebulosity of the cornea. She has been here before, and, as directed then,

has applied molasses to the eye, from which she has derived benefit. The direction is, to go on with the treatment—a very sweet case. Molasses, used in this way, in slight opacities of the cornea, is often attended with decided benefit. and I had rather trust to it than to the nitrate of silver. Let a single drop be put into the outer canthus of the eye, morning and evening.

14. Infant. *Pemphigus.* First appeared two weeks since. Make no external application whatever, but give internally one twenty-fourth of a grain of the perchloride of mercury in tincture of bark, twice a day.

15. Man. An anomalous state of the elbow joint, the result of injury, in which he is unable to rotate the hand, or to flex or extend the fore arm, except to a very limited extent As it was not ascertained what the precise difficulty was, no remedy was proposed but the using the arm actively, laboriously and perseveringly.

Dr. Parker's Clinical Lecture.

Monday, Dec. 8th, 1845.

1. Man. Age 26 years. Had a small abscess gather and break on the inside of the cheek six months ago. gradually extending downwards to the corner of the mouth, and involving the lips, particularly the upper one, which is much thickened and has several ulcers upon it, of a phagadunic character—The disease was preceded by no injury that he recollects, and his health was previously good. He has been treated with Sarsaparilla, and locally the caustic potash. The edges of the ulcers are hard, irregular, and everted; attended with no pain in the part itself but excessive pain in the region of the temple and side of the face, sympathetic, from the implication of some branches of the fifth pair of nerves in the disease. Now we have to determine the character of the disease, both with reference to the treatment and to the prognosis. The lip may be the seat of either of the following; cancer, lupus, scrofula, syphilis and *noli-me-tangere;* one of these it must be; let us see which. In cancer, the most dreaded and the most formidable of them, there is a burning, stinging pain, which he has not experienced; the lymphatic glands in the vicinity are enlarged, but here they are not; it makes its appearance at a more advanced period of life, at 40, 50, or 70 years, and seldom or never so early as thirty. The probability is then that it is not cancerous. It has not the scabby appearance of *lupus*, and moreover, parts that were destroyed by the caustic have been restored. He has not the slightest taint of syphilis, so far as can be discovered, nor have the ulcers the syphilitic character. In *noli-me-tangere*, as its name implies, there is very great sensibility, which is wanting here. The conclusion is forced upon us then that it must be scrofulous, for that alone remains. Why scrofula should fix upon this particular part, and develope itself in this manner, I confess myself unable to say; we have the fact before us. It is better to have this than cancer, and it is worthy of note that the two never co-exist; a person cannot have both; the patient who is suffering from either one of them is bullet-proof against the other. It should be treated with the wood decoctions and small doses of the puchloride of mercury or hydriodate of potash, and locally with superficial scarifications.

2. Man: here last week with inflammation of the wrist; has since been in the care of one of the class. The limb was scarified, and pouliticed; the patient himself subjected to the anti-phlogistic regimen, low diet, &c., and this treatment has been attended with very great improvement. It should now be showered with warm water morning and evening, and rubbed with a liniment of soap, opium, spirits of turpentine and origanum. It should also be kept at rest for a fortnight longer.

3. Boy—Enlarged tonsils removed.

4. A Man, aged 33 years—Complete amaurosis of the right eye, and obscuration of the left, proceeding from suppuration of the *anteum highmorianum*, states that he had bad cholic, from working in white lead mills two years: that he then took a good deal of medicine, had his mouth made sore, and his teeth loose. He recovered his health and continued well till last April, when he took a severe cold in the head, which settled principally in the right side. This was followed by a severe pain in his teeth and gums, and extending thence to all that side of the head, leaving the left side entirely free. It was a beating pain, and was particularly severe at night. In May he had two teeth extracted which were loose, but perfectly sound, without relief, since that time, two more. The eye began to be affected about three months since, with an obscurity of the vision which steadily increased till he became entirely blind. The left eye began to be affected in the same way six weeks since. Two weeks since an opening was made into the cavity by Dr. Wallace, and a large quantity of fetid purulent matter discharged, with immediate relief. Matter continues to be discharged through the opening which is maintained for that purpose, and through the adjoining nostril. He continues to have pain in the head and occasionally has had deep-seated pain in

the eye, and the visual sense of clouds floating before it. The treatment has been syringing the cavity daily with soap and water, and every other day with nitrate of silver; and the eye plied with aconitine. The treatment is judicious, let it be continued. There is some hope to be entertained of the restoration of the sight.

5. Young woman. Epiphorce. She received a blow upon the cheek bone last April, which is the only cause she can assign to the complaint. Probably the increased secretion of tears is the result of sympathy of those branches of the fifth nerve distributed upon the eye, with those upon the part which received the injury. There is no appearance of fistula lachrymalis, except the flow of tears upon the cheek, from which it would be very likely to be pronounced that disease. No operation is required. Electricity, or showering with cold water would probably benefit by strengthening the debilitated nerves. The veratime ointment would also be useful.

7. Woman. aged 70 years. Came here three weeks ago with two large wens upon the head, one of which had ulcerated, and wore the appearance of a large rose cancer, or bloody *fungus*—that has been removed by ligature. The other remains to be removed by the knife. It is to be especially remarked that the scalp will not yield, like the skin of other parts of the body, so as to supply the place of any that has been removed. Another consideration of general application and of great importance, is to be noted in regard to encysted tumours; that every portion of their sac must be removed, or the reputation of the operator will suffer.

THE DISSECTOR.

JANUARY 1, 1846.

MEDICAL SCIENCE IN NEW YORK.

We publish in this number of our Journal several of the recent Clinical Lectures of Professor MOTT, at the University Medical College, and of Professor PARKER, at the Old Medical College, because they afford as full and fair a view of the theory and practice taught in these schools, especially in chronic diseases, as can probably be presented within a compendious compass.

