A TRULY VIRTUOUS WILL IS ALMOST OMNIPOTENT.

EDITED BY

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PART I.

ORIGINAL COMMUNICATIONS.

ARTICLE I.

Remarks on the Pathology and Treatment of Bilious Fever, read before the Medical Society of Augusta, by L. A. Dugas, M. D., Professor of Anatomy in the Medical College of Georgia.

There is perhaps no subject connected with the advancement of science, of more importance than nomenclature, for, on the correctness of names, depends, in a great measure, the correctness of our ideas relating to the facts they represent. A name should, as far as practicable, always convey a correct and distinct idea of the leading features or properties of the subject to which it is applied, and any deviation from this principle must tend to complicate the attainment of knowledge, by requiring of the student not only the recollection of unmeaning technicalities, but also the correction of their original interpretation. It were always better that a name convey no definition, than an incorrect one.
The inappropriateness of the appellative at the head of these remarks is striking. The term fever is now applied to a peculiar assemblage of symptoms, without reference to cause; yet, when qualified by the adjective "bilious," it is assigned to an extensive class of diseases prevalent in our section of country and in most warm climates. We should, from the above designation, expect to find this class of diseases always characterized by a derangement of the biliary secretion; such, however, is not invariably the fact, as I shall endeavor to establish in the sequel.

The system of localization, which has already accomplished so much in continental Europe, has been too much neglected in our country, and especially with regard to the diseases of this climate. Still adhering to the theories of the humoralists and of those who look upon fevers as specific affections of the entire system, the great mass of our practitioners are found to direct but little attention to the condition of individual organs.

When, fresh from the benches of the school of organic medicine, I was called on to examine and to treat cases of "bilious fever," I instinctively interrogated in succession every organ of the body, in search of the seat of the disease, or in other words, of the cause of so much constitutional disturbance. In some cases, despite of all my investigations, no trace of disordered function (the best evidence of a diseased organ) could be detected elsewhere than in the stomach; in others the bowels were alone distempered; other sets evinced the disturbance to be located in the liver, in the brain, or in more than one of the principal visera. The bilious modification, implied by the name of the affection, though very frequently manifest, was often entirely wanting. Yet, each of these cases presented certain characters peculiar to all. Their onset was always marked by loss of muscular power, by pains in various parts of the muscular system of animal life, &c.; their early stage by intermittency or decided remissions; their duration and termination presented a strong analogy; in short, it was evident that, although modified by the affection of some special organ, all these cases were under the predominance of an original and common affection. The seat of this original and common affection cannot be mistaken if we adhere to the principle already alluded to, that of regarding vitiated function as the best indica-
tion of diseased organ. If an organ be healthy, its function must necessarily be normal; consequently, if a function be abnormal, the organ presiding over it cannot be in a physiological condition. I am aware that it will be urged that certain secretions may be vitiated by an altered condition of the fluid whence they are derived, without disease of the secreting organs. For example, the urine may present various aspects according to the substances taken into the circulation; or, the composition of the bile may depend on that of the blood. But this cannot affect our position, for, the condition of the blood itself, depends entirely on that of the organs which form it, and of those whose office it is to eliminate its impurities. If it remain impure, the cause must be found in the vitiated action of the emunctories.

But, whether these principles of diagnosis be admitted or not, it is presumed that no one would, on reflection, refer the morbid condition of the contractility and sensibility of the muscular system, to any other locality than the nervous centres. We have already stated the earliest symptoms of our fevers to be lassitude, loss of muscular power, and pains in the muscles of animal life; also, that intermittency, more or less complete, always marks their early stage. We are, therefore, led to the conclusion that the nervous system is the original and common seat of this class of affections. I trust I will not be misunderstood; the term original being here used expressly to indicate that these fevers subsequently undergo serious modifications, from the superposition of other derangements. It is to these complications we must look for the explanation of the various forms assumed by the fevers misnamed "bilious," so that the proper definition of them should be an original affection of the nervous centres, subsequently complicated by phlogosis of some other organ or organs, which secondary disorder may either gain the ascendancy of the primary, or merely mask and modify it.

Let us now examine some of these complications; and in doing so, it is scarcely necessary to premise, that, in point of frequency, they vary exceedingly in different seasons and in different years. The most simple may be classed under the head of hepatic, gastric, enteritic, cerebral and pulmonic; the more complex forms are those in which there are more organs than one, implicated secondarily.
The Hepatic complication will, in addition to the general symptoms, already mentioned as common to all the forms of this class of fevers, present the characteristics of hepatitis, more or less acute; and this is, perhaps, the most obscure form of these fevers, inasmuch as the indications of hepatic disorders are less marked and less understood than those of any other of the viscera. In the present state of our knowledge, an hepatic affection can only be inferred either from an increase or diminution of bile, from the volume of the liver (which may be determined by percussion) or from the mere absence of disease in any other organ, sufficient to account for the general disturbance of the circulation. Pain in the region of the liver, though occasionally pointing to the seat of the disease, can only occur when the peritoneal investment is affected (the liver itself being insensible), and is too inconstant to be relied on. The quantity of bile can only be estimated by the appearance of the matters ejected from the alimentary canal, and by the colour of the eyes and general surface. To admit, on any other grounds, the existence of disease in the liver, would be proceeding beyond the limits warranted by our actual knowledge of the pathology of this important gland. If there be an increased secretion of bile, it will be found proportionally thrown from the stomach and passed off with the alvine evacuations. The yellow hue of the eyes and skin may accompany this state, as well as that in which the evacuations evince a decided paucity of bile; hence, this cutaneous change indicates the mere fact, that the colouring matter of the bile has passed into the blood, without pointing out the cause of this occurrence. It is well known now, that jaundice often results from duodenitis, without any affection whatever of the liver itself. — If these circumstances be borne in mind in the investigation of these fevers, it will be found that a large number of cases will present no trace of hepatic derangement.

The Gastric complication is characterized by the well known symptoms of acute affection of the stomach: viz. loathing of food, nausea and vomiting. The pulse in this is never so much developed nor so resisting as in the hepatic complication, and yields more readily to venesection, which not unfrequently occasions syncope. The countenance is also more anxious and the face less flushed. Pain, on pressure of the epigastrium,
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though of late much insisted on as peculiar to gastric irritation, would, perhaps, more properly be regarded as indicating disease of the subjacent peritoneum, whether lining this region, or reflected over the stomach or the depending edge of the liver.—This membrane is known to be highly sensitive when in a state of irritation or inflammation, whereas we may yet doubt that this is the case with regard to the other coats of the stomach.—The inflammation of the peritoneum in this region alone, however, might be produced by an extension of disease from the other coats of the stomach or from the parenchyma of the liver, and should, therefore, always be considered in connection with the state of these organs. That the tenderness of the epigastrium is occasioned by the condition of the serous membrane, may, independently of the above considerations, be inferred from the readiness with which relief is afforded by revulsive applications to the cutaneous surface, whilst the other symptoms remain unmitigated.

The Enteritic complication is that in which the bowels are most obviously in a state of phlogosis. The mucous surface of the intestines pours out an immense quantity of thin muco-serous fluid, which, either passes off spontaneously, or is expelled by the action of cathartics. It will be marked by copious diarrhoea; or by the fact that the slightest laxative will be attended with excessive purgation, which, instead of subsiding with the effect of the remedy, as usual, will continue indefinitely. The small are much more frequently affected than the large intestines, and, consequently, diarrhoea is more common than dysentery. Pressure over the abdomen will be occasionally attended by pain, probably arising from the extension of the disease to the peritoneal investment, as already explained with regard to the stomach and liver.

The peculiar torpor, or obstinate constipation of the bowels, so often observed in our fevers, is considered by some as indicating a degree of inflammation so high as to arrest the secretions of the mucous surface, whereas others regard this condition as induced by a want of the accustomed stimulus of the bile. Both of these explanations appear to me exceedingly objectionable; the former, because I cannot admit so high a degree of excitement simultaneously invading the entire length of the canal;
and also because all post-mortem inspections testify that in cases of death during the existence of diarrheæ or dysentery, the mucous surface may be found presenting every grade of disease from mere irritation even to destructive ulceration. Inflammation of the mucous membrane cannot then account for obstinate costiveness, nor do I think these two states can exist together.

To admit that such a state of torpor can result from the want of biliary stimulation, would be to concede that the hepatic secretion is more irritating than the most drastic cathartics in materia medica, for, we frequently find it resisting them, not only individually, but in the most potent forms of combination.—Again: the passage of white or clay colored faeces occasionally observed in jaundice, at the same time that it proves indubitably the absence of bile in the alimentary canal, also establishes the fact that such absence does not cause obstinate constipation. I would look to the intestinal muscles, and through them, to the nerves which control their action, for the explication of the phenomenon. The peristaltic motion is arrested because the muscles do not act, and these are torpid, because of some derangement of innervation. This lesion of innervation may be traced either to the concentration of irritability in some organ seriously implicated, (the liver for example) as is most frequently the case, or it may be found to depend on the peculiar condition, probably congestion, of the nervous centre. The correctness of these views is most strikingly illustrated by the efficacy of the treatment of obstinate constipation, in the one case by copious bleeding, and in the second by revulsives to the spine. In the great majority of instances, a few cups or a blister to the spine will enable laxatives to act when the most active drastics have previously failed.

The Cerebral complication is one that occurs alone, much more rarely than those already described. It is always, however, recognized by a predominance of encephalic disturbance, as head ache, intolerance of light, tinitis aurium, delirium, wakefulness, and sometimes subsultus tendinum and coma. The symptoms developed in this form of the disease, and which indicate phrenitis, should not be confounded with the slight manifestations presented in most cases of bilious fever. Head-ache, for example, will be found in the great majority of instances, but may, in
many of them, be referred to some kind of sympathy implicating the nerves of the scalp which frequently becomes very sensitive to the touch, and in which the pain is certainly then located.

The *Pulmonic complication* is still more rare than the last mentioned. Here the respiratory apparatus will be found more or less distempered; pneumonia may sometimes be detected, but the mucous membrane of the bronchi is the most common seat of disease. Respiration will be more or less impeded; expectoration at first slight, but subsequently copious, and occasionally some soreness about the chest; coryza not unfrequently exists.—This form usually occurs either in the spring, or very late in the season of our fevers, and is seldom fatal.

I have thus far described the mildest forms of our fevers; the *simple* complications of the original type. But there are *double* and *treble* complications, in which two, three, or more organs are simultaneously or consecutively diseased. If the diagnosis of the simple complications be well understood, that of the more numerous will be equally so, and consequently needs not be now dwelt upon. Indeed any considerations on these would lead us far beyond the limits assigned to this paper, for, the five forms enumerated, might, by various combinations, be carried to an immense number. The gastro-hepatic, gastro-enteritic, and gastro-entero-hepatic are by far the most common of the plural complications we encounter.

Let us now turn our attention to the treatment of these affections.—We have already stated that neither of the above complicating phlegmasiae, alone or *unattended with spinal disease*, could produce the phenomena common to all the forms of our "bilious fevers," and we have furthermore stated the primary lesion to be that of the nervous centre, or, in other words, of the spinal cord. If this primary affection remain uncomplicated, then we have a disease of the mildest form known; one which retains its peculiar characteristics, its paroxismal form and its periodicity. In short, we have a plain case of ague and fever, such as we daily see. With these views of the pathology of our autumnal fevers, the treatment must necessarily be divided into that proper in the first or uncomplicated stage, and that required by the subsequent modifications, for, if the first stage be promptly and energetically met, the progress of the disease may be arrested.—
So long as the nervous system is alone affected, our medication should be entirely directed to it, and such remedies used as are known to possess the most decided anti-periodical properties.—Quinine, our most potent anti-periodical, should be given with a liberal hand during the very first intermission, and persisted in until the disease be vanquished, or its administration be prohibited by the supervention of settled phlogosis of some organ, which fact will always be indicated by the continued form then assumed by the disease. It is as impossible that a complete intermission should occur during the existence of inflammation in an important organ, as it is that the said inflammation should alternately invade and disappear suddenly from a tissue, without leaving any vestige of its existence, until the recurrence of another paroxism. Inflammations are always more or less permanent; they have their periods of progress, maturity and declension well marked, and cannot suddenly disappear and reappear with intermissions of perfect health, as do our intermittent fevers.

The action of quinine will always be most happily seconded by revulsive applications to the spine, which is frequently found painful on pressure or percussion. Indeed these will, alone, in many instances, be found sufficient to arrest the disease. For evidence of their very decided effect, I would refer to the interesting and able paper published by Professor Ford, in the sixth No. of the Southern Medical and Surgical Journal.

But, although the treatment of our fevers at their onset, be of the utmost importance, the services of the physician are rarely requested before the localization of irritation in some organ of more or less importance. He is then called on to treat a disease much more unmanageable. Inflammation has supervened, and the whole antiphlogistic battery must be put in requisition. In so doing, however, too much care cannot be directed to the selection of agents. It is not a mere abstraction, inflammation, we have to combat; but inflammation of special organs; and it is the neglect of this consideration which accounts for the wretched routine practice inculcated in many works and followed out by the people at large. It is this neglect that causes irritating emetics to be given in the gastric form of the disease, drastics in the enteritic, and calomel in the hepatic, whether attended with increase or diminution of bile.
The general action of the circulation must be reduced; but it must be brought down by those remedies best calculated to abate the local inflammation which keeps it up. Early and free depletion from the arm, from the spine, and from the vicinity of the affected organ, will be proper in all cases; emetics in all, save the gastric; and cathartics in all, save the enteritic. Emetics are most signaliy beneficial in the early stages of the hepatic and enteritic complications, not only by emptying the stomach, but also by their revulsive operation, and by the general relaxation and diaphoresis they induce. In the enteritic form, antimonial emetics should be avoided, from their strong tendency to act on the bowels, and preference given to ipecac or lobelia.

