INTRODUCTION.

In commencing the discharge of our editorial duties, it is proper that we make some brief observations, explanatory of the nature and objects of the work we propose, and the motives that have induced us to engage in the undertaking.

Arguments need not be adduced to prove the great value and utility of medical periodicals—their importance, as means of collecting and communicating useful information in a condensed form, is duly appreciated by the profession in all the enlightened nations of the world, and nowhere more highly than in the United States, to the circumstances and necessities of whose physicians they are peculiarly appropriate. Scattered over a thinly populated but almost illimitably extended country, in which the labours of physicians are most arduous and their remuneration inadequate, few individuals can command money to purchase or leisure to read a sufficient number of books to enable them to keep pace with the improvements that are constantly made in medicine; besides, in many remote situations, the difficulties in the way of obtaining books are almost insuperable, and new publications become old before they are received.

Whilst European physicians, enjoying superior opportunities and facilities for the acquisition of knowledge and the cultivation of medicine, generally excel in medical erudition, and are justly entitled to the credit of having composed the most learned and elaborate works, and having made many of the most important
and valuable discoveries and improvements in medicine, they are nevertheless so actuated by national jealousy and mutual animosity, that they not unfrequently refuse to acknowledge or apply in one nation the most obvious improvements made in another, and they are moreover too much disposed to bow down to authority, and yield implicit obedience to the dicta of distinguished men. American physicians, on the contrary, at a happy distance from all such illiberal and improper influences, independent of the doctrines or dogmas of any school, unawed by authority, regardless of ages, names or nations, obedient only to the dictates of true philosophy, inductive and eclectic, reason for themselves, and, selecting what is good and rejecting what is objectionable in every system and from every source, render themselves, as they may be truly styled, the most correct, energetic and successful practitioners in the world! How essentially necessary, then, for the cause of humanity, that the details of American practice be faithfully recorded, as criteria whereby to test specious theories, not founded in practical observation!

There are now published in the United States several excellent periodicals, whose value and claims on public respect and patronage we most cheerfully acknowledge. So far from entertaining any sentiment of hostility or unkindness to those who have entered the field before us, we design and desire harmoniously to co-operate with them in labouring to advance the same great object, to advance the interests of that profession in which the good of society is most deeply and vitally involved.

But although they have done and are still accomplishing much for the improvement of medicine, and are justly entitled to the gratitude of physicians, and the appellation of benefactors of mankind—the profession at the South have long regarded and anticipated, as a most desirable object, the establishment of a Journal that should collect and preserve the valuable discoveries and improvements of Southern practitioners relative to the nature and treatment of diseases incident to Southern climates, which, for the want of some such convenient and suitable repository, are generally entombed with him with whom they originate, and thus forever lost to the world.

It has long been lamented that in consequence of the obstacles that have hitherto existed, with very rare exceptions, the rich treasures of individual knowledge arising out of extensive
experience, close application, accurate observation, and the most correct and rigid reasoning, have not been allowed to emanate from or survive their possessor, unless through the uncertain medium of oral communication.

Unwilling that such evils should longer exist, or that Southern physicians should longer want an appropriate vehicle of communicating to each other and to the world the valuable results of their observation, practice and reflection, we offer to our cotemporaries the pages of a monthly periodical, cordially inviting them to co-operate with us in the enterprise, and confidently trusting that they, with equal zeal and interest, will come to our assistance, and sustain a work so desirable, so important to science and to humanity!

As the principal design of this Journal is to collate and communicate practical information; practical essays of all kinds, histories of epidemics, reports of cases, the application of new remedies, and all interesting medical facts and experiments, will be thankfully received. *Long* theoretical disquisitions, and *prolix* discussions on controverted points, will be excluded from our numbers; place, however, will always be given to communications on the collateral sciences, and to all treatises that have a useful bearing, or that may be calculated to promote the grand object in view—the improvement of medicine.

The various branches of natural history at the South present fertile fields for cultivation. What wealthy treasures—what rich rewards are here promised to the zeal, industry and enterprise of the mineralogist, the geologist, the botanist, and the zoologist! May we not hope from these fruitful sources to derive much matter for our Journal, valuable and interesting, not only to physicians but to the whole scientific world?

We feel deeply impressed with a sense of the weighty responsibilities and arduous labours in which we are about to engage, especially when we contemplate the vast extent of science which must be kept under constant review, the unremitting demands on our time, the enlightened tribunal before which we must appear, and above all, our obligations to the sacred cause of humanity! Nor should we have ventured to assume such high responsibilities and to embark in such laborious duties, were it not for the great advantages and facilities afforded us by our connexion with the Medical College of Georgia, the pledge of support made
us by the rest of the Faculty, the assistance promised us by many other eminent physicians, and a confident reliance on the cordial co-operation of liberal and enlightened members of the profession every where throughout our country, especially in the Southern and Western States.

The College Library, to which we have constant access, will receive a regular supply of the most valuable medical books as fast as they issue from the press, to reviews of which a portion of our Journal shall be devoted.

Our sole object, as reviewers, will be to present to our readers a faithful and plain analysis of new books, whereby to attract attention to their merits, and assist in promulgating useful knowledge. We will only exercise the invidious office of exposing errors and defects, where they militate against sound doctrine and safe practice, and are thereby calculated to mislead the younger and less experienced members of the profession. Attached to no party in medicine, advocates of no particular doctrine, eclectics in science, zealous for improvement but opposed to useless innovation, we trust we shall be able, unabissed by partiality or prejudice, to discern and commend what is excellent, and condemn what is erroneous, without reference to the source whence it comes.

Besides the valuable Journals of our own country, the most approved periodicals of Great Britain, France, Germany and Italy, will furnish an inexhaustible fund of materials, that cannot fail to add utility as well as interest to our numbers.

The monthly form has been selected, because best calculated to answer the purposes designed, being preferable to either quarterly or hebdomadal publications. The former do not emanate from the press sufficiently often to maintain a constant and regular supply of the newest intelligence in medicine, and the latter are necessarily restricted to a compass too narrow to admit of any but very short pieces, without dividing them into several parts, to be continued through successive numbers, which at once destroys much of the interest they might otherwise excite.

Contributors are requested to make their communications over their own proper names, as anonymous and fictitiously signed pieces are read with little interest, if read at all.
Among the diseases to which the human system is liable, but few are more dangerous in their character, or more rapid in their course, than Puerperal Peritonitis. From the first notice of its appearance as an epidemic in 1664, to the present time, frequent investigations have been made of its nature, and of the treatment best adapted to its cure; but its true nature was long involved in obscurity, and consequently the treatment was generally inefficient, and often pernicious. Modern research, however, has in a great measure dispelled this obscurity, and at the present day, there exists but little difference of opinion as to its pathology. But in relation to the remedial course proper to be pursued, practitioners do not evince the same unanimity. This fact renders it important, that observations tending to establish, or set aside the prevailing methods of treatment, should be laid before the profession; and it is with a view to this, and not with the expectation of offering any thing novel, either respecting its pathology or treatment, that the writer presents the results of his experience.

Puerperal fever has always been considered a disease of highly dangerous character, even in its sporadic form; but it is when it becomes an epidemic, that it assumes its most formidable aspect—then dismay heralds its approach, and death too often follows its footsteps. Some writers have asserted that in fatality it ranks next to the Plague. This estimate of its danger may have been correct in former times, under the treatment suggested by an erroneous pathology, but at the present day, it will scarcely be ranked so high in the scale of malignity. Still, though modern investigation, by developing its true nature, has disarmed it of many of its terrors, yet there are few diseases which excite greater alarm in the breast of the patient, or bring more anxiety, to the mind of the medical attendant.

The cases of Puerperal fever which have been observed by the writer, with a few exceptions, were of an epidemic character. The number of cases, the violence and rapidity of their course, and the absence of all the usual causes, justify us, we think, in attributing to them an epidemic origin. No meteorological register was kept during its prevalence, neither was any marked peculiarity in the season observed. For some time previous, anginoso affections had been common, and scarlatina pre-
vailed to a considerable extent. That the peculiar atmospher-ic constitution by which some eruptive diseases are propagated, has an agency in exciting puerperal fever, we are not prepared to assert, but the histories of this disorder generally, notice the contemporaneous prevalence of some of the exanthemata. \( \text{Gordon states that} \) "\( \text{cresypelas and puerperal fever began} \) at Aberdeen at the same time, and afterwards kept pace together—they both arrived at their acme together, and they both ceased at the same time." \( \text{Clarke says, that during} \) the prevalence of an epidemic puerperal fever, which he describes, "eruptive diseases, particularly those which are attended with great depression of strength, had attacked great numbers of patients. Ulcerous sore throat with or without scarlatina had been very general." \( \text{Armstrong asserts that it frequently prevails with cresypelas. The constitution of atmosphere which} \) generates disease, is a subject of deep interest, but the light of science is yet too feeble to penetrate the darkness by which it is shrouded. \( \text{Yet, if we may be permitted to judge of the progress of future improvement by the past, we may indulge the hope that at some day, not far distant, this mystery may be unveiled.} \)\)

Puerperal fever has been supposed by some eminent writers to be of a contagious nature, and it must be conceded, that there are many facts recorded in the histories of the disease, which strongly tend to confirm this opinion. \( \text{However, in this country at least, it is believed that there are but few who consider it to be contagious, except under peculiar circumstances. In the cases which came under the writer's notice, there was nothing which in the slightest degree indicated a contagious origin.} \)\)

This disorder generally makes its attack during the week succeeding delivery; but some cases have been related, which began at a much later period, and a few which were supposed to have commenced before the confinement of the patient. However, the most common time of its access, is on the second or third day. \( \text{In general, those attacks which are earliest made after delivery, are most violent and dangerous.} \) The most malignant case which we have ever witnessed, began a few hours after the birth of the child.