The first point in them that will strike a reader of this Journal, protrudes very prominently in the lecture of Professor Parker, delivered November 24th, commencing page 41, being the 9th case—that of a female aged 17. It is first gravely described as a case of "spinal irritation," with the latitudinarianism of which favorite and convenient but unmeaning phrase, our readers are too familiar not to be highly amused. But it appears very speedily, from the Professor's own showing and admissions, to have been an organic disease of which the tenderness along the spine was merely symptomatic and indicative. Nevertheless this poor girl had been blistered and cupped and setoned along the spine, as all others have been and still are, under the old practice and theory. What then led this astute and learned Professor to discover, in advance of the whole array of the profession, from the examination which he had made, and which merely consisted in detecting a general irritation along the spine, that "there is no disease existing along the spine, but that this irritation is merely sympathetic, and dependent upon disease existing in some other organ?" What led him to arrive at so novel a conclusion, and one not only palpably a *non sequitur* from the facts as stated, but flatly opposite to the whole theory and practice of his predecessors and contemporaries? We are somewhat curious to know what would be his honest answer to this plain question. Certainly he has afforded us no clue to it, in stating, as he subsequently does, that "the connection between the uterus and spinal marrow is established through the medium of those nerves which are of spinal origin, and indirectly through the filaments derived from the sacral ganglia which inosculate with the anterior branches of the sacral nerves:" for this single fact is not better known or received by the profession in general, than the foregone conclusion which this admission evidently involves, of the existence of a similar connection between *all* the organs, inclusive of the muscles, and the ganglia of the posterior spinal nerves. What then becomes of the present theory and practice? And again we ask how comes Professor Parker in possession of such an immensity of superior illumination? But for the modesty to be sacrificed in such a solution, we might, to be sure, explain the whole mystery by merely adverting to the

notorious fact that this is the doctrine which we have published, and the one upon which we have practiced for the last thirty years—during the last ten of which, under the very noses of those professors, in this city.

Now we presume that Professor Parker, even under the zeal of a new convert, would scarcely claim a connection between the uterus and the ganglia of the dorsal or cervical vertebræ, but would very properly rest content with the irritation of the ganglia of the lumbar, or what he is pleased to call the sacral vertebræ, as indicative of uterine disease. What then becomes of the irritation which he describes as existing, in this case, along the whole extent of the spinal column? What was the meaning of all this? If the irritation of the lumbar ganglia were indicative of uterine disease, of what was the irritation of the dorsal, and the cervical ganglia indicative? Taking the statement as strictly correct, that the patient "complained when pressure was made over any point of the spinal column;" indeed, that she shrunk from the touch even when the fingers were passed lightly along its course—we are forced to the conclusion that all the organs of this patient were more or less diseased, including the muscles. Making all allowance, however, for a probably hasty and imperfect examination of all the ganglia in regular and distinctive order, we may safely conclude, from this general account of the case, that organic disease prevailed extensively, and was by no means limited to the uterus, and dysmenorrhœa. Indeed, from the palpitation mentioned, and the coldness of the hands and feet, it is evident that the heart was affected as well as the muscles. In short, from the statement before us, it admits of no doubt that the case was one of *tuberculosis*, or tubercular disease, in which all the organs, as well as the muscles, were more or less involved.

Thus much for the theory, and now for the practice of Professor Parker, in cases of this kind. He says, "In the treatment of this case, we find that she has experienced but little if any relief from the counter irritation which has been employed." Of course not; but he ought to have added, from his own observation, that such cruel and barbarous applications invariably tend to prostrate the nervous energy of those on whom they are inflicted, and ultimately to aggravate the disease. He pithily proceeds to say, that "the true way is to treat the disease *upon which the irritation depends*, and when you have removed the cause the effect will cease." We refrain, for a moment, from adverting to the treatment by which he proposes to accomplish this most laudable object, to quote his very noticeable remark given in connection with the above oracular maxim.

It is this—"Several years ago it was much the *fashion* to treat all cases of spinal irritation by friction along the spine with *ung. ant. tart.* but this practice is now pretty much abandoned." Now, we must take the liberty to say that we consider this one of the severest thrusts at the profession in general, and at Professor Mott in particular, that could have been dealt by any hand, however hostile. Upon Dr. Mott it is like the poignard of Brutus, for in the lecture of this celebrated Professor, delivered at the University September 6, which we give at page 35, there is a case exactly similar to the one which called forth Professor Parker's fratricidal steel, in which Dr. Mott directly recommends precisely the very treatment which Dr. Parker condemns—condemns! do we say?—nay, worse than that pronounces *unfashionable!* What! is it come to this? Dr. Mott an *unfashionable* physician?

Amissa pudicitia, quid erit salvum mulieri!

Dr. Mott briefly describes the case as one "which seemed to partake more of spinal irritation than any thing else, although the diagnosis was rather obscure. Recommended *counter irritants* to the spine."

We leave these learned gentlemen to settle this dispute about the fashions between themselves; but we think it due to Professor Parker to say, that, whencesoever he may have derived his new light upon this important subject, and however ungenerous and disingenuous we may deem his neglect to acknowledge its true source, we think him entitled to great commendation and encouragement for the moral courage he has displayed

in promulgating so vitally momentous a doctrine, in the midst of so high and so highly prejudiced a medical school. It is at the same time equally due to others to state that he is not the first among the medical Professors of this country who have shown an exalted intrepidity in this matter; many distinguished medical men in this and other states having for some time past openly adopted both the doctrine and treatment which, for many years, was advocated and practiced exclusively by the conductor of this Journal. In fact the Professors have been driven rather than led into these reluctant admissions and avowals, by the numerous examples which have arisen around them, in an attitude bordering upon derision.

By way of an amusing conclusion to this too serious commentary, we must not omit to mention Professor Parker's proclaimed treatment of the case upon which we have remarked. The readers of the lecture will perceive that it is limited to bathing, friction, flannel, and the application of leeches! The habitual readers of this Journal, however, are too well instructed upon this subject not to know that such treatment of this or of any other of the cases of *tuberculosis* occurring in these lectures, must be utterly futile, and that the patients must inevitably go to their graves unless the appropriate remedies for tubercular disease are applied.

"BEHIND THE AGE."