Of cathartics I cannot speak too highly in all those forms unattended with enteritis. They, not only evacuate the contents of the intestinal tube, but also establish from this extensive surface an abundant drain, both depletory and revulsive. They unite all the advantages of local depletion and of the most powerful revulsives, a combination of results not to be obtained by any other medication. If energetically and repeatedly used, they may advantageously supersede the lancet, whose effect is merely depletory, whenever the intensity of the disease is not such as to demand a more sudden reduction of the circulation. In such cases their advantage will be explained by the fact that, if revulsion be added to depletion, the extent of the latter need not be carried so far and, consequently, the resources of the system will be less impaired and convalescence rendered more speedy. Let the modus operandi of cathartics be properly understood, and their high value will be justly appreciated. They excite to increased action and increased secretion the vessels of a great surface, situated in the proximity of and connected by vascular communication with the organs most frequently phlegoscd; the liver and stomach. Their derivative and depletory effects must, therefore, necessarily be immediately felt by the diseased organs; the morbid concentration of the fluids will be diverted from viscera, unable, from over-excitement, to relieve themselves, and directed to a surface prepared to throw off any superfluous accumulation. Venesection is often necessary in our fevers, but it can never be carried sufficiently far to completely subdue excitement, without seriously endangering the
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re recuperative powers of the system. Hence the vast superiority of cathartic depletion in many cases, and their positive necessity in the great majority.

In alluding to the treatment of "bilious fever," it would seem unpardonable to take no notice of a remedy thought indispensable by the great majority of our practitioners; a remedy which, according to them, possesses the wonderful property of adapting itself to almost every condition of the system and form of disease; of altering and regulating action, whether increased or diminished, of correcting the secretions, of exciting the absorbents, of equalizing the circulation, and, in short, of rectifying the fluids and renovating the solids. An agent of such multiform virtues should certainly not pass unnoticed, in considering the treatment of any malady, and, especially, of that of which it is so generally regarded as the antidote. The limits of this paper, however, already extended beyond my original design, will permit but a brief allusion to calomel. I am, moreover, disposed to be brief, because I rarely use this agent in the class of diseases under consideration. If the excitement be great, I prefer more active depletory and revulsive means, and, when it is reduced, I still resort to antiphlogistics of a milder and less objectionable kind, confident that the secretions will be restored and the circulation equalized, without calomel, whenever the organs are restored to their normal condition. If experience be appealed to, I will fearlessly challenge a parallel of my success, with that of the most strenuous advocate of the mercurial medication, and endeavor to prove that "bilious fever" may, in general, be more readily and more safely cured without, than with calomel.

The above remarks, hastily thrown together, in reply to a question proposed for discussion by the Medical Society, are necessarily devoid of those references and acknowledgments usually required in an elaborate treatise. They contain the simple expression of my views on the subject of debate, and are not intended to convey any further claim to originality than may be awarded them by those familiar with the literature of our profession.

P. S.—Having reason to believe that my remarks on the use of calomel, in the above article, have been misunderstood by some
of those present at the meeting of the society, I will be more explicit. I have stated that "I rarely use this agent in the class of diseases under consideration," and not that I never use it. Nor is my objection to it founded on the belief that it is an irritating or drastic remedy. So far am I from entertaining this opinion, that I give it the decided preference in such cases as are attended with a disposition to enteritis, and whenever I wish merely to evacuate the bowels, without incurring the risk of occasioning debilitating purgation. Hence it is peculiarly adapted to the last stage of our fevers, and not to the early, when active depletion is requisite. In the last or convalescing stage of the hepatic form of the disease, when excitement has been fully subdued, it may also have some tendency to relieve the liver by exciting it to secretion, but whether this be done by a specific action or merely by revulsion on the contiguous duodenal surface, is yet a matter of doubt with me. My principal objections to its general use are, in the early stages, its want of energy, and in the latter, its strong tendency to produce salivation with its frightful consequences. None but those familiar with the practice in our southern and south-western states can form any idea of the havoc of this useful but much abused remedy. It is scarcely credible, yet I have ascertained the fact by special inquiry of our druggists, that there are annually vended in this small city no less than one thousand pounds of calomel, besides a proportionate quantity of blue pill mass, mercurial ointment, corrosive sublimate, &c. !—Is it then surprising that the steamers, the vegetable quacks and nostrums of all kinds should find countenance by those whose loss of teeth and shattered constitutions have warned them against the abuse of mercury!
ARTICLE II.

Case of Fistula cured by Coffee. By M. Antony, M. D.

J. S. C., aged about 40, of medium stature, black hair and eyes, round make and active in body and mind, between 3 and 4 years ago became afflicted with haemorrhoidal tumours. The swellings were soon very painful, and were chiefly within the sphincter ani; soon however, tumours arose as usual around the verge of the anus. The swellings were never as large as they are in many cases, but were so painful that on the failure of other ordinary applications, he was compelled to resort to warm bathing of the part almost incessantly for keeping the extreme pain in moderation for the present. The symptoms, after being palliated for a while, readily returned on taking cold, or on any cause of the slightest morbid excitement. After a few months, an aching induration was observed, extending, along the cellular substance on the right side of the anus in the direction of the ischiatic tuberosity, to the extent of about one inch; at the outward extremity of which there appeared in the superficial integuments a little pimple, which finally opened and discharged a small quantity of matter. Soon after this, the subcutaneous induration on that side of the anus shrunk away until it appeared like a small cord about the size of one's little finger, and the haemorrhoidal tumefactions all around the anus disappeared, except one small point on the left margin. This remained, subject to some swelling and tenderness on any unusual excitement, but ordinarily free from pain or peculiar sensibility; only exhibiting the appearance of a small shot under the integuments of the part. Meanwhile however, the little opening on the right continued steadily to yield a small discharge, not exceeding probably, half a tea-spoonful a day. The opening was so minute as barely to admit the end of a common probe.—This was however, used in the examination, and an incomplete fistula found, which was about one inch in depth.

After inspection by a physician, it was operated on, so as to divide the septum between the sinus and the anus. After this
operation, the incision was regularly dressed by the interposition of lint, &c. It soon healed, leaving a superficial ridge in the direction of the sinus, and a considerable tumefaction within.—After a few weeks the sinus again opened at the outward end of the incision. This opening continued to discharge about as it did before the operation.

Mr. C. was as before stated, a very active man in business, often riding on horseback, and often walking much: All these habits have continued regularly to the present time. About three months ago he took boarding at the private boarding house of a relative, where he was served every night at 9 or 10 o'clock with a cup of coffee—about three gills in quantity. Mr. C. had been habitually a tea drinker at breakfast and supper. Thus continued the fistulous opening until three weeks since, when, having remarked that he felt no inconvenience, and that his clothes had ceased to indicate any discharge from it, he then examined, and found that the fistulous opening had healed, and the eschar in the direction of the cut, shrunk below a level with the external integuments, whilst the cord within had entirely disappeared.

The coffee used by Mr. C. was a cheap West India, and was kept standing in a tin coffee-pot from supper until 9 o'clock at night.

Notwithstanding this is a solitary case of the kind, there is much reason to believe that it stands as a demonstration of the curative power of coffee in such a case.

And whilst it is admitted that the recovery, and the use of the coffee, an unusual article of diet with this individual, may have been a mere conjunction of circumstances, or a coincidence, having none of the relation of cause and effect, still, observations on the use both of tea, which this patient had habitually used, and coffee, which was accidentally adopted, tend to encourage the idea that the use of the coffee was the cause of recovery from the fistula.

Almost every mother has observed the different influences of tea and of coffee on the function of lactation; and mothers abounding in excess of this secretion have found that the liberal use of coffee has not only failed to produce, like tea, an increase, but on the other hand has with great uniformity tended to les-
sen the quantity. So well observed has this fact been, that nursing women wishing to dry or to lessen their lactation have learned to adopt the use of coffee as a diet; and on the contrary to live liberally on tea when they desire an increase. The fact of the influences of different articles of diet on this function, none will be disposed to controvert. If this be a fact, why may not this opinion among the people, founded on the observation of facts, relative to the use of tea and coffee be correct also? If this opinion be founded in fact relative to the use of coffee in general, it is by no means less probable, if not more so, that the use of the Cuba or Jamaica coffee, much stronger in the peculiar powers of that article, is calculated to produce signal effects.

It would be well for physicians to institute a course of examination on this subject, which may enable them to determine if this article, in such universal use as a beverage, whilst its moderate use is both wholesome and agreeable, is not at the same time so medicinal as to entitle it to a place amongst the articles which promote absorption. Or, if they should not find this idea confirmed by observation, they may ascertain that as an article of diet, it is mainly valuable on account of its peculiar stimulating powers, and that it, apart from the sugar and milk commonly used with it, is not calculated to afford nutrition. And on the other hand, they may find, what is probably the fact, that India tea with the usual accompaniments is both exhilarating by virtue of its peculiar stimulating power, and either fails to promote absorption, or contributes more or less liberally to the end of nutrition. Observations in point may be made by investigating the habits of diet of patients laboring under haemorrhoidal or fistulous afflictions. The same may be extended to lactating females, dropsical persons, &c.
ARTICLE III.

Remarks on Sulphate of Quinine. By M. Antony, M. D.

In the last number of this Journal we noticed the cure of a periodical hemorrhage by the use of Quinine; remarking at the same time, that we gave the case, not for the purpose of having it imitated, but with the intention of attending to it on a future occasion. We now proceed to give below the remarks which, but for want of time, would have been appended to that article.

Formerly cinchona was looked on as a kind of specific for intermittent fevers; and so, from its power of often arresting that form of disease, it may well have been. Now it has passed into disuse; its place being occupied by the same active principle in the more elegant and convenient form of Sulphate of Quinine. As experimental medicine progressed, the important fact was discovered, that other afflictions, observing like periods with intermittent fevers, were but these in disguise, and could, with equal ease, be arrested by the same active principle. Amongst these afflictions were periodical hemorrhage, periodical headache, rheumatism, &c. &c., and hence the Quinine, in the early days of this article, obtained some celebrity in France for the cure of Megrin; and the French-American citizens who, from fear of calomel here, had become subject to sick head ache, were occasionally found returning from France with a parcel of Quinine powders, under the name of Megrin Powders. It is easy to conceive of very efficient causes of the perpetuation of this practice, however unreasonable in itself it may be. Most of the observations published on this subject, whether in periodicals or in standard works, have been the productions of cold climates, by the tonic effects of which, together with the less confirmed nature of those hepatic derangements in the higher latitudes, the system has, more frequently than in the south, possessed an energy sufficient to regulate the functions, the derangement of which had been the predisposing cause of disease, so soon as the peculiar morbid actions and phenomena, which constituted the existing form of disease, were arrested. By these greater
resources of nature, and the less degree of predisposition, therefore, the sequelae which, under the other circumstances that obtain in warm or tropical climates are found to follow, have been prevented. Observers, however minute and accurate, have not probably therefore, had occasion to witness such frequent sequelae as jaundice, chronic hepatitis, bilious colics, dispepsia, dropsy, &c.; or if these have followed, it may have been at so much later a period, that the previous form of disease had been lost sight of, and they have been (improperly enough, no doubt,) attributed to other, and more recent causes. Such oversight, we may conclude, is very easy, when we remember how common it is for the most serious hepatic derangements and disorganizations to arise and continue for a long time, without even the suspicion of the patient, or of his physician. Such results are, in consequence of the low sensibility of the liver, not so uncommon as may, at first thought, be supposed. An illustration of this fact may be seen in Faitthorn's treatise on the liver, in which a case is given of an enormous quantity of vitiated secretion, perhaps ten or eleven pints, being found in the biliary vesicle, and still the hepatic disorder had not, for a great while, been suspected by the patient or physician. But we need not go so far for an illustration: Every man's practice in a bilious climate, would afford to the close and experienced observer, perpetual demonstration of hepatic derangements, far beyond what might be suspected from any conspicuous external evidence.

We have intimated that the practice of resting the cure of bilious intermittents on Quinine, or on bark alone, is unreasonable. We repeat that it is so, however well that practice may comport with the fancies, or the high authorities of the present time. Reasoning apart, facts demonstrate this truth; but facts must be observed, before they can be known. To reason abstractly on this point in therapeutics, would require space not afforded in this place; and would demand the arraignment of the high-sounding theories, at present too much in vogue, and their subjection to a little sound logick—very little of which would be sufficient to shew that they are founded, 1st, On the subversion of cause and effect; and 2d, On assuming the production and continuance of effects, without competent causes. Under
such circumstances, the quinine may only be expected to act on some of the effects of the combined predisposing and exciting causes, so as to produce a metastasis, leaving diseases far more serious, in their ultimate tendencies, than the primary form; for the intermittents should be considered the primary form of the whole train of abnormal phenomena, but the antecedent of those sequelæ, which too often beset the patient, after a cure of intermittent by means only calculated to change the form of disease.

But what are the facts to which we have alluded? Forty years ago, Jesuit’s bark and port wine, red bark, Huxham’s tincture of bark; and, in some obstinate and inveterate cases, the shower bath, or the ague drop,* were almost wholly relied on for the cure of intermittents; and what were the consequences? Dyspepsia, with diarrhœa, or obstinate constipation, bilious colic, cholera morbus, jaundice, chronic enlargements of the liver and spleen, with general intumiscence, and a long train of nervous symptoms, called by the common people, ‘cachexy’; and ‘cachexy drinks’ were got up in turn for their cure. These were commonly made of chalybeates, as sulphate of iron in water, acetate of iron, made of vinegar and iron, steel dust, scales of iron, &c. in powder or electuary—these, with some diuretic vegetable, when any oedema was observed, were next administered. This was, however, often six or twelve months after the primary form of disease had been changed; and who then ever thought but that these were new diseases, entirely new, without the least connexion with any other. It was thought a very hard, though common case, that a new, and more formidable disease, should attack the patient so soon after recovery from another—the previous intermittent. The ‘cachexy drinks,’ used for these secondary diseases, had generally the effect of giving a little more energy to the appetite and the digestive powers for a time, which did not fail to perpetuate confidence in their use, until at length, another new disease supervened, which was called ‘dropsy,’ having, like the former, no obvious connexion with the antecedent series of evils, and to which the patient was most commonly, after all, to succumb. It was often impossible that he should withstand

* Fowler’s Solution of Arsenic, was, at that time, ague drop, as Quinine Solution has since been.
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such a succession of the worst of ills—a new one always succeeding the cure (as he thought,) of the former.

Notwithstanding all this error in the history of disease, and the pathology too, it was indeed sometimes the case, that this energizing plan of treating what was called the 'cachexy;' (and which was nothing more nor less, than the assemblage of those symptoms which attend chronic visceral obstructions,) was found to impart such healthy vigor to the system, (as we have said, is sometimes done by colder climates,) as to enable it, by this renewal of its energies, to perform the necessary elimination of noxious predisposing or perpetuating causes, so as gradually, but ultimately, to restore the system to good health; especially with the help, which was ordinarily looked to, the invigorating and purer atmosphere of winter. But no old scientific and unprejudiced practitioner, can now be found—(alas, few have withstood the practice of those days,) who observed the progress of diseases forty years ago, but can testify, that he then saw twenty or more cases of dropsy, from visceral obstructions, where he did one, ten years ago! And Bulimia, and its kindred forms of disease, which were then, almost as common as hernia is now, are, at the present day, rarely seen, at least, in the same location. And to what may this comfortable change of the lot of humanity, in the southern section of country, be attributed? In order to answer this inquiry, let us look for a moment at the history of the pathological and remedial departments.

