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EDITED BY

HENRY F. CAMPBELL, A.M., M.D.,
PROFESSOR OF SPECIAL AND COMPARATIVE ANATOMY IN THE MEDICAL COLLEGE OF GEORGIA;

AND

ROBERT CAMPBELL, A.M., M.D.,
DEMONSTRATOR OF ANATOMY IN THE MEDICAL COLLEGE OF GEORGIA.

MEDITAL COLLEGE OF GEORGIA.

"Je prends le bien où je le trouve."

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A Clinical Lecture upon some of the Effects of Intemperance; delivered at the Augusta City Hospital, by L. A. Dugas, M.D., and written out by special request.

Gentlemen,—

The case of the woman we have just left in a moribund condition, is well calculated to arrest our attention. This woman, who now seems to be about 40 years of age, and who presents to us so lamentable a picture of the effects of vice, is one of the frail sisterhood, who, having in her youth forfeited her social position, fled from the parental roof to a den of infamy, and has been ever since endeavoring to drown her remorse in alcoholic and other narcotic potations. She was a short time since taken from a miserable negro hovel and brought here to die and to be buried at the expense of the city. You may have observed when we first saw her, a few days ago, that she was still able to speak, although her articulation was slow and somewhat difficult—that she lay upon her back without the power to move either her limbs or her trunk, but still retaining her sensibility as well as her mental faculties comparatively unimpaired—that she was not laboring under paralysis, properly so called, but that she was suffering from a real exhaustion of nervous power throughout the whole system, which had been gradually pro-
gressive, and without any indication whatever of local organic disease. She now appears to be asleep with her eyes half open, but breathes quietly, and presents none of the phenomena of apoplexy. She has passed into this state gradually since you last saw her, and her small and rapid pulse indicates an early termination of this process of resolution. The energies of life, long undermined by dissolute habits, have gradually yielded, and she now dies evidently from mere nervous exhaustion.

It is in the presence of cases like these that the physician realizes in its fullest force one of the evils—perhaps, alas, a necessary evil—of the social system of refined civilization; I mean that which condemns to perpetual infamy the unfortunate female, who, in a moment of infatuation yields to the designs of an artful and heartless deceiver! She soon realizes her dreadful error, and yet dares not, as she had always done before, appeal to the parents who would affectionately overlook any other guilt and endeavor to palliate it—for she knows that this is an unpardonable sin, even in the sight of those who gave her birth! Oh, if she could only be allowed to throw herself upon her knees, implore their forgiveness, and receive from them even a look of kindness, she would do so, continue to dwell with them, and probably lead a virtuous life the remainder of her days. But, no; she must fly, or be driven from the midst of those she loves, and be an outcast among the vilest refuse of society, where, with a broken heart and lacerated conscience, she naturally seeks relief in the obtunding use of narcotics of one kind or another! The effects of these are before us—we here behold, however, only one of the sad consequences of intemperance, and, if you will pardon me for dwelling upon a topic, perhaps trite, I will take this opportunity to make a few comments upon some of the evils of intemperance to the individual who indulges in this vice, to his offspring, and to his race.

I beg leave, Gentlemen, at once to say that I am not one of those who think that a good cause is ever benefitted by exaggeration and by positions unsustained by truth. I would not therefore have you to give credence to the ridiculous stories about alcohol being found in the ventricles of the brain, about the spontaneous combustion of drunkards, &c.—nor would I tell you that a moderate and well regulated use of intoxicating
beverages is always injurious, when the most casual observation might falsify the assertion. It is of intemperance I wish to speak, and not of temperance,—and yet, I am free to say, that if a man cannot drink without drinking too much, he ought not to drink at all.

There are two forms of intemperance—the one periodical and the other continued. Those addicted to the former will drink profusely for days or weeks, until the stomach rebels and rejects the potations, and they cannot take any more. They will then suffer greatly, mentally and physically, a few days, and gradually get over their "spree," to resume it again after the lapse of weeks, months, or even years. This is the most inveterate, the most incurable form of intemperance. Indeed, I may say that I look upon such cases as utterly hopeless, for I have never known a single instance of permanent reformation, in those addicted to periodical intemperance. The victims of this form are more violent and uncontrollable, more disagreeable and dangerous to society, more subject to delirium tremens, and more liable to permanent insanity, than habitual inebriates.

The continued form of intemperance is that in which the individual habitually takes too much; some will attend to their business during the day more or less efficiently, and yet be surfeited every night—others are sober enough to attend to business only in the forenoon—and, finally, there are many who can scarcely ever be found entirely sober. I recollect a case in court in which a will was set aside upon the testimony of the neighbors that the maker had not been sober enough in ten years to know what he was about! The will had been executed six or seven years before his death. And yet this man lived seventy-five years, and had been intemperate all his life! I believe it to be a general rule, that the habitually intemperate live longer than those who are only periodically so. But the habitual inebriate is more liable to liver disease, to dropsy and to rheumatism—neither of which affections have I ever known cured under such circumstances. The periodical drunkard is more apt to be carried off by an attack of mania-à-potu, or of some other acute disease. While, with most persons intemperance induces more or less of plethora and corpulency, there are some in whom it produces an opposite effect, and we
find these pale or sallow, and thin. When it terminates in dropsy, this seems to be in consequence of hypertrophy of the cellular tissue of the liver, by which the portal veins are compressed to such a degree as to impede the free passage of blood, and to cause its undue accumulation in the intestinal canal and its investing membrane. In such cases the vessels may relieve themselves by an abundant secretion from the mucous surface, constituting diarrhoea, or by an exhalation into the peritoneal cavity, so as to produce dropsy. Either of these symptoms may be, in general, regarded as the precursor of early dissolution.

Intemperance deeply affects the nervous system of animal life, as is evinced by the uncertain gait, the tremulous hand, convulsions, and various painful diseases. But the brain, this great seat of intellect and of the moral perceptions, reveals its baneful influence under the forms of mania-à-potu, perverted reason, and moral depravity. Who has not seen instances in which the noblest intellect and the most refined sense of propriety have been thus changed into stupid vagaries and knavish as well as brutal propensities? With reason dethroned and the moral perceptions blunted, the victim drags a miserable existence himself, and embitters that of all who loved and esteemed him!

Let us now look at some of the effects of Intemperance upon the offspring and upon the race. I think it susceptible of easy demonstration, that the children of an habitual inebriate will have but little stamina—that is to say, that their powers of resistance to morbid influences will be more or less impaired, and that they will therefore be more liable to disease than they would otherwise have been; that they will often be scrofulous, and occasionally insane, or idiotic. These effects will, moreover, become more and more apparent the longer the parent has been a drunkard—so that if he have a large family during his intemperance, the deterioration of his children will be progressive, and the last may be so puny as never to reach maturity, although the first may be comparatively healthy. Nay, there are some drunkards, whose own constitution being poor, will rear a few children, and then lose in infancy or childhood all those they may subsequently have. Just reflect a little upon the condition of the families in your respective neighbourhoods
Now the other the Dutch and their American descendants. Now we have seen the Spaniards, the Portuguese, and the French: in the
question, why is it so? In order to answer this, let us examine
the influence that has brought to bear upon this race in
the different positions of our continent, and let us see if they
have suffered equally in these several regions.
The drunkard's is entertained
which they belong, and if you will bear with me a few moments
in the history of mankind, in connection with that of the race to
be passed away. But we can, without the least improbably, study
these views of the effects of intemperance upon mankind.

What is this—yes, it is the
family. I could not
believe that you would have
found it, but I have done so since
that which you will find is based upon truth. As I have long
believed that may appear to you as startling announcement, but I believe
—
children, but not one of these will be raised to manhood. If
alcohol, universal applicability, that these successive generations of
drunkards will have no issue? The third generation may have
in the number, and their standing will be so much
improved that it will be with the utmost difficulty that any
child, for I do hesitate to produce it as a law of
and if I were to be able to produce the
third generation, I will follow this third generation,
then can reach maturity. Let us follow this third generation,

Why, Gentlemen, what is true with regard to the influence of
relation of the correctness of these propositions.

I think that each one of you will recall to mind some of
how have the Indians fared under the dominion of these two classes? Under the former they have increased and multiplied—whereas, under the latter they have been annihilated! The Spanish, the Portuguese, and the French, are temperate people, and the British and Anglo-Americans intemperate—and while the former have propitiated the good-will of the savages, have fraternized with them, have civilized and christianized them, probably as far as their nature will permit; the latter have done neither, but have, on the contrary, introduced among them their own vices and intemperance, and driven them from their hunting grounds to perish like outcasts. Contrast the history of the Indian in Mexico, with that of the same race in the United States—or even in Georgia. Towards the close of the last century the population of Mexico was about four millions, of which the pure Indian element constituted about two millions.—The population of that Republic is now about seven millions, of whom at least four millions are pure Indians, two millions mixed races, and one million pure castillians. Sixty years ago, one half of the State of Georgia was peopled with savages—and where are they now? With the exception of a small remnant of Cherokees and Creeks, who have been driven across the Mississippi, these mighty tribes have ceased to exist! In South America, it is highly probable that the Indian population is fully as great as it ever was, if not greater. Under the French dominion, the Canada Indians prospered as they do in South America; but they have been deteriorating and dwindling away rapidly ever since the British have acquired those provinces.

Look at the influence of the boasted civilization introduced by the drinking races among the Sandwich islanders! The third generation of drunkards is now living there, and it is estimated that in fifteen or twenty years more there will not be left a solitary representative of that people. The sailor with his bottle has doubtless had more followers than the missionary with his Bible in that unhappy land. Look at the dissolute and drunken habits of our frontier Indians, and you cannot be long in discovering the true reason of their extinction. The same baneful influence operates upon the free blacks who seek refuge in the large cities at the North. The climate, may, it is true, account in some degree, for the great mortality among them;
but intemperance is unquestionably their greatest enemy. The philanthropist will look in vain for a solution of these stubborn facts, unless he attribute them to intemperance, the most potent destroyer of mankind.

I hope, gentlemen, that you will pardon the length of the digression into which I have been insensibly led from the case under our special consideration. I did not intend to make you a temperance address—but I never see a victim of this awful propensity, without feeling that something ought to be done to put a stop to it. I have therefore endeavoured to direct your attention in as forcible a manner as I could under the inspiration of the moment, to some of its pernicious effects. You are destined, I trust, to exert some influence upon the communities in which you may fix your abode. No member of society has it more in his power to do good, than the intelligent and moral physician. The subject before us affords a noble field for the exercise of enlightened benevolence. Unite your efforts to extirpate this, as you will do to stay the ravages of other diseases. Let us look upon intemperance as a disease and treat it as such. Must it not indeed be a veritable mental derangement, that would lead a man irresistibly, as it were, to the destruction of self, of family and of race? Let us but call it a species of insanity, and the remedy will suggest itself immediately.

That intemperance is a disease, will, I think, be very generally conceded by enlightened physicians. Like other morbid conditions, it may be inherited, or acquired. When derived by inheritance, the patient may not be so much to blame as when it is acquired by improper indulgence. It nevertheless, in all cases, reveals a morbid condition of the brain, not unlike that which constitutes other forms of monomania. The patient is as irresistibly impelled to drink, as some monomaniacs are to thieve, notwithstanding all the influences of education and of other incentives to good conduct. Some will say that it is only a depraved appetite, or a want of proper self control—but this does not change the matter. This depraved appetite, or this inability to control one's propensities, is a morbid state—often as much deplored by the patient himself, as by his friends. I have frequently heard these patients in their lucid intervals, declare most solemnly that they would cheerfully give all they possess-
ed to get rid of this dreadful propensity. And I believe that they were sincere.

But how shall we treat such cases? Place them in an asylum as you do those affected with other forms of insanity; and let them undergo such treatment as may be deemed best adapted to the restoration of the brain and nervous system to their proper and normal functions.

I am aware that, under existing circumstances, this cannot be done. We need legislation upon the subject, before we can carry out our views; and I can see no good reason why some men should be sent to the lunatic asylum, and their property be placed in the hands of trustees, until they be relieved of certain forms of insanity, while others equally injurious to society, and unable to manage their affairs, in consequence of intemperance—another species of insanity—are allowed to run at large, squandering their estate, embittering the lives of their family, annoying whole communities, and committing every variety of crime. I verily believe that a majority of the inmates of lunatic asylums would be found less dangerous and less annoying to the communities from which they were sent than any equal number of drunkards.

I think that the legislature of New York has taken the initiative in chartering a voluntary Asylum for Inebriates. This is a step in the right direction, and may of itself be productive of much good. But inebriates ought to be put upon the same footing as other lunatics. Let a writ of lunacy bring them before a jury—and upon conviction, let them be ordered to the asylum, and their estate be placed in the custody of trustees until their recovery—and I firmly believe that permanent cures may in very many instances be the result.

The sufferers from intemperance are entitled to our sympathy, and we should come to their relief, however loathsome they may be in the sight of the non-professional members of society. Let us not apply to them degrading epithets and treat them like brutes; but on the contrary, extend to them the hand of kindness and the offices of Christian charity. It is thus alone that we may obtain their confidence and become useful to them.

The fact being once established by the legislation of the country, that intemperance is a disease, and that it can only be treated
successfully in an institution humanely and properly devised for this special purpose, much of the odium that now attaches to this condition, and which might otherwise result from the confinement, will be removed. I believe that such a system would do more good than all our temperance societies. The combined influence of both, however, would in all probability erase from our national escutcheon one of its foulest blots. If you agree with me, let us unite our endeavors to bring about in our respective communities such a state of public opinion as may result in the legal establishment, in every state, of Asylums for the Inebriate.

ARTICLE II.

**Sub-Carbonate of Bismuth.—New Mode of Preparation.** By Robert Battey, M. D., of Rome, Ga.

The attention of the Profession having been called to the sub-carbonate of bismuth—in connection with the operose process of Prof. Hannon, of Brussels, for obtaining it—it would seem desirable that a simple and easy mode of manipulation should be more generally known.

The repeated fusion of the impure bismuth with nitrate of potassa, to free it from arseniurets and sulphurets, with which it is usually contaminated, may well be replaced by the simple solution in nitric acid, and precipitation (as sub-nitrate) by distilled water. This precipitate, if not absolutely pure, is sufficiently so for all medical purposes—it should be well washed with distilled water. By this process the impurities are oxidized, and rendered soluble in water, or left behind undissolved by the acid; in both cases they are gotten rid of very satisfactorily.

To prepare the sub-carbonate, dissolve the sub-nitrate in a sufficiency of nitric acid to effect the solution when warmed—decant the clear liquid, and add it slowly to a filtered solution of carbonate of soda—collect the precipitate upon a filter—wash well with distilled water, wrap in filtering paper, and dry by a gentle heat.
For the physician, it will be convenient to use the sub-nitrate which he has upon his shelf. If it be entirely soluble in nitric acid, without effervescence, and is not clouded on the addition of a few drops sulphuric acid, it may be esteemed pure; otherwise, decant the clear solution and precipitate with distilled water to render it so.

Rain-water, boiled and filtered, may be used in place of the distilled water.

A sample of the sub-carbonate, made by the above process, was subjected to Marsh's test, and found entirely free of arsenic.

[By reference to the October number of the 13th volume of this Journal, page 625, Mr. Hannon's mode of preparation will be found. Compared with the above, it is difficult and inconvenient, only practicable to the regular chemist—while that proposed and effected by our contributor is easily adopted by the ordinary practitioner, and is therefore, in our opinion, preferable.

This sub-carbonate of bismuth, if it answers the expectations which we have every right to entertain from a soluble salt of this metal, is destined to become a most valuable therapeutic agent. The insoluble salt, the sub-nitrate, is every day becoming more extensively and variously applied, and the results of its action, in a variety of cases, are often very surprising—even startling to the practitioner. Its action, however, is generally slow, and it is inefficient in many cases on account of its insolubility. "The sub-carbonate is soluble in the gastric juice, its action is rapid, it produces no sensation of weight at the stomach, it rarely constipates, colors the stools less than the sub-nitrate, and may be employed for a long time without oppressing the stomach. The action of the sub-carbonate appears to be sedative during the first days of its employment, and subsequently to excite all the phenomena which result from the action of tonics."

We quote further, from the article above mentioned, in order that our readers may have before them, in connection with this new mode of preparation proposed by Dr. Battey, the whole amount of facts at present known in relation to the therapeutical action of the sub-carbonate of bismuth.
"As to its therapeutical action, it may be noted that all cases of gastralgia consecutive upon phlegmasia of the digestive passages, cases in which the tongue is red and pointed, and cases in which the digestion is laborious and accompanied with putrid or acid eructations, or in which there is a tendency to diarrhoea or spasmodic vomiting, demand the employment of the subcarbonate of bismuth. This salt is also required in the vomiting of children, whether caused by dentition or succeeding to frequent fits of indigestion, and in the diarrhoea of weak children, especially when occurring at the time of weaning. One great advantage possessed by the sub-carbonate of bismuth is, that it neutralizes the acids in excess which are found in the stomach. The sub-nitrate, as is well known, fails always in this respect. In all the cases where the subcarbonate has been taken, the pain in the digestive passages is first found to disappear; then the eructations cease, together with the vomiting or diarrhoea; the digestion becomes less and less laborious, the tongue gradually receives its normal form and color; and if the use of the subcarbonate is continued, the appetite increases from day to day, the yellow tint of the countenance disappears, and the face becomes colored at the same time as it ceases to be shrivelled.

The subcarbonate of bismuth is perfectly insipid, and excites no repugnance. It is given before meals. Adults take it in a little water, and children in honey. It may also be made into lozenges. The dose for adults is from one to three grammes, taken three times a day in increasing doses."

ARTICLE III.

Classification of Febrile Diseases by their Relation to the Nervous System.* By Henry F. Campbell, M. D., Professor of Anatomy in the Medical College of Georgia—and Chairman of Committee on Nervous System in Febrile Diseases.

During the examination of our subject since the time of our appointment as a special committee, by this Association, we have been, at each step, more and more impressed with its importance, and at the same time with the extreme difficulty attending its full, clear, and thorough elaboration. "A man," says Lord Bacon, "must collect facts, in order to know the law

*A partial Report read before the American Medical Association, Nashville, May, 1857.
of facts;" diligently and earnestly engaged for the year past, in collecting and interrogating the facts which have a bearing on the important subject of Febrile Diseases, in the relation assigned us for examination, we have scarcely had time to do more than note, here and there, the gleam of truth which has been evolved during a bare hasty collocation of data; much less to determine satisfactorily any fixed law in relation to the vast subjects involved in the investigation. That such laws will be recognized, and that the careful generalization of the facts will be productive of important, fruitful results, we have already seen enough fully to persuade us. Pleading then the magnitude, as well as the embarrassments of the subject, we ask of this Association the privilege of having our special committee continued for another year, allowing us at present to lay before this body a few conclusions arrived at, as the result of the investigation in its present state of progress.