The students of Medicine who come to this city, from all parts of the Union, to pursue their studies in our Medical Colleges, have an undoubted and reasonable right to expect from their Professors and Lecturers, such information concerning the progress of medical science and discovery as will at least enable them to keep pace, in the general march of intelligence, with unprofessional readers of medical literature. Otherwise, on their visits to home in vacation, they are very likely to find their fathers and brothers, and perchance even their mothers and sisters, much better informed on such matters than themselves. How far this is likely to be the case under the inveterately conservative system of instruction still predominant in our medical schools, may be judged from the following example, quoted from Professor Parker's Lecture at the Old Medical College, December 8th, which we publish at page 43. Speaking of a case of *tuberculosis*, manifesting itself in a scrofulous tumefaction of the upper lip, he reiterates the following venerable but decrepid dogma:

"It is better to have this than Cancer, and it is worthy of note that *the two never coexist*; a person cannot have both; the patient who is suffering from either one of these is bullet proof against the other."

It is unnecessary to say how perniciously delusive this maxim may become among medical students, in case it be falacious and contrary to fact; and it requires but a brief notice to prove that it is as erroneous as any one of the thousand other absolute *dicta* of medical authorities long since exploded.

In the course of our own practice, we have found scrofula and cancer to co-exist, in the same person, in a great number of palpable and unequivocal cases; and we challenge the projection of any rational theory why both may not exist at the same time. But besides our own repeated observations of the stubborn fact, we have that of LIBERT, in *Mullers Archives*, Nos. 2 and 3, 1844, as quoted in a late number of the *London Lancet*, in the April number of this Journal, (page 92,) and in various other works. LIBERT there says, "Tubercles and cancer *do not exclude one another*, or even interfere with their separate march. Both morbid processes can, at the same, run through their stages of development in the same person."

In further evidence of the vulnerability of Professor Parker's "bullet-proof" protection, we beg to refer the reader to the article "On the Coincidence of Tubercle and Cancer," page 27 of this number of the *Dissector*, which we quote from the *Allgeimeine Zeitung fur chirurgie*. No. 51, 1844.

In truth it has *long been* the doctrine of the ablest medical men of this country, if not of Europe, that scrofula and cancer may and do co-exist, as now asserted and proved by these eminent German authorities. In our work on the "Motive Power of the Human

System," 8th edition, page 87, (Wiley and Putnam, N. Y,) the reader will find a case, strictly similar to the one adduced by Professor Parker, which occurred in our own practice so early as the year 1817, and in which the knife was about to be applied. We shall be excused for republishing it here, because it is directly pertinent to the question which Professor Parker has revived, and calculated to be useful to patients similarly affected:—

Cancer of the Lip.

Miss M. H——, of ——, aged 17 years. Called early in the morning to see her, in April, 1817; and was requested to examine her under lip, which was swollen and ulcerated, and to give my opinion of its character, and after examining it and the lymphatic glands of the neck, which were tuberculated on both sides, I pronounced it a case of scrofulous cancer. I was then requested to say whether I "could cure it without cutting it out," and readily answered in the affirmative, and was then told by the female attendant, that, that was all they wanted of me, and that I was at liberty to return home as soon as I pleased. Accordingly I bade her good morning, and returned home, perfectly in the dark, however, as regarded what was meant by this quixotic adventure. The next day, I was called again, and informed, in explanation, that a celebrated surgeon had been attending the patient about two months, and as the lip continued to get worse, and had become very painful, he had advised them, a few days before, of the futility of all remedies, but the knife, and had set the time of ten o'clock of the day before to perform the operation; but they had dismissed him, and sent for me to perform the cure without it.

She was of the middling size, light and ruddy complexion, eyes rather large and prominent, and form of face approaching that of the Roman, and with perfect symmetry of body and limbs, was what may be called a scrofulous beauty, bating only this horrible lip. Prescribed, magnetic pills and plaster. In five weeks from this time the cure was perfect, and the tuberculated glands in the neck had gradually become smaller, and soon after disappeared.

This case, and the following one of the uterus, were apparently cases of scrofulous cancer. I have had a few other cases of the lip of the same character, and many of a similar nature, affecting the uterus, which were cured with these remedies, but which have apparently little or no effect on the disease in this form, when affecting any other part of the body. I have imputed their effects, in the cases of the lip and uterus, to the strong power of contraction which they possess, from the fact that the same results are obtained in cases where strong compression can be applied at the same time as in the case given of Mrs. H., of Union, Butler Co., Ohio.

The case here referred to is the following:

Tubercula of the Uterus, terminating in Cancer.

Menorhagia terminating in Cancer.

Miss P. F——, of ——, of full habit and light complexion, aged 22 years; called to see her, May 16, 1812. She has menorrhagia, which commenced four months ago. I prescribed the usual remedies for many months, during which time, as before, she had been constantly confined to her bed: but all to no purpose, and it now became necessary to abandon the patient or commence a new treatment.

She had from the first complained much of pain and weakness in the small of the back; which was attended with leucorrhœa I proposed now to examine her back, and applied pressure on and around the lumbar vertebræ, and this produced violent pain, which, on every repetition of the pressure, darted into the uterus, and they appeared to be the same darting pains we find in cancer of the breast.

I now prescribed the magnetic pills and plaster. The plaster over the small of the back, or lumbar vertebræ, with injections into the uterus of a strong solution of acetate of iron, by means of a catheter and small pointed syringe.

Her symptoms began to improve slowly from this time, and in about three months, a very thick membrane separated from the inside of the uterus, and was discharged from it, rolled up—round—half an inch in diameter, and two inches in length, which was presented to me in a paper, and on unrolling and spreading it out on a stand, it presented two tumors or bunches, of dark colored fungi near the middle or centre of it,—one of which was near the size and shape of a pea, and flattened on the sides that adhered to the membrane, and at a distance from each other of half an inch.

These fungi were on the outside of the membrane, or that next the uterus, and adhered to and sunk deeply into it; and there arose out of their tops and sides small white or light colored substances of the size and appearance of small threads, and from a line to a fourth of an inch in length. On examining the other side of this membrane, small holes or chinks were found opposite to these fungi.