Thirty years ago, calomel, with all its evils, became the common-place medicine in families; and it was soon the case, that it was rare to find a family throughout the country, without an adequate supply; which, by the way, we should remark, is an article that ought, in justice to itself, and humanity, never to be administered, but under the sound judgment of a competent medical man. But this medicine, with all its evils, we say, which were not a little modified by the combination of jalap, being brought into use, has exercised a greater influence in lessening livers and scrofulas, than Dr. Rush's lancet did, in the treatment of fever in Philadelphia; and which was indeed, nothing more nor less, than his powders of "ten and ten." This medicine, in lessening, or rather preventing, these permanent visceral obstructions, has likewise prevented their almost certain effects,
in all their variety. And the dirt-eater, who was then soundly castigated for the correction of this loathsome practice, when forsooth his father or his physician should have been, is now, if found at all, speedily cured by a due course of visceral correction. This is mainly effected by the occasional use of slow mercurial purgation, and a change of location to an atmosphere less deleterious than those which continue perpetually to renew the predisposition to bilious disease.

It will not be denied that bark, quinine, and other tonics, and counter stimulants, have, in injudicious, as well as judicious hands, cured bilious fever; but the cases are rare in which these cures, if they may be so called, are not followed by more or less troublesome or dangerous sequelæ. But the cases in which they have not, have, we think, been more common under domestic, than under physician's presumptions: and why, but that in domestic practice, the solution being looked on as the ague drop, its use has been often adopted, at the first intermission of fever; whilst, on the other hand, the physician was rarely called, until the force of the disease had been for days impairing more and more the healthy condition, and functions of particular organs, and of the constitution generally. Those cases only will be found to yield to this course, and be followed by good health, wherein there are good reactive energies, competent, when the peculiar effects of the exciting cause are removed, to overcome finally the task imposed by the default of healthy function, and thereby remove the existing predisposition. And this result will be the more probable, if assisted by the early accession of cold weather, removal to colder climates; or a perpetuation of tonic effect, until this auxiliary is available. But such is not in general, nor can be the fact, in regular practice, in safety from secondary diseases, worse than the primary, until physicians become to be called at the very onset of the disease; and only then, with energetic habits: whilst it is well known, that these are not the most frequent subjects of this disease, but the contrary. Let us suppose the existence of some, or several of the organic derangements, attached to, and made by some, the chief nature of bilious fever. Is it not, according to one notion, a phlogosis of the stomach, or intestines, or both; or according to others, that of the cerebral, or the spinal centre, or
both? These are contended for by some, as cause, by others, as concomitants; and may be more reasonably by others again, as effects. But as to this, it matters not. Suffice it to say, that some, or all of these, do often exist with bilious fever, and make a part of its pathological nature, or condition. How then, can a direct and powerful tonic be admitted with this nature? The stomach will reject it, the intestines will pass it off cathartically, or it will give headache, vertigo, &c., and aggravate the febrile and inflammatory actions. But Quinine and other tonics do, in good constitutions, arrest the progress of the present type of disease. It, therefore, follows that these local derangements do not exist, either as causes or concomitants, in the beginning stages of bilious fever. It is true, that these, or some of them, do not unfrequently complicate, and give varieties to bilious fever of any of the usual types; but it follows in course, that when this is the case, the patient is not a suitable subject for the tonic treatment, as will be found on experiment; until the case is reduced to the simple state of bilious fever, which primarily existed; or the inflammatory phlogosis, so overcome as to exert but a local and partial influence, and allow, without detriment, the general action of the tonic. But these concomitants, or secondary phlogoses, are not all the difficult secondary lesions, whose natures are opposed to the action of tonics. Many others may, and do arise, and there are none so uniform, in genuine bilious fever, as either a phlogoses, or a functional torpor of the liver, and the consequences of either of these on the spleen, &c. all of which alike forbid the hope of prompt and permanent benefit from the use of tonics. Indeed, the hydropic disposition finds here its principal causation; and here, likewise, is the origin of most of the chronic nervous derangements, which so often follow the unphilosophical treatment of these febrile diseases.

It will be asked then, how does quinine, or the other tonics; or cutaneous exciters, as sinapisms, blisters, stimulating embro-cations to the surface, &c., ever cure bilious fever, if not by supporting the nervous energies, or deriving action from the seat of phlogosis, to the surface, and so forth? We will answer, that they do operate by imparting that energy to the whole system, or to certain parts, whereby they are enabled to resist the acces-
sion of the introductory features of the bilious paroxisms; for it
is not the stomach, nor the intestines alone, on which tonics
act, nor the surface over the spleen, or the epigastrium alone,
on which the counter-stimulant powers act, but the wrists, the
legs, the thighs, and many other parts, with equal benefit. So,
also, will a stimulant draught, or an anodyne pill—so, likewise,
the cobweb, than which, there is not to be found a surer inter-
cepter of bilious chill; and these two last, operate on very differ-
ent principles, from simple stimulants and tonics. Again, we
find that mental, as well as corporal impressions, as anxiety,
fear, surprise, anger, joy, and indeed, almost any thing, which
shall counteract the tendency of disordered nature to bring
around her train of morbid actions, may be used with a good
degree of success, for the interception of bilious chill. But when
this is effected, we have gained nothing but the overcoming the
exciting cause; the system in general, as well as some particular
organs, being left with all their original predisposition, and that
actually increased by the past existence of febrile paroxisms.
For when these periodical actions are suspended, every one
knows how easy it is, by subjection to the action of debilitating
causes, at the period for the bilious chill, or even at some other
period, to cause its return.

A close observation of nature should be sufficient, whether
it have the effect or not, to convince the most skeptical of this
one fact, that there is a bilious chill, and a bilious fever, of char-
acter, type, and nature peculiarly their own. These peculiar
characters should be familiarly understood by every practitioner.
They are effects in direct and proportionate relation with the
several causes concerned in their production, and like all other
effects whose removal or prevention is desirable, call for reme-
dies which are in good proportionate relation, in power and kind,
with the noxious causes. This view cannot fail to reveal the
nature of the deficiency which attached to the plan of cure
above examined. We have seen that its tendency was at best
only calculated to bring back the system to its state previous to
the effects of the exciting cause—leaving it, however, with its
predisposition, aggravated by febrile paroxism. Here then is
the great error; the obvious symptoms which certify plainly the
existence of disease are overcome, but a fatal predisposition is
still left, and thus increased, to work out its disordering influence on the organization. The resulting phenomena will vary as exactly in proportion to the unity or the combination of morbid forces in the production of their effects, as in the direction of a moving body from a single force, or a combination of forces. Or, as in a chemical process in which sub, super, and neutral salts vary in proportion to the proportionate relation of the influencing causes; or as a tripple salt must be the result of certain other additions to the causation. In the first of these illustrations, if the single force be allowed to operate, the body impelled thereby will move in a direct line with that force: any intercepting means must therefore be also in this same direction. It tends to effects materially different from those resulting from combinations of forces. And again, in the other illustration, a sub, super, neutral or tripple, or a metallic salt will differ in its chemical or physical agencies, according to the circumstances of the combination; and all these, again, vary exceedingly in their resulting phenomena from the chemical or physical powers of the simple elements of which they were composed. The acids or alkalies, earths or metals, have their own appropriate phenomena, proportionate, in kind and extent, with their powers as such. To find their effects and to intercept their powers, then we may look for very different phenomena, and meet them with agents which bear a reasonable relation to the natures of the causes. As soon might we expect to correct an alkaline element by an alkaline agent, merely because it would neutralise the acid concerned in the formation of a salt with that alkaline element, as to expect that the treatment peculiarly adapted to the correction of an exciting cause, must correct also the predisposing. As the alkali, in this case, uncorrected, would continue to exercise its influence in all the future chemical process, without the influence of its proper corrective, so does the predisposing cause of fever continue to work out its peculiar phenomena, which are only correctable by proportionate means. The predisposition then demands correction, as well as the exciting cause, and the cure is incomplete, and never effected, unless by the resources of nature, if this be neglected. And here is the place for expectantism. When it is clearly evident that the resources of the system are sufficient for the correction of the
morbid predisposition, this correction may be left thereto: but no less sound judgment is necessary in determining this point, than in determining the use of mercury or of arsenic, for it is not less dangerous to leave a work for nature to perform, out of proportion to her powers, than it is to give a powerful medicine not proportionate to the exact demands of the case. But when it is not clearly evident, that the system is capable with its own resources to be entrusted with the correction of predisposition, it should of course not be more readily confided to her than to any other inefficient agent. Nor is it so often the case as the friends of expectantism may be inclined to think or to hope. This truth is evident, not only in the observations of nature in such cases, but it may be logically established with great precision, thus:—1. Here is a given human system in health, consequently in possession of all its natural physical and moral endowments. 2. Here are predisposing causes of bilious disease. 3. Here remark that, notwithstanding the primary good health in all respects, predisposition or a predisposing state of the system supervenes, proving the power of this cause to invade the system in defiance of all its vires naturæ medicatrices in full perfection. 4. An exciting cause is applied, and the phenomena of a bilious fever developed, as the legitimate result of the action of these causes in the system. 5. The influence of the exciting cause is overruled by a powerful tonic, as quinine, steel, arsenic; leaving the system with its predisposition actually aggravated by the existence of febrile paroxism; or, if you please, without this aggravation. In the sixth place we will ask, how, if the law be true, which nobody disputes, that similar causation in all respects must be followed by like results. how, we ask, if these things be so, can it be possible for the resources of a system—the vires medicatrices, undoubtedly impaired by the actual invasion of disease, effect the final extermination of a cause whose invasion it could not, with all the advantages of fine health, prevent? As well might we expect the physical resources of a country might conveniently expel her invaders from her centre, after being beaten down and prostrated by their superior force, when, with all preparation, and in the fullness of her powers, she could not at first repel the invasion. But if she form allies of sufficient power, she may be
expected to effect the expulsion, and restore the commonwealth to peace and safety. Just so is the reasoning in the case of the predisposition. Remedies only which can measure powers with the invader, will be able to secure the desired renovation of perfect health: whether they be such as shall increase the natural energies permanently, and lessen the application of predisposing influences, as winter, a better climate, &c., or such as shall more directly attack and exterminate the enemy by a physical force competent to the end desired.

We will remark here, in conclusion, that periodical hemorrhage, as here related to, is an accident, so far as its cause is concerned, of the same nature as topical congestion; and is indeed, nothing more nor less than the effect of topical congestion in the part whence the hemorrhage comes, which is a part easily relieved by spontaneous topical depletion; or in some more distant part which cannot be thus relieved, but which determines an unusual afflux to the part which becomes the seat of hemorrhage. Its cause is, therefore, the same with the cause of congestions, infarctions or engorgements of the spleen, stomach, intestines, and the parts generally whence the portal branches originate, as well as of the great nervous centres. These, however, are, like the hemorrhage, secondary, and have generally for their cause, obstructed hepatic circulation, with consequent induration and tremefaction of liver and spleen—fruitful sources also, of those gastric and intestinal inflammations, which have received the names of gastrite and interite, so commonly believed to arise in bilious pyrexiae; as well as the spinal congestion and irritation, which affords such a distressing variety of neuralgic symptoms.

These hemorrhages are generally from the nose, lungs, stomach and intestines, hemorrhoidal regions, or the uterus. These parts are easily relieved temporarily, by spontaneous depletion. Not so with the spleen, mesentery, spinal and cerebral centres, &c. Now, we consider all these caused by an unusual determination to, or retention of blood in them, in consequence of some obstruction to its wonted and important circulation through some other parts of its route. The primary seats of dangerous obstructions, are generally the liver and the uterus. This brings us to the point we had in view. No one will contend that
Quinine is possessed of those deobstruent powers, which should justify our trusting to its operation for the removal of these primary visceral, or organic obstructions—now to become, unless removed, the cause of numerous sequelae, such as congestions in various parts, with or without irritations, hemorrhages, lymphatic obstructions, &c. What then, we would enquire, is it calculated to do? Only, at best, by meeting the demands of the exciting cause of that state, with some energising influence, to change the periodic exacerbational tendency, and thereby check the present form of the disease; and leave causes present, and still in operation, to produce their more serious effects, on other, more vital, and less relievable parts. Hence then, a dreadful train of afflictions too often follow, not all in the same case, but some of them sooner or later, in almost all thus treated; amongst which, we may name hemorrhoids, fistula, follicular enterites, bronchitis, dyspepsia, constipation, diarrhoea, colic, hepatic derangements, with all their consequents; spinal irritation, with all its numerous afflictions and mischiefs, &c.

PART II.

REVIEWS AND EXTRACTS.


The valuable paper above named, is contained in the American Journal of the Medical Sciences, for Aug., 1837, and should, in justice to its merits, have been noticed last year; but we have rested in the hope of being able to see a specimen of the improvements of Dr. Chase, that we might exercise a closer judgment on their merits, than we could by merely reading the
several reports, and Dr. Chase's book on the radical cure of Hernia. We regret that although we have made no inconsiderable effort to effect that end, even to the present time, the truss of Dr. Chase has not, so far as we are able to learn, reached the shores of Georgia. Dr. Chase's treatise on the radical cure of hernia, with a valuable essay by the same gentleman, which appeared not long since in this Journal, intended to guard against the abuses of the truss, together with the preliminary report of the committee of the Philadelphia Medical Society afforded satisfactory evidence of the valuable talent concerned in the improvements and the examination of the same. And the final report, the document now before us, is as satisfactory and conclusive as could be desired; still, in noticing the article, we have hoped to be able to speak from observation, in addition to the extensive and satisfactory evidence of the worthy committee, on the subject of this valuable improvement. We feel unwilling, however, longer to delay laying before the profession, a brief notice of its merits, as contained in the final report of the patient, persevering, faithful and talented committee.