Puerperal fever is generally ushered in with chills or rigors. In some cases the patient is not conscious of any cold stage; yet it is probable that in no instance is it entirely absent, although so slight and transient, as to escape notice. The cold stage lasts but a short time, and is followed by considerable heat, and dryness of the surface. Pain is felt in the hypogastric region, in some cases very acute, in others dull and obscure, and if pressure be made at, or near the seat of the pain, a sensation of soreness is produced. This soreness soon spreads over the
whole or the greater portion of the abdomen, which soon becomes slightly swollen. The pulse at this stage generally ranges between 120 and 130 in a minute, and is usually full and strong, and communicates a thrilling, or "vibratory" sensation to the finger; yet in some of the worst cases, it is small and weak from the beginning. The stomach is often affected with slight nausea, and occasional vomiting—the bowels are constipated—the tongue covered with a whitish coat, and the thirst considerable. The breathing is hurried and a cough attends, which in some instances, is very frequent and distressing. The patient is generally restless, but in her moments of quiet, lies upon her back, with her feet drawn up. The secretion of milk, if it has commenced, is soon entirely suspended, and the lochial discharge is soon materially lessened in quantity, or is suppressed. After this state of things has continued for some hours, varying in different cases, there is generally a considerable remission of all the symptoms, with the exception of the frequency of pulse, which is rarely much abated. This remission often raises in the minds of the patient's friends sanguine hopes, which are soon to be disappointed; for the disease soon renews its destructive career, with a violence which seems to have gathered strength during the previous calm. Some time after this return of the violence of the disease, the pulse increases in frequency, and loses some of its volume and strength—the abdomen becomes more tumid, and the tenderness is sometimes so exquisite, as to render the slightest pressure insupportable. The countenance expresses considerable anxiety, and there is occasional delirium.

The thirst is often insatiable—the tongue assumes a dark or brownish color, and, in some instances, a vomiting of a dark fluid, and frequent and similar discharges from the bowels occur. As the disease continues to progress, the pulse becomes more feeble, and so frequent, as to render it difficult or impossible to count it—the delirium is constant—the abdomen very much swollen, and the discharges from the bowels involuntary. In this condition, the patient lies for a few hours, and death then closes the melancholy scene.

The foregoing is a description of the disease as it appeared in the most malignant cases witnessed by the writer. There was not, however, an entire uniformity in the symptoms, in every instance. In some, but little nausea or vomiting occurred, and in one patient, neither of these symptoms was exhibited in any stage of the disease. The bowels were not uniformly constipated, and diarrhoea sometimes shewed itself at an early period, and was usually a favourable symptom. With some patients the delirium was slight and occasional; with others it was perfect and continued. We witnessed one case in which the patient could lie upon either side during the whole continuance of the disease. In one or two instances there was some dysuria. The abdominal
pain, sensation of soreness under pressure, and great frequency of pulse, were symptoms uniformly present.

The duration of puerperal fever varies in different subjects, and in different seasons. In the sporadic cases, it generally runs its course in from five to nine days. In the epidemic form, its duration ranges between one and four or five days. It is stated that death has taken place in less than twenty-four hours after the attack. We have seen no case fatal before the third, nor at a later period than the fourth day. When the disease was subdued by the treatment adopted, the symptoms gave way early, but the patient rarely regained her usual health until after a considerable lapse of time.

No opportunity was afforded for post mortem examination, but so fully and frequently have these been made, by eminent and competent men, that there seems to be little left to be learned, in relation to the morbid appearances developed by dissection. Evidences of peritoneal inflammation present themselves in every instance.Appearances of inflammation and its consequences, are also manifested by various abdominal and pelvic viscera; but these seem to result from the spreading of the peritoneal inflammation to those organs; and, indeed, to this extension there seems generally to be an irresistible tendency. This view of the nature of this disease will account for the want of uniformity in the symptoms in different cases, and will explain the mode by which most of them are produced. Thus, the constipation probably results from the extension of the inflammation to the muscular coat of the intestines—the diarrhoea in the latter stages, from its farther extension to the mucous coat, and the dysuria, from the bladder having become involved. These examples will suffice to show in what manner many of the symptoms are originated. Other appearances, which do not admit of such a solution, are probably the result of sympathy of other parts with the organs which have thus become successively involved. There seems to us to be no good reason for a belief that this inflammation is of a peculiar character. It resembles inflammation of any other serous membrane, and its peculiar fatality depends upon the extent of membrane attacked, and the number and importance of the organs which it involves in its course. With this view of the nature of puerperal fever, it cannot be a matter for surprise that its unobstructed course is so rapid and its termination so fatal.

Armstrong divides the disease into two stages; the first or inflammatory, and the second, or stage of effusion or collapse. Dewees considers that there is another, intermediate to these stages, which he denominates the "gangrenous," and which he defines as that "state of the parts which resembles death, but is not death." For practical purposes, this last division is unnecessary, as there are no known signs by which its presence is manifested. It is highly important that we should be able to
distinguish the inflammatory stage from that which succeeds it; for it is only during the existence of the former that any mode of treatment offers the least prospect of success. Yet it has been declared by high authority, that “the first stage has no discovered character by which it can be distinguished from the second.” Armstrong has given a description of the first stage, and though it has been objected to it, that it depicts no appearances which may not accompany the last, yet it is acknowledged to be the best which has yet been furnished. He says, “in the first stage, after the rigors have ceased, the pulse is hardly ever less than 120, and sometimes (though as far as I have observed, very seldom,) as high as 140 in a minute; the blood does not seem to flow in a soft, easy, and natural current, but comes against the finger with a kind of vibratory motion, and more than ordinary pressure is commonly required to stop its course along the artery, which feels rather hard and tense. The skin is dry, and hotter than natural, the patient complains of great pain, and soreness of the abdomen, breathes forty times in a minute, vomits mucus and bile, is generally bound in the belly, has a white dry tongue, considerable thirst, and labors under the restlessness and irritation of fever.” To this description we will venture to add, that during the continuance of the first stage, the pulse maintains about the same degree of frequency which characterized it when the disease was first fully developed. A very marked and permanent increase in its frequency, is usually the first appreciable sign that the boundaries of the first stage have been passed.

There are but few diseases which require a more prompt and energetic application of remedies to ensure a successful issue, than puerperal peritonitis; and yet it rarely happens, at least to country practitioners, that the patient is seen until some hours after the access of the fever. The symptoms are too frequently attributed to some transient cause; and when at last the patient is undeceived, and the physician called, he too often finds that the golden moment for successful action has passed away, and he is compelled to stand by with folded arms and witness the swift ravages of the destroyer. These remarks are particularly applicable to sporadic attacks, and the earlier cases of an epidemic visitation. It is a truth, to which in the present state of our knowledge there is no exception, that it is only in the first stage that the disease can be successfully combatted. It is true that occasional recoveries have taken place after effusion had occurred, but such instances are rare, and cannot fairly be held to be exceptions to the rule, inasmuch as they never result from our remedial applications, but are consequent upon some occult constitutional operation. Since more correct pathological views of the disease have prevailed, venesection has generally been considered as an indispensable operation in the treatment. Indeed
the testimony in its favor is ample and conclusive. The following statement of deaths under different modes of treatment, we have extracted from McIntosh, and it plainly indicates the superiority of bloodletting over all other curative methods, from which it is excluded.

"The celebrated Dr. William Hunter saved one patient only of thirty-two; his practice became fixed to give a good wineglass full of brandy at the commencement of the disease.

Dr. Hulme, who considered the disease partly of a putrid nature, and who employed bleeding in small quantities, and only as a secondary remedy, lost almost every patient.

Dr. Leake, who recommended bleeding in small quantities, and at long intervals, and who gave his patients bark, beef tea, and cordials, to prevent putridity, lost thirteen patients, out of nineteen, in one season.

Dr. Gordon, when he adopted a weak, vacillating practice, lost twenty-three out of twenty-seven cases; but afterwards he used early and large bleedings, and out of fifty patients he lost only five.

Mr. Hey, of Leeds, saved only three out of thirteen cases before he began to bleed; but by this sad experience he was afterwards led to bleed boldly and early, and he lost only two out of thirty-six."

To this testimony in favor of bloodletting, we might add that of Denman, Armstrong, and many other distinguished practitioners. That of the first mentioned writer is particularly strong and convincing; the more so, as he came to his conclusions in its favor in defiance of all his prejudices and preconceived opinions. These facts not only prove bleeding to be a powerful and appropriate remedy, but they also shew, that to be serviceable, it must be early and freely employed. Among the advocates for venesection, some difference of opinion exists as to the extent to which it should be carried, and the frequency with which it should be repeated. Some writers have specified the precise quantity of blood, more than which they deem it unsafe to take; but it is doubtless injudicious to fix upon any given quantity as a limit. The only safe rule is to abstract a quantity sufficient to make a decided impression upon the system, and to repeat it whenever the pulse recovers its volume and strength, and the abdominal pain and soreness are still unabated. Dewees and others recommend that the first bleeding be carried to an extent sufficient to produce faintness; and this is a good rule for our government in all cases accompanied by high arterial action, and to which we have been called early; but in those cases where from the beginning the pulse has been very small, frequent, and feeble, there is some doubt as to the propriety of so bold an application of the remedy. However, as this condition of the pulse usually indicates the most intense and danger-
ous form of the disorder, it may be that the failure of blood-letting under such circumstances, is to be attributed rather to the intensity of the disease, than to any inapplicability of the remedy. But venesection, to be beneficial, must be confined to the first stage; in the second it will serve but to hasten the fatal termination. Though an early resort to free bleeding, aided by other appropriate remedies, will speedily arrest the progress of the disease in a large majority of cases, yet so favorable an issue is not always to be expected, even when it has been practiced at the earliest hour and in the boldest manner. Peculiar malignity may characterize the epidemic; or the circumstances by which the patient is surrounded may be such as to render any treatment ineffectual. The local depletion effected by leeching, often proves a valuable auxiliary to general bleeding; but the difficulty of procuring leeches in the country, and smaller towns, has hitherto confined the application to cases which occur in the cities.