I. As all the normal phenomena of the living organism are known to occur under the superintending influence of the nervous system, and are dominated by it, so it is but rational to regard all morbid actions as being more or less influenced in their manifestations by aberrated nervous action. In that class of diseases ordinarily designated fevers, our researches and observations have led us to the confident belief that the above law applies with sufficient prominence to constitute the basis of their classification, and we would here respectfully claim for it, that it is the only reliable basis of their classification, and further, that in its more extended application, it will hereafter be found to constitute what may be called par excellence, the Law of Febrile Diseases. Simply to assert the recognition of this law, and to suggest a new and more comprehensive classification of Fevers based upon it, is the sole object of the present brief exposition.

II. As in the Nervous System, we recognize two grand departments, viz: 1st. The Cerebro-spinal System, all the normal actions of which are subject to cessations and interruptions; and 2dly. The Ganglionic System, all the normal actions of which are of a continuous and uninterrupted character, so in the manifestations of febrile diseases, do we distinctly recognize two grand distinguishing characteristics respectively typifying the normal actions of these two systems of nerves: thus a character of par-
oxysm obtains in certain cases, while a character of continuousness as plainly marks the others.

III. Again: as in the Cerebro-spinal System, we find that its normal action pertains almost exclusively to sensation and to motion, with only a secondary and comparatively somewhat remote influence (which we have termed Excito-Secretory) upon nutrition and secretion, while in the normal action of the Ganglionic System the entire function is known to be, to preside over nutrition and the secretions; so in paroxysmal fevers do we find intense pain, modified sensation, and symptoms allying them to neuralgic and convulsive diseases very prominent, while in continued fevers, modified nutrition and altered secretion, are the marked and most prominent characteristics. We would, therefore, announce as our classification of febrile diseases, two grand divisions of fevers corresponding with the two grand divisions of the nervous system, thus:

I. Cerebro-spinal Fevers.
All Paroxysmal. The secretions und nutrition only secondarily affected.

II. Ganglionic Fevers.
All Continued. The secretions and nutrition primarily affected.

I. Under the head of Cerebro-spinal Fevers, we would place the whole family of Paroxysmal Fevers, whatever type they may assume,* and also the various forms of neuralgia, which are nearly always intermittent, as well as the sthenic forms of Traumatic Fever, together with the Fever accompanying simple Pharyngitis, Pneumonitis, Dysentery, and many other diseases of malarial districts.

II. Under the head of Ganglionic Fevers, or Fevers of the Secretory System of Nerves, we think that we find ample ground for bringing together many diseases heretofore widely estranged from each other. Thus, as the archetypal

* The primitive location of these fevers, in the cerebro-spinal system, was developed by Prof. L. D. Ford, of the Medical College of Georgia, in the Southern Medical and Surgical Journal, in 1836, and called by Maillot, "Cerebro-spinal Intermittent Irritations."
forms of ganglionic fevers, we place at the head of the list, typhus and typhoid fever,* then, allied to these in various degrees of affinity, but all equally, in the one essential element, that they present themselves as manifestations of disease through the Ganglionic System, are variola, scarlatina, rubeola, varicella, and many other forms of eruptive fevers, heretofore not classified by nosologists. All of these last diseases are marked by fever of a continued or non paroxymal character, all present marked aberrations of nutrition and secretion, and each has its own peculiar eruptive character; and, further, each one is definitely self-limited in its duration, as yet, no remedical interference having been found competent to arrest or shorten their progress.

We will here make the remark, that we do not wish to be mistaken as classifying these diseases in relation to their eruptive feature, but only as signifying a recognition of the common influence of the secretory system of nerves in all of them by the eruption. In typhoid fever itself, it must be recollected that the eruption is not a prominent feature, and yet, we consider the secretory system of nerves primarily deeply affected, and place this at the head of the list, notwithstanding the fact, that the ganglionic implication manifests itself but little upon the skin and mainly in the intestinal canal.†

It may be asked, if all of these fevers are due to aberration in the innervation of the ganglionic or secretory system of nerves, why should they present such marked specific differences? A satisfactory answer may be given thus: that specificity of morbid cause must rationally be expected to secure a specificity of morbid manifestation; thus the virus of variola, when taken into the system, gives rise to the morbid manifestations peculiar to smallpox, while the morbid influence (of whatever nature it may be) of typhoid fever, produces a specific form of disease entirely different, but not the less for that reason, locatable in

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* As first developed in an essay entitled: "An Inquiry into the Nature of Typhoidal Fevers, based upon a Consideration of their History and Pathology," presented to the American Medical Association at its Session of May, 1853, by Henry F. Campbell, Chairman of Committee on Typhoid Fever. The implication of the ganglionic system of nerves, in typhus and typhoid fever, has been, in the above essay, argued at length.

† See Inquiry, &c., pp. 53 and 54.
parts of the organism entirely controlled by the secretory nervous system.

Blending of Types of Fever.—Much interest has been taken by this Association, for the last five years, in the subject of the Blending of the Types of Fever. We would claim for the present Pathology and Classification of Fevers, that it is the only one which admits of any plausible explanation of the mysterious phenomena comprehended under the term, “Blending of Types;” thus, a cerebro-spinal or paroxysmal fever may assume, under certain circumstances, some of the characteristics of some one or other of the forms of continued fever. This we hold can be explained by attributing it to a propagation of the irritation, originally located in the spinal marrow, to the ganglia of the secretory system. Then, again, the reverse may obtain; we may find, and do often find, in continued fevers, especially in malarious districts (whether the case be typhoid fever, rubeola, or scarlatina,) intermittent paroxysms, interrupting the even course of the continued form, sometimes obscuring the diagnosis, and making it necessary to modify the treatment. The use of quinine, it is well known, will generally break up these paroxysms, but not in the least modify the course of the continued fever. In the first of these cases, the morbific influence has been “centripetal,” and in the second “centrifugal,” and thus the “blending of types” may be rationally and philosophically explained.

We are aware that, in presenting thus a condensed exposition on the obscure subject of “The Nervous System in Febrile Diseases,” without more argument and fuller elaboration, we are running the risk of being charged with “bare assertion,” but we will honestly avow that each proposition has been earnestly and carefully considered, keeping constantly in view all the phenomena of febrile diseases—comparing them faithfully with the normal actions of the two grand departments of the nervous system.

It will be remarked, that we have not attempted to define what is the exact morbid condition of the nervous centres, or of the nerves, which gives rise to the phenomena in the two classes of fever. Such a process of reasoning we have carefully abstained from, because such a discussion would be conver-
sant about subjects which cannot as yet be said to have been brought within the legitimate domain of science. We can only as yet trace the effects to their causes; it is a different thing to discuss the nature of the causes themselves; and as Professor Whewell has made a distinction between the Laws of Phenomena and the Causes of Phenomena, so we only here claim to have recognized a Law, leaving the more recondite inquisition into the Causes, for a more advanced and enlightened age of science. In conclusion, we will say, we may have been, in the above exposition, unfortunately obscure in presenting to others what has become a clear and well defined conviction to us; but in the pertinent language of another,* whose deep philosophy has charmed us, while it has been of unspeakable service to us in many of our investigations, we will say, that "to our mind this doctrine stands firm and impregnable—assailable by no known fact consistent with every established truth."

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**ARTICLE IV.**

*Indigenous Races of the Earth; or a few Chapters of Ethnological Inquiry;* including Monographs on special departments of Philology, Iconography, Cranioscopy, Paleontology, Pathology, Archeology, Comparative Geography, and Natural History: contributed by Alfred Maury, Francis Pulszky, and J. Aitken Meigs, M. D., presenting fresh investigations, documents and materials; by J. C. Nott, M. D., and Geo. R. Gliddon, authors of "Types of Mankind. Philadelphia: J. B. Lippincott & Co. 1857. Large 8vo., pp. 655.

Although we have had this volume upon our table for some length of time, circumstances have prevented an earlier notice of it. As indicated by the title page, it is made up of contributions from several writers—and we may add, from men of well established erudition. The first paper is by A. Maury, "on the distribution and classification of Tongues,—their relation to the geographical distribution of Races; and on the inductions which may be drawn from these relations." The second by T. Pulszky, being "Iconographic researches on Human Races and their Art."

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* Dr. M'Cosh, on the Method of the Divine Government.
The third by J. A. Meigs, on the "Cranial characteristics of the Races of Men." The fourth by Dr. J. C. Nott, on "Acclimation; or the comparative influence of Climate, Endemic and Epidemic diseases, on the Races of Men." The fifth by G. R. Gliddon, entitled, "The Monogenists and the Polygenists; being an exposition of the doctrines of schools professing to sustain dogmatically the unity or the diversity of the human races; with an inquiry into the antiquity of mankind upon Earth, viewed chronologically, historically and paleontologically." And, finally, the sixth, also by Mr. Gliddon, is a "Commentary upon the principal distinctions observed among the various groups of Humanity—and on the Geographical distribution of the Simiae in relation to that of some inferior types of Men." It will thus be seen that however much these disquisitions may interest the Naturalist, the contribution by Dr. Nott is the only one which strictly comes within the domain of medical studies, and should alone, therefore, occupy our attention as conductors of a periodical devoted exclusively to medicine. We may, nevertheless, be permitted to express our appreciation of the learning displayed by the other contributors, and although we cannot admit the correctness of all their views, we derived especial pleasure from the perusal of Mr. Pulszky's interesting sketch of the history of the fine arts, as illustrative of national instincts or proclivities.

The following extract will indicate the object of Dr. Nott's paper: "In the preceding chapters, man has been viewed from opposite stand-points; and each new group of facts would seem to lead more and more directly to the conclusion, that certain distinct types of the human family are as ancient and as permanent as the Faunas and Floras that surround them.

"We propose in the present chapter, to investigate of Acclimation; that is to say, of Races in their relations to Climate, Endemic and Epidemic Diseases; and if it should be made to appear that each type of mankind, like a species of animals or plants, has its appropriate climate or station, and that it cannot by any process, however gradual, or in any number of generations, become fully habituated to those of opposite character, another strong confirmation will be added to the conclusion above alluded to."
lower animals and plants possesses a sufficient degree of "consti-
tutional pliability" to enable him to bear great changes of cli-
mate, the author objects to the opinion entertained by many, that he (man) is a cosmopolite in the strict sense of the word. The Jews, who originally inhabited a region in which they were exposed to cold winters and warm summers, are well adapted to the dispersion to which they have been subjected, but "the Eskimau on the one extreme, and the Negro, Hindoo, and Malay on the other, have no power to withstand the vicissitudes of climate encountered in traversing the 70 deg. of latitude between Greenland and the equator. Each race has its prescribed salu-
brious limits. The fair races of northern Europe, below the arctic zone, of which the Anglo-Saxon are impure descendants, will serve as another illustration. These races are now scattered over most parts of the habitable globe; and in many instances, they have undergone far greater physical changes than the Jews. The climates, for instance, of Jamaica, Louisiana, and India, are to them much more extreme than to the Jewish race. The Israelite may be recognized anywhere; but not so with the Scandinavian and his descendants in the tropics. The latter becomes tanned, emaciated, debilitated; his countenance, energy, everything undergoes a change: and were we not familiar, from daily observation, with these effects of climate upon northern races, we should not suspect the original ancestry of many of the present inhabitants of hot climates. In these cases we be-
hold, not simply a healthful modification of the physical and intellectual man, but a positively morbid degradation. The pure white man carried into the tropic, deteriores both in mind and body; the average duration of his life is lessened; and, without fresh importations, his race would in time become extinct. When, however, his descendants are taken back to their native climes, they revert to the healthful standard of their original types: the latter may have been distorted, but can never be lost, except in death”. (p. 356.)

The author then refers to the deteriorating effects of climate upon the English in Hindostan, the Indian Archipelago, Africa, the West Indies, and South America; upon the Dutch in Bata-
via and other Indian Islands; upon the French in Algeria, &c.; in neither of which colonies can the European cultivate the soil
nor engage in other laborious pursuits with impunity. "The negro, too, obeys the law of climate. Unlike the white man, his complexion undergoes no change by climate. While the white man is darkened by the tropical sun, the negro is never blanched in the slightest degree by a residence in northern latitudes. Like the quadrumana of the tropics, he is inevitably killed by cold; but it never changes his hair, complexion, skeleton, nor size and shape of brain."

With regard to the effects of the climate of our Southern States upon Europeans, we find the following language: "Let us suppose that a thousand inhabitants of Great Britain or Germany should be landed at Mobile about the month of May, and one-third placed on the hills, one-third in the town, and the remainder in the fenny lands around the latter, and ask what would be the result at the end of six months. The first third would complain much of heat, would perspire enormously, become enervated; but no one would perhaps be seriously sick, and probably none would die from the effects of the climate. The second third, or those in the city, if it happened to be a year of epidemic yellow fever, would, to say the least, be decimated, or even one-half might die, while the resident acclimated population were enjoying perfect health. The remaining portion, or those in the fenny district, would escape yellow fever, but would, most of them, be attacked with intermittent and remittent fevers, bowel affections, and all forms of malarial or marsh diseases; fewer would die than of those in the city, but a large proportion would come out with broken down constitutions."........ "In our cotton-growing States, the malarial climate is by no means confined to the low and marshy districts; on the contrary, in the high, undulating lands throughout this extensive region, wherever there is fertility of soil, the population is subjected more or less to malarial diseases. These remarks apply, as will be seen further on, more particularly to the white population, the negroes being comparatively exempt from all the endemic diseases of the South."*

* A medical friend (Dr. Gordon) who has had much experience in the diseases of the interior of Alabama, South Carolina, and Louisiana, has been so kind as to look over these sheets for me, and assures me that I have used language much too strong with regard to the exemption of negroes. He says they are quite as liable as the whites, according to his observations, to intermittents and dysentery."
We must differ with the learned author when he affirms that negroes are comparatively exempt from all the endemic diseases of the South. Such is certainly not the case in this section of Georgia, and in the adjacent portions of South-Carolina, and Alabama, where every planter knows that his negroes suffer equally with the whites, annual attacks of intermittent and remittent fevers, dysentery, malarial pneumonia, &c. We had occasion a number of years ago, to point out the same error in the work of a distinguished Southern medical writer, and have since found these views to be pretty generally entertained by the physicians on our seaboard. The error seems to have originated in the fact that negroes are comparatively exempt from fever upon the rice and cotton plantations of the *low-country*, the field of their professional observation; and this fact had led us long since to the inference that the *low-country fever*, is essentially different from that of the up-country. In the low country negroes become acclimated and comparatively exempt from fevers, but in the up-country no length of residence, nor even nativity, affords the least immunity either to the white or to the black man; on the contrary, we may safely affirm that the liability to our fevers are in a direct ratio with the length of time the individual has resided in the malarial district, and that *natives* are the most susceptible. With yellow fever and perhaps low-country fever, one attack usually secures immunity from a second: but with up-country fever, an attack one year is almost invariably followed by similar ones the subsequent autumns, and the oftener it is repeated, the more susceptible does the individual become. The negroes born and reared upon the plantations of the middle portions of Georgia and South-Carolina, are fully as liable to fever as new comers, and, we think, much more so. We know, from long observation, that in this city (Augusta), while we frequently see fevers among natives (white and black), it is exceedingly rare that we meet a case among our Northern people, who constitute a large portion of the permanent mercantile population. These views are sustained by the mortuary statistics of this city through a long series of years, published in the Southern Medical and Surgical Journal (volume for 1836). The low-country fever, like yellow fever, must then be essentially different from any form of fever in the upper sections of.
the Southern States. What constitutes the pathological difference is yet to be determined, and should be studied by those who have the opportunity. It is an interesting subject of research, worthy of the attention of some of the eminent pathologists of the sea-board.

When penning the remarks just made, we did not expect to find the author advocating pretty much the same views a little farther on. In order, therefore, to do him justice, we shall quote his own language:

"The fact is so glaring, and so universally admitted, that I am really at a loss to select evidence to show that there is no acclimation against the endemic fevers of our rural districts. Is it not the constant theme of the population of the South, how they can preserve health? and do not all prudent persons, who can afford to do so, remove in the summer to some salubrious locality, in the pine-lands or the mountains? Those of the tenth generation are just as solicitous on the subject as those of the first. Books written at the North talk much about acclimation at the South; but we here never hear it alluded to out of the yellow-fever cities. On the contrary, we know that those who live from generation to generation in malarial districts become thoroughly poisoned, and exhibit the thousand Protean forms of disease which spring from this insidious poison.

"I have been the examining physician to several life-insurance companies for many years, and one of the questions now asked in many of the policies is, 'Is the party acclimated?' If the subject lives in one of our southern seaports, where yellow fever prevails, and has been born and reared there, or has had an attack of yellow fever, I answer, 'Yes.' If, on the other hand, he lives in the country, I answer, 'No,' because there is no acclimation against intermittent and bilious fevers, and other marsh diseases. Now, I ask if there is an experienced and observing physician at the South who will answer differently? An attack of yellow fever does not protect against marsh fevers, nor vice versà.

"The acclimation of negroes, even, according to my observation, has been put in too strong a light. Being originally natives of hot climates, they require no acclimation to temperature, are less liable to the more inflammatory forms of malarial fevers, and suffer infinitely less than whites from yellow fever: they never, however, as far as my observation extends, become proof against intermittents and their sequelæ. The cotton planters throughout the South will bear witness, that, wherever the whites are attacked with intermittents, the blacks are also
susceptible, though not in so great a degree. My observations apply to the region of country removed from the rice country. We shall see, further on, that the negroes of the rice-field region do undergo a higher degree of acclimation than those of the hilly lands of the interior. I know many plantations in the interior of Alabama, South Carolina, Georgia, Mississippi, and Louisiana, on which negroes of the second and third generation continue to suffer from these malarial diseases, and where gangs of negroes do not increase." (p. 376.)

And again: "Certainly, negroes do suffer greatly on many cotton plantations in the middle belt of the Southern States; and I have seen no evidence to prove that negroes can, in this region, become accustomed to the marsh poison; and my observation has been extensive in four States. A question here arises: Is there any difference in types of those malarial fevers which originate in the flat tide-water rice-lands, and those of the clay-hills, or marsh fevers of the interior? I am inclined to think there is." (p. 381.)

Having already extended this notice of Dr. Nott's able and interesting paper, beyond the limits we had intended, we must bring it to a close, by adding the author's conclusions.