It will be recollected, that as long ago as the session of the Philadelphia Medical Society in December, 1831, Drs. Coates, Parish and Ashmead were appointed a committee for the investigation of the merits of Stagner's Truss, and other proposed means of radical cure of hernia. This committee have faithfully labored in the premises, with experiments and observations on numerous cases in point, until the 20th of last April; an instance of persevering zeal, industry and faithfulness, highly creditable to the gentlemen who compose it, and meriting the obligation of the community. After laboring one year in the discharge of the duties assigned them, they read a partial, or preliminary report to the society, at the sessions of the 5th and 12th of April, 1835. This preliminary report was published in the xvii. vol. of the American Journal of the Medical Sciences.

In this preliminary report, some valuable conclusions were arrived at, which were all important; for the investigations seem to have been pursued with great care and accuracy, and the conclusions not hastily drawn. Amongst the most important of them, we will name the following:—

1. "That the most perfectly retentive apparatus, is that which affords the strongest probability of radical cure; and that long-
continued or considerable irritation in the parts, 'as contended for in the use of Stagner's truss,' so far from being an advantage, in reality, opposes the successful treatment; that there are no facts in their possession which tend to prove indisputably, that even slight irritations of the superficial tissues are transmitted to the tendons of the abdominal muscles in such a manner as to accelerate the cure; and that radical cures are some times effected without any other irritations than such as are altogether fugitive in character."

2. "That the retentive power of solid blocks exceeds, ceteris paribus, by considerable difference, that of pads composed of soft materials."

To this, the final report adds, that "The whole current of the evidence since presented to them, most fully substantiates the correctness of this position; as the number of cases has been large in which the various instruments with soft pads, have failed in effecting accurate and permanent retention, and in which the more perfect apparatus with blocks of proper form, have been substituted with complete success."

The committee have demonstrated, in their various investigations, the impropriety of substituting even "firm, but elastic materials, for the absolute solids in the construction of the armature of trusses; and the inadmissibility of caoutchouc, as a direct and permanent application to the skin," they consider as established by the well known fact, that "the irritating effects of this substance are so well known in the neighborhood of the caoutchouc cloth manufactory near Philadelphia, that it is extensively employed there, as a popular remedy in cases of chronic rheumatism."

We remark, in passing, that this observation, relative to the fact of the irritating powers of caoutchouc, having brought it into popular use as a remedy in chronic rheumatism, is a valuable corroborative of Dr. Chase's essay on the caoutchouc as an endermic application for the purpose of counter irritation.*

Excluding much of their investigations from the report, by their conclusions, that the most retentive means offered the best promises of cure; and that absolute solids offered the best armatures for effectual retention, the committee next proceed to consider only "the trusses with solid blocks, now in use or recommended by inventors." These, they "divide into two classes:"

* See Southern Medical and Surgical Journal, vol. i, p. 663
1. Those which are constructed for the express purpose of producing irritation, in order to effect a condensation of the skin, cellular tissue, and the fascia supraperitonealis, or the abdominal tendons about the hernial orifice, into one common mass of adhesion.

2. Those which are designed to secure the constant, perfect and safe retention of the bowel, without the attempt to create intentional irritation in the parts pressed by the instrument.

The first class includes the truss of Stagner, and the various apparatus of Dr. Hood, for the treatment of common inguinal, ventro-inguinal, femoral and umbilical hernia; also Price's and Sample's improvements, of conoidal truss-blocks of lead, tin, and other metals.

The second class contains the old and well known instrument introduced to the notice of the society by Dr. Perrine, during the debate which followed the presentation of the preliminary report, in 1835. The specimen presented to the society was armed with a wooden block; and since making their preliminary report, the committee ascertained the fact, of which they were not before assured, that the wooden block had been in use twenty years, and probably for a much longer period before its improvement by Mr. Stagner. This class also embraces all the instruments invented by Dr. Chase, which are five in number, it will be spoken of in detail hereafter.

The arguments of the committee on the first of these classes, naturally arrange themselves under two heads. 1st. Comments upon the supposed establishment of adhesive inflammation; and 2ndly, an estimate of the retentive power of the apparatus.

On the first of these topics, the committee, after many, patient, and fair experiments and observations, necessarily conclusive in their nature, came finally to the following unavoidable result, that they "feel compelled to regard these facts" (their own experiments and observations,) "as conclusive against the truth of the doctrine, that the trusses, or blocks of the first class produce a real condensation of, or adhesion between the skin, the sub-cutaneous cellular tissue, and the fascia superficialis, or abdominal tendons." They "therefore entertain decidedly the opinion, that the hypothesis of condensation and adhesion is intenable."

On this subject the committee go further; and being, very properly, unwilling to give heresay evidence, they give an instance which came under their own observation, (case xii,) verifying their fears that the continuance of the pressure of this
first class of trusses, might endanger the integrity of the tendons themselves. In this case, this result had actually taken place; and the patient was still, at the time of the final report, under treatment for this serious misfortune. While the bowel is, however, perfectly retained by one of Dr. Chase's large ventro-inguinal trusses, time alone can determine the ability of the tendons to recover their original structure.

The committee next "proceed to examining the retentive power of the trusses of the first class, so far as this subject remained unfinished in their preliminary report; alluding, at the same time, that whatever of retentive power trusses of this class may possess, to it alone is attributed the good attendant on their use. This brings us to the 2nd, and last head under which the argument on the first class of trusses was arranged.

For the purpose of testing the retentive power of this class of trusses, the committee have again labored with great patience, fairness and perseverance, all of which, together with their reasonings on the subject, result in the following conclusions:—

"1st. That the trusses of the first class do not secure the complete permanent retention of the bowel with all the certainty which may be obtained by mechanical means."

"2nd. That although it is extremely probable that radical cures may be occasionally effected by the use of such instruments, it has not been proved that the success following their employment, exceeds that which has been obtained by the better kinds of trusses previously in use."

"3rd. That the action of these instruments is often attended with serious and unnecessary inconvenience, uneasiness and pain," and

"Lastly, That their employment for too long a time, when the degree of pressure exerted by them is considerable, sometimes produces absorption of the tendons, dilatation of the hernial orifice, and an extension of the evils they are designed to remove; and that any attempt to obviate this danger, while the support of the instrument continues to be required, will diminish the security of the retention."

From all which reasons, the committee do not feel warranted in making a favorable report on the claims of this class of trusses, upon the confidence of the society.

Eberle's, or the Rachet truss having been examined with the first class, the committee next pass to the only remaining part of their duties, which is the consideration of the six instruments of Dr. Chase.
In considering Dr. Chase's trusses, which make up the whole of the second class, the committee commence with setting forth their allledged claims.

"The object of these instruments is to secure the perfect and permanent retention of the viscera in hernia, in order to permit the powers of nature to effect a radical cure, after the removal of the misplaced parts, which are supposed to offer the greatest obstacle to her success."

They then proceed, in the first place, to investigate "how far they fulfil the all-important purpose of retention; leaving their effects upon the tissues, the modus operandi of nature in effecting the cure, and the extent of the results to be discussed in the sequel under distinct heads, which they subsequently proceed to do in the most thorough manner.

"The inventions and improvements of Dr. Chase, many of which have been adopted since the presentation of the preliminary report, extend to all parts of the truss and its appendages; and his attention to minute, but highly important details, has been carried to an extent, never equalled by any of his predecessors in this branch of surgery. The complete instruments employed by him, are—1st. The inguinal, or common inguinal truss. 2nd. The ventro-inguinal truss. 3rd. The femoral truss. 4th. The umbilical truss. 5th. The umbilical belt. 6th. The double truss."

To each of these a separate section is given, in which each part is particularly considered, viz: The block; the block attachment; the spring and strap-attachment; and the appendages, and all illustrated by wood cuts. After duly explaining every part of the inguinal truss of Dr. Chase, the committee have been pleased to say, that they

"Feel bound honestly to state their convictions, that this instrument surpasses all others known to them, in the accuracy and permanence of its retentive power in common inguinal hernia; a conviction fully sustained by all their practical observations on the action of trusses. The instrument is worn with so much comfort, that patients generally relinquish it unwillingly, and sometimes absolutely refuse to do so, even when pronounced well by the surgeon. The committee find themselves unable to suggest any improvement, or to point out any defect of principle or construction in this truss, as now employed by the inventor."

Of the Ventro-inguinal Truss of Dr. Chase, they say:

"To the complete instrument, as it has been actually employed
during the last year, the committee may safely apply the same language used in concluding their remarks on the inguinal truss."

Of the Femoral Truss. The committee having been very limited in their opportunities of testing its value, are not prepared to say much definitely on its absolute perfection. "How far it may answer the special purpose of its construction, by entering under the fold of Poupart's ligament, and acting almost directly on the femoral ring, the committee will not venture to judge from a single case. The report of Dr. Chase as to its result in other instances, is favorable; but neither that gentleman, nor the committee, regard it as having acquired the highest degree of perfection of which it is capable."

It is expected to undergo further modifications.

Of the Double Truss, the committee presented a new article, the invention of Dr. Chase since the preliminary report, and now for the first time laid before the society.

"It is an association of two single trusses, so combined as to be perfectly independent in their action, without the slightest interference; yet so associated by means of the straps and loose spring covers, that they present the appearance, and act with all the convenience of a single instrument. * * * The committee cannot speak too highly of this beautiful invention, but it may be safely permitted to speak for itself."

Of the Umbilical Truss. "This truss has secured the perfect and constant retention of the bowel in all the cases seen by the committee, two of which were of a peculiarly unfavorable character."

"The committee deem it, therefore, almost unnecessary to state their decided preference of this instrument."

The Umbilical Belt. The committee concluded their brief observations on this instrument in the following words:—

"In condemning the umbilical belt of Dr. Chase, together with all its predecessors, the committee feel much pleasure in stating that after practical tests, which they did not deem necessary, it has been frankly relinquished by its inventor, although it has effected radical cures in two cases. (See cases xx. and xxix.)"

In concluding their comparison of the two classes of trusses, and after amply testing the actual merits of each, they

"Deem any further comment on the retentive power of the trusses of the second class (made up of those of Dr. Chase."


altogether unnecessary. These instruments certainly fulfil to
admiration the two grand requisites which they consider neces-
sary to bring the chances of radical cure of hernia to a maxi-
mum."

"After all that has been stated, the committee feel themselves
fully warranted in the following conclusions:
"1. The retentive power of solid blocks is, ceteris paribus,
superior to that of soft pads in the treatment of hernia, as has
been already stated in the preliminary report.
"2. The chances of radical cure depend upon the perfection
and permanence of the retention.
"3. The perfection and permanence of the retention depend—
first, upon the mechanical action of the instruments; and, se-
condly, upon the power of the parts affected to bear that action
without danger of physiological accidents of sufficient import-
ance to interfere with the treatment.
"4. All the instruments with solid blocks contrived before the
recent inventions of Dr. Chase, are decidedly liable to import-
ant mechanical objections, and all of them, with the exception
of the Rachet truss, are moreover capable of producing physio-
logical accidents of sufficient importance to interfere with the
treatment.
"5. The construction of the Rachet truss is such as to render
retention uncertain even in ventro-intestinal hernia, to which
form of the disease alone, it is tolerably well adapted.
"6. The instruments of Dr. Chase have effected the perma-
nent and accurate retention of the intestines in every case of
hernia observed by the committee, without material inconven-
ience to the patient, and often under trials more severe than are
usually ventured upon by those who wear other trusses; trials
which would be imprudent with any other apparatus known to
the committee.
"7. If we except the femoral truss, these instruments have
stood the test of much practical application without superinduc-
ing any physiological accidents of sufficient importance to in-
tereffe with the treatment.
"8. The mechanical principles upon which the femoral truss
is constructed appear highly ingenious and promising, and unless
this instrument should be found hereafter to be productive of
important physiological accidents, it must take precedence of all
other modes of treating this variety of the disease. No such ac-
cidents are yet known to have been produced by its employ-
ment; but the committee have not enjoyed the opportunity of
personal inspection in a sufficient number of cases to determine
general results, nor do they deem it proper to receive evidence
from any other quarter in discharging the trust reposed in them
by the society."
The committee, on this important subject, consider

"A cure is radical, when the tendinous and fascial barriers to the egress of the bowel are brought or restored to their normal or original firmness and power of resistance. The only means by which such a result can be tested, are the firmness and resistance of the orifice when placed where it is subject to examination, and the absence of all appearance of protrusion after the truss has been relinquished for some weeks or months, and after the patient has pursued his usual avocations, resorting frequently to more severe exercises, such as coughing, leaping, fatiguing walks, swimming, lifting, dancing, riding on horseback, &c."

"The time required for the radical cure of an ordinary case of ventro-inguinal or direct hernia, in the adult, appears to be from twelve to eighteen months. The common inguinal hernia is believed to become secure at an earlier period, and the umbilical, later; all varieties, however, recovering much more rapidly in childhood, in which cases the committee have found, since their preliminary report, and contrary to the opinion then advanced, that this class of trusses is "borne without inconvenience in infancy."

We have but one regret on the subject of this report, and that is that it is not in our power to give it entire; for it is so fair, conclusive and well drawn up, we feel that scarcely can a sentence of it be omitted without withholding something valuable from our readers, and doing injustice to the committee.

We cannot now take our leave of it, however, without giving two or three more of the latter paragraphs entire. It will be remembered that the great object of the late improvements in this department of surgery was to effect radical cures in these cases, without resort to the knife. After all, then, the value of the improvements must be determined by their practicability, their safety and their unequivocal success. It should be also borne in mind that time, considerable time, only can develop the final success. The following paragraphs give us the results of the practice, so far as they could be accessible to the committee.

"A variety of causes have tended to reduce the number of cases in which the whole history of the accident, the treatment, and the result have been placed within reach of the committee. Among the most important of these may be mentioned the extreme unwillingness of many patients to relinquish the use of the truss, even when urged to do so by the united advice of their surgeon and the members of the committee; the removal of many
patients to a distance, after having been a long while under treatment, but before it has been deemed perfectly safe to lay aside the instrument; and the unwillingness of some persons to submit to the necessary examinations: yet, notwithstanding these difficulties, the amount of indubitable evidence actually furnished on the question of radical cure has been considerable, though none has been relied upon as basis for conclusions, except such as has been furnished by the actual examinations of one or other of the members of the committee, and the testimony of the patients themselves.