In a few weeks after this, her health was restored. She married about a year after, but has had no children.

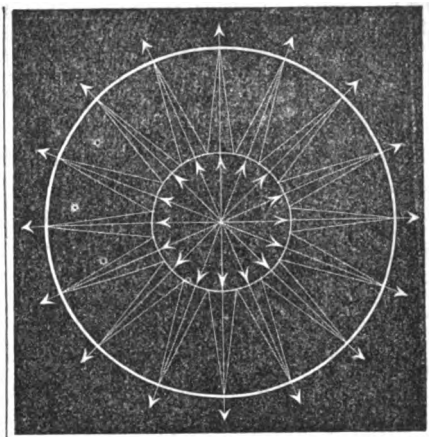
"MAGNETIC SLEEP."

Among the extraordinary phenomena of magnetic sleep, is the insensibility of the skin, or external surface of the body, and the establishment and exaltation of sensibility in the mucous or internal surfaces, in which the natural order of the magnetism of the human system is reversed.

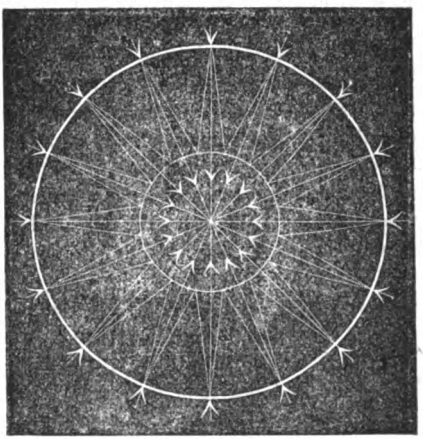
A solution of these phenomena is found in the fact, that, in the natural state, the skin or external surface of the body, as well as the external surfaces of the organs and facia of the muscles, excrete a serous or negative matter that gives out the positive force which attracts and contracts, and is consequently endowed with sensation; while the mucous or internal surfaces of these structures excrete a mucous or positive matter that gives out the negative force which repels and expands, and is consequently destitute of sensation.

Now the magnetiser reverses this order unconsciously, in the process of magnetising, by repelling the positive forces from the surface to the centre, and attracting the negative forces to the surface, and this reversal of the order of the magnetism of bodies is according to a law of these forces, and is therefore founded in nature and easily imitated.

If a round iron or steel plate, or disk, with a hole in the centre, representing a middle horizontal section of the body. is placed on the positive pole of a Galvanic Battery, under a moderate power, it presents the phenomena represented in the following figure



or a negative internal and a positive external surface; but if we now place the plate on the negative pole of the same battery, the order of the magnetism of the plate will be reversed as represented in this figure.



showing in the first figure the natural order of the magnetism of the body, and in the second, the induced order, in the magnetic sleep.

PARALYSIS IN MAGNETIC SLEEP.

On a Sunday evening in August last, a young woman, named Emma W——, about 24 years of age, who had long been a Clairvoyant, and who had at length acquired the power of putting herself into the magnetic sleep, without the aid of a magnetizer, was at the office of the Editor of this work, during his absence on professional duties, await-

ing his return. A friend of his who was also staying to see him, thinking this a good opportunity to elicit the phenomena of clairvoyance with less liability of interruption than might have been afforded on a business day, requested the lady to put herself into that state, and inform him concerning the nature of the luminous atmosphere, spots, and opaque body of the sun. She replied that she feared it was rather a dangerous experiment, and had heard of several clairvoyants who had suffered severely in attempting it. She nevertheless consented, saying that she would endeavor not to venture too far.

In the course of five or six minutes, she manifested all the usual symptoms of a complete magnetic sleep, and apprised her interrogator, with some slight degree of irresolution, that she was ready to attempt an inspection of the solar orb. Shortly afterwards, she evinced a highly nervous shrinking, as if from a sense of awe, and said, in answer to an enquiry, that she felt the solar influence to be too powerful for her to persist, and was afraid she would lose her senses—in her own words, she feared "that her whole mind would be consumed." She was accordingly requested to venture no farther, but remain if possible, in the position she had acquired, and describe what she saw. She then said that she had now a view of the dark body of the sun—that it was black, but highly lustrous, like "black shining melted metal;" she was confident it was highly metallic, though she could look at it no longer, as it was again closing up in a degree of brightness which she could not endure.

Whilst obtaining these answers, the gentleman in communication with her, perceived that her left arm was greatly paralyzed, and the hand became so tightly clinched that he could with difficulty rescue his fingers from the painful grasp. Speedily she announced that she was absolutely paralyzed on the whole of her left side, and was fearful that she would be convulsed all over. She added that "if she had continued so near the sun a minute longer, the influence would have killed her;" and, as it was, she knew not how she could recover from the convulsions she felt approaching, unless some powerful magnetizer could be obtained to awaken her. Shortly after this, her convulsions became so violent and alarming as to induce the gentleman who was with her to call for assistance to hold her in the chair. She became unable to speak or hear; she breathed only at long intervals and with great labor; her right hand was kept so forcibly on her heart that it could not be moved with the united strength of two or three persons; and the action of the heart itself seemed to be almost entirely suspended. The pulse were frightfully intermittent, and, for long intervals, wholly imperceptible; the eyes were open, with the pupils half buried beneath the lower lids, and greatly dilated.

In this state, varied only by convulsive paroxysms of greater or less intensity, she continued nearly four hours, when the writer, who had been detained much beyond his usual time, returned. He found her surrounded by his family and medical assistants, together with a magnetizer and a male clairvoyant who had been sent for to relieve her. Their efforts, however, had produced only slight and transient effects in mitigating her condition, and the writer judged it proper to attempt to establish a communication with her, as the only means of awakening her, and with this view commenced making the long magnetic passes, and then reversed them. The effect of these was very striking, even from the first: producing sudden starts, followed by greater freedom of respiration, and some degree of relaxation of the muscles. The male clairvoyant present being in a magnetic state, recommended that as soon as her arms became sufficiently relaxed, her hands should be kept in a basin of cold water, and the passes continued; adding that, under this process she would awake in twenty-five minutes, although it would require a much longer time for her to recover from what he described as her "rash attempt," the effects of which upon her brain and nervous system he minutely and lucidly described.