"1. That the earth is naturally divided into zoological realms—each possessing a climate, Fauna, and Flora, exclusively its own.

"2. That the Fauna of each realm originated in that realm, and that it has no consanguinity with other Faunas.

"3. That each realm possesses a group of human races, which, though not identical in physical and intellectual characters, are closely allied with one another, and are disconnected from all other races. We may cite, as examples, the white races of Europe, the Mongols of Asia, the blacks of Africa, and the aborigines of America.

"4. That the types of man, belonging to these realms, antedate all human records, by thousands of years; and are as ancient as the Faunas of which each forms an orginal element.

"5. That the types of man are separated by specific characters, as well marked and as permanent as those which designate the species of other genera.

"6. That the climates of the earth may be divided into physical and medical; and that each species of man, having its own physiological and pathological laws, is peculiarly affected by both climates.

"7. That no race of man can be regarded as cosmopolite; but that those races which are indigenous to latitudes intermediate

We have now come to a more difficult part of the question—
to the consideration of that which I have called latent (fruste) scarlatina.

You know what is meant in archaeology by a latent (fruste) inscription; that a greater or less part of it is wanting, a line, a letter, a point even only remaining. In speaking of pneumonia, we have seen that that disease could be latent, that often there was only a word in the symptomatological phrase, and that from this word alone the physician should find out the whole phrase. It is with the physician as with the numismatist and archaeologist. At the commencement of their studies these have to read from well preserved medals, from stones intact, while the student of medicine requires that all the symptoms which usually characterize a disease should be found in a case which falls under his observation. After a while, however, the archaeologist only requires a word, a letter, to be enabled to decipher the effaced inscription. So it is with the more experienced physician; he divines from a single symptom of a disease the whole disease. Of all the latent diseases, scarlatina presents these desiderata the oftener.

In 1829, one of my friends told me that scarlatina prevailed in a little village near Mennecy, in the department of Seine-et-Oise, and principally in the communes of the Chateau de Villeroy. Wishing to study this epidemic, I could do it more easily from the fact that as the chateau was perfectly isolated, the evolutions of the disease could be easily followed.

I saw individuals of the same family affected with sore throat, without eruption, and although they remained in the midst of those who were afterwards attacked with scarlatina, these persons escaped. Their sore throat was violent, accompanied with high fever, redness, and desquamation of the tongue. Others, who were attacked lightly, being slightly unwell for eight or ten days, suddenly became swollen, and passed blood. Albuminuria was not known at that period. These facts struck me, and caused
me to think these persons having, some of them the eruption and consecutive anasarca, others the anasarca of sore throat only, were differently attacked, but that all had the symptoms of scarlatina.

Three years since at Meaux, an analogous fact came under my observation, occurring in the same house. A young girl, fourteen years old, was taken with a violent scarlatina, characterized by croupal angina, the eruption, and an intense fever. A few days afterwards, her sister was also taken sick with the same symptom; almost at the same time a chambermaid fell sick; two or three days after, a man-servant, who staid in the room the whole day, was affected with a severe sore throat, with croupal exudations on the tonsils, redness and exfoliation of the tongue, high fever, but without cutaneous eruptions. It was clear to me, as the physician of the family, M. Saint Armand, also thought, that all these patients had scarlatina, and in fact the man-servant, although remaining in the midst of the epidemic locality, did not take the disease with which he had been inoculated in the same degree as the rest of the family; while the scarlatinous phase was complete in the others, in him the inscription was latent (fruste). There still remained a young boy, six years old. Suddenly, without having been sick a single instant, he became swollen. M. Blache and myself were called in consultation, and we recognized the anasarca of scarlatina presenting itself at the outset; it was considerable, and accompanied with hæmaturia. The father and mother, who were very attentive to the health of their son, declared that in the morning he had breakfasted as usual. This child had neither fever nor eruption, and the disease manifested itself in time, by the single symptom which we have indicated. Eight days afterwards he had a double pleurisy, and came near dying. Called again in consultation, M. Blache and I recognized this affection; four days after, we found one of the sides of the chest cured, while the other had taken on an enormous development. We performed paracentesis of the chest, and drew off one pound and a half of pus. During two to three months, Dr. Saint Armand made iodine injections into the pleura; notwithstanding a pulmonary perforation, the child recovered, and is now in good health.

I have not myself had any cases like these. Graves cited several, a few of which I shall translate for you.

"Young F—— was taken home from school when scarlatina prevailed. He complained of sore throat upon swallowing, headache, nausea. The next day the tonsils were swollen, and he experienced a greater difficulty in swallowing. His pulse was quick,—skin hot, but no traces of eruption. These symptoms continued three days without increasing in severity, and then disappeared. Before he entirely recovered his two sisters and his
father were attacked. The eruption appeared upon the skin in his two sisters, and ended in desquamation, while in his father there were only a few red points upon his skin, without ulterior desquamation."

"Master O—— also returned from school with scarlatina. During his sickness his two sisters and his brother were taken with the same disease. In all these it manifested itself under the form of small eruptions, or maculae, upon the skin. At the same time the man-servant and maid-servant suffered from violent angina, with high fever, which lasted several days."

These facts are identical with those I have myself seen. In the following, which occurred in the family of a physician, you will observe that the disease developed itself by anasarca:

"The following case," says Graves, "was communicated to me by a very eminent practitioner of Dublin. A few years since scarlatina broke out in the family of this physician, and attacked all the children, with the exception of a young lady who, although taking care of her sisters during their sickness, had no symptom of it. When they were convalescing, the family was sent into the country for the sake of the change of air, the sister who had not been sick accompanying them. There, to their great astonishment, she was suddenly taken with that peculiar anasarca which is observed in those who have had scarlatina. Her father, who took care of her during this sickness, was struck with this singular fact: he paid particular attention to it, and became convinced that it was a latent scarlatina."

"These cases, and those of which I have already spoken," continues Graves, "are very interesting in a pathological point of view; they tend to prove this fact, that, in many circumstances, diseases produced by contagion do not present the same series of symptoms which ordinarily characterize them."

These extracts from the English author prove that the same things occur in Dublin as in Paris. It is very certain that you will see these latent scarlatinas; you cannot, therefore, become too familiarly acquainted with them. Graves insists upon these facts as a means of demonstration, and he positively indicates that these are cases of scarlatina; for, says he, the disease being essentially contagious, it would be impossible that those who only had the sore throat or the anasarca should be alone exempt in the midst of their family sick with scarlatina, which had attacked all the rest.

TREATMENT.—The eruptive diseases, whether the eruption takes place on the skin or upon the internal viscera, as is the case in putrid or typhoid fever, which is an eruptive disease of the digestive tube, the eruptive diseases have a fatal course; that is to say, they have determined phenomena against which we cannot
cope with success. In the treatment of these diseases, the physician should not forget this grand fundamental fact; that whatever may be said, he cannot prevent the progress of a putrid fever, nor can he cut short a case of variola or rubeola. Doubtless, unskilful attention can retard or modify, in a certain manner, the appearance of the eruptions; but whatever means may be employed, art is powerless against the evolution of an exanthematosus fever, whatever it may be. In these diseases, more than any other, the physician should be minister naturae et interpres; for in these diseases, more than any other, quicquid meditetur et faciat, si naturae non obtemperat naturae non imperat; his duty, when everything progresses regularly, should be essentially passive, otiosus crismum spectator, as Fizer said; if no severe symptom arises, he has only to fold his arms; in a few days the disease will have accomplished its evolution naturally.

When the eruptive fevers become in some particulars menacing, our intervention, let us avow it, is generally of little avail. In some circumstances, however, we can be useful. These fortunate circumstances in which art interferes efficaciously, are more frequently met with in scarlatina and rubeola than in variola and putrid fever.

I shall show you what the physician can do in the first of these diseases. Above all, it is well to recollect that scarlatina varies greatly in its form and severity; that sometimes it is of an extraordinary mildness, sometimes, on the contrary, its malignancy renders it a terrible disease, the equal of the plague and typhus. This should be taken into account, for success should not be attributed to the medication which he may have used, the honor of which belongs entirely to the benignity of the epidemic itself; nor should his failures be laid to the treatment which could not prevail against the essentially malignant nature of the disease.

Epidemics can be generally severe for a whole population; they can also be severe for a single family. The malignancy can be circumscribed, so to say, within a small compass; but in these cases, it is malignant for almost all those it attacks within the circle to which it is confined. In this connection I will recall to your recollection the sad fact, published lately in the English journals, of scarlatina carrying off, in one week, six or seven children of a clergyman of York.

It seems that the poison with which those attacked with scarlatina are infected, has a particular activity, or that the constitution of each of the patients is disposed in a special manner for receiving it. Whether the malignancy depends upon the nature of the disease, upon its epidemic character, as Sydenham and others say,—whether it depends upon the particular constitution of the individuals, according to the opinion of Stoll, this grand fact always remains, namely: that when scarlatina breaks out in
a family, with its terrible phenomena, destroying the first it attacks, it is well to mistrust and fear it, for it will probably take off other victims; and also when its first severity has moderated,—when it appears from the start benign, it is well to hope, for generally it will remain benign.

This should be said before entering upon the study of the treatment, in order to put you upon your guard against yourselves. I cannot repeat it too often that, if the disease is in itself severe, the best medication will most frequently fail; if it is in itself benign, recovery will most usually result, and the most inappropriate medication will not be injurious.

There is a point upon which all epidemiographers agree; it is, that the antiphlogistic treatment, bleeding, too energetic purgatives, and rigorous diet, are pernicious. There is not, perhaps, an author,—I speak of those who have followed, studied, and described many successive epidemics,—who has not established the danger of this treatment in severe scarlatina, and even when, in the progress of this disease, acute inflammatory phenomena arise, such as phlegmons of the tonsils, of the lymphatic ganglions, of the cellular tissue, that bleeding and leeches do not generally succeed, probably because they are directed to symptoms of a septic disease,—of a disease of a bad character, mali moris,—one of those malignant diseases in which the antiphlogistic treatment is always invariably injurious.

Still these epidemiographers, in giving the sad results of their experience,—in condemning the antiphlogistic means of which they have observed the bad results,—these epidemiographers teach you that, if the energetic purgatives are hurtful, the milder mercurials, the neutral salts, given in a proper proportion, are of real utility. They say that, under the influence of laxatives which produce two or three passages a day, the febrile movement will be most usually moderated. However, they are far from pretending that the disease is always cured by these means.

We have seen that, in Scarlatina, and particularly when at its height, patients seem to succumb to a nervous exaltation, at least to nervous disturbances, arising either in the centres of organic life, characterized by an extraordinary elevation of the temperature, vomiting, obstinate diarrhoea, or in the centres of animal life, manifested by delirium, coma vigils, subsultus tendinum, and convulsions. For these nervous symptoms there is a treatment, the value of which has been proved by experience,—a treatment which the physician adopts, however, with great caution. I speak of the cold affusions extolled by Currie.

Currie was the first to recommend their use. He treated a large number of patients afflicted with the severe form of scarlatina, and had considerable success from the use of cold affusions. Emboldened by his fortunate results, he insisted upon this mode
of treatment, and established its application as a general rule in scarlatina accompanied with severe nervous symptoms, such as delirium, convulsions, diarrhoea, excessive vomiting, and a high temperature of the skin.

How should this treatment be applied? The patient placed naked in an empty bath-tub, three or four pails of water, at a temperature of 20° centigrade (68° Fahrenheit) are thrown over his body. This affusion lasts from a quarter of a minute to a minute, at the longest. The patient is immediately enveloped in blankets, placed in bed without being wiped off, and properly covered; reaction generally follows in fifteen or twenty minutes. The affusions are repeated once or twice in the twenty-four hours, according to the severity of the symptoms. They should be administered at that moment when the nervous phenomena assume such an intensity as to excite our fears of imminent danger; they are to be repeated until these symptoms cease, relieving the mind of the physician from further cause of alarm.

To suggest in private practice a treatment apparently so bold, one would have to have grown old in practice, to be beyond the necessity of being sustained by public opinion. He should be fortified by a deep sense of duty—by a consciousness of doing well, in order to strive successfully against the popular prejudice,—of all prejudices perhaps the most unfortunate,—which demands that, in eruptive fevers, patients should have warm drinks and be wrapped in more coverings than they are accustomed to in health. There is no prejudice, we say, which is more unfortunate than this; there is none which more frequently occasions the death of the patient. Yet the voice of Sydenham, which has spoken for two hundred years,—the authority of the most distinguished physicians who still object to it, resist in vain.

You understand, then, the difficulties which the young physician will have to encounter who believes he should have recourse to these cold affusions. These difficulties are the greater because it is in the severe cases, where the scarlatina threatens to be fatal, that the indications of this treatment are found. In adopting this treatment, you know that the disease gives one chance of recovery to two of death, and you can foresee, if you are not successful, what will be the opinion of the family afflicted with the loss they have sustained.

I have employed these affusions for a long time. I tried them in private practice before adopting them in hospital practice, for I have never made use of anything there which I had not previously tried in my private practice. As to these cold affusions, I can assure you that I have never used them without gaining some beneficial effect from them. I do not pretend to say that all my patients were cured. Far from it. I have lost a great many, but they died notwithstanding the treatment. The affu-
sions, instead of being injurious, seemed to moderate the symptoms and retard the fatal termination. By acting in this way in private practice, my reputation ran great risks, and I have been often badly recompensed for doing what my profound conviction dictated; but I remained firm in my course which duty marked out for me, and I persist in it up to this hour, for a stronger reason than formerly; for now, my position being established, my responsibility does not influence me as much. I understand your fears—not that you doubt the advantages of the treatment which you dare not adopt, but because, while consulting before all the interest of the sick entrusted to your care, you yet have to watch over your own reputation, which is so easily affected at the commencement of your career as practitioners. Still, when the voice of duty speaks to you, when your conscience tells you that this treatment you dare not adopt because it is contrary to the prejudices of the world, is a useful treatment, it is still necessary to try it, it is right that you should do it. But then, instead of resisting this prejudice face to face, instead of taking the bull by the horns—if you will pardon me this vulgar expression—avoid the difficulty, by administering these useful cold affusions, leaving the patient, and especially the attendants, in the belief that the affusions are warm.

Scarlatina, as I have already said, especially in its malignant form, has, of all diseases, the highest elevation of the temperature of the body. In some cases, I have also told you, it is as high as 106° Fahrenheit, consequently about six degrees above the normal temperature. Now, do not make use of the affusion, but of simple lotions, and with water at seventy-seven degrees Fahrenheit, that is, 29° less than the temperature of the skin of the patient; relatively it is cold. Put the patient upon a cot-bedstead and sponge the body with this water, first in front and then behind, and then replace him in his bed, wrapped in blankets, as I have already indicated. Although less efficacious than cold affusions, this kind of affusion has a positive effect, and following its application, you will perceive that the skin, which was before very dry and extremely hot, will become in half an hour cooler and moist. What is still more remarkable, is the diminution in the frequency of the pulse. Instead of beating in the infant 160, 170, 180; in the adult 140, 150; it falls to 130, 135, 140, in the former; to 120, 115, in the latter; consequently, 30, 35, 40, pulsations less. At the same time the cerebro-spinal phenomena diminish in intensity, the vomiting and excessive diarrhoea, symptoms depending upon disturbances of ganglionic innervation, also diminish. Thanks to these lotions, then, you obtain, for a short time I grant, a remarkable sedation. I say for a short time, for in two or three hours the symptoms sometimes return, when the lotions, or affusions, should also be repeated two, three, or four times in the twenty-four hours, and sometimes five or six days in succession.
What becomes of the eruption? You will observe this fact, which will surprise the assistants and reconcile the family to the lotions, the affusions which they mistrusted; that, almost invariably, from the beginning of the affusion, the skin, which was pale, or of a faint red color, becomes more developed. These affusions, therefore, not only do not decrease the eruption, but bring it out, so that the parents themselves notice it, and as long as danger continues, they are often the first to solicit its employment, unable to refuse to recognize the amelioration which this method of treatment has produced, particularly struck with the fact that the eruption reappeared more distinct. Yet, in verity, if the result of this amelioration is not favorable, if death takes place, they forget the encouragement they gave you, they accuse you of the misfortune which can only be attributed to the character of the disease.

To meet these terrible symptoms of scarlatina, other internal remedies can be administered with advantage. And first, the ammoniacals, the carbonate of ammonia, spirits of mindereri, which is an acetate ammonia, mixed with some empyreumatic products; these two medicaments in the dose of $\frac{1}{2}$ a drachm to 1 drachm,—ammonia itself in the dose of 10 to 20 drops,—can be very useful. I shall say as much of musk, of which $3, 4\frac{1}{2}, 6$ grains, and even 15 grains, is given in the course of twenty-four hours. These means should be used with prudence; they constitute an accessory treatment in those cases where the cold affusions are employed; when they are not employed, they comprise the principal therapeutical means.

The angina of scarlatina, which is accompanied with croupy exudations, when they are not very abundant, is not very dangerous. But in malignant scarlatina the disease attacks the throat, and generally the physician cannot prevent it.

I have tried cauterizations with nitrate of silver, with chlorohydrac acid; I have tried borax in collutories; I have given chlorate of potassa within, and I must say that all these remedies have very often failed in my hands. However, of all these therapeutic agents, the most to be depended upon, chlorohydrac acid, applied twice a day, has seemed to be of some use. This caustic is to be used with great prudence and precaution. In children, during the struggle to overcome their resistance, you may burn the tongue, the teeth, the internal walls of the mouth, and thus increase the evil without cauterizing as it should be done. By holding the child properly, and opening his mouth by means of a spatula, you can sometimes obtain good results from these cauterizations, touching the diseased parts twice a day, for five or six days, with a camel's hair pencil saturated in the acid. Insufflations of alum and tannin, used alternately, are also very useful. As to that form of angina which is not observed during the height
of the disease, but comes on suddenly about the ninth or tenth day, with an abundant exudation from the nose, with deafness, or severe pain in the ears, foetid breath, frequent pulse, and great depression, as to that angina which is probably only a diphtheritic complication of scarlatina, it resists all our efforts. All kinds of treatment which I have tried have failed—nasal injection with styptics, with the solutions of sulphate of copper, of sulphate of zinc, nitrate of silver, with the decoction of rhatany, with tannin, the cauterizations of the throat—all have failed; patients almost invariably succumbing, whatever you do. In these cases you must rely upon generous treatment, upon sulphate of quinine, coffee, and especially upon a strengthening alimentation.