“All the individuals who have relinquished the use of the trusses approved by the committee, after having worn them for six months or more, and who have been afterwards examined by a member, or members of the committee, have been subjected to the necessary tests, and are believed to be radically cured in the sense of the foregoing definition. A still larger number who are yet under treatment, give promise of a similar result, and those who refuse finally to relinquish the instrument on the advice of their surgeon, present, in the firmness of the rings, and in the absence of protrusion under exertions performed when the trusses are temporarily removed, very strong grounds for believing the cure to be radical in them also. Two cases only of old ventro-inguinal hernia, occurring in persons of nearly sixty years of age, and so large that the orifices admitted of the free passage of two or more fingers within the reverted skin, have been deemed incurable; but even in these, the contraction of the rings, and the resistance to protrusion when the trusses have been removed by the patient for a few hours, render the impossibility of cure by no means certain; and it is deemed improper ever to subject the patients to the tests necessary to determine the question.

“An appendix follows the report, detailing upwards of thirty cases. Case xix in this appendix, which is an umbilical hernia of many years standing; enormous orifice, is completely retained by Crase's umbilical truss, with a block six inches in diamater. This patient is restored to usefulness, but is deemed incurable.”

Finally, it is declared, that “the cases observed include all the usual forms of external hernia, whether resulting from mechanical or physiological causes; and also, some instances of double and triple hernia.”
Human Electricity.

We extract the following narrative, extraordinary in degree, but not in kind, from Silliman’s Journal for January, 1838, with the fullest confidence in its truth. We are aware that the statement of Dr. Hosford will be looked on, by many who are at a distance from him, as a hoax, or at least as an exaggeration, or an unfair narrative of facts: nor do we suppose that Dr. Mussey’s statement will have the power of wresting it from the fate of skepticism with some readers. In their fullness of pride, human beings are wont to disbelieve, especially in philosophy and religion, that which they do not understand.

This is the case to almost as great an extent as the disposition to disbelieve whatever is counter to their party views or their previously avowed notions. We know nothing of Dr. Mussey but his character as a professional man: the same may be said of Dr. Hosford. Professor Silliman, all the world know to be, in literature and philosophy, amongst the stars of the first magnitude. But, we are told that he is so credulous as to be very susceptible of tricks of imposition. Perhaps he may be. Honest men, and men of profoundest science, do often become so familiar (so to speak,) with the wonders of nature, that, with the predisposition their own honesty gives them, it becomes easy to believe there are still things which their own intellects can neither analyze nor comprehend. It is the effect of profound knowledge to humble the heart and generate reverence for that matchless wisdom which is found displayed in the heights and depths of Nature’s domain: and to teach this truth, which seems to be neither known nor believed by all, that neither the knowledge nor the comprehension of all things is yet given to man.—It is a very small part of the great golden rule of virtue which requires that “we should do unto others as we would that they should do unto us,” to consider all men honest until found otherwise—all men true, until proved false. But there are other grounds for credence in this case. When human evidence which we should not dare to doubt in other matters is afforded, our own want of powers to analyze the subject, is no justification of our skepticism.
We are not content with less than an entire extract of the statement made by Dr. Willard Hosford, at the instance of Professor Silliman; with the preliminary remarks of the latter gentleman, from the American Journal of Science and Arts, for January, 1838, page 394.

Extraordinary case of electric excitement, with preliminary remarks by the Editor. The facts stated below were, by my request, kindly communicated for this Journal by Dr. Willard Hosford, a respectable physician of Orford, New Hampshire, the place where the occurrence happened. Being in that place in September, and finding the belief in the facts to be universal, particularly on the part of persons of judgment and science, (as at the neighboring University, Dartmouth, at Hanover, eighteen miles south,) I became desirous of preserving a record of them.

Dr. Hosford remarks in the letter accompanying his communication, that abundant evidence from the most intelligent persons is at hand for the support of every point in the case. He observes also, that the appearance of the aurora during which the electrical excitement of the lady took place, "was precisely the same as that described by some gentlemen at New Haven."

Speaking of it Dr. Hosford adds, that "the heavens were lighted with a crimon aurora of such uncommon splendor, as to excite no ordinary emotions in every observer, and we had, he observes, in addition, an electrical exhibition much less dazzling, but more singular and to the parties concerned more interesting."

A lady of great respectibility, during the evening of the 25th of January, 1837, the time when the aurora occurred, became suddenly and unconsciously charged with electricity, and she gave the first exhibition of this power in passing her hand over the face of her brother, when, the astonishment of both, vivid electrical sparks passed to it from the end of each finger.

The fact was immediately mentioned, but the company were so skeptical that each in succession required for conviction, both to see and feel the spark. On entering the room soon afterward, the combined testimony of the company was not sufficient to convince me of the fact until a spark, three fourth of an inch long, passed from the lady's knuckle to my nose causing an involuntary recoil. This power continued with augmented force from the 25th of January to the last of February, when it began to decline, and become extinct by the middle of May.

The quantity of electricity manifested during some days was much more than on others, and different hours were often marked by a like variability; but it is believed, that under favorable circumstances, from the 25th of January to the first of the following April, there was no time when the lady was incapable of yielding electrical sparks.
The most prominent circumstances which appeared to add to her electrical power, were an atmosphere of about 80° Fah., moderate exercise, tranquility of mind, and social enjoyment; these, severally or combined, added to her productive power, while the reverse diminished it precisely in the same ratio. Of these, a high temperature evidently had the greatest effect, while the excitement diminished as the mercury sunk, and disappeared before it reached zero. The lady thinks fear alone would produce the same effect by its check on the vital action.

We had no evidence that the barometrical condition of the atmosphere exerted any influence, and the result was precisely the same whether it were humid or arid.

It is not strange that the lady suffered a severe mental perturbation from the visitation of a power so unexpected and undesired, in addition to the vexation arising from her involuntarily giving sparks to every conducting body that came within the sphere of her electrical influence; for whatever of the iron stove or its appurtenances, or the metallic utensils of her work box, such as needles, scissors, knife, pencil, &c. &c. she had occasion to lay her hands upon, first received a spark, producing a consequent twinge at the point of contact.

The imperfection of her insulator is to be regretted, as it was only the common Turkey carpet of her parlor, and it could sustain an electrical intensity only equal to giving sparks one and a half inch long; these were, however, amply sufficient to satisfy the most skeptical observer, of the existence in or about her system, of an active power that furnished an uninterrupted flow of the electrical fluid, of the amount of which, perhaps the reader may obtain a very definite idea by reflecting upon the following experiments. When her finger was brought within one sixteenth of an inch of a metallic body, a spark that was heard, seen, and felt, passed every second. When she was seated with her feet on the stove-hearth (of iron) engaged with her books, with no motion but that of breathing and the turning of leaves, then three or more sparks per minute would pass to the stove, notwithstanding the insulation of her shoes and silk hoseery. Indeed, her easy chair was no protection from these inconveniences, for this subtle agent would often find its way through the stuffing and covering of its arms to its steel frame work. In a few moments she could charge other persons insulated like herself, thus enabling the first individual to pass it on to a second, and the second to a third.

When most favorably circumstanced, four sparks per minute, of one inch and a half, would pass from the end of her finger to a brass ball on the stove; these were quite brilliant, distinctly seen and heard in any part of a large room, and sharply felt when they passed to another person. In order further to test
the strength of this measure, it was passed to the balls by four persons forming a line; this, however, evidently diminished its intensity, yet the spark was bright.*

The foregoing experiments, and others of a similar kind, were indefinitely repeated, we safely say hundreds of times, and to those who witnessed the exhibitions they were perfectly satisfactory, as much so as if they had been produced by an electrical machine and the electricity accumulated in a battery.

The lady had no internal evidence of this faculty, a faculty sui generis; it was manifest to her only in the phenomena of its leaving her by sparks, and its dissipation was imperceptible, while walking her room or seated in a common chair, even after the intensity had previously arrived at the point of affording one and a half inch sparks.

Neither the lady's hair nor silk, so far as was noticed, was ever in a state of divergence; but without doubt this was owing to her dress being thick and heavy, and to her hair having been laid smooth at her toilet and firmly fixed before she appeared upon her insulator.

As this case advanced, supposing the electricity to have resulted from the friction of her silk, I directed (after a few days) an entire change of my patient's apparel, believing that the substitution of one of cotton, flannel, &c. would relieve her from her electrical inconveniences† and at the same time a sister, then staying with her, by my request, assumed her dress or a precisely similar one; but in both instances the experiment was an entire failure, for it neither abated the intensity of the electrical excitement in the former instance, nor produced it in the latter.

My next conjecture was, that the electricity resulted from the friction of her flannels on the surface, but this suggestion was soon destroyed when at my next visit I found my patient, although in a free perspiration, still highly charged with the electrical excitement. And now if it is difficult to believe that this is a product of the animal system, it is hoped that the speculations will tell us from whence it came.*

In addition to the ordinary appurtenances of a parlor, it may

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* It is greatly to be regretted that the spark had not been received into a Leyden bottle until it would accumulate no longer, and then transferred to a line of persons to receive the shock.—Ed.

† This could hardly have been expected from non-conductors; we are informed that the lady was relieved of the electricity by a free communication with the earth by a good conductor, in the manner of a lightning rod, as by touching the stove and its connection with the earth through the medium of the chimney.—Ed.

‡ It appears to be Dr. Hosford's opinion, that the electricity was not caused by the aurora that was coincident with its first appearance, but that it was, in some way, an appendage of the animal system.—Ed.
be proper to add, that the lady's apartment contained a beautiful cabinet of shells, minerals, and foreign curiosities.

This lady is the wife of a very respectable gentleman of this place; she is aged about thirty, of a delicate constitution, nervous temperament, sedentary habits, usually engaged with her books or needle-work, and generally enjoying a fine flow of spirits.

She has, however, never been in sound health, but has seldom been confined to her bed by sickness even for a day.

During the past two years she has suffered several attacks of acute rheumatism, of only a few days continuance, but during the autumn, and the part of the winter preceding her electrical development, she suffered much from unseated neuralgia in the various parts of her system, and was particularly affected in the cutis vera, in isolated patches; the sensation produced being precisely like that caused by the application of water heated to the point a little short of producing vesication; in no instance, however, did it produce an apparent hyperæmia, but about the last of December a retrocession took place of this peculiar irritation, to the mucous membranes of the fauces, æsophagus, and stomach, there producing a very apparent hyperæmia, and attended, during the exacerbations, with burning sensations that were torturing indeed; and it was for the relief of these symptoms that medical means were used, but it was found no easy matter to overcome this train of morbid action.

It was nearly immaterial what medicines were used; no permanent relief was obtained, and no advantage resulted from the use of the alkalies, or their varied combinations. In a few instances, a dose of the acetate of morphine was given to secure a night's rest, but she seldom made use of an anodyne.

The effervescing soda draught being very acceptable was freely given—from which, in addition to a rigid system of dietetics, the influence of the opening spring and the vis medicatrix naturæ, relief came of her electrical vexations, of most of her neuralgia, and other corporeal infirmities, and to this time, a much better state of health has been enjoyed than for many years.

Orford, N. H., Nov. 16, 1837.

The only strange fact in this case, is the coincidence (for we consider it nothing more) of the first displays of unusual electrical developments in the person of the lady, and the occurrence of the Aurora Borealis. The Aurora Borealis we well remember, as its beautiful displays were very obvious at this place. It was remarkable for its conspicuousness thus far south; but we hold it impossible that the electricity afforded by the lady could have been owing to a charge from that electrical phenom-
cuon. It is a cause constantly occurring without the production of such effects; it is also a cause perfectly incompetent to their production, as is evident to any one familiar with the most common laws of electricity. A charged prime conductor, or a powerful electrical battery, would have been incompetent. The phenomena clearly evince that the source of the electricity displayed was within the body. We are surprised that Professor Silliman did not give an unequivocal decision on this point instead of stating in a foot note that Dr. Hesford thought "that it was, in some way an appendage to the animal system." But great men are sometimes rather scrupulous of giving their own opinions on points, for the proper reception of which they think the world is not fully prepared. They are generally afraid to venture their belief in a fact, the rationale of which they may not be fully prepared to set forth. Such has been the case with many; it is indeed generally with men who wish to be considered philosophers. We believe this to have been the case with M. Dupuytren when, on a certain occasion not long after the free introduction of acupuncture into France, he introduced fifteen or sixteen needles into a rheumatic knee to the entire relief of his patient. He felt, on touching the end of one needle, a peculiar sensation which, by its strong resemblance to a slight electrical sensation, attracted his particular attention. Determined to ascertain if possible its nature, he connected the ends of all the needles with a small wire, thus forming them into a kind of battery, and procured obvious sparks of electricity; still, however, notwithstanding he was forced to acknowledge the fact that electricity actually passed off from the diseased knee in this case, he took care to pronounce the decided opinion that this discharge of electricity had nothing to do with the curative effects of the operation. And full of theorising without facts or competent causes as are some of the gentlemen of dignity at the great French metropolis, they have had very little to say of many palpable facts which have been before them; such for instance as the relief of some acute pains and inflammations by simple acupuncture, and the relief of chronic ones on infusing into the part, by the needle, the charge of an electric or galvanic battery.

We are pleased with the case with which Professor Silliman
has favored us, not only on account of our implicit belief in the truth of the facts declared, and our admiration of the wonderful amplitude of Nature's resources which these facts reveal; but because they offered a strong illustration of the truth of a doctrine which we have long entertained, and which we consider of paramount importance in the science of animal and vegetable life and disease. It is, that the human system has within itself resources adequate to the generation of free electricity, competent in quantity, as well as to the proper insulation and application of the same physical agent; for the development of all the functions of life, and the phenomena of disease.

This we consider no postulation, but the declaration of a doctrine, the truth of which is as demonstrable as the circulation of the blood; and which, in its abundant resources, is calculated to render plain and intelligible, most, not to say all of the phenomena of life, health, disease and death. This we are aware will also be viewed askance, and indeed rejected, because its truths are not, at first view, strikingly intelligible to those who may not have investigated them. But this matters not, when truth is concerned.

We regret that some one of those friends who are in the habit of borrowing rare books and retaining the loan, has deprived us of the opportunity of giving, in connexion with this case, an exact extract from Brydone's Tour in Sicily and Malta, of a case precisely similar in its philosophy, and very much so in its leading facts. In the absence of that volume of this little work which contains the statement alluded to, we will endeavor to give the leading facts of the case by memory, from a reading some eighteen or twenty years ago. This work has been little known, and less read, because early stamped with a want of confidence in its entire truth, which we consider chiefly or solely owing to the disposition to doubt the truth of this case.