As soon as her hands could be placed in the water, several watches were observed, and the assigned twenty-five-minutes curiously awaited by the spectators. Precise-

ly at the end of this period, she awoke and spoke, her whole left side, however, which had first been attacked, still remaining perfectly paralyzed, not excepting even the left arm which had been so directed as to reach the basin of water. To remove this state of paralysis, the writer found it necessary to resort to the Magnetic Machine. It was used three times a day, and on the third day the paralysis disappeared, and she was able to return to her home.

We publish this case as a caution to magnetizers and clairvoyants against gratifying the curiosity, so frequently evinced by persons ignorant of the dangerous nature of the experiment, of instituting clairvoyant explorations of the sun. This is but one out of many well authenticated instances which we might report, in which the attempt has nearly proved fatal. The planets, however, may be, and frequently are examined by good clairvoyants, with perfect safety and success.

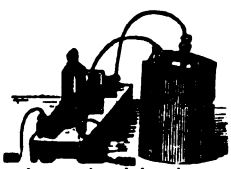
A Word on Magnetic Machines.

The Magnetic Machines first generally introduced among the medical profession in this country, accompanied with careful directions for their use in a scientific and effectual manner, were manufactured under the inspection of the editor of this Journal, and those directions were in accordance with personal observations and experiments, made in the course of an extensive and various practice. We were induced to commence the manufacture of them, not only because we saw that we could make those improvements in their construction and efficiency which we have introduced, and by which our instruments immediately became strikingly distinguished, but also because we deeply felt the importance of the consideration that those who might be induced to try this new curative influence, and, among these, medical men in particular, shou'd be in possession of an instrument upon which they could rely, and not become discouraged or prejudiced with regard to the influence itself, on account of the defectiveness or inadequacy of the machinery employed.

We soon had the happiness to observe that the improved machines of our own manufacture, accompanied by a Manual of Directions for Use, gave great satisfaction, and accomplished our highest expectations, both in professional and domestic practice.

Their superiority and efficiency, however, soon incited a host of merely mercenary imitators, and a multitude of miserable imitations, the distribution of which, unaccompanied by experienced and scientific instructions, has already caused great disappointment, and thus, to a certain extent, superinduced the very mischief which it was our first and strongest motive to prevent. We are thus compelled, in self-defence, as well as in defence of a source of human relief and health, demonstrably of inestimable value, to continue the manufacture of our own instruments, and to caution the public against the worthless imitations to which we have referred, and the unscrupulous quackery with which they are accompanied. One of the most barefaced (though not on that account the most pernicious) of these examples, is the following, which we copy from a Philadelphia paper:—

Professor Grant's Premium Electro Magnetic Machines.



These Machines have this year obtained the HIGHEST PREMIUM awarded to Electro Magnetic Machines, at the Fair of the Franklin Institute; and to show that this award is a test of the high merit of these Machines, it may be mentioned that there were placed in competition with them the First Premium Machines by Dr. Smith, recently from the Fair of the American Institute in New York, which there took the Premium over Sherwood's, Pike's, and others, and also Machines from the best manufacturers in Philadelphia.

The peculiar merit of these Machines, consists in the intensity of the Electro Magnetic current exhibited. That this intensity is a quality essential to the utility of the Machine, may be proved by the fact that more cures have been accomplished by these instruments, than by all other Machines conjointly.

More than four hundred references and certificates of cures performed within the past year, can be produced, where cures have been accomplished by these Machines, when all other medical appliances have utterly failed. All kinds of Chronic Diseases are removed by these applications, when perseveringly continued. Every Physician should be supplied with one, and also every Family, who wish to avail themselves of this invaluable specific for all the ills that flesh is heir to.

They are put up in neat mahogany boxes, at a price varying from $10 to $15. The $10 Machines are warranted to act as efficiently as those sold elsewhere at $15. They may be obtained at JOHN C. FARR'S Jewelry Establishment, No 112 Chesnut street, Philadelphia, and at the Manufactory of MR. BRIGHAM, fourth story of the same building. Sole Agents and Manufacturers for the United States.

☞ They will be sent for a cash order to any part of the World, neatly packed up, and accompanied by a pamphlet, with full directions for their use.

It is here most impudently asserted that "Sherwood's," meaning our Magnetic Machine, was placed in competition with those of Mr. (not Dr.) Smith, and Mr. Pike, at the late Fair of the American Institute of this city; and that as the said Mr. Smith's Machine took the First Premium over ours and Mr. Pike's, on that occasion, so this Professor Grant's Machine took the First Premium over all, at the subsequent Fair of the Franklin Institute, in Philadelphia. It is unfortunate for this arrant climax of pretension that it rests entirely upon an unscrupulous falsehood: the exposure of which, must throw the whole fabric to the ground. No machine of ours was at that Fair of the American Institute; and consequently no other took the Premium over it. We are content that it should continue to be considered as the best by the medical profession, who are the best judges, and have never sought to endow it with a factitious and mere clap-trap notoriety. We are thoroughly acquainted with the several machines of Messrs. Smith and Pike, and also with this boasted one of Grant's; and have not a moment's hesitation in saying that either of the two former is infinitely superior to the latter—although inferior to our own. It will be seen, that the above advertisement, claims it as the "peculiar merit" of Grant's Machine that it exhibits a greater intensity of power: and this merit will certainly appear to be "very peculiar" when we state that two of these self-same machines have been sent to *us*, direct from Philadelphia to *increase* their power, and to substitute our metallic buttons for the sponges with which the forces of this kind of machine are applied. One of these machines, in fact, is now in our office, and open for comparative inspection and trial.