And now of the anasarca of scarlatina and the symptoms which complicate it. I have already stated that it follows less frequently the severe forms than the benign eruptions. Often it constitutes a complication of the greatest importance, in other cases this complication is not serious. When it is slight, I have also said that hygienic means, rest in bed, lukewarm drinks, a moderate diet, is all that is necessary. When, however, the urine contains blood, acid drinks, lemonade, the decoction of uva ursi, sweetened with the syrup of turpentine, small quantities of digitalis, mild laxatives, will meet these symptoms. But when the haemorrhage is quite large from the commencement, when the anasarca increases with great rapidity, it will be necessary to resort to other means to prevent the threatening symptoms.

Sulphuric acid given internally either pure or in alcohol (eau de rabel), in the dose of ½ a drachm to 1½ drachms a day, in a draught sweetened with syrup of rhatany, will be found useful when the haemorrhage is abundant.

The anasarca which comes on rapidly and in a great degree, is ordinarily accompanied with convulsions, which sometimes destroy the patient with the first attack. Energetic purgatives are, in these cases, useful, by causing a part of the serum effused into the cellular tissue to be thrown out upon the surface of the intestine. It is also important to place the lower limbs of the patient hanging over the side of the bed, and the head raised by pillows. By this means imminent convulsions may be prevented. But in some cases these convulsions are present from the beginning, coming on without giving warning of their approach. The patient complains of a severe headache, difficulty in the sight, upon one side alone or both together, sometimes ringing in the ears and deafness. In these cases, scarifications of the inferior extremities may be of advantage. What is sometimes better, in attaining the same result, is the application of very large blisters upon the legs, and not upon the thighs. After seven or eight hours, phlyctenna will be formed, and when they are opened serum will flow abundantly from them, relieving the patient, and enabling him to pass the crisis of his anasarca.
If the convulsion takes place, give, during the attack, musk in connection with small doses of belladonna. For a child eight or ten years old, musk, in the dose of from 3, 4 ½, or 6 grains; belladonna in that of one-tenth of a grain for a single dose. At the same time you should make use of a means I have employed for more than twenty years, and from which I, as well as other physicians, have experienced great service: I speak of the compression of the carotids. This compression requires to be carefully made, and in a certain manner. When the epileptiform convulsion predominates upon one side, the compression should be exercised upon the opposite side. If, then, the convulsion be predominant upon the right side, it is the left carotid which should be compressed; and reciprocally if the convulsion be predominant upon the left side the right carotid should be compressed. If the convulsion be equilateral the compression should be alternately produced upon the two carotids,—I speak, be it well understood of the primitive carotids—and even simultaneously upon both, if it is possible to do so without interfering too much with the respiration of the child.

This compression is easier to perform than you would suppose. Place yourself so that the right hand can compress the left carotid, and the left hand the right carotid; push aside the sternocleido-mastoid muscle, while with the back of the ungual phalanx you push aside the trachea, and you will feel the beatings of the carotids. Seizing it, then, from within with the ends of the fingers, carry it backwards a little and press it against the vertebral column. You will instantly perceive that it is compressed, by the absence of pulsation in the corresponding temporal artery, by the paleness which sometimes suddenly succeeds to the previous redness of the child's face, and again by the fact that in some fortunate cases the compression is no sooner established than the eclamptic convulsion ceases. Continue this compression upon one of the arteries for fifteen to twenty minutes, then compress the other. If you have an aid that can assist you, his assistance will be useful to you in this operation; the mother, whose solicitude renders her so intelligent, can replace you. By this means, having patience, the convulsions accompanying the anasarea of scarlatina can be arrested, in a certain number of cases, in a few hours.

There still remains that form of anasarea which if it becomes chronic, can be relieved. When the convulsions, which are so often mortal, have ceased; when the hæmaturia, which precedes or accompanies the anasarea has passed, give the patients diuretics, nitrate of potassa principally, in connection with small doses of digitalis, give also a remedy prescribed by Graves, the iodide of potassium in large doses.

In some cases the anasarea and the albuminuria, which are ordinarily cured in fifteen days, three weeks or a month, can be-
come the commencement of Bright's disease. The acute symptoms disappear, the albuminuria persists; if it persists a month or six weeks after scarlatina, beware of this symptom: it indicates the commencement of Bright's disease; the kidney is infiltrated with fibroplastic tissue, after six weeks the fatty element predominates, and a few months later the patient succumbs to this new affection.

Finally, there are a few more serious symptoms which are developed in this last period of scarlatina about the same time as anasarca. They are the serous effusions of the pleura and pericardium.

For these the repeated applications of fly-blisters, and if the hydrothorax or the hydro-pericarditis is very great, puncture may be useful.

In large pleural effusions, thoracentesis sometimes becomes necessary after a very few days. But often, as I have already observed, with the first puncture, even when the effusion has not existed more than ten, fifteen, or twenty days, you will find a lactescent serum, sometimes pus, already formed. Then you have empyema, a formidable complication, which you can frequently cure in young persons by puncture, and repeated iodine injections; but which, in adults, notwithstanding these means, you will rarely cure.—[American Med. Monthly.

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Artificial Rupture of the Amniotic Sac during Labor.—Objections to the Practice. By B. F. Richardson, M. D., Adjunct Professor of Obstetrics and Diseases of Women and Children, in the Medical College of Ohio.

[The above being a subject of much interest, we present to our readers Dr. Richardson's second paper, from the Western Lancet.]

In the last number of this Journal, quotations were made from numerous standard obstetrical authorities, which, directly and by fair implication embody the doctrine, that the amniotic sac is the only proper and efficient agent in the production of dilatation of the os uteri; that after it is well dilated, or dilatable, there remain no important objections to rupturing the membranes; and that, therefore, it is undesirable to maintain the integrity of the amniotic sac beyond that period. At the conclusion of that article we promised to show, "that one of its most important uses remains unfulfilled until the presenting part has passed through the superior strait; and that in all natural, uncomplicated labors, especially primipara, the membranes should not be ruptured at any time."

If this proposition can be sustained by argument and numer-
ous facts, the inference is patent, that the views entertained and inculcated by obstetrical writers generally, in regard to the office and treatment of the amniotic sac, are well calculated to seriously mislead those who exercise their memory more than their reason. He who conceives of no objection to the rupturing of the membranes after the os uteri is well dilated, will, almost certainly, rupture them, in expectation of exciting more vigorous uterine contractions.

Perhaps, on no other point connected with obstetrics has there been so much misinterpretation of facts, assumptive reasoning, and erroneous conclusions, on the part of writers, as in regard to the mechanism and phenomena of the first stage of labor. As the views entertained by Professor Murphy on this point are in accordance with those of most writers, and as he has elaborated the argument through which these views have generally been derived, a review of his positions will be appropriate, in the course of my remarks.

Is the amniotic sac the only proper and efficient agent in the production of dilatation of the os uteri?

Are there any important objections to rupturing the membranes after complete dilatation of the os uteri has taken place?

The discussion of these questions will embody the answer to the first: Is it desirable to maintain the integrity of the amniotic sac during labor?

Prof. Dewees, by an ingenious argument, attempts to show that, ordinarily, the amniotic sac has nothing to do in the production of dilatation; but unfortunately he admits, in part, that which he undertakes to disprove; and moreover is guilty of palpable inconsistency. At the conclusion of paragraph 515, he writes: "but in this admission, let it be recollected that I consider the waters as useful by their equal pressure upon the lower part of the uterus, and by distending, and at the same time, by the same agency, weakening, the circular fibres of the part, and thus indirectly favoring the dilatation of the mouth of the uterus." Now turn to paragraph 518. "When the os uteri does dilate, it is not by its edges being stretched mechanically; it is an absolute inability in the circular fibres to maintain a state of contraction, and, for the time being, may be considered as paralyzed, or excessively fatigued; or, perhaps, more properly speaking, it is the relaxation of a sphincter not subject to the control of the will." Where a proposition is faulty, the reasoning is apt to be illogical. This gifted and lamented author was endowed with a spirit of controversy to an extent that sometimes led him into the adoption and support of views, which his acknowledged powers of argumentation were insufficient to sustain. However, in attempting to exclude entirely, the amniotic sac as a usual participant in the dilatation of the os uteri,
he assumed a task perhaps not more difficult than that of Prof. Murphy, who undertakes to demonstrate that it is the only proper and efficient dilating agent.

We have heretofore stated that the argument and assumptions of Prof. Murphy involve "a total disregard of well known hydrostatic and mechanical laws; and that he takes the position "that the amniotic sac is a better dilator of the os, than the smooth, round, and comparatively unyielding vertex." At page 55, commenting upon the argument of Dewees, he remarks: "It would make the membranes not only useless as a means of dilatation, but rather a difficulty in its accomplishment. The head of the child, directly applied to the cervix, would overcome the resistance of the circular fibres much more efficiently than the liquor amnii, so that the most favorable kind of dilatation would be that which occurs when the membranes are ruptured at the commencement of labor. It is very well known that this does not happen;" and after giving Dewees' explanation of the difficulty, proceeds: "But in place of the waters, there is the large, round, and unyielding head of the child forced down upon the lower part of the uterus, which one would suppose more efficient for the purposes of mechanical distension."—According to the opinion of Dewees, and not his own, as we may fairly infer. Again, at page 50, "If the uterus exerted its full power upon the undilated os uteri, and if the unyielding head of the child were driven forcibly against it, the almost certain consequence would be, that the irritation would excite increased resistance, and ultimately terminate in inflammation of the mouth of the uterus. To obviate such an effect, nature interposes a fluid medium between the power and the resistance. The liquor amnii contained within the membranes, occupies the cavity of the uterus, and when its parietes contract upon it, the force exerted is (as we have explained) by this means, accurately conveyed to the os uteri. When the latter dilates in the slightest degree, the fluid insinuates itself within the smallest opening, and expands it by a direct lateral pressure against its edges. The power of the uterus is thus made to act in the most favorable manner for distending its mouth."

On same page, he says: "Further, so long as the tissue of the uterus intervenes, it is necessary to moderate the great power which the uterus is capable of exercising to dilate it: this is effected by the liquor amnii." Again, on page 108: "The gradual escape of the liquor amnii also gives rise to tediousness. If this take place when the os uteri is slightly dilated, in other words, when the latter is so long exposed to the pressure of the head of the child as to become irritated by it, the result is rigidity of the os uteri, etc." On page 55 we also read: "If they are ruptured when the dilatation is very slight, the suddenly in-
creased power of the fundus, forcing the head of the child against the os tineæ, soon excites irritation, prevents its expansion, and sometimes causes inflammation. But if they are broken when the uterus is sufficiently open to allow the membranes to protrude into the vagina, and the contractions of the fundus to increase, it is probable that the dilatation will be advanced more rapidly, etc." This last quotation contains its own refutation. I have been thus copious in my citations, for the reason, that they embody the views of all authors within my knowledge, Dewees excepted.

Now, what inferences are fairly deducible from the foregoing quotations? I shall state and answer them as I proceed: Firstly, the amniotic sac is the essential agent in the production of dilatation of the os uteri, producing it "by a direct lateral pressure against its edges." The fact, that in a fair proportion of multiparë labors, the uterine orifice opens readily and to some considerable extent, before either the head or membranes have engaged within it, is fatal to this theory. Further, it is a well known fact to those who have made careful observation, that occasionally in multiparë labors, where, from fragility of the membranes, the liquor amnii has been evacuated early, and before the head has descended sufficiently to press upon the os; enlargement of the orifice proceeds without interruption.

There are three agencies concerned in the production of dilatation. Firstly: and essentially, contraction of the cervico-fundal fibres acting upon the circle of the os uteri through their free extremities. Secondly, a body (the amniotic sac or presenting part) over which to retract the border of the os; and, Thirdly: pressure by descent of the amniotic sac, or presenting portion of the foetus.

Secondly: The amniotic sac is a more efficient dilating agent than the vertex, for the reason, that the force exerted by the uterine contractions is "accurately conveyed to the os uteri;" whereas the same force transmitted through the vertex, would "soon irritate" the os, and "prevent its expansion." Here we have groundless assumption, misinterpretation of facts, and erroneous conclusions. By what law of mechanics does a yielding body like the amniotic sac, become a more efficient mechanical dilator than a solid body like the vertex? If the force of the contractions is (as is asserted) accurately conveyed to the edges of the os uteri,—the membranes being non-distensible, and therefore unable to absorb any of the force—why is the amniotic sac incapable of irritating and inflaming the os and arresting its dilatation, no matter how great the power exerted by the uterine walls? Can the vertex do more than transmit this force to the edges of the os uteri?

Again, it is assumed that the whole force of the uterine con-
tractions is accurately conveyed by the amniotic liquor to the edges of the os uteri, as soon as the latter is opened in the "slightest degree." Now, the exact measure of force which the liquor amnii is capable of conveying to the edges of the os uteri, is determined by the force which the unsupported membranes at the orifice are capable of sustaining. Who can suppose for a moment, that these frail membranes can support the whole power generated by vigorous uterine contraction? Let us take even Prof. Murphy's own statement, when combatting the argument of Dewees, in regard to the antagonism of the circular and longitudinal fibres: "but how the membranes could resist the effect of this struggle it would be difficult to understand, when we know that change of position, walking across the room, or other such trifling causes, are sometimes sufficient to rupture them, from the gravitation of the fluid alone, and therefore the greater force arises from the action of the fibres of the uterus against each other, must break them more frequently than what we know to be the case." Prof. Murphy therefore supposes, that antagonism between the vertical and transverse fibres, imparts to the liquor amnii, greater force, than when they contract conjointly. Such a view evinces a defective knowledge of hydrostatic laws. The simultaneous contraction of all the uterine fibres, will distend the membranes at the orifice more forcibly than any partial contraction possibly can.

Further, it is assumed, that when the amniotic sac is prematurely ruptured, it is replaced by the vertex, which transmits the power of the uterine contractions to the os uteri, thereby irritating, and rendering it rigid and unyielding; and the conclusion is, that the tediousness of delivery, and apparent change in the condition of the os uteri, which usually attend this accident, are attributable to the alleged fact, that the vertex is incapable of dilating the os as efficiently as the amniotic sac. I have dwelt at length on this point, as the most important connected with our discussion; and an exposition of the mechanism and phenomena of the first stage of a primipere labor, will, I think, show wherein obstetrical writers have been led into fallacious reasoning, and false conclusions, by the oversight and misinterpretation of facts. At the commencement of labor, and before the os uteri begins to open; we find the child occupying the uterine cavity, with its pelvic extremity in contact with the fundus, and its head resting upon the pelvic brim, presenting the occipito-frontal diameter more or less modified,—the liquor amnii filling up the inequalities. As the contractions continue, the liquor amnii is displaced in that direction in which there is least resistance—the inferior segment; for it is a well known fact, that the muscular tissue diminishes in quantity, and therefore, in power, from the fundus towards the orifice. Whilst the
inferior segment is undergoing distension by the downward projection of the liquor amnii, the superior portion of the cavity is lessened, and the walls of the body and fundus permitted thereby to apply themselves more closely upon the child. Then, as the cervix continues to dilate, and the os begins to open, further descent of the liquor amnii is allowed; so that the proportion of the uterine force transmitted to the pelvic brim, through the body and head of the child, increases step by step. As the os continues to open, and the membranes are more and more exposed to rupture from diminishing support inferiorly, the increasing contractile power of the uterus would certainly rupture them, were it not that, as the labor progresses, the proportion of force transmitted to, and extended upon the pelvic brim, through the child, is gradually increased. This is a wise provision of nature, for if the undivided power of the uterus should be exerted upon the unsupported membranes at the orifice as alleged by Prof. Murphy and others, rupture of them, unless preternaturally strong, would be inevitable at an early period of dilatation, in a large majority of first labors. As the labor progresses, the uterine walls are applying themselves more firmly upon the child, during each contraction, and the head is being flexed, so as to bring its smallest circumference in relation to the superior strait. Now suppose that at an early period of dilatation, and before flexion of the head has proceeded to any considerable extent, the amniotic sac is ruptured, either from fragility of the membranes, or interference on the part of the medical attendant; what results? Usually, abnormal protraction of delivery, and injury to the child and mother proportionate to its duration. The cervical segment being relieved from distension, by the evacuation of the liquor amnii, retracts by its elasticity, and applies itself closely upon the presenting part, and does not come to be pressed upon until the head is completely flexed, and its sub-occipito-pregmatic circumference is passing through the superior strait. When the head is of due relative size, this step in the mechanism is never attained in the early period of dilatation, unless the cervical tissue is preternaturally unyielding. I therefore venture to assert that the statement of obstetrical writers,—Prof. Murphy included—that the ruptured amniotic sac is replaced by the vertex, which, by pressing upon the os uteri, irritates and renders it unyielding, thereby causing the tediousness which usually results where the liquor amnii is early evacuated; is entirely and radically erroneous. Further, it is a mere assumption to assert, that when the vertex, (covered by the soft, well lubricated scalp,) does come to press upon the os, it will irritate, inflame, and render it unyielding; for when in the progress of labor, the occiput descends, it will dilate the orifice as favorably and as rapidly as the other unfavorable conditions
Artificial Rupture of the Amniotic Sac.

will admit. Again, the theory implies that the delay will terminate with the full dilatation of the os, whereas it is a fact, that the delivery is delayed at every step throughout, by the two early evacuation of the liquor amnii. We have heretofore stated, that at an early period of dilatation, the head is but imperfectly flexed, and is not yet so adapted to the pelvic orifice as to prevent the outflow of liquor amnii, produced by the recurring uterine contractions. Complete flexion, and adaption of the sub-occipito-pregmatic circumference of the head to the pelvic brim, is by far the most tedious step in the mechanism of a primipera labor; usually requiring many hours for its accomplishment. The liquor amnii being thus gradually and completely expelled, the uterine parietes are permitted to close upon the unequal surface of the child. The circular fibres of the body, meeting with the least resistance, contract upon and constrict the abdominal region of the foetus. Each succeeding contraction increases the constriction, until the compressed part becomes as resisting as the other portions. The child can only be expelled from the uterus by being made to glide upon its inner surface, and anything that militates against this process, will retard delivery proportionately. Now, as the resistance of the presenting part, conjoined with the resistance of this constriction, must be overcome by the contraction of the cervico-fundal fibres; the true cause of tediousness is at once made manifest; for the amount of power absolutely lost, is exactly equal to that which this constricted portion of the uterus is capable of exerting. And this relation of the uterine parietes will, at least, be partially maintained at every subsequent step of the labor, until the head is delivered; thereby causing abnormal delay throughout.

Through the foregoing explanations, it will be perceived, that protraction and injury are liable to result, whenever the liquor amnii is evacuated before the head is properly adapted to the pelvic orifice, no matter what degree of dilatation may have taken place.