Somewhere amongst the Alps, we think, he met with a lady of rank, of high sanguine, or sanguineo-nervous temperament, who when in full dress, emitted sparks of electricity to any conducting body near her, as regularly as the charged prime conductor of an electrical machine. The displays were very evident to the sight and feeling, the sparks passing a considerable distance. Her full dress amounted to a good silk insulation.
Compression of the Carotid Artery.

But we need not go farther than our own firesides for evidence of the internal development of electricity. Here, without other insulation than common shoes, we find on a cold, dry morning, that our children's hair is divergent, from the repulsive power of electricity, as if charged on an insulating stool. We find the same phenomenon in the tail and mane of our horses on a cold dry day. There are, it will be admitted, but two possible resources for this charge; these are either without or within the body. It is reasonable to conclude that it is not from without; for the only exterior sources are electrical generators, or a charged atmosphere. In this case, the former of these is not present. The latter, to have imparted it, would be of the same electricity and would, according to a well known law of electricity, that positive repels positive, repel, instead of attracting it. The conclusion is then inevitable, that the electricity thus displayed arises from the animal organism.

Of the compression of the Carotid Artery in the treatment of Convulsions: By A. Trousseau, Physician to the Hospital St. Antoine, and agrégé of the Faculty of Medicine at Paris.

When a therapeutic fact is isolated, it possesses in general no value; but when the curative action of a new plan has been so evident that it is impossible to doubt its efficacy, when this plan is of easy employment and does not produce the slightest inconvenience, it is the duty of the conscientious physician to introduce it to the attention of his professional brethren.

On Monday, 11th September, 1837, Doctor Carisse did me the honor of requesting my attendance in consultation with Professor Chroom and Doctor Toudriac, respecting the case of a young child aged eight years. Our young patient had suffered much for several months in consequence of the second dentition. Towards the close of August of the same year, he had an attack of scarlatina, which was very mild and required only hygienic regulations of the simplest kind. Eight days after the invasion of the exanthematos disease, the child at that time in perfect health, requested permission to take a walk in the garden of the ThUILÉRiES. The weather was warm and the request granted.

At first no injury resulted, but the third day afterwards the weather became suddenly cold—the child took cold and the following day the face was somewhat swollen, especially in the region of the parotid gland.
An œdema, not however considerable, took place promptly in the entire body. At the same time the urine was suppressed for sixty-two hours, and was afterwards discharged only in small quantity and of a deep brown colour. But as the patient lived near the Thuileries, he was frequently conducted to the garden for the purpose of recreation. The œdema had somewhat diminished on the 10th September, and in the evening the patient complained of a slight pain in the head. He passed a restless night, and on the following morning complained of a violent cephalgia and manifested an unusual loquacity.

At 3 o'clock P. M. he was seen by M. Cerise, who observed in the patient so extraordinary an appearance and a pulse so irregular, that he remained in attendance three quarters of an hour, anxiously watching the progress of the symptoms; when suddenly, the child felt a very intense pain in the head, carried his hand to the part with a cry of agony, and experienced a violent epileptiform convolution which continued only a few moments and was followed at first by supor and afterwards by a true delirium: it was then 3 3-4 o'clock.

M. Cerise applied immediately 10 leeches behind the mastoid process, and covered the arms, the legs and the entire abdomen with large sinapisms. At half-past 4 o'clock another attack more violent and longer than the first, occurred. At quarter-past 5, a third epileptiform paroxysm. At three-quarters past 5 o'clock, a fourth convolution which remained continuous.

M. Chomel had named 9 o'clock P. M. for the consultation, but as the symptoms became more serious I was sent for in haste. It was quarter-past seven when I saw the young patient. He was stretched upon the bed, the head carried forcibly backwards and towards the right side, the jaws, the eye-lids, the eye-balls, the muscles of the neck, the arm and leg of the right side, were agitated with convulsive movements of a most frightful kind.—The muscles of the left side were in a state of complete relaxation. The head had been covered with ice, but the convulsions continued, cold water had been dashed in the face, a handkerchief wet in iced water had been applied to the cheeks, but the symptoms were not moderated. The pulse, however, acquired an extreme frequency, 160 per minute, and was tumultuous.—The respiration was embarrassed and rattling, it was evident that an engorgement was taking place in the lungs and that the bronchial tubes were beginning to be filled with a spumous fluid—The pupils were excessively dilated. In this conjunction I proposed an affusion of cold water, to continue only half a minute, which was administered, the child having been placed naked in a bathing tub.

No change ensued. The child was enveloped in a blanket, put in bed and supported in a sitting posture, so as to keep the head in an elevated position.
This convulsion had continued two hours, it seemed to us that life would soon be extinguished, when I conceived the idea of preventing the blood from passing to the brain by some mechanical means—and the only mode was that of compressing the primitive carotids upon the side of the trachea.

It will be recollected that the convulsions existed on the right side. By a negligence scarcely excusable in such urgent circumstances, I compressed the right carotid. The convulsions continued, and the compression had been made two minutes when I perceived my error. I placed immediately the index finger upon the left carotid, and before fifteen seconds had elapsed the convulsions ceased suddenly and the child fell into an apoplectic stupor. The compression was continued one hour without interruption, and not the slightest convulsion returned. The respiration, previously rattling and stertorous, became more and more regular and in a quarter of an hour was performed silently. After half an hour the child opened his eyes, and the pulse had fallen to 116. The patient gave signs of intelligence, by attempting to answer questions that were proposed. The sensibility was evident on all the left side of the body, but very obscure on the right; no lesion of the muscular movements on the left side, but on the right the paralysis was complete. The pupils had returned to their normal state. We determined that compression should be continued through the night; that a drop of Croton oil should be administered to produce a derivation to the abdomen, and that cold water should be used as a beverage. We tried however the effect of remaining a minute without compressing the vessel; the compression was then renewed for ten minutes, suspended anew for ten minutes, renewed for ten, suspended for five, renewed for ten, and we then allowed a repose of a quarter of an hour. At half past 11 P. M. consciousness and voluntary motion had been restored. The child would not permit any further compression of the vessel, and demanded drink and food with a vivacity which evidently indicated delirium.

The patient slept during the night, but with some restlessness. The convulsions did not re-appear. The next morning there was still some degree of loquacity, but the cerebral excitation ceased during the day and the convalescence proceeded without interruption.

Remarks.—The influence which the compression of the carotids exerted over the convulsions in this case cannot be doubted. The spasmodic movements had continued two hours, and by the compression they ceased in a few seconds as evidently as the same means would have arrested an arterial hemorrhage.

Let us endeavor to specify the cases to which this plan will probably be applicable. I believe that it will prove useful in
all cases of *congestive convulsions*, meaning thereby all those convulsions which have for their cause only an afflux of blood towards the brain. I do not believe in the efficaciousness of the plan in those convulsions which depend upon an effusion of blood into the cerebral substance upon ramollissement, or laceration or confusion of the brain.

The congestive convulsion (and, under this head we include the eclampsia of women in parturition, that of dentition, that which often attends the incipient stage of the acute diseases of infancy) the congestive convulsion, we say, has for its anatomical characters an engorgement of the cerebral vessels, a slight infiltration of the pia mater and effusion into the ventricles; it may indeed happen that the cerebral substance may be lacerated, that effusions of blood may take place in the medullary substance, that the parenchyma and membranes of the brain may be inflamed; but these accidents are only secondary in the cases of which we now speak and will be averted if the congestion be prevented.

The compression of one of the primitive carotids produces anemia (?) in the corresponding hemisphere of the brain much more rapidly and certainly than blood-letting or an application of leeches, and if it be continued for some time the cerebral circulation will be almost entirely annihilated, and the local irritation which caused the sanguineous afflux will be extinguished by the absence of the blood, without whose stimulus every fluxionary irritation must cease. We may remark also, that if the cerebral congestion be the cause of the convulsion, the convulsion becomes of itself a cause of the congestion with this difference, that the congestion is active in the first and passive in the second case.

The compression of the carotid prevents then in the first place, the primitive active congestion, and opposes still more efficaciously the secondary passive congestion.

The immediate effect of this compression in a healthy person is very remarkable. The face becomes pale, a sensation of chillness is experienced, and sometimes a certain perturbation in the intellect occurs,—these disappear as soon as the blood is permitted to resume its course to the brain.

Hitherto we have spoken only of the compression of one of the carotids. Indeed, it will not be necessary in general to interrupt the cerebral circulation except in one of the hemispheres; for we know that convulsions, even epileptic convulsions, affect almost always only one side of the body, the other side experiencing only very slight convulsive movements. But if both sides of the body were equally convulsed, together or alternately, would there be any inconvenience in compressing at the same moment both of the primitive carotids? By making the exper-
ment upon ourselves we may be easily convinced that the simultaneous compression of the two carotids will not be attended by the inconvenience which we might at first apprehend. The experiment should be made while we are in the horizontal position. Vision becomes obscure, the ideas are somewhat confused—an indefinable sensation of nonentity, but by no means threatening life, is experienced; by degrees these phenomena cease, because the anastomoses enable the vertebral arteries to supply the brain with sufficient blood for the maintenance of its functions.

We should not then fear to compress the two primitive carotids simultaneously when necessary. It is not however necessary to do this immediately, and it is better to compress at first only the vessel of the side opposite to the one in which the convulsions are most violent, and interrupt the circulation a few minutes afterwards in the other hemisphere.

It may not be necessary to mention the place where the compression should be made. I prefer the interval between the sterno-cleido-mastoid muscle and the side of the larynx; for at this point the artery is free and may be easily reached and pressed against the anterior surface of the vertebral column, and if the artery should divide lower down the neck than it usually does, into the two principal trunks, no inconvenience would hence arise, as the internal carotid would then be compressed and the same effect produced. The compression should be made with the thumb or with the index and middle fingers united, the finger is placed parallel with the axis of the vessel or perpendicularly, the palm of the hand turned outwards so as not to press upon the larynx or trachea. We should commence by ascertaining the situation of the vessel by means of its pulsations, and it should then be pressed gently against the vertebral column, taking care that it does not escape from the finger.

I may ask if in acute hydrocephalus of infants, if in the incipient stage of cerebral inflammation, the compression of the carotids would not cure these terrible diseases? I would not be rash enough to advise the ligation of the carotid in an epileptic patient, whose life might be threatened; but if I were afflicted with this horrible disease, I would certainly demand the operation for myself—When a surgeon is applauded for applying a ligature around the carotid for the purpose of curing a tumour of the orbit, he should not be accused of rashness if he were to employ the same operation for the cure of epilepsy. This is what I have to say respecting the compression of the carotids in the treatment of convulsion. I hope sincerely that the plan may succeed in the hands of my professional brethren, for it is simple, of easy application, without inconvenience and does not exhaust like the energetic treatment to which children and women who have attacks of eclampsia, are generally subjected.
If by subsequent experience the utility of this plan be established, it will be a happy triumph in therapeutics: if it be proven to be inefficacious, those who employ it will have no cause of regret, as the patients will not be thereby injured.—Journal des Connaissances Médico Chirurgicales.

Ectopia of the Aorta—reported by M. Key, of Bordeaux.

In the following case the aortia arises from the right ventricles, the pulmonary artery is nearly obliterated, the two ventricles communicate, and the brachio-cephalic trunk is inverted.

A little girl 9 years of age, born of young and healthy parents, was brought from the village of Charente to the hospital of Bordeaux. The skin of the whole body, as well as the conjunctiva and clerotica, presented a decided blue hue, and the nails and lips a deep blue colour. By auscultation the heart was found to beat against the sternum like a hammer; the pulse was small and not of a strength corresponding with the action of the heart. The chest was well developed, sonorous on percussion, though respiration was laborious and attended with constant anxiety. The child was extremely irritable and provoked to violent passion by the slightest causes, during which suffocation seemed imminent: indeed it was in one of these paroxisms, shortly after her admission to the hospital, that the patient suddenly died, as though some mechanical cause had arrested circulation and respiration.

The most remarkable peculiarities revealed by autopsy relate to the heart and its vessels. It should be observed, however, that the accumulation of blood in the cerebral vessels was sufficient to have induced a true case of congestive apoplexy. The lungs did not seem to be developed proportionally to the volume of the heart; they had been however, when examined, sometime macerating in alcohol; they were engorged and did not crepitate.

The volume of the heart was greater than usual at this age; its globular form assimilated it to that of the heart of a Chelonia; the inter-ventricular groove was less oblique than usual; its weight four ounces; the auricles presented nothing peculiar. There was no trace of the foramen ovale, save the slight depression termed the fossa ovalis, and which was more evident in the left than in the right auricle. The right ventricle was somewhat globular, not collapsed, and presented an excentric hypertrophy of its walls, the thickness of which, at the base, was four lines.* Its columnæ carneaæ were so much enlarged as to re-

* The thickness of the same region in an adult heart is usually about 2½ lines.
Phrenology.