And here we deem it proper to remark, in reference to this machine of Grant's, and to all others in which sponges are used instead of metallic buttons, that the sponge is highly objectionable on account of its evident liability to communicate disease from one patient to another, and from one part of the body to another. It is evident that a moist sponge, under any circumstances, after being used on a sore, or any diseased part, is well calculated to convey disease from part to part, or person to person; and that this liability is greatly enhanced by its connexion with a magnetic wire, and the forces which pass through it, is but too obvious It is well known that water is one of the best conductors of these forces, and that the sensible power of the machine is greatly increased by the medium of a wet sponge; hence the use of this material, and hence also the opportunity afforded of passing off machines of really inferior power and cost of manufacture as equal or superior to others of incomparably greater real force and substantial value. If a patient, under any peculiar fancy, should wish to try how much of the sensible force of a machine he can bear, he can readily be accommodated, if not exactly gratified, by wetting the metallic buttons, or the part to which they are applied, with pure water, and thus dispense with the offensive and very possibly dangerous use of the sponge; besides avoiding the imposition upon himself of a bad Magnetic *Machine* for a good one.

New Discovery in Medicine.

The newspapers have given, within the last few days, some eloquent descriptions of a new and wonderful medicine, invented or discovered by an Italian chemist, and called after his name. If all the accounts are correct which have been given of this new discovery, it is a perfect philosopher's stone—the long looked for elixir of life.

According to these accounts, this newly discovered medicine consists of a liquid extracted from vegetable products, which, being applied to wounds or cuts, even of the carotid artery, causes an immediate suspension of hemorrhage, and heals the parts in a few minutes. It is said to be a perfect cure for all sorts of disorders, from the beginning of the alphabet to the end. The accounts given of experiments made in Paris, before the whole circle of physicians and surgeons there, are of a remarkable character. These experiments were made upon certain innocent sheep, whose throats were inhumanly cut to test the efficacy of the medicine, and were probably afterwards eaten, as very good mutton, by those who made the experiments.

The first account of this extraordinary discovery in the art of healing, has been given to the world by a certain Chevalier attached to the French newspaper published in this city. Whether he is a lineal descendant of Baron Munchausen we do not know; but certainly the story looks very much like it. The famous Moon hoax was not more improbable than this story of the *Eau Brochieri.*—*New-York Herald, January* 6, 1846.

REVIEWS.

Animal Chemistry, or Organic Chemistry in its application to Physiology and Pathology. By JUSTUS LIEBIG, M.D. &c. London: Taylor and Watson, 1842, pp. 354.

The positionwhich Liebig now holds as a European chemist may certainly be said to be the highest; even Sir Humphrey Davy, lauded and caressed as he was on all sides, did not enjoy a greater share of popularity with scientific men in general, and more particularly with the public in this country, than does the present Professor of Chemistry in a hitherto obscure German university. Nor will this be wondered at, if we look back upon the history of this extraordinary man. Whilst yet a youth of nineteen years of age, he published his paper on the Cyanic and Fulminic Acids, a work which bore upon it the stamp of genius, and proved incontestably that the author was then not only a good practical chemist, but also endowed with great acumen and uncommon powers of analysis. From that time until the present, he has never ceased to pursue his researches with most praiseworthy zeal, and year after year, nay, month after month, has borne testimony to the successful research and patient industry of our author. His papers, several of them written in conjunction with Wohler, merit the highest praise We need only mention his celebrated one on the radical of the oil of bitter almonds, to remind our chemical readers of the impulse given to the investigation of the compound radicals by its publication, which indeed now bears its fruit by the hands of previously eminent chemists, and of others formerly unknown to science, but who now, reared in the school of Giessen, enjoy a reputation more than respectable, amongst the cultivators of the science of chemistry. The work now before us has been in the hands of our readers for a considerable time, and none, we may safely say, of modern authorship has produced a more vivid excitement in the scientific world. Its publication has effected immense good, by directing the attention of medical men, previously too little devoted to chemistry, to a careful study of that science. Medical journals, which ten years ago teemed with papers the most puerile, and which often indicated the grossest ignorance of chemistry, are now, following the general rule of running into extremes, filled with papers so *recherche*, that we have chemical explanations not only of the processes through which the aliment we swallow passes, but even of the action of the condiments and medicinal substances consumed along with it,—the whole confirmed by a chemical analysis, of course not to be disputed, of *tenths of grains*, and of the ratio that the constituents of these bear to some important secretion weighing *ounces!*

These are circumstances that give us infinite pleasure; and we sincerely trust that the authors of these multifarious papers will hold us in no disesteem, if, in the course of the following remarks, which our duty, as journalists, compel us to make on the work of their master, we should appear to hold a doubtful opinion as to the merits, importance, and even scientific truth of what he and they have asserted. The consideration of the organic chemistry is, however, to be approached in no light spirit, but merits our attentive perusal and careful examination. Some of the doctrines enumerated by Liebig and his disciples are so startling, and are apparently supported by facts so incontrovertible, that the whole work wears an air of plausibility, and engages the attention by a pleasing simplicity of arrangement, which must prove exceedingly captivating to all who are desirous of information on the chemistry of physiology. It is not our intention to attempt a minute critique on the whole work of the author, as, to do justice, in all its details, to a subject of this nature, would require a space which our limits cannot allow We would, however, as much as possible direct the attention of our readers to those parts of it most intimately connected with medicine; and as these, if not entirely new, are at least for the first time brought forward in a formal manner, they are well deserving of it.

The organic chemistry is divided into three parts,—the *first*, is devoted to the examination of the chemistry of nutrition;—the *second*, to the subject of the metamorphosis of the tissues;--and the *third*, to the phenomena of motion, &c. The first part commences with some very judicious remarks on the subject of vitality; but at the second page we find a statement which we cannot conceive to express well what the author means. It runs thus;—"The animal organism requires, for its support and development, highly organized atoms." This is a very loose and inaccurate manner of saying that animals require for nutrition a more complex class of chemical compounds than those formed by the ordinary inorganic reactions. We may infer from this, and many similar oversights, that Liebig has not very clear notions of the terms of vitality and life; for a few pages farther on, we find expressions which plainly show that these are, in his opinion, identical. P. 11:—"Certain phenomena of motion and activity," says he, "are perceived; and these we call life or vitality." This, we confess, appears