We have thus undertaken to show, "that one of its most important uses (the amniotic sac) remains unfulfilled until the presenting part has passed through the superior strait; and that in all natural, uncomplicated labors, especially primipæ, the membranes should not be ruptured at any time."

In case of actual inertia, the practitioner must exercise his judgment, in view of the conditions present; but rigidity of the membranes can in no way impede the descent of the presenting part through the pelvic brim. Therefore it is my deliberate opinion, derived from careful and extended observation, that rupture of the amniotic sac, especially in primipæ cases, before the head is properly adapted to the pelvic orifice; is injudicious, and generally injurious, and sometimes fatal,—especially to the child, in its results. For, the altered condition of the uterine
sinuses and the placenta, consequent upon prolonged and undue retraction of the uterine parietes, in conjunction with the violent pressure to which the infant is subjected; are well calculated seriously to impair the child's viability, even though it may be born alive.

There are other and important objections to rupturing the membranes, even when the os uteri is well dilated. Who knows at what period of a labor eclampsia may occur? Version may be desirable, but difficult and dangerous if the waters have been long evacuated. The same may be said in regard to rupture of the uterus. So also, of haemorrhage; the first expedient being rupture of the membranes, the next, version.

In conclusion: as it is difficult to estimate in a given case of labor, to what extent its bad results may be fairly attributable to improper management, we may feel disposed to rest satisfied with our preconceived ideas and modes of practice. Let us, however, be reminded of the statistical fact,—established by the observations of Burns, Collins, Nagale, Simpson and others; that the liability to injury and death, upon the part of the mother and child, increases proportionately with the duration of labor.


At the meeting of the Buffalo Medical Association, Sept. 2d, 1856, as per report of proceedings in the October number of the Buffalo Medical Journal, a discussion took place in regard to the propriety of using cathartics in dysentery; also the kind of cathartics best calculated to fulfill the indications in that disease. As this question is fairly before the readers of the Journal above mentioned, we suppose it is open for the expression of opinion or experience, by any of its many readers. Hence we give expression to a few thoughts, based partially upon our individual experience, and partially upon the generally received opinions in regard to the nature of the affection under consideration. A knowledge of the nature or pathology of any disease, is, perhaps, the surest guide to the appropriate indications of treatment. The public generally, are apt to look upon all diseases accompanied with frequent evacuations from the bowels, as similar at least, if not identical in character. Physicians themselves are not always free from this vagueness of nomenclature. In muco-enteritis, as well as milder forms of mucous irritation, each case is accompanied with a diarrhœa or frequent alvine evacuations, and the public generally do not discriminate between such cases and dysentery, and we have seen physicians not unfrequently, if not guilty of the same error in diagnosis,
at least of the same vagueness of nomenclature. Dysentery consists in an inflammation of the mucous membrane of the colon and rectum, and, though the evacuations may be over in ten minutes, yet, except it may be in the incipiency of the disease, they are not fecal, but consist almost wholly of mucous and blood. Hence, though the griping pains in the abdomen and the tenesmus may be never so great, though the characteristic muco-sanguineous evacuations may be never so frequent, or the straining at stool never so persistent, the case may be accompanied with obstinate constipation. The public generally look upon the frequent bloody evacuations as constituting the whole of the disease, and, consequently, urge the importance of powerful astringents, which, if unadvisedly by the attending physician, they sometimes clandestinely and injuriously bring to bear upon the disease. But the physician who resorts to them, to the exclusion of evacuants, will certainly have no reason to boast of his success.

Permit us to say, that we do not propose to discuss the nature, cause, or symptoms of dysentery, nor to enter into full details of treatment. We propose only to make a brief expression of our opinion, upon the question under discussion, viz: the propriety of cathartics in dysentery. Some authorities have condemned the use of evacuants in dysentery, on the ground of their supposed irritating influence upon the inflamed mucous membrane. But we feel confident that, when the evacuant is judiciously selected, and repeated with due discrimination, and with proper adjuncts, its irritating influence is more fancied than real. The object of the cathartic seems, at first, to be to free the bowels from irritating secretions, and the object of their repetition is, conjoined with the above, to prevent constipation, which is the inevitable sequence of the inflammation and consequent fever. A second, and not less important object to be secured by the evacuant, is to unload the portal veins, thus diminishing congestion in that important circulatory system, and to stimulate the capillary circulation in the liver, which is often sluggish, resulting in a deficient biliary secretion.

In regard to the choice of a cathartic there has been and is a great discrepancy of opinion. Some have advised calomel at first, to be succeeded by castor oil; others have advised castor oil from the first. Rhubarb, compound powder of jalap, cream tartar, epsom salts, rochelle salts, &c., have all had their advocates.

We were formerly in the habit of giving, at first calomel intimately commingled with rhubarb and a little pulverized opium, and afterwards, whenever an evacuant seemed demanded, gave castor oil with a few drops of laudanum. But recently
we have made choice of a different evacuant, and, so far, have been much pleased with the change. In the June number of the Western Lancet, for 1855, Dr. D. B. Dorsey communicated the result of twenty years' experience with a cathartic mixture, first proposed to him by Dr. Lemoyne, of Washington, Pa. Summing up his result he said "in a practice, not very limited, in the cities of Wheeling, Va., and Steubenville, O., in the latter of which dysentery prevailed as an epidemic twice or thrice during my residence there, I had the high gratification of seeing all recover who were treated with this remedy from the commencement of the attack." With this high encomium before us, we made trial of the combination in the next case that came under our observation, and with such happy results that, except in young children, we have used it in all dysenteric cases since, with success in all cases.

We quote Dr. Dorsey's formula and directions from the paper above referred to. "Take of saturated solution sulph. magnesia, seven fluid ounces; aromatic sulphuric acid, one fluid ounce—mix.

"The saturated solution is prepared by dissolving epsom salts in an equal quantity of water, by weight, at 60 deg. Fahrenheit. It will be ready for use in eight or ten hours. During that time it should be shaken occasionally.

"The medium dose of this medicine for an adult, is one tablespoonful, delivered with two or three ounces of water, every four to six hours, until it gently moves the bowels. It should be given regularly, and perseveringly, until the bowels are manifestly under its influence, which will be evinced by feculant discharges, abatement of tenesmus, and general feeling of relief. The size of the dose and time of repeating it, must be varied by the practitioner's judgment, according to many circumstances of age, violence and stage of disease, &c. Sometimes it will require two tablespoonfuls of the medicine, every three or four hours; at others a teaspoonful every six or eight hours will be sufficient.

"Accompanying each dose, when the pain and tenesmus are great, one sixth of a grain of sulph. morph. may be given. But this remedy, also must be varied, both in quantity and frequency of repetition, according to circumstances."

We have seldom or never exceeded tablespoonful doses, and oftener fallen below that. But instead of giving once in four or six hours throughout the twenty-four, we have usually commenced with it in the morning, to be repeated every three hours until it operates, always combined with a small quantity of morphine. This course we repeat every day so long as the indications demand. During the remainder of the twenty-four hours, we give ipecacuanha with morphine, or such other remedies as the circumstances of the case seem to require. It may
not be amiss to say here that mercurials are incompatible with the mixture.

The acid doubtless stimulates the capillary circulation in the liver, promoting bilious secretion, while the sulphate of magnesia relieves the portal congestion and frees the bowels from irritating secretions. From the relief which speedily follows its action, to the tormenta and tenesmus, greater than that following any other evacuant, we cannot help thinking the acid has a direct sanitary influence upon the inflamed mucous membrane.

With young children, where smallness of dose and pleasantness of taste are always considerations of much importance, the above mixture is decidedly objectionable. The taste is rather disagreeable, and the necessity for diluting the mixture, renders the bulk such as no child will readily take. In such cases we have been in the habit of scorching rhubarb, adding boiling water and extract of hyoscyamus, the dose of such proportion to the age and condition of the patient, sweetening the mixture and flavoring with nitre.

This is to be given in repeated doses in the morning, sufficient to produce a laxative effect, and during the balance of the day we give hydrargyrum cum creta, in small doses, with Dover’s powders, or such other medicines as the circumstances of the case may indicate.—[Buffalo Med. Journal.

Puerperal Vomiting cured by the Induction of Labor. By Francis W. Sheriff, M. D., L.R.C.S.E.

Having recently read your article on Professor Cazeau's late work on the Diseases of Pregnancy, &c., I thought it might be interesting to some of your readers to relate a case of severe Puerperal Vomiting which lately came under my care. My patient, Mrs. Moore, first consulted me four years ago, being in the eighth month of her fifth pregnancy. She complained of almost constant vomiting, and had been reduced to great debility by absolute inanition. A few doses of hydrarg. cum creta and opium checked the vomiting, and she was delivered of a healthy child at the proper time. The placenta was retained, and she had considerable hemorrhage before I reached her residence, which was about nine miles distant. She became anæmic and was confined to bed for nearly three months. She eventually was quite restored to health, and has not been pregnant since until this time. On the 26th of July last I was requested to visit her. I found her apparently healthy, and robust looking, pulse natural. She stated that she was in her seventh month of pregnancy and that since its commencement she had vomited a great deal, but that lately it had become much more
troublesome, and that she was afraid of relapsing into her former condition, as her bowels were rather costive. I prescribed the pills and a mixture of chloroform and tinct. lavand. comp. and at the same time paid great attention to the state of her bowels. On the 10th of August I was again called to visit her. She stated that since the 7th, the vomiting had been almost constant, that she retained nothing on her stomach and that she vomited a great deal more than she swallowed. She complained of great thirst, pain in the epigastrium, great anxiety and restlessness, and was urgently calling for relief. Pulse 120 of good strength, breath foetid, having the odour of chloroform. I bled her to the amount of 3 viii. without causing fainting, and prescribed at different times calomel and opium, senna, enemas, warm applications to the epigastrium, creosote mixture, &c., but all of no avail, the vomiting continued as bad as ever. The swallowing of a little fluid of any kind was almost immediately followed by great retching and vomiting. The fluids vomited were colourless and inodorous, and largely exceeded what had been swallowed. In addition to the medicines prescribed, I ordered nourishing enemas to be frequently administered.

11th. Symptoms rather more favorable, vomiting not so severe, and has slept a little, complains more of debility, skin rather cool. Has retained a little opium, which she thinks has relieved her.

12th, 8 a.m.—Is much worse, vomiting as bad as ever, extremities cold, skin wrinkled and withered like a person in collapse of cholera. Has very great anxiety, and calling urgently for fresh air. Had to get her bed elevated to the height of the window so that she might have her head in the open air. Pulse 180, weak and variable. As it was evident that death must soon ensue if relief was not obtained, I determined to bring on labor; but before doing so, I requested that Dr. Anderson, a neighboring practitioner, might be sent for. He arrived at 3 p.m., and agreed with me on the propriety of immediately inducing labor. I introduced a flexible catheter into the uterus, ruptured the membranes, and drew off about 8 oz. of liquor amnii. My patient was relieved almost immediately, and the vomiting ceased. I prescribed 1 drachm of tincture of Ergot every two or three hours, supporting her strength at the same time with stimulants and nourishing enemas. She remained easy and comfortable all night, and next morning, about twelve hours after the rupture of the membranes, labour pains came on, and continued regularly all day, but at long intervals. About 8 p.m., I administered an enema of infusion of ergot, which soon had a most powerful effect, and within an hour afterwards she was safely delivered of a living child which cried lustily. It, however, lived only about eight hours. My patient rapidly recovered,
and in two or three weeks was entirely restored to her usual health. In this case so urgent were the symptoms and so rapid had been the approach of sinking and collapse, that I had no doubt that the delay of the operation for a few hours more would have proved fatal. From the immediate relief experienced after drawing off the liquor amnii, it would appear as if the cause of the vomiting had been the pressure of the gravid uterus.

[Medical Chronicle]


Our knowledge of the physiology of the auditory apparatus is still very incomplete, partly on account of the difficulty of experimenting on the organs of hearing, and partly on account of the imperfection of the science of acoustics. We are happy, therefore, to record the results of the investigations of Dr. Kramer, (Deutsche Klinik, 1855,) whose vast experience in the treatment of aural affections is universally known. In reviewing the researches of his predecessors, this author points out the impossibility of determining what takes place in the living ear from experiments on inert matter. His own experiments have been made upon the ear itself, in the healthy and diseased states. It would be out of the question for us to reproduce the details of these experiments; we must be satisfied with the author's conclusions:

1. The cartilage of the ear conducts more than a third of the sonorous waves which reach the membrana tympani.
2. The concha is the most important part of the auricula cartilage.
3. The cartilage of the ear, in its natural position, simply receives and conducts the sonorous vibrations to the auditory passage.
4. The cavity of the auditory passage transmits about 500 times as many undulations as the solid parts enclosing it.
5. The curvatures of the meatus and the cerumen have no influence on the sonorous vibrations.
6. These arrangements serve to protect the canal and the membrana tympani from external agents.
7. The membrana tympani transmits the sonorous undulations in due quantity and quality, only while its structure is normal.
8. The membrana tympani also serves as a protection to the drum.
9. The ossicula have but little agency in transmitting the vibrations of members of the membrana tympani to the laby-
On Rheumatism, &c.

On Its eruption, the perspiration." power to resolve condition of the blood, from its normal composition. This condition may arise from causes apparently most opposite, but which resolve themselves into one and the same action, namely: their power to change the constitution of the blood from its healthful state.

The bedside statements confirm this view. By some, the exciting cause of the attack is attributed to cold, or to "check of perspiration." By others, to waste of nervous force by long-continued watching, to strains, or over-exertion, to being "out of order" for a long time, though not conscious of having been exposed to damp or cold, to the sudden suppression of a skin eruption, to indigestion after a debauch, and so on, till one would be led to believe that any imprudence might be followed by an attack of rheumatism.

In some families it is, apparently, as hereditary as the gout; whilst in the gouty it is not unfrequently a conjoined affection.

*Some of the views announced in this paper are so like those given in the article on Scarlatina, published in our pages, that our readers may suppose they were suggested by it. It is due to the author to state, that the present paper has been ready for publication three years.—[Eds. Monthly.
But the gouty, from their mode of life, are more apt to superinduce rheumatism, than are the rheumatic to earn gout. Where the parents of the patient have been subject, one to gout and the other to rheumatism, a sort of hybrid attack may sometimes result, rendering diagnosis difficult, whilst relief can only be obtained by conjoining the remedial measures of each. This coalescence, however, is not always the case, as I have seen gout and rheumatism run their distinct course in separate attacks in the same person. Rheumatism may safely be termed a blood disease. This blood condition may arise from causes apparently very different, but which resolve themselves, in their final result, by producing alike morbid changes not only in the circulating fluids, but in the nutritive action of the tissues themselves. Nor does time, or any specific interval, form a necessary element in the abnormal production. It may result suddenly, or may be the sequence of the gradual want of integrity in the healthful assimilative functions. The sudden cutaneous suppression (so prolific a cause generally,) by which certain excretory elements are forced to remain in the blood, loading it with a specific poison, and resulting in the phenomena of rheumatism, may be represented in a like manner by the errors of an organ or organs, by which a similar toxic condition of the blood may be induced. Nor is it necessary, that the superficial excretory actions, or the internal assimilative organs themselves be impaired—both may work in their perfect normal role, yet from the supply, by diet, being improper or in excess, a state of blood similar in its impurities may be produced, with the exhibition of rheumatism or gout as its index. It is only thus that the various accounts as to the origin of the attack can be reconciled.

The acute rheumatism of children, in almost all cases, can be readily traced to improper exposure or to damp. The recession of so much highly animalized excretion as is constantly being thrown from their surfaces, loads the blood with excrementitious products, whilst the proper actions of the kidney, liver, &c., are interfered with; or congestions may be superinduced, which cannot but serve to usher in the disorder. The young are more liable to general rheumatism than are the more advanced; and heart disorder is more prone to ensue in them than in the latter. This, most probably, is owing to the higher condition of irritability of the cardiac tissues from the altered blood, and from the fact of the exanthematous diseases, as scarlet fever, measles, &c., being of later occurrence; leaving the great excretory organs in a more or less damaged state. The determination of the disease, both in the young and the more advanced, to become local or general, apart from the considerations just mentioned, is in strict accordance to the blood condition, and the resisting power of the part exposed. For example: two individuals of the same age may
be subjected to similar atmospheric causes, yet the result may be, and generally is, different: one being attacked with rheumatism of a single part, whilst the other may be taken down not only with the local selection, as in the first, but with every joint in the body affected. Or he may escape the like local manifestation, and be attacked in the knee or feet, although these parts were not only well protected, but not exposed at the time to the impinging draught; thereby clearly showing the relation of the blood condition to the disorder. In many cases, the selection for the rheumatic outbreak is in some part previously weakened, as by strain or fracture, or by local nervous loss. These cases, however, require great discernment, as local phlebitis or purulent deposit in or near a joint may, and has been frequently mistaken for true articular rheumatism, giving rise to the opinion of its terminating in suppuration, more often than it does. To these and other points I shall again refer in their proper order.

Although for the most part the attack of the acute rheumatism is sudden, yet in some, distinct warnings occasionally take place before a "first instalment" is paid in. These premonitions vary in different persons according to the attack dating from exposure, or from its being kindled spontaneously by previous disorder of the blood, without any outward exciting cause of a recognizable kind. Disturbance of the digestive organs, attended by fitting pains through the joints or in the muscles—the sudden eruption on the skin of some herpetic or other disorder, attended with burning, itching, or aching, and its rapid evanescence—or, the drying up of any chronic discharge, the appearance of a singular sour-smelling perspiration whilst in bed during sleep—these, with other premonitions, serve as sufficient data of the impending evil, to those who have already suffered, or are remembered with dread at their subsequent appearance, by those who did not translate their bearing correctly. In others, no such unpleasant "avant-couriers" announce the attack; but a peculiar nervous excitability, attended with moist skin, and a sensation of feeling better than usual, is recorded by the patient—the attack being generally attributed to check of perspiration on going into cold air from a warm room, although others who were in the same atmosphere did not feel over-heated.