This name means, in strictness, the doctrine of the mind, and is far more applicable, according to the principles of nomenclature, to metaphysics in the sense of some of the disciples of the
Aristotelian school, than to the eminences and depressions of the brain or of the cranium. But the brain, being the grand nervous centre, derives a capital importance from being at once the seat and organ of the mind, so far as the location of this important constituent of man can be determined, and so far as physics are concerned in its existence and operations. As such, this organ, anatomicallly and physiologically considered, is worthy of the strict attention of medical men. We have however, but limited means of locating the intellectual nature or constituent of man. They seem to be limited to a few facts—some positive, and others negative. These are mainly that the entire absence of brain is always accompanied by an entire want of intellect—that important lesions of this organ are often attended with intellectual impairment—that the detectable existence of intellect declares the existence of brain, &c. But the law of this relation does not prove itself by working proportionally to the amount of each; for the intellect, and this part of the organization, ranking mind with matter, are not always, nor even generally coordinate. Nor does it prove itself by displaying an adaptation, each to the other; for imperfection of intellect does not necessarily imply an obvious or ascertainable organic lesion of the brain, as that does often appear without any detectable existence of this. And if the existence of organic lesion is not obvious or ascertainable, we have not the right to suppose its existence.—Nor do even very considerable lesions of the brain always declare impairment of intellect. We are authorized by pathological as well as healthy anatomy, to assert that the vital importance of the existence and integrity of the brain to the animal economy, is not so definite and invariable as may be generally supposed; as we have seen the human being live, pulsating and breathing sufficiently for the perpetuation of animal life for many hours, without one atom of cerebrum, cerebellum, or of the radchidian bulb; but at the same time, without the least manifestation of intellect;* whilst again, we have seen that some of the

* A case of anencephalus, noticed sometime since in this journal, which lived 27 hours, in the possession of all the natural powers, so far as could be ascertained except the intellectual. And Rises notes a case of the same kind, which was seen by Bayle, which lived a week.
most severe wounds of the brain have not, of themselves, been accompanied by immediate intellectual impairment.*

But it is not our purpose on the present occasion to enter upon a dissertation on the anatomy or the physiology of this important organ whose good condition is generally essential to the well-being of the economy. We think it a subject for regret that the former name under which Dr. Gall commenced his investigations has not been retained. With the aid of physiognomy, it might have been used, under the name of craniology in peddling around the country the pretended fortunes of the weak who are always ready to bestow their confidence on any novelty, and reward it with their (often) scanty means; without prostituting a good nomenclature. And moreover, the assertions of cranial depressions, eminences and magnitudes, would have been truth; whereas, we have seen beyond all fair controversy,

* Case of Henry Singleton, a soldier, who in one of Gen. Floyd's battles, received a ball nearly as large as that of a musket, just above the right ear, through the squamous portion of the temporal bone, which passed obliquely backward and to the left, through the middle of the cerebrum and lodged against the parietal bone of the left side. This man suffered no other sensible impression than a feeling of percussion, which he thought was from his own gun, as it occurred at the moment he attempted to fire. He staggered a little out of line, but resumed his place instantly and obeyed promptly the next quick command, or rather the latter part of the command to fire and charge the enemy. He ran in the charge many paces and returned; never having suspected he had been shot, until subsequently, when his companion, observing a little blood about his ear, told him of his wound. He then retired to the hospital for dressing, and the surgeon general, on examining the wound superficially on account of the absence of all severe symptoms, pronounced it a "spent-ball wound" and dressed it slightly, or not at all. He remained however on the list of wounded until the measles appeared on him some ten or fifteen days after the battle, from which he recovered about three weeks after the wound was received; neither himself nor his surgeon ever having doubted but that the ball had fallen without entering the cranium.

After his recovery from the measles, the campaign being near its close, and his health appearing to render him unfit for immediate service, he rode on horseback to the interior, a distance of 150 miles, exposed to rain, high waters, &c. After getting home, he soon became feverish as from a recent cold, and a measles-like eruption again pervaded his skin, his usual symptoms increased for a few days and abated. After being discharged from attendance for this attack, he became subject to partial cramps in his feet, which finally extended to the legs and to the whole body, and he died, some weeks after his return. In the examination after his return, and during his treatment for cramps, a probe was several times passed freely, without the least resistance, following the opening made by the ball through the brain as far as the probe could reach, without sensation of any kind.
in Dr. Sewall’s second lecture, as well as elsewhere, the inapplicability of the external cranial marks (and none but the external can possibly be available for practical purposes,) to the end of determining with the least certainty the cerebral mass or its proportional part—saying nothing of the unsoundness of the notion of a proportionate relation between certain intellectual faculties or animal propensities, and the cerebral developments.

On this subject, the common sense views which would avail much in regard to any matter not quite so well calculated to titillate the fancy or the vanity, have been again and again urged by the friends of truth; but these cannot avail much in the face of that “self-esteem” which prompts almost all men and women to desire to hear some comment on their peculiar virtues, acquirements or prowess. Whilst this subject rested as a mere quere, whether or not, phrenology was a science? it was a matter of little consequence whether any one believed the one or the other opinion. It was a mere physiological question, very abstract from medical practice or therapeutical utility, and its decision not calculated to damage any one. But when taken up as a practical science and retailed around the world under the declaration of its being a fair “mirror of nature” in which men and woman may see reflected their animal, moral and intellectual faculties, and thus for the purpose of draining from a confiding community who cannot be supposed to know anything of its inapplicability to the truths of nature, an unfair support from their well-earned competence, it is time for the community of our country to open their eyes to the imposition practiced on them, and be brought to see the grossness of the insult which is offered to their understandings. But common sense will, sooner or later, bring out the community on the side of truth.

We have been led to these remarks, on the present occasion, by noticing in the last No. of the Med. Chirug. Rev., p. 507 and following, an extract from the facts about to be published by Dr. Lelut* on the subject of the average and the proportionate weight of the human brain, and its relation to the development of intelligence. The following facts relative to the cerebral mass, are a part of the contributions to the work of Lelut, as in-

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* Nouveau’s Rapports du physique et du moral."
serted in a late No. of the Gazette Medicale de Paris. We copy from the Med. Chirug. Rev. for October 1837. Dr. Lelut has neither declared himself an advocate or an opposer of Phrenology. Several useful views may be taken of these facts to which the truth must ultimately bow, after the intoxicating charm of novelty shall have subsided, and the ridiculous tricks of gliding over the palpable incompatibilities of the doctrine shall have become old things. These views are, the smaller average of the female brain, the equality of the encephalic mass in ingenious accomplices in high crimes, and the speechless and absolutely senseless idiot, &c.

"The average weight of the encephalon (including the cerebrum, cerebellum, and tuber annulare or rachidian bulb,) after the meninges have been stripped off is, in the healthy adult male about 1346 grammes, or three pounds and a half,* of which the cerebrum weighs 1170, and the cerebellum 176 grammes. In the female the weight of the encephalon is about 1-13th less than in the male. The following are the measurements of the encephalon in certain individuals, "dont la triste celebrité a jeté quelque jours sur leur psychologie."

1. Lhuissier, who murdered his mistress, and then cut the body up and threw the pieces into the Seine. Intelligence below the ordinary standard, and not cultivated—45 years of age—middle stature.

The encephalon weighed 1496 grammes.
- cerebrum - 1305
cerebellum - 191

2. Belard, murderer of one of his relations; a tradesman in the Temple. Intelligence below the ordinary standard, and not educated—29 years of age—middle stature.

The encephalon weighed 1290 grammes.
- cerebrum - 1130
cerebellum - 160

3. Bardon, an accomplice in a murder. Intelligence ordinary, and not cultivated—39 years of age—midd. stature.

The encephalon weighed 1384 gram.
- cerebrum - 1204
cerebellum - 180

4. Chandelet, the assassin of his uncle; a porter in the Rue de Charonne. Reason lively and exalted; propensities brutal and licentious—31 years of age—stature short.

The encephalon weighed 1192 gram.
- cerebrum - 1010
cerebellum - 182

* An English pound of avoirdupois weight is equivalent to 433 grammes.
5. Avril, the accomplice of the notorious Lacenaire. Intelligence ordinary, and not cultivated—27 years of age—middle stature.

The encephalon weighed 1310 gram.
- cerebrum - - 1130
- cerebellum - - 180

6. David, murderer of his sister-in-law, who was the wife of a servant at the Hôtel des Invalides. Intelligence ordinary, but somewhat eccentric, and partially cultivated—34 years of age—statnre rather tall.

The encephalon weighed 1420 gram.

N. B. It has been preserved in spirits, and the weight of the cerebrum and cerebellum, separately, cannot be stated.

7. Fieschi. Intelligence ordinary, but somewhat eccentric, and partially cultivated—46 years of age—middle stature.

The encephalon weighed 1365 gram.
- cerebrum - - 1200
- cerebellum - - 165

8. Guerin, accomplice of Chandelet (No. 4). Reason rather acute, developed, and somewhat educated—42 years of age—statnre rather tall.

The encephalon weighed 1384 gram.
- cerebrum - - 1240
- cerebellum - - 145

9. Lemoine, the assassin of the chamber-maid of Madame Dupuytren. Intelligence developed and cultivated—40 years of age—middle stature.

The encephalon weighed 1310 gram.
- cerebrum - - 1140
- cerebellum - - 170

10. Lacenaire. Intelligence developed and cultivated—34 years of age—statnre short.

The encephalon weighed 1355 gram.
- cerebrum - - 1205
- cerebellum - - 150

Remarks. If we cast our eye over the preceding ten measurements, it will be seen that the medium or average weight may be stated, as we have said at first, at about 1340 or 1350 grammes. The heaviest on the list is that of Lhuissier (No. 1), and the lightest is that of Chandelet (No. 4); the former weighing 1496, and the latter only 1192 grammes.

If we endeavored to establish any relation between the mental development or character of these criminals, and the weight of their encephala and of its two great divisions, it might be remarked that Bardon, Lhuissier and David, in whom the encephalon or the cerebrum was the most heavy, were not the most
intelligent; that in Lacenaire, on the other hand, the brain weighed considerably less than in them, and that if in Chandelet, with his brutal passions, the cerebellum was large, the cerebrum weighed as low as it does in many idiots, and yet he indicated no want of intelligence.

But we have no intention to discuss this most difficult question, as we most willingly admit that a number of considerations ought to be taken into account, in such an enquiry. It might, for example, be objected that we have not sufficiently attended to the size and weight of the whole body in reference to the weight of the encephalic mass; nor to the relative weights of its two great parts, the cerebrum and the cerebellum; nor to the education of the individuals; and, even if we were provided with accurate data on these topics, phrenology might then step in, and remind us that we have forgotten to attend to the comparative size of the different convolutions; and, then supposing that we had done this, that we have neglected to take into account the temperament of each individual, and the activity of the cerebral functions.

Our intention therefore at present is only to afford accurate observations of what we ourselves have examined and ascertained; and we now, in pursuance of this plan, shall proceed to give some other measurements of encephala, such as we have found them in idiots and lunatics.

1. Gobinot, 24 years of age, and of middle stature. Idiotism of the lowest grade; no power of speech, but only inarticulate sounds and cries. He seemed not to have even the natural instinct of hunger, and would not eat, unless induced to do it.

The encephalon weighed 1320 gram.
  cerebrum       - - 1135
  cerebellum     - - 185

2. Inconnu, deaf and dumb, 43 years of age, and of a stature somewhat above the ordinary. Idiotism of the lowest degree. No speech, and scarcely any sign of intelligence.

The encephalon weighed 1370 gram.
  cerebrum       - - 1205
  cerebellum     - - 165

3. Darvoz, 39 years of age, and of middle stature. Idiotism which places the individual below the brute. No speech; sensations dull; a slight degree of memory; incapacity of clothing himself, or of defending himself against any external injury.

The encephalon weighed 1256 gram.
  cerebrum       - - 1064
  cerebellum     - - 192

4. Courtois, 46 years of age, and of middle stature. Idiotism of the lowest degree. Physiognomy almost simian. Incapable of answering to any question, or of taking care of his person.
The encephalon weighed 1045 gram.
  cerebrum    -    -    907
  cerebellum  -    -    138
The anterior cerebral
  lobes       -    -    226

5. Boulot, 37 years of age, stature rather tall. **Idiotism of a very low degree.** The intellect is almost quite abolished; to all questions he answers, "ma tête, mon front sont égarés," or "dans la province de Joiny, ou a fait de moi un pauvre fou pour me perdre." He is often much excited and very turbulent. He has no regard to his animal feelings, and his life is almost entirely vegetable.

The encephalon weighed 1380 gram.
  cerebrum    -    -    1188
  (its anterior lobes) 250
  cerebellum  -    -    300

6. Rollet, 46 years of age and of large stature. **Idiotism very confirmed.** His intelligence was almost at zero. He said, for example, that he was only three years old, and it was only with extreme difficulty that he could pronounce a few words. His physiognomy was quite idiotic. He was employed at the Bicêtre to turn the wheel of the great well there.

The encephalon weighed 1025 gram.
  cerebrum    -    -    896
  (its anterior lobes) 250
  cerebellum  -    -    135

7. Cresson, 23 years of age, and of large stature. **Imbecility very strongly marked.** Speech embarrassed and stammering—physiognomy dull and heavy; although capable of manual work, never could be taught any art.

The encephalon weighed 1105 gram.
  cerebrum    -    -    920
  cerebellum  -    -    185

8. Mallebranche, 54 years of age; stature rather tall. **Idiotism quite confirmed.** Speech scarcely intelligible. Extreme chorea of all his limbs.

The encephalon weighed 975 gram.
  cerebrum    -    -    815
  (its anterior lobes) 240
  cerebellum  -    -    150

9. Favelle, 57 years of age; middle stature. **Imbecelity with irregularity of muscular movements.** He was admitted into the Bicêtre as an idiot at the age of 12; and the only work he was enabled to do, was to assist in turning round the wheel of the well. His speech and his walk were embarrassed and difficult. His arms were in a constant trembling. His intelligence was correct, but very inconsiderably developed.
The encephalon weighed 1235 gram.
  cerebrum - - - 1077
  (its anterior lobes) 300
  cerebellum - - - 158

10. Chambin, 67 years of age, middle stature. Imbecility only partial. He was never however, able to gain his livelihood by any occupation; and, in consequence of this, he was put into the Bicetre at the age of 24. His intelligence was very small, but correct as far as it went. His speech was stammering and uncertain. Being capable of considerable bodily exertion, he was employed at the hospital to assist the servants in various ways.

The encephalon weighed 1365 gram.
  cerebrum - - - 1215
  cerebellum - - - 150.”

Phrenology in the vulgar sense teaches that the brain is the organ of the mind, and that “in proportion to the volume of the organ, other things being equal, will be the power of mental manifestations.” That the organic developements arise from the medulla oblongata, and radiate to the surface; and that there is, in the source of these developements a congenital tendency to impart a vigor of growth in these several organs, which will in future manifest by their size the grade or power of mental developement, whether of propensities, sentiments or intellect.

It follows therefore as an unavoidable consequence, the legitimacy of which is not to be slipped over by phrenologists, that when all these sub-organs progress on, so as to afford an unusual developement of the whole assemblage of any one, or of all of these classes of functionaries, the faculties of these mental functionaries are consequently and proportionably developed. That is to say, if one developement be large or full, it indicates the possession of an unusual natural faculty of that name; as for example No. 11, or “love of approbation.” But if No. 12, or “cautiousness” be also unusually developed, it cannot destroy or impair the former, but leaves it with all its powers or merits, adding to the mind eminent “cautiousness.” So of “conscientiousness,” “ideality,” “hope,” and so forth to all the cerebral developements; each not actually impairing the former, but adding to it another and another, until the whole assemblage of mental developements, including “propensities,” “sentiments” and “intellect,” are brought up to an unusual dignity—an integral organ which must needs partake of the whole
nature and degree of its numerous integrant constituents. There appears to be but few fundamental propositions proper to this doctrine, the others being simply anatomical or physiological facts, which cannot, of themselves, sustain the superstructure. Those fundamental principles however, which must exist to make phrenology a practical science, are the following:—

1st. The shape of the skull must precisely correspond with that of the contained brain, in order that the size and shape of the brain itself may be at once absolutely determined by ascertaining those of the skull.