to us to sound rather contradictory when placed in juxtaposition with the first sentence in the book, where vitality is distinctly stated to be the force which, acted on by external stimuli, produces the above described phenomena of motion. We find, in the succeeding pages, some interesting general remarks on the proportion of oxygen consumed at different temperatures, and on the necessity of an increased amount of carbonaceous aliments at low degrees of heat; with illustrations from the fact, that natives of northern districts can consume with impunity much larger quantities of flesh and stimulating drinks, than inhabitants of the tropics. Without denying, *in toto*, what Liebig has said on this subject, we would merely throw out a hint as to how far these so called carbonaceous articles of diet of northern people do act in the manner he describes; and would ask, whether the desire for such food is not to be ascribed as much to its stimulating nature, as to its merely chemical constitution? Can here be any doubt that the natives of India, tthrive well on a most carbonaceous diet whilst European residents die from various causes, and amongst them, from the abuse of highly azotized and stimulating articles of aliment? It requires that a person should have seen but once the enormous quantity of rice and *ghee* consumed by a Hindoo at a single meal, to satisfy himself, that the conclusions of our author, however plausible they may appear, are still to be received with caution. The experiments of Pepys, made many years ago, were conclusive to the point, that the same person under the influence of intoxicating liquors, exhaled less carbonic acid than when not subjected to it,—a fesult directly the reverse of what we should, according to our author's views, have expected to take place. In stating this, however, we quite agree with the general conclusion to which he has come, that there is no support to the opinion that there exists in the animal body any other unknown source of heat, besides the mutual chemical action between the element of the food and the oxygen of the air.

Glancing hurriedly at the many topics which engage the attention of our author in this the first part of his work, we have only space to call attention to some statements more marked than others; and we cannot pass over the one at p. 39, without expressing our doubt of its correctness. "Exercise and labour," says he, "cause a diminution in the quantity of the menstrual discharge; and when it is suppressed in consequence of disease, the vegetative life is manifested in a morbid deposition of fat." Now, as far as our experience goes, and we should say that of most practical medical men, it will be found that the suppression of this important secretion, symptomatic as it for the most part is of a derangement of the very functions which constitute the so-called vegetative life, is inimical to the deposition of fat. That increased bulk frequently results from it we do not deny; but that this depends on serous deposits in the cellular tissue, &c, is too obvious to require more than a mere comment on the circumstance. The chapter which has given rise to these remarks, is exceedingly interesting, and concludes with a classification of the articles of diet in a twofold division; i. e. plastic elements of nutrition, and the elements of respiration. For further information on these points, we must, however, refer our readers to the work itself.

The Second Chapter is headed, "On the Metamorphosis of the Tissues;" and here the extensive practical knowledge of our author is exhibited. But here facts are so mixed up with hypotheses, that we are frequently at a loss to know what statements are true, and what merely assumptions. At page 114, in speaking of the quantities of air which reach the stomach with the saliva, he states,—"The fact, that nitrogen is given out by the skin and lungs, is explained by the property which animal membranes possess, of allowing all gases to permeate them, a property which can be shewn to exist by the most simple experiments." Then follows an account of the well-known fact of the permeability of dead animal membrane to gases: "and that it is a mechanical property common to all animal tissues, and is formed in the same degree in the living as in the dead tissue." Now, we are all perfectly aware, that such permeability, as a mechanical property, exists in the dead tissues but, as physiologists, we are compelled tochesitate before we can designate it as; erely such in the living membrane. A fact militating strongly against this doctrine is, that different gases when introduced into a tissue are not absorbed with the same rapidity; for, in cases of emphysema, the oxygen disappears long before the nitrogen, and this fac of itself is sufficient, were others wanting, to shew that this is something more than a merely mechanical cause in operation, being, indeed, but a result in conformity with the general law, that, within certain limits, the more stimulating the substance the more rapidly is it absorbed.

The paragraph immediately succeeding gives an explanation of the mode of the production of traumatic emphysema, which confirms our impression of the vagueness of Liebig's ideas on subjects apart from chemis-

try. It runs thus:—"It is known that in cases of wounds of the lungs a peculiar condition is produced, in which, by the act of inspiration, not only oxygen, but atmospherical air, with its whole amount, four-fifths of nitrogen penetrates into the cells of the lungs. The air is caried by the circulation to every part of the body, so that every part is inflated or puffed up with the air, as with water in dropsy." To assume that the air is absorbed by the blood, and again deposited in the tissues, is most illogical, besides being quite opposed to all fact. The air, as all surgeons know, is forced into the cellular tissue surrounding the wounded costal pleura, and is in the ratio of the size of the wound of the pleura and of the force of the inspirations. Were the explanation given by Liebig correct, we should find emphysema as one of the results of the poisoning of the feather white wine, the noxious qualities of which he explains on the supposition that the carbonic acid, so abundantly generated in the stomach after drinking it, permeates the stomach, the diaphragm, and both the layers of the pleura, although it seems to make no stay between these, but proceeds at once to the air-cells, to suffocate the unfortunate drunkard; and the proof that this is the fact, is found in the circumstance, that the inhalation of ammonia is recognized as the best antidote against this kind of poisoning. This hasty conclusion is not, however, at all justifiable. Such a mode of procedure on the part of the carbonic acid is open to numerous objections: and although it is not easy to say what is the cause of death in the poisoning by this wine, it is much more rational to suppose that it may be produced by such a rapid accumulation of gas as to produce asphyxia, by suspension of the action of the diaphragm, knowing, as we do, the effects that result from spasm of this muscle in angina pectoris; or, again, supposing the gas is eructated with great force and rapidity, it may cause, what carbonic acid when pure immediately does, spasm of the glottis, which must be rapidly fatal. The relief afforded by the ammonia may be explained on grounds other than chemical, and is much more likely to arise from its stimulant effects on the nervous system, than from its forming a salt in the air tubes and cells, as poisonous in that situation as the original carbonic acid would have proved.

The whole of this part of the chapter is in the same style, consisting, for the most part, of assumptions without proof, and contortions of phenomena to suit particular hypotheses of the author.