Here the disease early manifests itself by the usual sweating, but in advance of the pain. This, however, soon invades the insteps, ankles, knees, or wrists, attended with more or less chilliness, hot flashes, and increased perspiration. The arteries throb quickly through the now swollen, mottled, hot, and shining parts, whilst the superficial veins leave their dark-blue traces through the sensitive skin. As the location is variable, so is the duration of the intolerable agony uncertain. One or both corresponding articulations may be attacked, alternately or
simultaneously; or, shifting from ankle to knee, a running fire from joint to joint may be kept up, till apparently reinforce-
ments of the disease arrive, and every joint be tensely invested by the relentless enemy. Voluntary motion now becomes im-
possible, or is effected under the greatest torture. Change of position by any aid is rendered agonizing, whilst the desire to move increases hourly; and the patient is worn out between the increasing sweats, which bring no relief to the severity of the pains, and the sleepless restlessness for change of posture, which adds no comfort. The pulse hammers on, increasing in rapidity and pain-bearing force through the disabled parts. Fever seems firmly established in every essential form, save the dripping skin, whose sour sweatings fail to moderate the heart's over-
action; and that the after effects are unlike those which would be dreaded in other fevers, attended by so much apparent in-
flammation, and with local disorder of nutrition of such threat-
ening aspect.

A respite is generally gained during the sun hours, but the night comes loaded with terror. Sleep is now broken from the startled slumberer, by spasmodic jerkings of the limbs; and the dread of their re-occurrence, robs the pain-snatched hours of their balmy gift. And thus passes night into day, pain into ex-
haustion, and labored conversation into incoherent wanderings, or delirium, more or less persistent during the weary night hours. The appetite is gone, whilst the thirst is unquenchable. The countenance, for a time flushed with dark purple blood, bearing evidence of the riot of the heart, and its over-loaded condition from the wasting tissues, becomes at length heavy and pale-sodden, whilst the forehead drips with outstanding perspi-
ration, and the sclerotic tissues of the eyes become finely pen-
cilled, and the mucous tears drain from the sticky and often shut lids.

From the seventh to the ninth day such is the course of acute rheumatism, when relief may come permanently, or by shifting the scene of action to other parts, with moderation in degree and duration of the pain; whilst the limb previously affected be-
comes less unpliant, although aching with an almost paralytic stiffness, as regards progression or action. The patient is a child once more, every motion is uncertain; he totters with his weight, and has, as it were, to learn to grasp again. In some, at this period, gloomy inaction, or heart-desponding forebodings har-
ass the tedious convalescence. In others, although the recovery seems certain, the hopes are found delusive, and they again be-
come victims to a re-attack. Pain renews its seat, the clothes become drenched in the sour sweats, and the morrows are mort-
gaged in nights of agony. Nor is this relapse always to be dated from imprudence of motion, or of exposure, or of diet,
which, from the improving appetite, or greater constitutional demand of the patient, had been more generous. It may and frequently does result from many causes unconnected with motion, atmospheric change, or regimen. Amongst these may be mentioned in this place, renewed blood disorder, encroaching purulent disturbance, the impairment of an organ by a more or less rapid hindrance of action from effusion, or by partial degeneracy of normal structure, etc., etc. It is here that the skilful physician is required; not only to guard against present impending difficulties, but to restrain, if possible, the disposition to organic damage in the various organs; which, if allowed to proceed in their stealthy progress, may suddenly shorten life before its prime, or leave it as a dreary tenure to the joyless sufferer.

The prognosis, in many cases of rheumatism, depends upon the previous condition of the patient. Whether he has been more given to vegetable or animal diet, or to alcoholic drinks; also, as regards the state of the primary and secondary digestion,—if he has had syphilis, or been lately subjected to gonorrhoea,—whether the kidneys have been for a long time diseased or disordered, the origin dating from the exanthemata or not,—or if the heart has been affected. In females especially it is important to know whether they have been subject to hysteria, with or without convulsion, or if chorea has at any period of life been present, or if the patient has at any time been affected by Marsh malaria or intermittent,—whether extensive suppuration had been present, or chronic eruptions been repelled. These, and many other conditions, in connection with the habits, occupation, and the history of the parents, have to be fully entered into, before a just opinion can be formed as regards the prognosis and rational treatment.

For no disease does there exist in general a more unsatisfactory selection, or a more discrepant account, as regards effective remedial measures, and this amongst medical as well as non-medical observers. The indisposition amongst many to regard rheumatism as a blood disorder, the real difficulty at times in making a satisfactory determination as regards the tissues affected, and the lithic or lactic acid excesses in the circulation, with an apparent natural skin excretion, or their non-elimination from the blood, with deficient cutaneous action,—these, and many other causes, together with the inaccuracy that will attend the diagnosis of even the most skilful, render at times, the treatment vague, unsteady, and in most cases purely empirical. For every one you meet has a remedy with a list of cures.

The remedial selection, therefore, often requires much acumen in distinguishing simple acute or true fibrous inflammatory rheumatism, from the affection upon which the various organs
have engrafted their assisting vices; as witnessed in some disguised states of Bright's disease, or after scarlet fever, or spinal derangement, local phlebitis, insidious tumor, long continued and unrecognized constipation, etc., etc.

As acute rheumatism does not necessarily resolve itself into chronic, so may it be said that the latter, as a general thing, starts its onward course of injury and disfigurement in a stealthy and insidious manner, without much painful inconvenience in the early steps. There is, as is well known, what may be termed chronic acute rheumatism; that is, where the patient, after an acute attack, is never entirely free from aching pain or slowly-increasing disablement of the joints, till seized with another attack. But, as above remarked, chronic rheumatism, in most cases, begins stealthily. Antecedent impairment of health, at first scarcely noticeable; fitful pains shooting here and there, stiffness of the back or in the joints, on rising suddenly from the sitting or lying posture; skin-aching more intolerable whilst warm in bed; deep, heavy, and weakening pains in the larger muscles, rendering sleep uncertain and uncomfortable; frequent desire to urinate, sometimes attended with more or less scalding, and even with muco-purulent urethral or vaginal discharge, rendering a suspicion of, and at times mistaken for, gonorrhoeal disorder,—the slow but increasing enlargements of the joints, unaccompanied with desquamation or irregular disfigurement, as in gout; the general stiff-hinge movements,—these, and many others, being the intelligence to the afflicted that the record of their assimilative imperfections, or their imprudence of all hygienic rules, is most ineffaceably written in their persons. The symmetrical disposition to disfigurement is peculiarly noticeable in chronic rheumatism, the distortion of one joint, or of its burse, being apt to be daguerreotyped in the corresponding part of the other side.

But chronic rheumatism may exist unwritten in joint or muscle, and even unsuspected by the practitioner and patient, the brunt of the disorder falling upon organs hidden to view during life, and whose altered organic condition, with the cause, is only revealed by the knife. For what is true in the diffused form of gout, is also true in chronic rheumatism. The patient may be tortured under the belief of an existing and incurable organic disease of an organ important to life; whilst, in reality, it is only laboring under the insidious functional poisoning of unrecognized rheumatic infection. It has been my frequent opportunity to see both the young and the old treated for organic cardiac disease, attended with disturbance of action, and all the bruits that play their Aolian strains over the strings of the heart, when, by addressing the treatment to the rheumatic condition of the blood, relief has been gained in a satisfactory, and in
many instances, in an almost magical manner. And the same may be said of the apparent heart-disease in the gouty,—colchicum and hydriodate of potash being their best friends.

In what may be properly termed chronic acute rheumatism—that is, in persons subject to frequent attacks of the acute form with slow recuperation—the heart is liable to become affected in about thirty in one hundred cases, and this, especially in children, from seven to fifteen years of age. In the plurality of these cases, the previous exanthemata, as scarlatina or measles, most likely laid the foundation, or were associated in the rheumatic attack. For the valvular lesions so frequently attending rheumatism, are not uncommonly preceded by kidney derangements, which date their origin from causes as above mentioned. It therefore becomes needful, whilst seeking into the existence and date of an hypertrophied ventricle, (which, of itself, is so frequently conjoined with disease of the aortic valves, or if dilatation exist, with adhesion to the pericardium,) to enquire if the exanthemata had at any time been suffered from. For it is undeniable that kidney disease, from whatever cause, frequently exists with altered muscular structure of the heart and a high irritability in its serous lining membrane. This state is more frequently found in females than in males, and thus in part, may account for the greater prevalence of choreic disease in them.

As regards selection, the left side of the heart, from its greater tendinous structure, is more subject to rheumatic inflammation than the right. From the considerations above-mentioned of the liability of the heart to previous damage from kidney derangement, the fact of rheumatic pericarditis being less frequent than valvular inflammation, may be accounted for. In many cases of rheumatic pericarditis, the lining membrane of the heart is found more or less involved, and pleurisy by extension may result. Where extensive kidney disorder has existed previously, suppurative or purulent inflammation may, and frequently does ensue, whilst the uremic symptoms are prominent; and this, especially, if the patient has been lately subjected to the scarlatinal poison.

Indeed, pleurisy unconnected with pericarditis, is rare in rheumatism, and in some cases, apparently, will be proportioned to the amount of urea, remaining uneliminated from the blood. The pleuritic effusions sometimes are so great as to displace the lower organs, and especially the liver; leading, on hasty examination of the abdomen, to the belief of enlargement of that organ, or of tumor, as has been witnessed by me on post-mortem inspection, where the serous or sero-purulent collection in the left side was so extensive, as to cause a large bag to descend low down towards the crista of the ileum; rendering, during life, all
diagnosis unsatisfactory and obscure. Where the effusion is on
the right side in excessive quantity, and accompanied with
ascites, the liver may be floated, as it were, and pushed far over
into the left side, giving rise, also, to the supposition of a tumor
existing there.

Hypertrophy of the left ventricle is a most common sequence
or associate, of disease of the kidneys; and in these cases is fre-
quently independent of valvular disorder, whilst apoplexy
forms one of the modes of death. Where rheumatism attacks
an individual, who previously may have been laboring under
hypertrophy of the heart, the prognosis is of course more unfa-
orable as regards the ultimate result; as the vessels of the brain
are apt to become diseased or degenerated in this condition of
the heart. If disorganization of the kidney co-exist, the danger
to the patient is also increased; as the hypertrophic state of the
heart has a double association. What exact proportion in these
cases have been affected by scarlatina, I do not know, but it
appears to me that the number is in greater ratio.

The peculiar irritable manner and appearance in the patient
at first, but changing to a dull yet anxious expression, in rheu-
matism with previously disorganized or impaired kidney, is to
be accounted for, by the gradual poisoning of the brain and
great organic centres, from the retention of urea and other ex-
crementitious matter in the blood. This condition may be par-
tially relieved by the occurrence of effusions; but only for a
time, as resorption, fresh accumulation, and functional impedi-
ment by dropsical extent, ensue, whilst convulsion, or coma,
ends the scene.

The absorption of urea is by no means to be measured by the
drowsiness of the patient; in some it acts as an excitant, produc-
ing sleeplessness or vivid fancies, as is not unfrequently witness-
ed after opiates. Indeed, I have seen the utmost watchfulness
persist; sleep or coma, only ensuing just before death. It is the
object of this paper to more than call the attention of the pro-
fession, to the fact of the frequency of rheumatism after scarlati-
a, or other exanthemata, and to extreme liability of the epithe-
lial serous linings of the various parts of the body, to become the
seat of the disorder, after the kidneys have been disturbed, or
diseased in their epithelial structure. Hence, the frequency of
sero-fibrous rheumatism after scarlatina; and where no kidney
disorder exists, the preference of this rheumatic affection to the pure
fibrous structures. In the former, purulent effusions are apt to
take place, whilst in the latter they are very rarely witnessed,
though the swelling, etc., is greater.

The student should carefully divest himself of the too preva-
 lent idea of the metastasis in rheumatism, gout, and other dis-
eeases not strictly confined in certain regional bounds. The
endeavor should be to classify anatomically, the tissues endowed
with the same organic elements, and having alike functions. By
so doing, identity of structure with their liability to functional
error will usurp the vague idea of the so-called metastasis; and
the disturbances of other organs, will resolve themselves into
their own legitimate actions and re-actions. It is also important
to weigh the mechanical association, or situation of parts involv-
ed, and their disturbing influences. For instance, pericarditis
with adhesion, although highly interfering, still will allow the
function of the heart to be carried on better than in endo-cardi-
tis with valvular narrowing of the orifices, or where the natural
elasticity of the inner mechanism is hampered by thickening, or
by restraining adhesions; or, by roughening vegetations oppos-
ing an obstacle to the uniform current of the blood, etc., etc.

The various compounds remaining in the blood from deranged
elective balance, may act as other poisons do when introduced
from without. These toxical influences may become directly
injurious, by completely paralysing the functions of an single
organ, highly essential to life; or they may, by inducing a grad-
dual degeneracy of all the nutritive centres, so leaven the whole
circulating mass, as to render every structure more or less attaint-
ed in their vital uses. Nor are these effects subjected to any
regularity, as regards their exhibition. In one, paralysis of mo-
tion may ensue,—whilst in another, disorder of any special sense
may result; and blindness, deafness, or insanity, be the product,
leading, too generally, to the belief of structural degeneration,
rather than of functional derangement. This subject is full of
the highest importance, and must ultimately form the platform
of future improvement in the treatment of disease, before medi-
cine can be safely called a science.

These blood poisons act by excess or deficiency of the normal
ingredients—or by new combinations, not existing in the health-
ful state—or from the introduction of a specific poison, such as
the syphilitic, cadaveric, etc., which have the power either to
arrest the natural blood formations, or to impress upon them a
new formative growth and self-like, not consonant with the
normal organic constitution. Cancers seem to be an illustration
of this. Each of these specific entities, or poisons, have a given
type-life—in some, without the power of reproduction in the
same individual (as witnessed in small-pox, measles, scarlatina,
etc.), running through their periods of incubation, growth, and
decline, in a regular manifestation of events. In other blood
poisons no such self-limitation of development, nor after-incu-
lative exemption exists. A disposition to increase without limit,
and to perpetuate their destructive changes in every tissue, forms
a prominent feature in them; as seen in syphilis and cancer. \[but these latter kinds are more amenable to early treatment, or\]
to death by remedy; or, in other words, to cure, than the former. It is, however, a curious fact, as regards the development of syphilis amongst the Northern Esquimaux, that even this poison, so frightful in its ravages amongst civilized and warmer-clime people, runs in them from the primary stage to complete eradication, in six months, without treatment of any kind. For this fact I am indebted to my distinguished friend Dr. Kane.*

A slight outline of some of the disorderly associates of rheumatism, and of those affections attended with pain apparently rheumatic, but dating their origin from other morbid conditions, may be proper here. Rheumatism is not only frequently conjoined with scarlet fever, but is exceedingly prone to afflict persons who have been subjected to this disease, or to other of the exanthemata. From the views early mentioned, this might be suspected, since the kidney is also liable to suffer greatly in this fever. Where the renal derangement is early manifested, the pains in the joints is apt to make a corresponding appearance, and will frequently mask the attending scarlatinal affection, or cause it to be entirely overlooked if feebly developed; the delirium, convulsions, or increasing coma that may attend, giving rise to the surmise of translation of the rheumatic action to the brain, or its coverings. In these cases of apparent rheumatic origin, it therefore becomes important to investigate closely into the exact condition of the child, as to its exposure to scarlatinal infection, or to the epidemic influence at the time prevailing.

The subsequent difficulty about restoration to general good health—the desquamations—the sudden chest difficulties, or dropsical effusions, ensuing shortly after, and even without incautious exposure, on the subsidence of arthritic pains—these many times serve to point out what has been overlooked. In none of the exanthemata is untimely exposure more severely witnessed than after scarlatina. Another fact is well worthy of consideration, viz.: the albuminal persistence in the urine, together with tubular casts, epithelial deposits, etc. If this condition is found to exist in a case of sudden but ill-defined rheumatism—and more especially in children who have never been known to have had scarlatina, attention should at once be directed to the probability of the incurrence of this affection, and to the fact of the engagement of the kidneys.

The rheumatic symptoms generally do not exhibit themselves in the commencement. The scarlatinal disease may have been declared some time, even to the period of desquamation, before the joints are complained of. But whenever this may happen, and the kidneys are becoming more or less deranged, the danger

*This paper, it will be remembered, was written before the death of this noble man.
is great, not only for the present but for the future; since the effusions into the joints are at times amongst the lesser evils, the heart and brain being the special organs for anxiety. The effusions within the joint, although they may not be great, may eventuate in suppuration (as in purulent synovitis), producing more or less permanent alteration of structure and model, from mere thickening to articular caries.

In all cases of diseased joints in children, the strictest inquiry into the preceding disorders, and especially as to scarlatina, then becomes of vital importance. As is found in the destruction of the aural bony-chain and surfaces, being confined mostly to one side, so, in the articular, is one joint, especially the knee, more frequently injured. Where the history of the case is imperfect or obscure, still, by the careful examination of the urine, even at a late date, much information can be gained; as by it, we can often obtain a satisfactory diagnosis between the affection being the result of true fibrous rheumatism, to which it may have been attributed, or of the involvement of the articular fibro-serous membrane, with kidney derangement. This portion of the pathology of joint affections is worthy of serious consideration, and the prognosis must ever be uncertain without it. Most medical and surgical men can recall cases where the history of the affection, or the successful result of treatment, will prove the truth of these views. It is nothing new to attribute the abscess-ular conditions of the ear, or the ossicular caries, with sloughing of the tympanum, to the after effects of scarlatina. But the injuries to the joints, and other parts, have not met as ready observation, owing probably to the descriptive statements given of the pain, leading to the idea of simple rhematism of the non-epithelial fibrous tissue.

Both old and young have been, and will be time and again, treated for apparent rheumatism, where the affection owed its origin to sub-fascial abscess, or impinging deposits of pus, either of local origin or from purulent absorptions. Scarlatina, typhus fever, local injuries, etc., may all produce this condition, and the errors of treatment may at times be pardonable, but in general are dependent upon ignorance or carelessness. In children, rheumatism more frequently terminates with suppuration than in adults; and their more recent exposure to scarlatina readily accounts for this. But in the older, a diseased condition of the kidney, with epithelial-disintegration, frequently takes place. In these, rheumatism of the internal sero-fibrous membranes of the joints is prone to ensue, and pus may be generated. The results, then, are nearly the same, the difference being marked chiefly in the higher nutritive changes which take place in the young. In scarlatinal-rheumatism, the joints are not the only sufferers when the kidney has been damaged. Any parts hav-
ing the fibro-serous element, may become the seat of derange-
ment. Hence heart disease, pleurisy, arachnitis, with intra-
cranial effusions, may result; and the time of their demonstra-
tion will be variable. It may be shortly after the attack, or
proceed so stealthily or slowly, that even adult age may be
reached. For disease is not a running horse, to be timed exactly.