2nd. The larger the brain, the greater must be its powers, without temperament being held as a modifier.*

3rd. The more active an organ is, the more conspicuously will it be indicated by the cranial protuberance supposed to cover it; or, in other words, the more exalted the cranial protrusion, the more active will the faculty be found which it is supposed to cover. These are indeed necessary to its support; they are its chief fundamental propositions; for unless they be true, there is no foundation to the science as a practical one.

The unsoundness of the first and second have been abundantly proven by Dr. Sewall's second lecture. As to the modifying influence of temperament, this belongs to Physiology, abstractly from Phrenology. It belongs to natural language, if we may so speak; being that by which individuals may discern the taste, disposition, propensities, &c., as if by intuition. It belongs also to Physiognomy, with more propriety, for this has an earlier claim to it. It is a petitio principii to say that the state of the body always corresponds with the quantity of the brain. It cannot therefore be allowed in support of Phrenology as a practical science. It must therefore remain unmolested with the rest of Physiology, or be yielded up to Physiognomy; a thing which has had its great day, passed its age of novelty and delusion, and is now settled down to the proper level of its own intrinsic merits. To the 3rd of these fundamental propositions, we apply the stubborn facts of anatomy, cerebral staticks, and their necessary bearing on psychological physiology. This must end in the total subversion of this proposition, and in establish-

*Temperaments are a separate part of science, and are therefore unjustly brought in to aid phrenology and heal its deficiencies in fortune-telling.
Phrenology. [Feb

ing the fact, that there is indeed no fixed relation available for practical purposes, between the cerebral developments and the mental faculties and propensities.

It will be borne in mind that the average nett weight of the healthy, ordinary, adult encephalon, (including the cerebrum, cerebellum and rachidian bulb) is 1346 grammes.

The cerebrum of which is 1170
  cerebellum - - 176

The first case given by Dr. Lelut was, in point of intelligence below the ordinary standard, without cultivation, and the person of medium stature. In this

The encephalon weighed 1496, more than com. av. 156 gram.
  cerebrum - - 1305, - - - - - - 135
  cerebellum - - 191, - - - - - - 15

The second case, guilty of the same crime, both being murderous, the same grade of intelligence, being below the ordinary standard—person the same, being of medium stature.

The encephalon weighed 1290 less than com. av. 56 gram.
  cerebrum - - 1130 - - - - - - 40
  cerebellum - - 160 - - - - - - 16

Now, if we add the deviations both ways, above and below the standard of the cerebrum, the great seat of intelligence and sentiment, we have 175 grammes difference in the weight of the cerebrum of individuals of the same known character of mind, stature, and so forth. We are indeed not told the temperaments in these cases, but can no more allow the practical phrenologist to say that in one, the temperament was of one kind, and in the other, it was the opposite, merely because the brains were so different, than we could grant him gratuitously the main thing he wishes to establish. It was as well to grant him one petitio principii as another.

In the 3d case—Intelligence ordinary—medium stature.—Here the difference from each of the others is, that the intelligence is ordinary, instead of being below the ordinary standard. Crime the same.

The encephalon weighed 1384, more than ord. average 38 grm.
  cerebrum - - 1204, - - - - - - 34
  cerebellum - - 180, - - - - - - 4
Here all the developments of the brain were over ordinary, particularly the intellectual, 34 grammes; still the intellect was **ordinary**.

In the 4th case the **reason of Chandelet** was **lively and exalted** —the propensities **brutal** and **licentious**—stature short. In such a case can we expect from Phrenology that

The encephalon will weigh but 1192, less than the aver. 154 cerebrum, with lively and

exalted reason, - - 1010, - - - - - - 160

and the cerebellum - - - 182, more than ord. av. 6?

Remark here that the **lively and exalted reason** of the individual **Chandelet** has the extreme opposite in the organ to which it belongs, whilst his brutal and licentious passions have a development of cerebellum of only 6 grammes above the ordinary average; the first fact, (and but a nominal one, as it is only 6 gram.) in favor of this proposition of Phrenology.

We will now place by this case, **Guerin**, the accomplice of **Chandelet**, which is the 8th case of **Lelut**. These persons were engaged in the same crime, that is to say the assassination of the uncle of **Chandelet**. The **reason of Guerin** was **acute** and **developed**, stature rather tall, and it is fairly presumable from the peculiar crime in which they were concerned, that their real sentiments and powers of mind generally, as well as their propensities, were very similar. But instead of 154 grammes less than the ordinary weight of the encephalon, **Guerin** had 38 more, making a difference in their whole brain of 192 grammes. And instead of the 160 less of cerebrum, as with **Chandelet**, **Guerin** had 70 more, making a difference in the organ containing the reasoning faculties of which both might boast, of 230 grammes. And instead of the 6 grammes more of the cerebellum which contains the brutal and licentious propensities, which **Chandelet** had, **Guerin** had 31 less, which, added to the 6 more of **Chandelet**, makes a difference between them in this organ of 37 grammes.

We leave to the reader to make the same observations for himself on the remaining 5th, 6th, 7th 9th and 10th cases, as they continue to illustrate the severe truth, that the **assumptions of practical phrenology are not the science of nature**.

Dr. **Lelut** next gives ten cases of idiots. In the first, the encephalon was 26 grammes **less** than the average. **Idiotism was of the lowest grade**—no speech—and without even the
natural instinct of hunger, whilst his cerebrum was only 35 grammes less than average.

The 2d case was one of idiotism of the lowest degree. No speech, and scarcely any sign of intelligence.

Encephalon 24 grammes more than average, and cerebrum 35 more, whilst the cerebellum was about 11 less.

We here take leave of the subject, leaving the reader again to examine the remaining eight cases of idiocy and compare them with the ordinary average. He will find some above and some below; but the average of the idiots' heads given, is rather below; proving the proposition with which we set out to review this table, that "there is no fixed relation available for practical purposes, between the cerebral developments and the mental faculties and propensities. Whilst therefore, the subject is one which should be freely and fully investigated, in physiology, whilst physiological speculations should be as free on this, as on any other subject, and whilst, like the "language of flowers," it may be admissible for amusement in the parlour, and whilst its doctrines may, without impropriety, be thrown before the public for their investigation; still not being consistent with the truths of nature, and consequently not being founded thereon, it is morally wrong for it to be applied to the purpose of gain, by its practical application for the end of divining or foretelling the intellectual or other fortunes of a mixed community, whose ignorance of a study so much out of their way as the anatomy and physiology of the brain stands as a barrier to their judgement on its truth or falsehood.
PART III.

MONTHLY PERISCOPE.

Nothing is received with more grateful salutations by the practitioner who duly feels the burthen of humanity, than the knowledge of efficient remedial means for those dangerous diseases over which he has been obliged to weep with folded arms, or exert himself often in the face of despair. The cheering influences of hope are cast around him by even a solitary fact which creates confidence in something, for the benefit of humanity, which has not before been found unworthy of confidence.—But we call the attention of the reader to the following subject on more substantial grounds than the mere fact of its success in the treatment of one case. Reason has suggested and fact demonstrated its proportionate adaptation to the etiology and pathology of the cases for which it is believed to be a remedy; and its physiological action or influence is calculated to substantiate the opinion formed of its efficacy. In short, it is consistent with all the philosophy of the cases to which it is proposed to be applied as a prophylactic or as a remedy. The subject to which we allude is the communication of M. Troussseau, on the subject of the compression of the primitive carotids, as a remedy for certain convulsions; which we have given in the II. part of the present No., from the Journal des Connaissances Medico-Chirurgicales.

It will be remarked that the cases to which this remedy is considered applicable are congestive convulsions, or those which have for their cause, an afflux of blood towards the brain: such are a large majority of the convulsions of women and children, as well as the epileptiform, and many of the apoplectic convulsions of men, which we are called to treat. There are no cases which make such sudden and agitating demands on our promptness and immediate efficiency, as attacks of this kind. This remedy has two high recommendations, if accompanied with efficiency; these are its convenience and its safety. We trust that
a profession which is accustomed to writhe under the sudden destructiveness of these cases, will not hesitate to adopt a practice, at once so safe and rational, and report the results for the benefit of the community.

It is most obvious that in the case given by M. Trousseau, compression of the primitive carotids relieved the active congestion most promptly, and then quickly subdued the remaining apoplectic, passive congestion. It should be remarked that both the primitive carotids may be safely compressed if necessary, as the anastomoses will enable the vertebral enteries to afford to the brain a sufficient supply; but when the convulsions are entirely, or mainly on one side, the artery of the opposite side should undergo the compression.

New injection for the treatment of Blenorrhagia and Leucorrhaea. The aromatic tincture of gall nuts is employed with success in the treatment of the above named diseases, in the new hospital, in the Reu de l'oursine. It is prepared in the following manner:—

A. Puræ lb.
Macerate 12 hours, and decant the fluid; add to the residue another pint of water; and after 12 hours maceration it is also decanted. Add to the liquor 2 pints rectified alcohol and ½vj. compound acelolate of citron, and filter.

This tincture, diluted with 6 to 8 pints of water, is used as an injection.—Jour. de Pharm.—Am. Jour. for Feb. 1837.

Treatment of Fractures. We find in the Archives Générales (Tom. 11, p. 438, 1837,) an interesting article by M. Fleury, on the causes tending to the consolidation of fractures. The writer, after premising that the ordinary treatment consists principally of reduction and retention of the fractured extremities in apposition, remarks that the attention of M. Toubert has been directed to the state of the circulation in the affected part.

"It is," observes M. F., "to the blood we should look for the formation of cicatrices; every one knows its influence on the surface of wounds, on the form, colour, consistence, development, and vessels of false membranes. The researches of Du-
puytren having established the correctness of the principle advanced by Dechambl, that the periosteum and cellular tissue are the principal agents in the formation of osseous deposits, it might have been inferred that the circulation was greatly concerned in the accomplishment of this work. Observation has fully confirmed the correctness of these deduction, and proven to M. Tobert that among the causes which oppose the consolidation of fractures, impediments to the circulation and a vitiated state of the fluids should be considered some of the most potent."

Mr. Fleury then expatiates on the evils attendant on the tightness with which the bandages and splints are generally applied to fractured limbs, and cites several cases in which union had been delayed several months under the ordinary treatment, but readily took place on removing the compressing fixtures, and exciting the circulation by stimulating frictions.

_Auscultation for the detection of Urinary Calculi._ Messrs. Moreau de St. Ludger & Behier had in 1836, proposed to adapt a stethoscope to the handle of the sound in exploring the bladder in search of calculi, but this was attended with some inconvenience, inasmuch as it was difficult to retain the ear well applied to an instrument which it was necessary to move about considerably, especially in striking against the resisting body to detect its sound. M. Leroy, d'Etiolles, has recently presented to the French Academy an instrument remarkably well adapted to this mode of examination. It is formed by the connection of the stethoscope and handle of the sound by means of a flexible tube of gum elastic kept open by a spiral wire within. With this simple contrivance the ear may remain applied to the stethoscope, unmoved by the catheter, whose shocks against a calculus will be distinctly heard.

MEDICAL INTELLIGENCE.

Medical College of Georgia. At the late annual meeting of the Trustees of the Medical College of Georgia, several important changes were made in the course of instruction in this Institution. The Faculty of the College consisted of eight Professors; but believing that a reduction of the number would be for the interest of all concerned, Dr. Cunningham tendered his resignation of the Chair of the practice of Medicine. The trustees, coinciding with that opinion, accepted the resignation; and Dr. Ford, the late Professor of the Institutes of Medicine and Medical Jurisprudence, was appointed Professor of the Institutes and Practice of Medicine.
An exchange of Chairs was then made between Dr. Newton, late Professor of Physiology and Pathological Anatomy, and Dr. Dugas, late Professor of Anatomy; whereby Dr. Newton was made Professor of Anatomy, with the duties of Demonstrator; and Dr. Dugas, Professor of Physiology and Pathological Anatomy. The Faculty therefore now stand as follows:—

Dr. L. D. Ford, Professor of Institutes and Practice of Medicine.

P. F. EYE, " Surgery.

G. M. Newton, " Anatomy.

J. A. Eye, " Materia Medica and Therapeutics.

M. Antony, " Obstetrics and Diseases of Women and Children.


C. Davis, " Chemistry and Pharmacy.

Dr. Newton will serve as Demonstrator. By connecting the Demonstratorship with the Anatomical Chair, there will be a free admission of the whole class to the demonstrations, without a separate ticket.

The engagement of Dr. Newton's superior abilities in the Demonstratorship, with the abundant supply of materials for which ample arrangements are made, cannot fail to add greatly to the benefits of this Institution, in special and practical Anatomy.

An alteration was made at the same meeting, whereby the term of the course of lectures was reduced to four months, the period announced by the other colleges.—This arrangement will cause the course to commence in future on the first Monday in November, and terminate on the first Saturday in March.

It will be remembered that, several years ago, the Medical College of Georgia proposed to the other colleges in the United States, to meet a convention, for the purpose of adopting certain general regulations and plans for the improvement of the present system of medical education, and elevating the standard of medical science in the United States: but the proposition was rejected by the other colleges; each preferring to maintain its own peculiar views, and establish its own plans of operation for its individual interest. One of the most important purposes which the Medical College of Georgia had in view, was to urge the propriety of establishing throughout the colleges a longer term of annual instruction than had been generally adopted. That College had always acted on their opinion of the importance of this—their course having been six, instead of the common term of from three to four months. But their proposition not being met by the other colleges, the Georgia College found it impossible to compete successfully with the popularity of a short and cheap course with students. If there be error therefore in the adoption of four months as the term of annual instruction, the blame is fairly attributable to the retention of the short course by the other colleges, and to the ridiculous and disgraceful practice of some of them, of boastfully circulating in every neighborhood of the union, statements of the small amount of money required for attending a course with them. We speak freely on this subject, because we have known the truth of such decoying temptations put to the test of experience by some of the most prudent and economical young gentlemen of Georgia, whose parents have been compelled to more than double the amount stated—cases wherein the items of expenditure were faithfully preserved and exhibited in good proof of the true economy exercised.