But though bloodletting be of primary importance, we should not rely upon it, to the exclusion of other remedies. There is another remedial operation, which in efficacy is but little inferior to bleeding—we mean free purgation. We are aware that, in relation to the use of purgatives, there is some difference of opinion among practitioners; but the objections urged against their use seem to be theoretical, rather than the result of observation.

Indeed, nature seems to have indicated to us their applicability; for the spontaneous diarrhoea which sometimes occurs in the early stage of the disease, is frequently followed by a marked improvement in the condition of the patient, and much injury is sustained when it is suddenly checked. If those who object to purgatives have arrived at their conclusions from an observation of their effects, when administered in such a manner as only to produce a gentle and occasional action on the bowels, it is not a matter for surprise that they found no benefit result from their use; but an argument drawn from their effects when carried only to this extent, is entitled to no greater consideration than would be an argument against bleeding, founded on its want of success in the cases treated by Drs. Hulme and Leake. If we expect to derive material benefit from the action of purgatives, we must administer them at such intervals, and in such doses, as will procure regular and free evacuation of the bowels. When this effect is produced, it will usually be followed by a subsidence of the abdominal pain, tension, and tenderness; and by a general mitigation of the symptoms. In illustration of the beneficial action of free purgation, we here subjoin a brief history of a case related by Denman. It occurred to him before he had begun to use the lancet, and whilst he was in the practice of relying much upon emetics. A soldier's wife was attacked with puerperal fever thirty-six hours after delivery. An antimonial emetic was
Remarks on Puerperal Peritonitis. [June.

administered, which vomited but twice, but produced seventeen stools in the course of six hours. She had some quiet sleep in the night, and sweated profusely. Saline draughts were then prescribed, and afterward a decoction of bark, and the patient perfectly recovered. We will also relate briefly a case which came under our own observation, and in which the beneficial effects of free purgation were also plainly exhibited. The case was of sporadic origin. Mrs. —— was attacked with puerperal fever on the third day after delivery. We visited her six hours after the attack, and found her labouring under considerable pain in the hypogastric region, and great tenderness of the abdomen. The pulse was about 130 in a minute, the skin hot and dry, and there was much restlessness. Her condition, from previous disease, was such as seemed to render venesection of doubtful propriety; it was therefore advised that she should take a scruple of calomel, which was to be followed in two hours by a mixture of senna infusion, and sulphate of magnesia, and this was to be repeated hourly until a free evacuation of the bowels was effected. On the next visit the patient was found to be much relieved, the pulse was reduced to 120 in a minute, and the abdominal pain and soreness materially lessened. The purgative had produced thirteen evacuations, some of them quite large. It was not designed to cause such powerful catharsis, but the patient had persisted in taking the mixture until it was exhausted, in consequence of the decided relief which followed each discharge. The cathartic was ordered to be repeated, and its operation followed by an anodyne. On the next day we found the pulse reduced to 110 in a minute, and the pain and soreness had nearly disappeared. A moderate action on the bowels, by the use of laxatives, was kept up for a few days, during which time the patient continued to improve, and soon regained her usual health. But the use of purgatives should be confined to the first stage; after this has passed by, only the mildest laxatives should be administered, and when in the second stage, diarrhoea occurs, even these should be discontinued. There is some diversity of opinion as to what particular cathartics are best adapted to such cases. Armstrong advises large doses of calomel. In our hands, calomel has generally proved very sluggish and uncertain in its operation; and for these reasons, we have ceased to rely upon it, except in combination with some more active article. As we believe that purgatives are beneficial mainly by the topical depletion which they effect, from the vicinity of the inflamed parts, we have generally preferred those articles which produce the most prompt and copious discharges.

There are other auxiliary measures, whose application often proves beneficial. At the head of these, Armstrong, Blundell and others, place Opium. They advise that it should be given in
large doses, as its effects are of a less stimulating nature, than when used in smaller quantities. They suppose that it possesses some efficacy in lowering the irritability of the vascular system and extinguishing inflammation. But there are many practitioners who object to the use of Opium, not only in consequence of its stimulant properties, but from a belief that it prevents, or retards, the operation of purgatives. This last objection we believe to be groundless; so far as our observation has extended, we have never seen any such effect following the use of Opium: and Armstrong asserts, that it does not interfere in the least with the action of purgatives in this disease. In relation to its stimulant properties, the same writer declares, that they are manifested, only when small doses are administered. But Opium should never be given until after free depletion; used then it will mitigate the pain, and procure sleep, without increasing the inflammatory symptoms in the slightest perceptible degree. Though Opium should not possess the power of extinguishing inflammation, which has been ascribed to it, yet its action in mitigating the sufferings of the patient, renders it an article too valuable to be excluded from the treatment of puerperal fever.

After bloodletting has been carried to as great an extent as may be deemed prudent, benefit will frequently be derived from the application of blisters. It has been advised to confine their use to the latter part of the first stage. They should be applied to the inside of the thighs, and not to the abdomen, for an irritation of the abdominal surface would render those indications obscure which are to be derived from an examination of that part, by making it difficult to determine whether the sensation of soreness which pressure produces, is the effect of the blister, or of the continuance or increase of the internal inflammation.

It has been recommended to mercurialize the system as speedily as possible; and could this be effected at an early stage of the disease, it probably would prove serviceable. But puerperal peritonitis is usually so rapid in its course, that we should very rarely be able to bring the system under the action of the mercury, except in a few of the milder cases, in which such a treatment would be unnecessary. Moreover, to produce ptyalism by the internal use of mercurials, we should be compelled to administer it in such a manner as to prevent its rapid passage through the bowels, and thus, without any certainty of being able to procure its constitutional action, we should deprive ourselves of the opportunity of using purgatives, which certainly have much higher claims upon our confidence. However, in some instances, there is a degree of inflammation which remains even when the depletory process has been carried to its greatest possible extent; in these cases, calomel carried to the extent of slight ptyalism, will be found highly beneficial. The best mode of administering it is in combination with opium, and aided by frictions of the abdominal surface with mercurial ointment.
Fomentations, with flannels wrung out of warm water, may be applied to the abdomen, as they often mitigate the pain; but as they are inconvenient, and their beneficial effects but transient, it is probably best to confine their use to cases attended by great severity of pain.

Emetics, and oil of turpentine, have each their advocates; but our observation of their effects has been too limited to warrant the expression of an opinion as to their merits. In relation to the oil of turpentine, the reports are very contradictory; some lauding it highly, whilst others assert that they have never realized benefit from its use.

The antiphlogistic regimen should be most rigidly enforced throughout the whole course of the first stage; and as the signs by which the commencement of the second is to be recognised are uncertain, it will be prudent to refrain from the administration of anything of a stimulating nature, until the presence of this stage is distinctly ascertained.

The treatment we have recommended is only applicable to the first stage—for the second there is no known remedy. In the language of a late writer, "the wretched patient must in a great measure be abandoned to her fate, as regards medical treatment. Stimulants—cordials—opiates may be administered, without reserve or apprehension, for the disease has spent upon her the full force of its powers, and in this instance, we do not know what can injure or what can benefit the case." But however hopeless the condition of the patient may seem, we should never desert her until life is extinct. Remarkable changes do sometimes occur, even under circumstances the most desperate, and we should always be ready, in events of this kind, to lend our aid. But even when no such alterations take place—when hope has expired in our own bosoms, our presence will often prove a source of consolation to the despairing friends of the sufferer, and will enable us to mitigate her pangs, and smooth her passage to the grave.
ARTICLE II.

Remarks on the Pathology and treatment of Rheumatism, read before the Medical Society of Augusta. By L. A. Digas, M. D. Professor of Anatomy and Physiology in the Medical College of Georgia, Member of the Geological Society of France, &c.

Rheumatism is a disease of which we find no satisfactory account prior to the sixteenth century, towards the close of which the attention of the Profession was called to it by the justly celebrated Ballonius, under the singular appellation it still retains. Subsequently, the able pen of Sydenham delineated its characteristics in bold relief, and made it a prominent feature in Bsoology.

The term Rheumatism, according to Villeeueve, (Dict. des Sciences Med. tom. 48) is now applied to "a disease classed amongst the Phlegmasia, located in the muscular and fibrous tissues of animal life, and attended with the following symptoms: pain, more or less intense, either continued or intermitting, fixed or wandering, and with or without heat, tumefaction, redness, and pyrexia. It usually terminates by resolution, sometimes suddenly, followed or not by metastasis, rarely by suppuration, and still more seldom by gangrene. Lastly its course is extremely irregular, and its recurrence very frequent."