The modes of death in the child and in the adult are some-
what different. In the child, the hypertrophic condition of the
heart is less frequently attended with valvular disorder; and the
changes in the vessels of the brain, by which apoplexy, from
rupture, is so often accomplished in the adult, rarely proceed to
very great disorganization. But a fatal issue may speedily attend
with convulsion and coma, from the higher impressibility of
their nervous system. The arachnitis of the convexity of the
brain is rapidly ushered in with alarming symptoms. The pain
is intense, and the sleepless irritability attending from the first,
alternates with delirium more or less marked, till convulsion or
coma may close the scene. But the symptoms, when the base
of the brain is affected, though less prominent, are more on that
account, to be dreaded, from their insidious character. Pain is
not much complained of, and the delirium, if any, is less pro-
found; but the coma is more sudden and quickly fatal.

In the adult, the hypertrophy of the left ventricle, (sometimes
of the heart, independent of any valvular disorder,) accompanied
by kidney disease, gives rise to, or at least is often associated
with, alteration of the vessels of the brain, extending to more or
less profound degeneration of their coats. Hence, apoplexy—
sometimes sudden and fatal, as from the stroke of a hammer—
is not an unfrequent consequence; or softening of the brain
may come on with rapid strides or stealthy step, rendering life
uncertain, or held at expense of motion, or intelligence, accord-
ing to the extent and its seat.

In the child, the pale, pasty skin, the fretful restlessness, or
the listless inactivity, varying according to the greater or less
power in the surface and kidney to depurate the blood—the
errors of motion, or perception, or of any special sense; these,
and many other indications, should always attract to the threat-
ening condition. That much permanent benefit can be obtained
by any treatment, where organic changes have proceeded so far,
is not always to be expected; but it will be satisfactory to know
that the state of the patient had been noticed, and that death did
not claim its victim before any rational measures for the pro-
mulgation of life, or mitigation of suffering had been entered
into.

The choreic disturbances in children (and especially if they
have been subjected to scarlatinal infection) dating their origin
more or less closely after an attack of rheumatism, are well wor-
thy of notice. In many cases the chorea is the first symptom attracting notice to the condition of the heart. When rheumatic inflammation has been seated in the lining membrane, St. Vitus's dance has been so frequently a sequence, that it is, by many viewed in the relation of cause and effect. And this opinion, in many cases, seems verified. As above observed, the muscular irregularities sometimes cause the detection of the heart's injury for the first time. The interval between the occurrence of the rheumatic disturbance and the chorea is irregular; whilst the prognosis as to the subsidence of the choreic motions from heart complications, depends on the power of arresting the damage, and the capability of improving the general nutritive system. If the latter can be accomplished, the remodeling as it were, of the heart, keeps pace with the progress of growth in the patient. At times, however, the heart is so slightly disturbed as not to indicate any appreciable organic difficulty, although sufficient irritability is established to reflect upon the spinal nerves the disturbances of relation. It is in these latter cases that the metallic tonics, such as arsenic, zinc, oxide of silver, act so rapidly in cure. But in the graver cases, where the heart is more seriously affected, time forms one of the chief elements, by allowing the reproductive changes to ensue with the growth. In these cases is witnessed the reason of the insignificance of remedies which had proved so beneficial in others. Independent of any heart or kidney disease, the errors in the composition of the blood after rheumatism, or any other blood disorder, may act as frequent causes of disturbances of innervation. Hence, stimulant tonic, or sedative treatment, may be called for; in one the reproductive actions being below par; whilst in the other, a want of relation between the blood and the assimilative power of the tissues themselves may be at fault. A third cause, apparently, may be independent of any blood relation, and exist in the nervous centres, or the nerves themselves. In this way the proneness of chorea to be a one-sided disease may be accounted for.

The tendency to rheumatic complaints in a family where scarlatina has been irregularly developed, sometimes affords a clue both as to the nature of the attack and its relief. For it is not uncommon to find one child subject to rheumatism, and another having chorea without any apparent rheumatic affection. In these, fright, which in general is a highly productive agent, acts readily and violently. After twelve or fourteen years of age, private abuse, through the reflex actions of the spermatic branches over the heart and the nervous masses at the base of the brain, may produce alike disturbances. The bellows sound of the heart and in the great arteries in these cases resemble, in a measure, the bruits from more serious organic difficulty.
Fright is more commonly an excitor in the rheumatic or debilitated, than in sound and robust children. The development of the attack is also more immediate after fright, than after rheumatic disorder. Where the urine is of high specific gravity, depositing lithates or oxalates, and overcharged with urea, and the patient does not become correspondingly weak and emaciated, the error lies chiefly in the diet being in excess to the assimilative powers. The blood here represents the conditions favorable to acute rheumatism; and if previous kidney derangements had been engrafted from exanthematous disease or other cause, an attack is apt to follow. But if the individual be free from any renal difficulty, the rheumatic attack may not be fully generated, but disturbances of nutrition or in the assimilative balances may ensue, with chorea as a result.

Stammering in children, may sometimes be traced to the same causes and yield to proper treatment. As in chorea, fright, or other emotional excitement, has also been a prolific agent in this affection. Indeed, stammering might be called a chorea of the tongue and larynx. Almost every practitioner, and layman, can recall cases of early impediment, which subsided gradually with the increasing growth and strength of the person.

Excepting in those cases of sudden and continued violent chorea, where the nervous exhaustion is so great as to defy timely repair, the prognosis, for the most part, is favorable; and even in choreic paralysis, a happy termination may be safely anticipated, if the kidneys regain their normal actions.

It is not difficult to understand, when the conditions of the blood or of the heart and kidneys in rheumatism are known, that dropsy may be a sequence—its severity dating from its degree, time, and place. Nor would it be, as it often is, a matter of surprise to the relatives of the patient, who have wondered at the apparent over-attention of the skilled practitioner, were his anxieties as to the issue of the case known, as long as the purring sounds of the heart and the cellular puffiness about the eyes, and the epithelial and albuminous deposite continue.

Diffused gout is sometimes mistaken for rheumatism; the liability to cardiac pains, palpitation, etc., adds to the belief. But the history of the patient, his mode of living and appearance, the family diathesis, and the success that may have attended the previous administration of remedies, serves to clear away any difficulty in the diagnosis.

As instances of rheumatic origin may be mentioned, the sudden attack of lumbago, pleurodynia, crick, stitch in the intercostals, the muscular aching whilst at rest or after getting warm in bed, or the dull and heavy pains, attended with a sense of coldness in the part, etc. Yet it may be well to mention that all these may be the result of long-continued constipation, and will frequently take their flight after a brisk purge.
There is a painful affection of the skin, termed dermalgia, that I will refer to. This affection, so afflicting to the patient at times, is by no means unfrequent. It is a somewhat common companion of hysteria; and from this fact, I have been led to regard some of the forms of this protean malady, as offshoots of rheumatism, or at least as indicating a rheumatic tendency in the blood. In many cases I have detected epithelial deposits, tubular casts, etc. From much opportunity in witnessing uterine disease, the frequent connection of hysteria with painful menstruation, has satisfied me that rheumatism plays an important part in it, and it also does in many cases of dysmenorrhea unattended with hysterical phenomena. In apparent spinal disorder, this painful tenderness in the skin is a common attendant, and sometimes exists to such an extent over the processes, as to lead the unwary examiner into the belief of severe local injury. By pinching up the skin, and then making the same amount of downward pressure, this suspicion can be frequently dispelled, as the pain will be found much lessened, or at least not increased. The same condition exists also in certain gouty individuals, the increasing tenderness in the skin being many times a forerunner of an acute attack.

I cannot refrain from attracting attention, in this place, to a painful condition of the surface in children, the slightest touch being complained of. It is frequently the forerunner of severe, if not fatal convulsions, and evidences great functional or organic derangement of the nervous centres. When noticed, no time should be lost in making such applications to the spine, and base of the brain as may be demanded. If fortunate enough to be attracted early to this symptom of superficial pain, the convulsions may be rendered lighter, and of less duration. But unfortunately this condition sometimes remains unnoticed, or has made such progress when noticed, that the exhaustion from the convulsions is so profound, that organic repair and nervous recuperation do not ensue; and the child dies, either after a succession of rapid convulsive efforts, or becomes comatose, and sinks without a sign into its last sleep. These cases I have seen, especially after scarlatinal kidney disorder—in some an interval of comparative health had supervened, but after a time an icteric hue assumed the place of the natural complexion, with a certain puffy appearance, leading the parents or a common observer to think indicative of increasing flesh. If the kidney had been damaged, the violence of the convulsions by their continued succession, acts in a doubly dangerous manner—in the first, by the exhaustion, and in the second by the extra amount of animalized matter that is thrown into the circulation, and which cannot be voided by the natural emulgent channel of the kidneys. As in chorea, where the muscular movements are exces-
Lecture.—Catamenial Gonorrhæa and Syphilis.

Mr. Frederick C. Skey, Surgeon to St. Bartholomew's Hospital, has recently lectured on Gonorrhœal Rheumatism. The London Medical Circular gives us the lecture, from which we make the following extract, bearing upon a point of great interest:

I saw some time ago another most remarkable case of this kind—the splitting in pieces of a family might have occurred from the raimery and ignorance of the hospital surgeon, but he could not see it. A respectable-looking married man came with this catamenial gonorrhœa; he was very much puzzled about it, but the surgeon laughed at him. "So ho, my find friend," he said, "you've simply gone and done it; you've been with the girls." The man said not—that from the nature of his business it was impossible. "Then some one has been with the girls or with your wife, for you have the bad disorder—that's the short and long of it." The man protested, till at last he swore an enormously large oath at the ignorance of us all. "Why, I have committed as many crimes as many men, and why should I be such a fool, if I wished to be cured, as to say, if I had, that I had not had intercourse with a woman." I don't believe he had, but that it was one of the dozens of cases where the irregularities of married life had given rise to a gonorrhœa, or blenorrhœa, that I defy you to distinguish from common gonorrhœa. I say there is a "tertium quid" engendered during the period of ovulation or menstruation in the female, that may give rise to gonorrhœa, but I do not believe in syphilitic inoculation. If you know how to treat rheumatism, you know a great deal also of this disease. Mr. Abernethy, as I said, already went to the threshold on the subject, as regards "rheumatic gonorrhœa," or what you will see copied in the books and manuals as gonorrhœal rheumatism. Evans and Rose and Hennen, away from the coteries of London, settle the thing forever. You are probably aware, the prostitutes in France are all examined at stated times, and are furnished with clean bills of health? Well, Evans saw several hundreds of these women examined, and only three were diseased; but he had one hundred and fifty-three soldiers under his care at that moment with syphilis! I say, how did these 153 soldiers become diseased from three women? How did they get it? Where was it to come from? To my mind, now, it is as clear as that chloroform will produce insensibility,
or any other fact in surgery; they got it from the clean women, and not from the diseased. I told you of Torres Vedras. This army was inaccessible for a long time, and dozens of officers had intercourse with the couple of girls dancing at the theatre. These girls, mind you, in good health, yet shoals of these officers came to England with bad phagedenic sores. Do you think they got phagedæne directly, as Mr. Hunter would think, from these girls? I don't.

Well, I'll tell you another case, and within a very short period of the present—not to go back to Torres Vedras or Waterloo, or tire you with what you will find decked out in the books of the schools—the case of a lawyer. [I am glad it's a lawyer, if it must be somebody (laughter;) lawyers are so wedded to doing nothing, if erroneous, to the decision of their judges.] It was, in a word, the counterpart of the first case—seduction, love (the old story)—seduction, gonorrhœa and a crop of sores. I examined the lady with the utmost minuteness. I sifted this case carefully. I believe there was no disease whatever in the lady nor in the gentleman previous to the occurrence; yet all the—what shall I call it—legal evidence was the other way. Legal proof on medical subjects at present is the greatest absurdity under Heaven, because well bound books on surgery say one thing to a man with a wig and gown on, and because a surgeon's opinion which is not only *viva voce* and original, but fairly worked out after thirty or forty years' analysis of facts and cases in hospitals, must be thrown to the winds, in favor of the *dictum* of some old book, or some new book copying the old.

I say, this material syphilitic infection is all a fallacy. I don't believe either in all that black letter lore of syphilis coming from St. Domingo with Columbus in the fifteenth century. Gonorrhœa is detailed in our oldest and most sacred of books.

Mr. Skey next stated the particulars of a very interesting case—a case of most frightful phagedænic sores in a gentleman, like those of the officers sent from Lisbon, but where the disease was clearly the result of scrofula, or some such constitutional taint in the gentleman's system aggravated by those injudicious courses of mercury, ordered for a very simple affection at first. The case was one, also, where the hymen was ruptured for the first time, but not a trace of disease existed in the lady.

"This old mercurial school, however, still holds out," Mr. Skey continued to say; "I am sorry that even men like Sir B. Brodie still belong to it. It is not true that a woman who will allow one man to her embraces, will allow any other; and if the disease be checked by mercury—*post hoc*, &c.—that we should go on giving it! In this last patient it made all this difference, that whereas Rose, or Evans, or Carmichael would have cured this gentleman without mercury, in following the plan of the older
schools he was at the point of death, owing to the mercury, under the first advice in London, affecting the membranes of his brain. We shall not speak of the hideous mutilations of face and nose, the time sacrificed away from business on the sick list, and the marks which rupia too often leaves on the forehead and face. I am satisfied, and you will be so too, when you see some practice, that all this old-fashioned dosing system with mercury is bad. I would almost go so far as to say, that the very worst cases of syphilis, so called in men that I have seen, have been the result of something wrong with the man rather than the woman, and where the "tertium quid" was aggravated by this system of giving mercury, as a piece of murderous old routine in all cases alike.

Well, a few words now as to gonorrhoea and rheumatism. Is there such a thing as spontaneous gleet? Yes; it is a catarrh of the parts. I know a gentleman who has had gleet; but he has been several months, aye years, in bed for another disease, and he had no possible manner of getting gleet.

You will find gonorrhoeal rheumatism in excentric gonorrhoea, mostly in oldish people, the disease mild or the opposite, fond of fits and starts or aberrations; it is gonorrhoea in a rheumatic system, but not rheumatism connected as a secondary symptom or as cause and effect with gonorrhoea. I am satisfied, gonorrhoeal rheumatism and gonorrhoea are children of one parent, and not related as rheumatism the child of gonorrhoea, the parent.

I will now tell you more: I have seen every form of syphilitic disease as obtained from healthy women. These cases occur in the better ranks of society, with men who are above suspicion. What is sometimes shocking in a moral point of view, is of the utmost value to us pathologically. But I must not dwell on these cases. The gentlemen come to me expressing their unbounded astonishment, yet if you make the most careful search, even with the speculum, there is no disease in the lady; it would be almost a relief to one's mind to find something, but there is no disease whatever. No, it is all fallacious.—[Ohio Medical and Surgical Journal.

_Treatment of Primary Syphilis by Preparations of Iron._—Ricord suggested the employment of potassio-lactate of iron in phagenic chancre, and Mr. Acton recommends it very highly. Mr. Behrend (Lancet), believing in the essential identity of the virus of every form of chancre, and attributing the apparent differences to special circumstances, was led to employ this preparation of iron in the treatment of the common chancre. He reports the details of a number of cases thus treated, with the most satisfactory results. His method of administering the iron, is to make a mixture of one ounce to six, of which two teaspoonfuls are to be taken three times a day. The local applications are simple.—[Med. Independent
EDITORIAL AND MISCELLANEOUS.

THE FOURTEENTH VOLUME, OF THE NEW SERIES, OF THE SOUTHERN MEDICAL AND SURGICAL JOURNAL.—In presenting the first number of the fourteenth volume of this Journal to our readers, we would call their attention to the enlargement of the work, which, by the liberality of the publisher, presents to the subscriber as large an amount of valuable reading matter, as any similar work, at the same price, in the country.

Having its circulation principally in the Southern and Western States, we have endeavored to embody in each number of the journal, such original and selected matter, as our own judgment and the advice of our more experienced colleagues have indicated to be most valuable for the exigencies of the Southern Practitioner. No new principle in medicine, no new view of pathology, or rational mode of treatment, has met our eye, throughout the whole range of our fifty or sixty exchanges, Domestic or Foreign, but what we have endeavored, so far as we had space, to treasure up in our pages for the benefit of our readers. This we shall still do, so long as our connection with the work shall continue. Having been in long and intimate relations with a large number of Physicians throughout the country, we have, we hope, acquired a sufficient knowledge of the wants of the Southern Practitioner, to prepare for him a useful and efficient journal. We are aware that the thirteenth volume of the Southern Medical and Surgical Journal, will be found deficient in some of the departments of Medical Literature; thus in the department of Reviews, our estimation of the true intent and object of a monthly journal has induced us not to occupy our space with extended analyses of works, unless in so doing we could embody views and suggestions, of a practical nature, for the benefit of the reader. We have given each work, sent us by authors and publishers, a diligent and careful examination, and, when found worthy of recommendation, have given it our approval, or we have carefully pointed out its defects. We look upon the department of Reviews as belonging more particularly to the Quarterly and Bi-monthly journals, one of which, each member of the Profession should subscribe for, but in no case, to the exclusion of the monthly journals; for in these last he finds the supply for his daily, and, indeed, his hourly necessities. "Knowledge (says a distinguished writer) evaporates like water; and as the ocean itself, unless replenished, would become empty, so the brain, unless its avenues to improvement are kept open and well trodden, becomes but a barren waste, haunted by the ghosts of worn-out and obsolete thoughts:"—a fatuous and somnolent demain, a "Sleepy Hollow" and its occupant a veritable Rip Van Win-
kle—dozing while the whole world has been advancing—his mental status being the index to its condition just twenty years gone by!

In making these remarks, of course, we have no fear of giving offence, for none from this sleepy region will ever be offended by these distasteful animadversions, for what is written, is for them, "as though it never had been writ."

The volume of our journal, just now commencing, will, we hope, besides the liberal enlargement by the publisher, present an increased interest to its readers, in the many valuable original papers now in preparation for its pages. We have also on hand, lignographic illustrations of several interesting articles, which are intended to embellish the work and add to its value.

We continue to invite contributions from our brethren, and with their countenance and support, we enter upon the labors of this fourteenth volume with that hope and confidence, which, a determination to do our duty, alone can inspire.

Henry F. Campbell.
Robert Campbell.

Materia Medica and Therapeutics: with ample illustrations of Practice in all the departments of Medical Science, and very copious Notes of Toxicology, suited to the wants of Medical Students, Practitioners, and Teachers. A new edition, revised and enlarged. By Thomas D. Mitchell, A.M., M.D., Professor of Materia Medica and General Therapeutics in Jefferson Medical College, and formerly Professor of Chemistry, Materia Medica, and Theory and Practice in the Medical College of Ohio, Transylvania University, and the Kentucky School of Medicine; Author of "Elements of Chemical Philosophy," &c., &c. Philadelphia: J. B. Lippincott & Co. 1857. 8vo., pp. 820. (For sale by T. Richards & Son.)