In the opinion of Liebig, theine, cafferine, theobromine, may be considered as the food of the liver; for, by the addition of oxygen and water to the two former, a constituent of the bile—taurine—may be formed; and, by the same addition to the elements of theobromine, taurine and urea, or taurine and uric acids may be produced. Two and eight-tenths of a grain of caffeine can give to an ounce of bile the nitrogen it contains in the form of taurine. And he infers from this, that the reason of these substances having become in their use so universal, as articles of diet, is, that those who chiefly live on vegetables take them instinctively, as it were, for the purpose of supplying azote to the bile, which must otherwise have come from the waste of the tissues. The quantity of theine and caffeine, contained in the infusions we drink, is, however, so extremely small, that, although we may admit their action to be as he describes, yet, practically speaking, it is as *nil*, compared to the amount of biliary secretion. We must look for an explanation of the desire for these articles, other than any dietetic purpose they can serve, in the properties they possess of acting as stimulants on the nervous system. In no other way can we understand how green tea acts with such energy, compared with coffee, when the quantity of caffeine in the latter far exceeds that in the former, than by assuming that the action is dynamic, and not, as Liebig would infer, chemical.

The attempt to explain the mode of action of organic medical agents, on the hypothesis that these, being azotized bodies, produce a peculiar change in the chemical constitution of the nervous tissue, is exceedingly unsatisfactory; for, were it so, the objection which Liebig himself states is fatal, seeing that the poisonous properties of these bodies is not in the ratio of the quantity of nitrogen they contain; picrotoxine, which, if it contains any, at all events very little, of that element, being exceedingly poisonous, whilst caffeine, duinine, &c, are not so.

"The acton," he says, "of these bodies is commonly said to be dynamic, that is, it accelerates, or retards, or alters, in some manner, the phenomena of motion in animal life. If we reflect that this action is exerted by substances which are material, tangible, and ponderable;—that they disappear in the organism;—that a double dose acts more powerfully than a single one;—that, after a time, a fresh dose must be given if we wish to produce the action a second time; all these considerations, viewed chemically, permit only one form of explanation,—the supposition, namely, that these compounds, by means of their elements, take a share in the formation of new, or the transformation of existing, brain and nervous matter."

The common view, that the action is dynamic, is in want of other proof, quite as probable as the chemical view taken of the matter by Liebig, and explains, equally satisfactorily, the necessity of increased dose to produce the previous effect; and, in the present state of chemical analysis, is likely to hold its ground against the doctrines here inculcated. The dynamic theory renders quite clear to our mind the effect of immaterial agencies in disturbing, exciting, or exhausting, the susceptibilities of the nervous tissue, which the chemical one of adding to, or abstracting from, the inorganic components of the tissue cannot do.

We shall, in our next, resume the subject, and examine the contents of the Third Chapter, which contains "The Phenomena of Motion in the Animal Organism,—the Theory of Respiration,—and the Theory of Disease

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HEREDITARY DISEASE.

One of the families of this village, (Truman Judson, by name,) consisting of nine members, have all been sick with a malignant form of typhus fever. Out of this number five have died—the father and mother, one son and two daughters. It has been remarkable that the sickness has been confined exclusively to this house, and although apparently of the most malignant character, and for weeks there have been from four to six watchers day and night, no other person in the town has taken the disease. But the most peculiar fact is that just twenty-one years ago this same sickness appeared in the family of the mother of this household, which family, as this, was composed of nine members, and out of these nine the same number as now, five, were carried to their graves. As now, no other persons of the town then took the fever. Perhaps this fact might be considered by physicians in some way instructive.

Letter from Woodbury, Ct.

THE GIANT AGAIN.—The skeleton found 50 feet below the surface of the earth, jammed between the rocks, is now exhibiting in Nashville, having been put together as well as could be with several bones broken It presents the appearance of a human skeleton measuring 16 feet from the top of the skull bone to the bottom of the ankle bones. Such wonderful men must have been formed to match the extraordinary mastadon found in that neighborhood. It is impossible to say when they existed. *N. Y. Sun.*

On Incision of the Tunica Albuginea in cases of Inflammation of the Substance of the Testicle.

Inflammation of the substance of the testicle is often attended by intense pain, which it seems rational to attribute to a kind of strangulation produced by the unyielding nature of the *tunica albuginea*. When this pain continues long, is of an intense nature, and obstinately resists the usual therapeutic means, suppuration of the testicle is to be dreaded. With the view of relieving these intense pains, and preventing the termination in suppuration, M. Vidal exposes the testicle and carefully divides the *tunica albuginea* by a longitudinal incision. He has already performed this operation fifteen times successfully: and in answer to any supposed permanent injury which the testicle might be supposed to receive from injury of the semeniferous canals by the incision, or from the testicle becoming fixed in consequence of union with the cicatrix, M. Vidal answers.—1. The inflammation of the testicle ends in resolution after the operation. 2. The wound of the *tunica albuginea* becomes confounded with that of the serous and other membranes, and the whole form a single cicatrix. 3. The cicatrix becomes linear, and then the testicle is found to be but slightly adhering to the other membranes. 4. Lastly, the testicle recovers its entire freedom, its ordinary volume, and normal consistence.—*Edin. Med. and Surg. Jour.*

The Debris furnished by Pavements.

It is stated by Mr. Thorn, a contractor, that the mud on a *Macadamised road* is three times as much as on ordinary pavement; whilst the accumulation on a *wooden* road is not more than one-third of that on pavement. Mr. Whitworth, the inventor of the machine for cleansing streets, and which has been for some time used in a few districts in London, and generally in Manchester, states that at Manchester, he has agreed to sweep the street twice as often as under the old system, and at a saving to the town of £500 per annum. Some idea of the efficiency of this plan, which is applicable to every kind of street surface, may be formed from the fact, that whilst a man can on the average sweep not more than 1500 square yards daily, the machine worked by one horse, sweeps from 16,000 to 24,000 square yards per diem. The economy of labor on the whole is so great, that one machine will do the work of 36 men. Mr. Whitworth states that he is engaged in preparing a hand-sweeping machine for courts and alleys, an amelioration which, if properly carried out by the authorities, will be an unspeakable benefit.—*Med. Chir. Rev*