Scudamore defines Rheumatism to be: "Pain of a peculiar kind, usually attended with inflammatory action, affecting the white fibrous textures belonging to joints, such as tendons, apon- eures, and ligaments, the synovial membranes of the bursae and tendons; and nerves; occasioned by the influence of variable temperature, or by direct cold, or by moisture." It is called either acute or chronic, according to the intensity and combination of the above symptoms. The causes of this disease are extremely obscure, although they have, by universal consent, been referred principally to atmospheric vicissitudes. Exposure to a cold and humid air is peculiarly favourable to its development. Whether the low temperature and hygroscopic condition of the atmosphere, alone concur in such cases to give rise to Rheumatism, is extremely questionable. I believe it by no means improbable that the electric state of this medium is highly influential in the production of Rheumatic pains, as well as of many other phenomena connected with nervous affections. It is not my design on the present occasion to inflict on the reader even a recapitulation of the numerous predisposing and proximate causes assigned to this disease. The profession is happily becoming satiated with speculations on causes which
must ever escape our present means of investigation; and we are now disposed to cultivate a more fruitful field—that of effects. Let us, therefore, hasten to the nature or Pathology of Rheumatism.

We have already said that it is now generally regarded as an inflammation of the muscular and fibrous tissues. This is, indeed, the doctrine which has prevailed, more or less, from the earliest notice of this disease. It is true that many have considered this inflammation as of a peculiar kind. Sarcone and other believers in the agency of animalculæ, &c. in the causation of disease, explained this peculiar property by referring it to the action of those diminutive beings on the white humors of joints, &c. Quarin viewed it as a constriction of the vessels, from cold. Boerhaave called it an inflammation not sufficient to cause suppuration. Cullen admits the inflammation, but adds that the muscular fibres are in a state of rigidity, which impedes and renders painful any movement. "It is," according to this distinguished pathologist, "an affection of these fibres which gives an opportunity to the propagation of pains from one joint to another, along the course of the muscles; and which pains are more severely felt in the extremities of the muscles terminating in joints, because, beyond these, the oscillations are not propagated." (Cullen's 1st lines.)

Bichat and Scudamore insist that it is a peculiar inflammation, but do not attempt to define its nature. Villeuwe states that "several authors, without determining whether the proximate cause of Rheumatism be spasm, irritation, or debility, affirmed in general terms, some that Rheumatism was a peculiar affection of the nerves, others that it was a lesion of sensibility, and a third class that it was a special modification of the vital powers." (loc. cit. P. 462). Villeuwe admits that the nerves of animal life may be the seat and even the primary seat of Rheumatism, but does not think those of organic life ever invaded by it. Scudamore, in his definition of Rheumatism, enumerates very specially the nerves among the tissues affected by this peculiar inflammation. Sciatica is accordingly considered by him a Rheumatic affection of the nervous trunk itself; whether of the nervous matter or of the neurilemma, he does not determine.

It is evident that all the writers above cited looked upon Rheumatism as located alone at the seat of pain. Of late years, however, attention has been called to a peculiar condition of the spinal marrow as invariably connected with lesions of sensibility, as well as with many of those affections classed among the Neuroses.

It appears that as far back as 1821, Mr. Player, in a letter to the Editor of the Quarterly Journal of Science, stated that "the occurrence of pain in distant parts (from the spine) forcibly attracted my attention, and induced frequent examination of the
spinal column; and after some years' attention, I considered myself enabled to state, that in a great number of diseases, morbid symptoms may be discovered about the origins of the nerves which proceed to the affected parts, or to those spinal branches which unite them; and that if the spine be examined, more or less pain will commonly be felt by the patient on the application of pressure about or between those vertebrae from which such nerves emerge."

In May, 1828, Dr. Thomas Brown published in the Glasgow Medical Journal a very interesting article "on Irritation of the spinal nerves," the substance of which he asserts he read before the Medical Society of that city in 1823. In this paper he refers the morbid phenomena of the spinal nerves to a state of increased irritability of their origin, which he terms "spinal irritation." This affection of the spinal marrow is attended with more or less pain on pressure of the vertebrae at the diseased point. Some of his cases were evidently Rheumatic, and indeed had been treated as such by the previous attendant. His treatment consisted principally of applications to the spine.

Dr. Darwall, early in 1829, inserted in the Midland Medical and Surgical Reporter, his "Observations on some forms of Spinal and Cerebral Irritation." He would establish the principle "that disorders attacking the origins of nerves, or their attachment to the central mass, whether this be the brain or spinal chord, always disturb the functions of the organs to which such nerves are destined."

"A treatise on Neuralgic diseases, dependent upon irritation of the spinal marrow and Ganglia of the sympathetic nerve," by Thomas Pridgin Teale, was issued from the London press in 1829. This invaluable publication has opened to our researches one of the most fertile fields ever explored by the profession; one from which have already been elicited some of the most important truths in the domain of Pathology. The observations of Teale not only confirm the views of those who wrote before him on Spinal Irritation, but are also extended to lesions of the sympathetic ganglia. I would, however, at present, refer only to that portion of his work which relates to our subject. It contains a number of cases illustrative of his doctrines, some of which, like those reported by Brown, had been considered as rheumatic by other physicians, and indeed presented symptoms such as are usually said to characterize some forms of this disease. It is not a little remarkable that with such facts before them, neither Brown nor Teale should have thought of treating the more acute forms of Rheumatism in the same manner. They make no reference to it, and the merit of introducing a new and rational mode of treatment of Rheumatism, was reserved for our countryman, Dr. J. K. Mitchell, of Philadelphia, who, in May 1831, published in the American Journal of Medical Sci-
ences, his first article on the subject. In addition to the eight cases then reported, Dr. M. inserted five and thirty more in the same Journal, August 1833; all of which concur in confirming the spinal origin of Rheumatism, whether acute or chronic.

I must confess that neither of the transatlantic publications to which I have referred, had led me to reflect on the nature of Rheumatism; nor was my attention drawn to it until the appearance of Dr. Mitchell's first paper. On reading this, however, and comparing his doctrine with the prevailing theories of the Pathology of this malady. I became at once convinced that it was impossible to reconcile the various symptoms of this disease, on any other principle than that of spinal irritation, and that with this view of the subject, the treatment would be perfectly simple and efficacious.

From the definitions usually given of Rheumatism, the pain is manifestly considered as dependent on the inflammation of the parts in which it is seated. That simple inflammation of the muscular or fibrous tissues should be the sole cause of the pain, I cannot admit. It is true that the patient's sufferings are generally proportioned to the degree of apparent inflammation, and consequently that acute is more distressing than chronic Rheumatism. But, I would ask, why are not other inflammatory affections of the same tissues equally painful? It is impossible not to perceive, on a close examination of the phenomena of Rheumatic inflammation, that they present several peculiarities, which evidently distinguish it from ordinary inflammations; and indeed they are so strong as to have led some eminent pathologists to deny that they constituted a whole, entitled to the denomination of inflammation. Inflammation is usually said to be characterized by redness, heat, tumefaction, and pain, all of which we find united in the most violent forms of Rheumatism. But there are sequelæ or terminations enumerated as belonging to inflammation, which never follow Rheumatism. Inflammation terminates by resolution, suppuration, or mortification. Its rise, progress, and termination, are more or less gradual; subject to certain laws, and it is in most cases susceptible of removal by the antiphlogistics. Rheumatism obeys no such laws of development, progress, and declension; but, not unfrequently, manifests itself and disappears with a degree of suddenness utterly at variance with the course of ordinary inflammations. Its mode of termination is invariably the same, (by resolution) never proceeding to suppuration, or to mortification; and finally, it rarely, if ever, yields to the antiphlogistic treatment directed to the seat of pain.*

* I am aware that there are cases on record, of suppuration and even of mortification having occurred in parts affected with Rheumatism, but they are so few that we may be permitted to doubt their authenticity, or rather to look upon them as mere coincidences, dependent on complications or pecu-
The theory of spinal irritation is that alone by which all these peculiarities can be explained. If the point from which a given nerve arises be diseased, the functions of this nerve must necessarily be vitiated; and if its functions be vitiated, the condition of those parts to which said nerve is distributed must also be morbid. In the case of Rheumatism, the morbid condition of the parts deriving nerves from a diseased portion of the spinal chord, consists of inflammation of a peculiar character, increased sensibility of the nervous extremities, amounting usually to pain more or less acute, and, in many instances, diminished motility. All admit lesions of motility to depend on an affection of the motor system of nerves, and, inasmuch as the motor cannot be separated or distinguished from the sensitive fibres after their union in a common nerve, such lesions are referred to the spinal chord. Why then should we not also regard all lesions of sensibility not the result of local injury, attributable to a morbid state of that chord which presides over this function?

Again, we see that not only the onset of Rheumatic inflammation, but also its termination or cessation, is in many instances extremely sudden, and indeed that sudden metastasis is by no means unfrequent. These circumstances are most satisfactorily accounted for by the fact that nerves arising very near each other may be distributed to parts very remote. For instance, the nerves of the right hand, though very distant at their termination from those of the left, are nevertheless very near them at their origin in the medulla spinalis; and hence a slight affection of the medulla might for a time exist in one column, and subsequently extend or remove to that adjoining it; thus producing at first a derangement of function on one side of the body, and then on the other. My opportunities have not as yet been sufficient to enable me to assert, from observation, that metastases of Rheumatism are limited to the periphery of nerves arising in the proximity of each other. This, however, I am strongly inclined to think, will most frequently be found to be the case. Whenever an upper and a lower extremity are simultaneously affected, they most frequently belong to the same side of the body. It will probably also be observed that the justly dreaded translation of Rheumatism to the heart, is a much more common sequel of an affection of the upper than of the inferior extremities.

The difficulty attending post mortem examinations of the medulla spinalis, has very much retarded our knowledge of the pathological anatomy of this organ. Its condition in fatal cases of habit. The success of the antiphlogistic treatment directed to the seat of pain, is equally doubtful, especially when we bear in mind the strong tendency of Rheumatism to translation or sudden cessation without appreciable cause.