This last edition of Professor Mitchell's work has been brought up to the very last hour of the Science of Therapeutics. Every thing new pertaining to the subjects under discussion has been collected from journals and books to enrich this volume; and yet it is neither cumbrous, unwieldy or expensive. We regard it as perhaps the most practical of all the treatises on its special subject. This work perhaps would not answer as the sole treatise of Therapeutics possessed by the Practitioner, nor do we know any work that would; but the neglect of the practical good sense and honest labor stored away in its pages will deprive the Physician of some most valuable suggestions and expedients.

In the miscellany of the present number of our journal will be found a simple test for Quinine and morphine. We select it for its practical value and convenience, and also as a specimen of the many treasures garnered up in Dr. Mitchell's book. The style of the work does much credit to its publishers, Messrs. J. B. Lippincott & Co.
A Dictionary of Medical Science; containing a concise explanation of
the various subjects and terms of Anatomy, Physiology, Pathology,
Hygiene, Therapeutics, Pharmacology, Pharmacy, Surgery, Obstetrics,
Medical Jurisprudence, Dentistry, etc.; Notices of Climate, and of
Mineral Waters; Formulae for Officinal, Empirical, and Dietetic Pre-
parations, etc.; with French and other Synonymes. By Robley Dun-
glison, M. D., LL. D., Professor of the Institutes of Medicine, etc., in
the Jefferson Medical College of Philadelphia. Revised and very great-
(For sale by T. Richards & Son.)

Professor Dunglison—the Samuel Johnson of Medical nomenclature—
has brought forth the Fifteenth Edition of his great work, "The Medical
Dictionary."

The above announcement speaks volumes; a good reliable dictionary
is a necessity which admits of no choice; we may neglect other depart-
ments of Medical literature, but the words, "the vesture of our thought,"
must be at our command, or we must be dumb. The number of editions
through which this work has passed indicates its appreciation by the
Profession. The labor bestowed on this last edition is immense, and
speaks well for the industry and power of research of its distinguished
author. In its style and typographical excellence Messrs. Blanchard &
Lea fully sustain their well established reputation as publishers of medi-
cal works.

Lectures on Diseases of Women. By Charles West, M. D., Fellow of the
Royal College of Physicians; Examiner in Midwifery at the Royal Col-
lege of Surgeons of England; Physician Accoucheur to St. Bartholo-
mew's Hospital, and Physician to the Hospital for Sick Children.
1857. 8vo., pp. 316. (For sale by T. Richards & Son.)

We have given the above work a careful examination. We are familiar
(as who is not?) with the previous writings of Dr. West, and all we
know of them speak much in favor of the present treatise. A fairer,
more honest, more earnest, and more reliable investigator of the many
diseases of women and children is not to be found in any country. His
own Preface will give a better idea of the intents and objects and uses of
the book, than any exposition of ours. We therefore quote briefly:

"These Lectures are a first instalment towards the discharge of that
debt which the opportunities of a hospital, and the responsibilities of a
teacher, impose upon me. A second volume, which will treat of all the
remaining diseases of the female system, will appear, if health and strength
are spared me, within three years from this time. I have published this
part separately, because I believe that students and junior practitioners
stand in much need of that help which, with reference to an important
class of these ailments, it may perhaps afford them."

For the Student and junior Practitioner the work has been particularly
prepared, and to this class we would earnestly commend it.
A Case of Excision of the Hip Joint for Morbus Coxarius, with remarks upon the propriety of such an operation, and a summary account of the recorded cases up to the present time. By R. A. Kinloch, M. D., Surgeon to the Roper Hospital, and Lecturer on Surgery in the Charleston Summer Medical Institute.

This valuable paper, sent to us by our friend, the author, has been upon our table for some time, but by some mischance overlooked. It details an operation by the reporter, which, though unfortunate in its result, constitutes a valuable record in this department of operative surgery. The value of the paper consists in the research made by the author and the bringing together of a number of cases, with their peculiarities and their results. This he has done in a tabular form, so that the main points of each case are conveniently presented to the reader. We commend the article to all those who are interested in cases of Morbus Coxarius, and to all who wish to become familiar with the statistics of the operation of Excision of the Hip Joint.

Books received for Review.—Besides the works noticed in our present number, we have received from Messrs. Blanchard & Lea the following:

"Dunglison's General Therapeutics and Materia Medica. Sixth edition, revised and improved."

"Peasley's Human Histology:" a new and valuable work, to be noticed in our next number.

From Messrs. Lindsay & Blakiston—

"Mendenhall's Students Vade Mecum. Fifth edition, enlarged and improved."


From Messrs. J. B. Lippincott & Co.—

"Essays on the Secretory and the Excito-Secretory System. By Henry F. Campbell, M. D."

The above works came to hand too late for a careful notice; they shall meet with full attention in our February number.

Atlanta Medical College—Resignations and Appointments.—Professors Boring and Means have resigned their respective Chairs of Obstetrics and Chemistry in the above Institution.

To fill the vacancy caused by the retirement of Professor Boring, Dr. T. S. Powell, of Sparta, has been appointed by the Trustees; we hope that the Institution will be able to secure as able a successor to Professor Means.

Dr. Means retains his connection as Professor of Chemistry with the Medical College of Georgia.
Editorial and Miscellaneous.  [January,

Binding of Thirteenth Volume.—We would suggest to our readers the binding of their volumes of the Journal, thus adding a book to their libraries, instead of having their tables cumbered with twelve perishable pamphlets, which must soon disappear from their possession.

Discriminating Test for Quinine and Morphia.—Although the following is in a book, which all our readers should possess, on account of its simplicity and importance, we record it prominently in our extracts:

"As mistakes have been made, and may be again committed, in confounding sulphate of morphia with sulphate of quinine, it is important to distinguish accurately. The labels may have been rubbed from the bottles, and it would not do to rely on taste or smell. Both salts are bitter, but one is decidedly poisonous. If we add a drop or two of strong nitric acid to small portions from each bottle, placed on a watch-crystal, the quinine salt will be made yellow, while the salt of morphia will be changed to a bright red. The experiment is performed with ease, and is sufficiently accurate for practical purposes, and every physician should keep the test in his mind."—[Mitchell's Materia Medica, last ed., p. 324.

Sympathetic Inflammation of the Eyeball.—Mr. Walton remarks (British Med. Journal), that the horse doctor is in advance of the accomplished ophthalmologist in their knowledge of some diseases of the eye. It has been a practice among farriers, in certain ophthalmic diseases of the horse, to destroy the eye by suppuration, knowing well that the other eye, which is in great peril, could be saved by this means. Mr. Wardrop, taking advantage of this hint many years since, practiced evacuating the humor of the affected eye, and thereby relieved the sound organ from the dangers of a sympathetic inflammation.

[This has been the uniform practice of Professor L. A. Dugas, of this College, for years, and we believe it is a measure now very generally adopted by surgeons in such cases.]—Eds. S. M. & S. Jour.

Oil of Tansy.—Dr. Chapin, of Winchester, introduced (to the notice of the Middlesex East District Medical Society, Nov. 4th, 1857) the subject of oil of tansy in its ecbolic and toxicological relations, and related a case in which he was summoned at midnight to visit a married female, "in a fit." The patient was found in bed, partly conscious, and in paroxysms. A distinct smell of the oil pervaded the apartment. Vomiting had occurred. He immediately exhibited ipecacuanha and sulphate of zinc, which was followed by free emesis. In an hour the mind became clear and she got along very well. The woman was four months advanced in pregnancy, and took the oil for abortion. The quantity taken was half a fluid ounce. Dr. C. stated that some cases have been fatal.

Drs. B. Cutter and Drew, of Woburn, adduced similar cases, and Dr. Underwood, of West Cambridge, spoke of a young woman in a hotel
who took the oil to procure abortion. The immediate effect was violent convulsions. At full term a child was born, not larger than a rat. The child lived three weeks. This case was mentioned to show that the oil sometimes arrests growth. Dr. Toothaker, of Wilmington, spoke of a middle-aged married woman who took two fluid ounces of oil of tansy in divided doses without effect. She then resorted to the woods, although it was midwinter, and the snow knee-deep, and gathered a quantity of savin leaves, an infusion of which was freely taken without success. At term, she bore a medium-sized child, which for some time was esteemed non compos. Now, however, at the age of ten, the child is a bright boy.

*Oil of Cedar.*—Dr. Ingalls, of Winchester, spoke of the exhibition of half a fluid ounce of oil of cedar, which was followed by nausea and fright. The girl took it for an emmenagogue. Dr. Hodgedon, of West Cambridge, said he attended a woman who had been in convulsions three or four hours on taking cedar oil. After an emetic she recovered, with no ill effects. The patient was chlorotic, and dosed for amenorrhea. Dr. Underwood asked if the use, by midwives, of an infusion of raspberry leaves, in place of ergot, was known to the Society. Drs. B. Cutter and Drew had found draughts of cold water useful to increase pains, and allowed their patients a free use of the article during labor, Dr. Toothaker inquired if the uva ursi would act as ergot. In one case he used the infusion very freely, with no effects. On exhibiting a moderate dose of ergot, contractions immediately ensued.—[Boston Med. and Surg. Journal.

*Colica Pictonum produced by the White-lead Treatment of a Severe Scald.*—Dr. G. A. Kunkler relates the case of an Irish servant girl, who severely scalded the fore-arm and hand. Extensive vesication followed. The blisters were punctured, and common white paint, of the consistence of cream, was freely applied with a camel-hair brush, the part was covered with cotton and a roller applied over the whole. This dressing was repeated on the following day. On the third day she exhibited unmistakable signs of colica saturnina—acute abdominal pain, retraction of the umbilicus, constipation, and slight discoloration of the gums. The symptoms yielded to opium and purgatives, and the linseed-oil and lime-water dressing was substituted for the lead, under which treatment the burn got well. Dr. Kunkler states that he has freely used the white paint in a number of other cases, some of them of great severity, without meeting with a bad result. The editor believes this to be the only well-authenticated case of colic resulting from the application of white lead to burns or scalds.—[Medico-Chirurgical Review.

*On the Physiological and Toxicological Properties of Woorara.*—M. Pelikan has communicated to the Academy of Sciences the results of his experiments on woorara poison. With regard to its physiological effects, the author arrives at the same results as M. Cl. Bernard. As to its toxicological action, M. Pelikan finds that an aqueous solution introduced into the stomach by an elastic tube produces poisonous effects, but more slowly and less energetically. This cannot be explained on the supposition that woorara contains a certain quantity of serpent-poison, for it is characteristic
of nearly all the narcotic poisons which are easily absorbable. Curarine possesses all the active properties of woorara. Five centigrammes of the alkaloid introduced under the skin of a rabbit caused death, with all the symptoms of poisoning by woorara. When woorara is absorbed in a sufficient dose to produce death, there can be no question as to the antidote. Strychnia can provoke its peculiar symptoms only in the case where the dose of woorara has been insufficient, and vice versa. Solution of woorara precipitated by tannin loses its effect in an ordinary dose, but in powder mixed with powdered tannin, and introduced into a wound, it preserves its poisonous action. The action of the poison is not destroyed by iodine dissolved in iodide of potassium, neither in the case of the two solutions mixed, evaporated, and the residue introduced into the subcutaneous tissue.


_Pulmonary Epithelium._—In the July number of the British and Foreign Medico-Chirurgical Review, we notice an article by Dr. C. Radclyffe Hall, on the epithelium of the air vesicles of the human lung.

Some of our readers may recollect a paper by Dr. Hall in the last October number of the Review, in which he states that in chronic pulmonary consumption, "fatty atrophy of the epithelium of the air vesicles is antecedent to the formation of tubercle; in the same number we have a paper by Mr. Rainey, against the existence of epithelium in the air vesicles. This paper by Dr. Hall assumes to demonstrate these epithelial cells, and is illustrated by wood cuts of their microscopic appearance as seen by Dr. Hall and Dr. Brittan. Assuming that these illustrations are correct, and we have no reason to doubt it, there seems no doubt but that epithelial cells can be demonstrated in the human lungs, and the lungs of the mammalia. We cannot but agree with Dr. Hall, that on a question of relative authority, "the positive evidences of one trustworthy observer is usually allowed to overrule the negative evidence of many." An examination of this article by Dr. Hall, with the drawing of the microscopic appearances by Dr. Brittan, will not fail to convince any one of the existence of epithelium in this situation. If this were not the fact, the statement of Dr. Hall that fatty degeneration of the epithelium of the air cells preceded the deposition of tubercle, (an observation which we conceive to be of value, and which we hope may be further elaborated,) would of course be entirely without foundation.—[Buffalo Med. Jour.]

_Treatment of Anatomical Wounds with Lotions of Chlorine Water._—M. Nonat, Physician to the Hospital of La Charité, recommends the use of lotions, with solution of chlorine, in cases of anatomical wounds, which unfortunately are far from being always exempt from danger. Be the wound large or small, be its surface united or unfractuous, the solution of chlorine destroys the putrid matter, which acts like a virus, and which causes so bad an influence on the system when absorbed. This agent may perhaps be absorbed, mix itself with the blood, and thereby prevent the mischief arising from them, or destroy those bad symptoms which have already appeared.

The way to use it is very simple. The wound is first well washed with water, then with the solution of chlorine. If the wound is one of some days' standing, if it is inflamed, if the lymphatic vessels and glands are
obstructed, if the general appearance is favorable, and provided there are no symptoms of putrid infection,—the lotions of chlorine may arrest these accidents. It is useful in these cases, to use at the same time inhalations of chlorine.

M. Nonat has often had opportunities of testing these means, and in very serious cases. He thinks chlorine ought to be put at the disposal of the students, in the dissecting halls, and would have the following inscription upon the walls of the amphitheatre—"Wash, as soon as possible your anatomical wounds with solution of chlorine."—[Union Medicale, and Medical Circular.

Cod-Liver Oil Solidified with Gelatine.—Take of pure gelatine, half an ounce; water, simple syrup, of each four ounces; cod-liver oil, eight ounces; aromatic essence, as much as may be sufficient. Dissolve the gelatine in the boiling water, and add successively the syrup, the oil, and the aromatic essence; place the vessel containing the entire in a bath of cold water; whip the jelly for five minutes at most, and then pour it, while still fluid, into a wide-mouthed glass bottle, furnished with a cork, or with a pewter cap, or if a bottle be not at hand, into a porcelain or earthenware pot, which should be carefully closed.—[Bel. Gen. de Thérap. and American Med. Monthly.

Lichen and Cod-Liver Oil—Take of Iceland moss jelly, four ounces; gelatine, four scruples; hydrocyanated cod-liver oil (to which two drops of essence of bitter almonds have been added,) six drachms. Prepare the Iceland moss jelly in the usual manner; melt the gelatine and pass it into the vessel which is to hold it; then add the cod-liver oil; stir the entire with a spatula, until the mixture be homogeneous and the jelly begins to congeal. Dose—two or three spoonfuls daily.—[Bulletin Général de Thérapeutique and Dublin Hospital Gazette

Interesting Case of Transfusion of Blood.—This operation was successfully performed on the 16th of September, by Mr. Wheatcroft, surgeon, of Cannock, Staffordshire, England, on the person of a woman named Wood, residing there. Immediately after her accouchment fearful haemorrhage set in, draining the woman of blood. She felt herself dying, and summoned her husband to her bedside, bid him "good bye," and earnestly requested him to take care of the children when she was no more. She then became pulseless and gasping, occasional breathing being the only indication of life. A vein was opened in her arm, and one in the arm of her husband, and as the blood flowed from the latter, it was transmitted, by suitable apparatus, into the veins of the wife. After seventeen ounces had been thus injected, the pulse became perceptible, the colorless lips reddened, the glassy eyes brightened, and she thankfully said, "I am better. The case has progressed very favorably, and the woman is recovering.—[Medical Circular.

Chloroform Liniment in Burns.—M. Bargiacchi states that he has found the extreme suffering produced in bad burns completely relieved by means of a liniment composed of chloroform and cod liver oil.—[Bull. de Thérap., and Med. Times and Gaz.
Glycerine is found to be a solvent for almost all substances, and as a pharmaceutical agent and vehicle, has an extensive range of applicability. One is as a vehicle for the external application of Iodine, particularly where it is desirable to have the article absorbed by the skin. Used in the proportion of one part of Iodine to five of Glycerine, it produces some smarting, but can be well borne. After painting it upon a part, it may be covered with gutta percha paper to prevent evaporation; and in this way, fifteen grains of Iodine may be absorbed into, and eliminated from the system per day, for several weeks together without any injury to the general health. This at least is the testimony of Dr. Szukits, a German physician, who has tried it in 24 cases.—[Peninsular Jour. of Med.]

Glycogenic Function of the Liver.—Dr. Louis Figuier read on the 27th July, before the Academy of Sciences, a paper in which he aims to disprove the glycogenic function of the liver, on which so much stress has been laid by M. Bernard. He maintains that this function belongs to all of the parenchymatous organs that receive blood, such as the heart, lungs, spleen, &c., and also in the blood of the general circulation.

[Western Lancet.]

Tetanus.—The last number of Guy's Hospital Reports contains a paper by Mr. Poland, on Tetanus. He gives an analysis of all the cases treated in Guy's Hospital, since 1825. The whole number of cases treated was seventy-two. The great majority were fatal, and in those that recovered, it was impossible to assign the cure to any particular remedy. Mr. Poland is of the opinion, that the best plan of treatment is to strengthen the patient, and thus enable him to pass through the disease—[The Lancet.]

The Daguerrean Art in Medicine and Surgery.—For some time the daguerreotype has conferred much benefit upon the profession, by enabling practitioners to secure representations of disease externally manifested, and also copies of internal lesions observed post mortem. In surgical cases, especially, much advantage has been derived from thus taking views of the diseased part at different times, and also in exhibiting the final result.

A few days since, Dr. John B. Brown, of this city, showed to us certain daguerreotype views of individuals residing at a distance—some of them in Canada—who were affected with distortion of the feet, of different degrees of intensity. The representations thus sent enabled him to decide what procedure should be adopted, and whether it would be necessary for the patient to be under daily inspection or not. The results of operations done to remedy club-foot have often of late thus been sent to Dr. B. The same plan has been effectively adopted in cases of spinal distortion. The many advantages secured both to patients and their advisers by this method, must be evident, and the daguerreotype apparatus may be fairly considered one of the articles of the surgeon's armamentarium. The Talbotype process is even better suited than that of Daguerre for sending these views to a distance—paper being used to receive them instead of a heavy plate.—[Boston Med. and Surg. Jour.}