Gout, Rheumatism, and Neuralgia.
of Rheumatism has never been systematically investigated. We find, however, on record, a few cases which I think calculated to throw much light on our subject. One of these is reported in Johnson's Medico-Chirurgical Review, (Oct. 1827, P. 464) under the title of "Inflammation of the Spinal Marrow." A youth, some time after bathing in the Seine, experienced wandering pains, which subsequently extended to the whole surface of the body, and became so intense that the least touch would occasion loud cries. The pains continued unabated, delirium and diarrhoea ensued, and he died on the ninth day. On opening the spine, the medulla was, from the 7th cervical to the 8th dorsal vertebra, evidently softened and infiltrated with pus. In the same Periodical (Jan. 1828, P. 184) is contained another case, in which the patient had suffered severely from Rheumatic pains in the upper part of the back, shoulders, and arms, and finally became paralyzed in his arms. Dissection evinced that from the 5th cervical to the 11th dorsal vertebrae, the membranes of the spinal canal were intensely inflamed, thickened, and covered with a bloody effusion. The marrow itself, for the same space, was similarly inflamed and softened.

Dr. Mitchell gives the history of two cases of spinal disease, as corroborative of his views of Rheumatism. The first* was one of caries of the lumbar vertebrae, in which one ankle, and the knee of the opposite side were tumesced, red, hot, and painful, afforded a fair specimen of acute Rheumatism. Relief promptly followed leeching and a blister to the affected spine, although the ordinary treatment for Rheumatism had been previously resorted to without effect. The second case was that of a physician who, after receiving an injury of the cervical vertebrae, experienced an attack of acute Rheumatism of the hands and wrists, which "was always relieved by remedies applied to the affected part of the spine, and aggravated by pressure or rough friction there."

These four cases conclusively establish the fact, that irritation of the spinal contents is attended with the train of symptoms known to characterise Rheumatism. May we not then by legitimate deduction infer that there is a spinal disease whenever we encounter this train of symptoms? If further evidence be requisite, it is abundantly furnished by the numerous instances in which genuine, uncomplicated Rheumatism has been speedily cured by medication applied exclusively to the spine. Dr. Mitchell, reports forty-one cases successfully treated on the new principles. In my own practice I have used no other plan for the last five years, and its success has been uniformly prompt and decisive. An unwillingness to swell this communication,

* American Journal of the Medical Sciences, May, 1831, p. 55.
† American Journal of the Medical Sciences, August, 1833, p. 360.
deters me from transcribing from my note book, some of the most interesting cases which came under my care.

Pressure over the vertebrae corresponding to the origin of the nerves supplying the seat of suffering, though in many instances attended with more or less pain, is not uniformly so. In some, not the slightest uneasiness is produced by it. I cannot however, coincide with Dr. Mitchell, in considering the tenderness, merely a proof of an irritated condition of the "spinal braces:" for, whenever this tenderness does exist, it almost invariably corresponds to the origin of the affected nerves. The degree of sensitiveness may perhaps be indicative of the condition of the membranes alone of the medulla.

In the case before us, we have a happy illustration of the importance of localizing, and properly localizing diseases; for so long as Rheumatism was thought to be an affection of the whole system, manifesting itself indifferently in one joint or another, all remedial agents were directed to the general system. How many poor wretches have we not seen subjected to the cruel inflictions of a regular mercurial salivation, a systematic course of sudorifics, antimonials, guaiacum, sarsaparilla, &c. the ordeals of steaming, vapourizing, sweating, &c. and after all, the patient doomed to limp the remainder of his days! But I say that it must be properly localized; for those who view the disease as confined to the seat of pain, will torture their patients with frictions, fomentations, vesications, &c. with as little success as those who endeavoured to drive out or neutralize the constitutional impurity. We have now, I trust, traced Rheumatism to its true source, and every remedy based on this belief, gives additional evidence of its correctness. Regarding the disease as seated in the spinal marrow, and believing its nature to be irritation or sub-inflammation, the treatment to be instituted is perfectly obvious. The local abstraction of blood, by leeching or cupping the surface over the affected medulla, followed by the more permanent revulsive action of vesicators, constitutes the most efficient treatment of Rheumatism. In many slight cases, the mere application of a sinapism will readily allay the pain; in others a blister will be required and may be, or not, preceded by cupping, according to the tenderness of the spine. the constitution of the individual, &c. When the local affection is so intense as to induce high febrile excitement, it may be prudent to take blood from the arm, though this should not be carried to excess. The opiates will occasionally be found useful adjuvants. In obstinate chronic cases, the counter-irritation will be most advantageously kept up by the ointment of tartarized antimony, and should be persevered in, as long as the disease manifests a tendency to return. With this plan of treatment, I repeat, the disease will be found almost uniformly to yield in a few days, and without any internal remedies, or applications to
Analysis of the Hydrant Water of Augusta. [June,

the seat of pain. Indeed, so confident do I feel of its efficacy, that I now look upon Rheumatism, not long since the approbrium medicorum, as one of the most manageable affections we are called on to treat.

ARTICLE III.

Analysis of the Hydrant Water of Augusta, passing through leaden pipes. By Lewis D. Ford, M. D., Professor of Chemistry in the Medical College of Georgia.

The extremely poisonous nature of the salts of lead has generally and very properly created a doubt in intelligent communities, as to the safety of using water that has been transmitted through leaden tubes. This feeling in this community, together with the occurrence of some cases of disease, which seemed to warrant the suspicion of injury resulting from the use of water conducted in leaden pipes, have led me to the particular examination of this subject. I place the result at your disposal, because I have not met with any detailed account of the method of proceeding in such an examination, and therefore, it may possess a general interest; and because a knowledge of the fact as to the nature and degree of the impregnation of the water, with a saturnine preparation, may be of service to the community, either in quieting their apprehensions as to its use, or in leading them to abandon it, according to their respective estimations as to the quantity of this preparation which may be used with safety.

This water is brought in a wooden conduit from the spring, through the centre of the city. The service pipes inserted into the main conduit, are, in the majority of instances, of wood, while others are of lead. There has never been discovered the slightest trace of lead impregnation in the water that passes through the wooden pipes, although carefully examined in very many situations:—while it is uniformly discoverable in every situation when it passes through the leaden ones. This difference is not surprising when we consider for a moment the construction of the aqueduct, and the constant flow of the water from the service pipes.

1. The qualitative analysis.—None of the usual agents of lead produce any precipitate with this water, except the free
sulphuretted hydrogen gas, or its solution in water. Even the hydro-sulphates produce no discoloration.

The sulphuretted hydrogen gas injures slightly the transparency of the water, producing a brown color throughout it.—The water thus discolored deposits no precipitate after many days rest.

After passing the water through good filtering paper, it is not discolored in the slightest degree by the sulphuretted hydrogen. This fact assures us entirely, that the preparation of lead is insoluble—but in a state of so minute division as to be suspended in the water without altering its transparency. It also explains the reason why neither the sulphuric acid, the sulphate, the hydriodate, nor chromate of potash will form a precipitate.

To determine more satisfactorily the presence of lead, a gallon of the water was filtered—the filter dried perfectly, burned and the residuum placed on a glass capsule and a few drops of nitric acid added, boiled upon a sand both, and the heat continued until the mass was dry. A few drams of water were added and boiled for a moment, and the solution filtered. I need scarcely remark, that the object of treating the incinerated filter with nitric acid, is to obtain the lead in the state of one of its soluble salts, the nitrate. This solution with the sulphate of potash gave a white precipitate,—with sulphuric acid, and with the carbonate of Potash, a white precipitate,—with the chromate of potash it gave a heavy dense yellow precipitate.

With a solution of hydriodate of potash, this solution produces a yellow precipitate, and if the solution of the hydriodate be added with as little agitation of the test tube as possible, the precipitate is recognized by a practiced eye as the hydriodate of lead, by the peculiar appearance of the contents, when they are thrown into motion, by turning the test tube in a circular direction; the surface of the fluid in contact with the glass, exhibiting different shades of the yellow color, like the watered ribbon; an appearance produced doubtless by the partial crystallization of the precipitate. But this precipitate is recognized as the hydriodate of lead by a still more striking characteristic. By boiling the contents, a transparent solution is obtained, which, on cooling slowly and at rest, deposits on the sides and bottom of the tube beautiful, small, splendent yellow crystals.

A polished plate of zinc immersed in a portion of the above solution, is speedily covered with a light spongy mass of pure lead.

Thus each one of the foregoing re-agents producing a change in this solution, characteristic of the presence of lead, their concurrence testifies establishes the fact beyond the possibility of doubt, that the water thus passing through these leaden pipes is impregnated with one of the preparations of lead. What is this preparation?
If a portion of the water be evaporated to dryness, and sulphuric acid be added to the residuum, an evident effervescence is produced. Whence we infer that it is impregnated with carbonate of lead. Again, if a piece of lead be immersed in a jar of this water, with its surface exposed to the atmosphere, the lead is covered over with minute crystals of carbonate of lead, in the course of a few days.

2. The quantitative analysis.—To determine the absolute quantity of carbonate of lead in a given quantity of the water, 233 ounces were filtered, the filters burned, and treated with nitric acid as above, and three ounces of solution of nitrate of lead obtained. A solution of chromate of potash being added in excess, the precipitated chromate of lead was suffered to stand and washed three times, dried in the tube—from whence it was removed and weighed. Weight exactly one decigram—equal to 1.544 grains Troy. Thus from 256 ounces, or two gallons, we obtain 1.696 grains of chromate of lead, which, according to Wollaston's scale, is equivalent to 1.38 grains of carbonate of lead. Thus we arrive at the conclusion that there is 1.38 grains of carbonate of lead in every two gallons of this water, which contains so much of the oxide of lead as, if united with acetic acid, would form 1.944 grains of sugar of lead—nearly one grain to the gallon. It is proper I should state that the water which has given this result was drawn from one of the longest leaden service pipes. I may at some future period endeavour to estimate the reason why this water acts upon the lead, when it is known that in innumerable instances water is transmitted through leaden tubes without being impregnated with it.

ARTICLE IV.

Puerperal Convulsions.

In the summer of 1833 I delivered a lady of her second child. The delivery was accomplished within an hour and a half from the first announcement of labour. Being hurried away to another case, I left her very comfortable, 30 or 40 minutes after delivery. About one hour and a half after, she was suddenly seized with a very violent convulsion, of that species described by Velpeau as Apoplectic Eclampsia. Before she could be administered to, another convulsion returned on the profound stupor and heavy
stertoruous breathing which followed the first. A consultation of physicians was present. The pulse being slow, but full and strong, liberal depletion was practised. All the intermediate apoplectic symptoms continued notwithstanding. Soon after this second paroxysm, I arrived. Whilst receiving the above account, a third paroxysm supervened, which I witnessed, and which was very severe; indeed—commencing during the stupor and stertorous breathing, full pulse, &c., by a drawing of the eyes and then the head to one side, until the body was universally convulsed, with frothing at the mouth, livid skin, &c. This soon subsided, and was followed by the same apoplectic symptoms. On examination, notwithstanding the copious depletion from the arm, it was discovered that the uterine hæmorrhage was very copious indeed; the whole napkin, which had been but 10 or 15 minutes in application, being completely saturated, beside a large quantity of coagulated blood surrounding her in bed. On the external touch, the uterus presented no firmness; but the whole hypogastrium perfectly flaccid. The uterus was immediately grasped and agitated repeatedly through the abdominal parietes, until its contractions could be distinctly perceived to return with increasing strength, every four or five minutes. From the first application of the hand, no other paroxysm returned, and after about fifteen minutes from the commencement of this operation, the apoplectic symptoms disappeared, and she opened her eyes with intelligent expression, looked about as if surprised at seeing the family and physicians about her, and asked where was her child. It was brought, and she received it into her arms. She then asked for something to drink. A cup of weak tea was soon brought, which she drank sitting, spoke several times, and was again placed in bed.

I remained with her about an hour after, continuing the manual operation for exciting the uterus. Finding that she continued free from all alarming symptoms, I instructed her nurse to maintain the perpetual contraction of the uterus by the same process I had used, and left her, complaining of nothing but some painful sensations in the uterus at every contraction, amounting to slight after pains. The hæmorrhage had been reduced to the ordinary quantity for the period.

A few months after, I was present with another lady, who, after, having had several convulsions of the same character, the first occurring in the latter part of the second stage of labour, was then suffering the intermediate apoplectic symptoms. On directing attention to the abdomen, the uterus was found in the same relaxed condition as in the former case. It was stimulated to action by the same means, and within from 20 to 25 minutes, the respiration, as well as the expression and color of the face, became natural; she opened her eyes with a natural expression, yawned, and turning her head to an easy position, slept well. It was found
that she also had flooded very copiously. She had no more convulsions.

In view of the present state of the profession on this very interesting and important disease, I cannot withhold the facts of these cases from the public. They are given in the hope that in the present imperfect state of the pathology and treatment of these convulsions, the curative indications, in some cases at least, may be made so plain as to lead to more favourable practical results. What is the pathology of these cases? Was there a passive haemorrhage from the uterus? And was there at the same time a strong general action of the heart, and a great determination of blood to the brain? And did the exciting means used with the uterus equalize the action of the whole system, by arousing the energies of this passive organ; and thus by a prompt and decided derivation of excitement, at once relieve the brain of its ruinous burthen? Or was the Eclampsia a mere nervous phenomenon, arising out of the debility and consequent increased irritability of the motor apparatus; and the symptoms strictly apoplectic, only a secondary effect, arising from cerebral compression from blood forced into the brain by the violence of muscular contractions in this spasm? And did the excitement of the uterus so far employ the excitability of the system as to relieve other parts of that excess which predisposed to spasm? Would not Ergot have produced the same beneficial effects as the manual operation employed, if it could have been administered? (yet it could not have been in either case.) May or may not the previous bleeding have prepared the system more perfectly for this counter-excitation? And would further bleeding have ever produced this equalization of action? Would not the patients have died without proper excitation of the uterus having been directly effected? May not the powerful antispasmodics which are, when they can be, almost always exhibited in these cases operate, when they do operate beneficially, simply on this principle, (i.e.) exciting the uterus particularly, rather than the system generally? Would not tartar emetic have failed as well as continued depletion in these cases?

It is earnestly hoped, for the good of humanity, and the credit of the profession, that these facts and interrogatories may lead to more accuracy in pathology, and consequently, successful therapeutics.

M. ANTONY.
ARTICLE V.

Sketch of a case of Bronchocele, successfully treated by Iodine.

By Wm. W. Lee, M. D. of Indiantown, S. C.

Bronchocele is a disease of such rare occurrence in the United States, that many physicians pass through life without even an opportunity of beholding it. Its origin is exceedingly obscure; the supposition that it arises from the use of snow-water, to which it is ascribed in the Alpine regions, is disproved by the fact, that it prevails to a great extent in Java and Sumatra, where snow is unknown. It is also singular that writers rarely mention the duration of cases when cured.

The case about to be related is interesting, both as it displays the therapeutical efficacy of Iodine, and from the short time in which the cure was effected:

May 21st, 1833, I was requested to visit Mrs. R. D. aged 32 years, labouring under goitre. The history of the case was as follows:—Her mother had a small tumour resembling the *pyorum adami* in males, but which continued indolent through life; the daughter, about thirteen years previous to my visiting her, perceived a small tumour forming in the situation of the thyroid gland, supposed to be a wen; she soon after married, from which time the tumour, which had previously exhibited little change, now began to enlarge rapidly, *particularly after the birth of each child*; indeed this seems to be almost a diagnostic of bronchocele:—an eminent surgeon was consulted, who proposed extirpation, to which she would not consent. At the time of my visit, it had so increased as to project anteriorly as far as the point of the chin, extending laterally to the angles of the jaws, and occupying the whole space between the chin and clavicle; its surface was smooth, uniform, and hard; her head was fixed; elevation, depression, and rotation, were alike impossible; the dyspncea forced her to sleep resting on one side in a semi-recumbent posture, and when labouring under catarrh, threatened suffocation. Recollecting the extreme danger, and, in one instance, fatal result attending two cases related by Gooch, I expressed the opinion that the extirpation of a tumour of such magnitude, and so vascular, would cause death by hemorrhage; at the same time, I stated that although the probability of a cure was greatly diminished by the long duration of the disease, I thought there was a possibility of it by a newly discovered medicine (Iodine): and at the earnest solicitation of herself and husband, consented to make the effort.

Iodine, xxvj.
Alcohol, ℥ j. m. 25 drops thrice a day; also to apply by friction, morning and evening, the following liniment:

Tinct. Iodine, (Cartwright) ℥ j.
Liniment. Volat. vij. m.

I considered the prospect of a cure so doubtful, that I neglected (what I have since greatly regretted,) to take the dimensions of the tumour; still I recommended a steady perseverance in the use of the remedy.

June 25th. I was truly astonished at the wonderful change effected; the tumour had been reduced to the size of a goose egg, over the trachea, and had lost its redness; respiration was perfectly free, for she could sleep in any position; the power of elevation, depression and rotation was restored, and she seemed full of hope.

July 9th. I was equally gratified at the rapid improvement; without a manual examination, even the existence of disease would not have been suspected; the power of motion was completely restored; she could sleep even in the horizontal position, and expressed herself both surprised and delighted at the felicitous results;—indeed it was to me a source of equal thankfulness and gratification that I had been instrumental in restoring to health and usefulness a wife and mother of a large family, dependent for subsistence on the personal industry of herself and husband. I made a minute examination of this case at a subsequent period, (Nov. 1834) and found it precisely as last described; there was one circumstance which had caused me much solicitude, its possible increase after parturition; she had during this interval given birth to another infant; but my gratification was extreme to perceive no disposition to a recurrence of disease: I was therefore led to consider her radically cured.
Part II.—Reviews and Extracts.

On the Diagnosis of Diseases of the Chest, based upon the comparison of their physical and general signs. By W. W. Gerhard, M. D., Physician to the Blockley Hospital; Lecturer in the Philadelphia Medical Association; Fellow of the Philadelphia College of Physicians; Member of the Société Medicale d'Observation, and of the Société Anatomique of Paris, &c. 8vo. pp. 193, Philadelphia, Key & Biddle, 1836.

It is truly with pleasure, we call the attention of the Profession to the work before us. The diseases of which it treats, certainly constitute one of the most common and most fatal classes of affections we have to encounter. That a correct diagnosis is the first and most important step in the treatment of disease, will not be denied; yet, without the possession of the physical means instituted by Avenbrugger and the immortal Laennec, it is absolutely impossible to attain this desirable knowledge. To those who are content with the stamp of mediocrity on their front, we have no reflections to offer; but to the honest, zealous, progressive physician, we would confidently appeal. The elements of diagnosis derived from physical means, have now been systematized at least ten years; they have been extensively adopted in Europe, as indispensable to whoever desires to understand the affections of the pulmonary and cardiac organs; these affections are quite as frequent and destructive in our country as in any on the globe; why is it then, that we find those principles so reluctantly adopted among us? Shall it be said, that whilst every medical tyro in Europe can, with ease and certainty, distinguish the locality, extent and nature of every variety of thoracic disease, that there are but few practitioners in our country, who can distinguish pleurisy from pneumonia? Tubercular phthisis from mere catarrh?—The fact is too true; and yet we know of no school in the union in which the principles of auscultation and percussion are practically taught! There can be but little doubt, that much of the apathy existing on this subject, is attributable to the prevalence of the same state of feeling among those who are ostensibly on the qui-vive for every information that can be of advantage to the profession. How can it be expected, that young physicians should strive to acquire that, which is of so little importance as not to merit the attention of their teachers? We could not resist a sense of mortification, on hearing the acknowledgement made by one of the most distinguished teachers of the north, a few years since, when lecturing on pulmonary diseases, that he could say nothing concerning the stethoscope, for he had thus
The influence of names unfortunately prevails to a distressing extent in the medical profession. In the case just cited, how much error does it not cover! Auscultation will never become general, until it be advocated by those at the head of the profession. The invaluable discovery of lithotrity remained in Europe in the hands of its author exclusively for years, because Dupuytren preferred the knife. In this country its introduction was retarded until very recently, by an abortive attempt of one who, though deservedly pre-eminent, did not sufficiently study the new instruments placed in his hands. We sincerely hope, that the good sense of the profession will triumph over the vain authority of title, and that the stethoscope will, ere long, be deemed an essential part of every practitioner's outfit.

That the little work of Dr. Gerhard, will do much to facilitate this branch of the art of diagnosis, we can entertain no doubt, its language is good, notwithstanding it is plain and intelligible English. Dr. G. appears carefully to have avoided any of that miserable pedantry, so commonly evinced by writers of the day, who, forgetful or ignorant of the richness and cogency of our own language, continually resort to words of foreign origin. Although the subject of which he treats is peculiarly French, we find very few instances in which he has drawn on that language for words to convey his ideas.

The review of a manual is always an ungrateful performance, not only to the reviewer, but also to the author, for it is difficult to condense what has already been reduced to so small a compass, and it is no less difficult to do justice to the work by mere extracts; we shall therefore attempt simply to convey some idea of the contents of the volume before us.

The history of the physical signs of disease, is premised by general remarks on the conformation of the chest, on percussion and on auscultation. The rules laid down for examining the thorax are highly important. Its anterior, posterior, and two lateral aspects, are successively studied in the normal state, and with reference to the changes they undergo by disease of the contained viscera.

The third chapter is devoted principally to the manual performance of percussion, which "is mediate or immediate. Mediate percussion requires the ends of the fingers, or in some cases, their palmar surface to be struck quickly upon the walls of the thorax. This mode of percussion was once generally employed, but it is now very properly and universally abandoned, on account of the production of less sound than may be obtained from mediate percussion, the greater pain caused to the patient, and the absolute impossibility of using this method, when the cellular tissue is infiltrated with liquid or loaded
"with fat. Mediate percussion was introduced by M. Piorry, "now Physician to the Hôtel Dieu, of Paris. A dense resisting "body is placed in contact with the patient, and held with the "fingers of the left hand, while percussion is made upon it with "the right. The body interposed between the fingers and the "skin, is called a pleximeter; it may be a thin plate of ivory, "leather, or metal, or, what is generally most convenient, the "fore-finger of the left hand. An excellent pleximeter is a "piece of caoutchouc, or common gum elastic, about a quarter "of an inch thick, and tolerably firm. This pleximeter is very "elastic, gives a good full sound, and prevents any pain being "felt by the patient."

We give the decided preference to the ivory plate, such as is attached to many of the stethoscopes now in use. The resistance of the caoutchouc varies very much according to changes of temperature, and when yielding, it cannot be used in those instances in which percussion is attended with pain.

The chapter on auscultation is one of great interest, treating as it does, of the manner of using the stethoscope, and of the sounds detected in health and disease. "When the car is applied to the chest of a person in good health, a faint rushing "sound is heard during the act of inspiration. When this sound "is carefully analyzed, it will be found to consist of two ele- "ments, more or less blended together. The first element, or "the blowing sound, is that produced by the air passing through "the bronchial tubes. It resembles the sound made in the mouth "and fauces, when the air is quickly inhaled. It is heard most "distinctly at the root of the lungs, over the trachea, and near the "clavicles, especially the right. The second sound is the soft "murmur caused by the expansion of the vesicles; it is the best "characteristic of a healthy pulmonary tissue. This sound is "termed the vesicular murmur, or the vesicular respiration. "from its anatomical seat. It is best heard where the tissue of "of the lungs contains the greatest number of vesicles and the "smallest bronchial tubes—that is, at the base of the lungs, in "the axilla, and at their anterior margin. The sound of expira- "tion is much more feeble than that of inspiration, and in a "healthy subject is almost confined to the parts where the first "or blowing sound is heard. It is short, feeble, blowing, and "does not resemble the inspiratory murmur."

These sounds present varieties dependent on anatomical structure, on difference of age, and on peculiarity of constitution. Those resulting from disease are much more complicated, and are arranged in classes and subdivisions, as follows:—1st. Increase and diminution of the normal sounds of respiration; 2d. Increase of the blowing sound of respiration, with feebleness or absence of respiratory murmur; 3d. Imperfect bronchial, or rude respiration. "In this variety, the blowing respiratory
sound is more distinct than usual, and more prolonged; the vesicular murmur is still heard, and is usually more feeble than in a healthy lung; in some cases it is louder, but has a rougher sound.” 4th. Bronchial respiration, in which “the vesicular murmur disappears when the pulmonary tissue is perfectly indurated, the blowing sounds are still heard; but much more strongly than in a natural state. * * * * The sensation communicated to the ear is that of the air passing through solid tubes, and not through the spongy tissue of the lungs.” 5th. Strong bronchial or tubal respiration. Here “the inspiration and expiration are not only strongly blowing, without the least trace of vesicular respiration, but they are both very loud, and resemble the sound which would be produced by some one blowing strongly into the ear.” 6th. Cavernous respiration “differing from the tubal respiration in being limited to a circumscribed portion of the lung, into which the air is heard to pass, and from which it is forcibly expelled.” 7th. Amphonic respiration. “As the air passes into cavities of very large size, it produces a sound not unlike that caused by blowing smartly into a glass or metallic vessel.”

The second class of alterations of respiration comprises the accidental or adventitious sounds produced during the act of respiration. These species of rattle are termed Rhonchi, and present the following varieties: 1. The Cavernous Rhonchus, or gurgling, “is the loudest and most easily heard of all the humid rhonchi; the air passes through a liquid of moderate tenacity, contained in a cavity of a size varying from that of a small almond to a large orange, or in some cases limited only by the pleura and the thoracic parietes.” 2. The Mucous Rhonchus “is analogous in character to the cavernous; it is more diffused, but less intense. It is produced, like the gurgling, by the passage of air through a liquid of little tenacity, but it must be contained in the larger bronchi, instead of a circumscribed cavity.” 3. The Crepitant Rhonchus “is produced in the same bronchial ramifications, or, as some suppose, in the pulmonary vesicles; and is caused by the passage of the air through a very tenacious liquid. The bubbles are, therefore, much smaller, and break with a sharper noise than the mucous rhonchus.” 4. Sub-crepitant Rhonchus. “This variety is distinguished from the preceding, by the larger size of the bubbles, made by the air passing through the smaller bronchial tubes, and the greater quantity of liquid.” 5. Sonorous Rhonchus. “This resembles the cooing of a pigeon, or still more nearly the sound of the bass-string of a violin.” 6. The Sibilant Rhonchus “resembles a low whistle, and, like the sonorous rhonchus, is heard both in the inspiration and the expiration. 7. The Grating Sound “is caused by the friction of the two surfaces of the pleura, lined with false membranes upon each other, and is heard in the latter stages of pleu-
risy, when the more liquid part of the effusion has been absorbed.” 8. Metallic Tinkling. “This is produced by the fall of a drop of liquid from the upper part of a cavity, upon the surface of a liquid contained in it, which gives rise to a peculiar tinkling sound, a little similar to that produced by striking a pin against a glass vessel.”

Having described the sounds produced by respiration, our author passes to the consideration of the auscultation of the voice. The modifications of the vocal resonance, consequent on pulmonary disease, are enumerated under six heads, viz: 1. Increased resonance. 2. Bronchophony, or “a variety of resonance of the voice, which is much louder and much more distinct than is ever heard in a healthy lung.” 3. Pectoriloquy, or “the resonance yielded by a cavity in the lung of moderate size.”

4. The voice seems to proceed from the cavity and to enter the ear.” 4. Amphoric resonance, when “the voice seems more hollow, more distant, and more diffused than in Pectoriloquy.” 5. Egophony. “When the voice is transmitted through a layer of liquid contained in the cavity of the pleura, it has a peculiar quivering intonation, resembling the bleating of a goat, or the voice heard through a speaking trumpet.” 6. Diminished resonance.

The indications derived from the cough and expectoration are sufficiently valuable to require some attention. The varieties of cough noticed are the short and dry, suppressed, sonorous, laryngeal, loose mucous, hollow, and spasmodic. With regard to the expectoration, attention is directed to its quantity, colour, consistence, form, odour, and admixture with foreign matters.

All these physical signs being well understood, it is easy to apply them to the diagnosis of the various forms of pulmonary disease. This is done by our author with brevity and perspicuity. He successively passes in review Bronchitis, Emphysema, Pneumonia, Gangrene, Phthisis, Pulmonary Apoplexy, Pleurisy, Pneumo-thorax, and the tubercles of the bronchial glands. The limits assigned to this article preclude any details on these topics.

The situation and action of the heart, render it peculiarly susceptible of study by auscultation and percussion. It is observed that, “as a portion of the pericardium, and consequently of the heart, is not covered by the lungs, percussion on the corresponding part of the chest must yield a dull sound, because there is no lung and consequently no air beneath it; that “in the normal state, the impulse of the heart is felt opposite the cartilage of the the fifth rib, in a space about an inch square;” that “by placing the ear near the heart of a healthy individual, we find that each pulsation is composed of two distinct sounds, which are followed by an interval of repose;” that “the limit in which these sounds are heard varies according to the dimensions
of the chest and the thickness of its walls;" and lastly, that "besides the increase or diminution in the loudness of the two sounds yielded by the heart, they may be changed in character and tone."

The most common cardiac affections are Pericarditis, lesions of the valves, Hypertrophy, and Dilatation; all of which are more or less readily detected with a knowledge of the physical signs; whereas, without them, a correct diagnosis cannot be obtained.

Dr. G's work concludes with a chapter on the method of acquiring a knowledge of the physical signs, to which I would especially call the attention of the reader. The method recommended will enable any practitioner of observation and industry to render himself familiar with them in a comparatively short time.

We cannot conclude this paper without testifying to the merit of the work of which we have given so imperfect a sketch. We have made no criticisms, because we have had no occasion to do so. The work, although a compilation from printed books, contains many valuable additions, derived from the researches of men still labouring in the cause of science, and who daily add to our fund of knowledge. The opportunities enjoyed in Europe and in this country by Dr. Gerhard, together with his known talents, zeal and industry, entitle his productions to especial distinction. We wish his present work every success, and hope that its favourable reception may prove an incentive to further exertions.

D. Augusta, May 10th, 1836.

Observations on the use of Tartar Emetic in Obstetric Practice.

By Evory Kennedy, M. D. Master of the Lying-in Hospital, Dublin.

The following very interesting memoir we have read with great pleasure. The same pleasure we cannot withhold from those of our friends who may not have seen it. We value it no less for the candid, faithful spirit which it breathes throughout, and the excellent field of observation of which it is the gleaning, than the great importance of the cases to which it is so well calculated to bring consoling and salutary assistance. We designed to make extracts of the most valuable portions
for the benefit of our readers; but on making the attempt, we find it impossible, in justice to the author, and to the cause of truth, to omit any part of it. We are highly gratified to find that so valuable a practitioner as Dr. Kennedy has been so favourably disposed towards American medical literature, as to make this communication directly to the American Journal. We understand, from a note of the Editor of the Journal, that Dr. K. is the author of a valuable work on auscultation. We hope it will not be long before we shall be enabled to enjoy the pleasure we feel warranted to expect from its pages. As we have no room in the present number for the whole essay, and as it may be divided without other injury than withholding a part for our next number, we shall give the first half only in the present.

"If it be the duty of the hospital superintendent to avail himself of the opportunities afforded him of investigating new and interesting plans of treatment, establishing what is correct and rejecting what is erroneous in practice, it is equally his duty to afford the results of his investigation and experience to the public." The following observations assume to be, not merely the result of one or two experiments or accidental cases, but the report of practice adopted and tested by the experience of years in what will be admitted a sufficient field of observation. The plan here followed of selecting a medicine and treating of its efficacy in several different diseases, may appear to some to savour of empiricism. The only motive for this variation from ordinary habit is brevity, a plea that has novelty as well as simplicity to recommend it to my readers.

Tedious labour from Rigidity of the Os Uteri and Vagina.—Some patients continue for many hours in the first stage of labour, with partial dilatation of the os uteri and external parts, in whom there may be no want of what are significantly termed grinding pains, a state more frequently met with in first pregnancies and those who marry late in life. This state is to be carefully distinguished from false labour, which it much resembles, by the partial dilatation of the os uteri, protrusion of the membranes, and presence of glairy discharge. It may continue for some hours, rendering the labour more tedious than it would otherwise have been, the parts eventually becoming relaxed, and the labour terminating favourably; it may continue for many hours, exciting our dread as to the result of the case: or, in its more obstinate forms, it may persist so long as to wear out the mother's strength in unavailing efforts to overcome the difficulty it opposes to delivery, the mother, child, or both, perhaps, falling a sacrifice. The difficulties to encounter here, are premature, too forcible or irregular uterine action, propelling the child against the os uteri before it is sufficiently dilated or dilatable, and absolute rigidity of the parts. It should be constantly borne in mind that the first inconvenience is a very frequent cause of the second. With this view of the subject, then, the two objects to be held in view, are, mitigating too early, violent, or irregular uterine action when this is the case; or delay, and producing relaxation when rigidity is present. Of the efficacy of tartar emetic in producing the first effect, we shall presently treat, when on the subject of violent labour; for the present let us inquire into its utility in the second. In tedious labour, from rigidity of the uterus, the os is found slightly gaping, with a thickened, tense state of the lips, and usually much heat of the parts. Bleeding from the arm, and, on the continent, the use of the warm bath, have been had recourse to in these cases.
Bleeding is attended with marked benefit when there is a full bounding pulse, in a strong plethoric habit; but, as a general practice, it is not unattended with inconveniences, often of a very serious nature. It certainly procures relaxation of the os uteri, but along with this it causes depression of too permanent a nature, and may thus seriously interfere with the future progress of the labour. Tartar emetic solution has been successfully employed in producing relaxation of the os uteri in these cases, and possesses the advantage of being much less permanently debilitating. It is an agent by which the system can be with safety brought into a much greater degree of temporary depression; between which state and relaxation of the contractile tissues, a marked connection holds, if they do not absolutely stand in the relation of cause and effect. The principal recommendation, however, to tartar emetic in these cases is, that in its use, the power of regulating the necessary degree of lowering the system, exists completely in the hands of the practitioner, as he has only to increase, or diminish, or suspend the dose, in order to produce the effect he wishes; and, when the necessary effect is produced, the withdrawal of the medicine leaves the vital energies but little impaired. The medicine has been used in the ordinary nauseating doses, as in pneumonia, 5 or 6 grains of the tartrate of antimony, dissolved in eight ounces of water, and generally 20 drops of laudanum, and a small quantity of syrup added; one, two, or more table-spoonfuls of this mixture are given at intervals of from fifteen minutes to two, three, or four hours, according to the effect it produces, and the necessity that exists for bringing the patient speedily or otherwise under its influence. Sometimes it is necessary to cause free vomiting in the first instance, or the ordinary doses produce no nauseating effect; in such cases the laudanum is better withheld, but may be added afterwards if necessary. In other cases the medicine acts too violently as an emetic, or produces purging; here increasing the quantity of the laudanum, and diminishing the dose, or allowing a longer interval to intervene between the doses, will be necessary. The accoucheur must, therefore, watch carefully the effects of the medicine during its administration in every case in which it is employed; these observations applying with equal force to the forms of disease in which its utility has been proved. Under some of the circumstances described, or where the antimonial in every dose and form disagreed with the patient, small and frequently repeated doses of hippo [ipecac.] have been substituted (three to five grains every hour or second hour,) and with good effect, not only in rigidity of the uterus, but in the other diseases in which tartar emetic was found efficacious. It should be mentioned, that neither tartar emetic nor venesection have been relied upon singly in some cases where it has been necessary to produce speedy dilatation of the os uteri, and where the plethoric state of the system described was present. In such, after depletion, the patient was kept for some hours under the influence of the nauseating mixture. One case, in particular, of a most threatening nature, may be mentioned, in which a strong, robust woman was brought into the hospital with the arm forced into the vagina, through a tense, rigid, and slightly dilated os uteri. She was so treated, and with the best results. There is a somewhat different state of the os uteri, in which it occasionally dilates very tardily also; here the lip of the uterus is thin and stretched over the head of the child, not affording the sensation of heat or rigidity of fibre observed in the case above described. The extract of belladonna appeared of service in a few of these cases, although its general efficacy appeared very questionable. In two cases of rigid os uteri, in which it was freely used, its application was followed by head symptoms and depression of pulse; in one of which even insensibility and stertor were present. It was, however, tried in many other cases, without being followed by these unpleasant effects. The last described state of the os uteri is also occasionally benefitted by the nauseating medicine. It may depend, however, upon other causes, not under our present consideration, nor is it looked upon with the same anxiety by the accouc-
our as a cause of tedious labour.* In concluding this branch of our subject, let it not be inferred from what has preceded, that tartar emetic will invariably succeed in procuring dilatation of the os uteri; as it is in some cases found quite unavailing, in others inadmissible. Its efficacy, however, in a great many cases in which it has been used, fully warrants its attracting the attention of the obstetrician, and its success will depend much on a proper selection being made of the cases in which it is available.

Irritable or Violent Labour.—By no means an unfrequent cause of tedious labour is extreme irritability or violence. On the part of the mother, a state most frequently met with in first children, and in the lower ranks, but not confined to these. The patient, from the very commencement of her labour, becomes violent and irritable, keeps constantly changing her posture, and, if in bed, tossing about; is generally very violent and vociferous, and, when the pain is present, becomes absolutely uncontrollable. By this means she loses the effect of her uterine efforts—she don't wait for these to bear down, but keeps up a continued and unavailing straining at expulsion in their absence, and, when they are present, she becomes violently restless, and forcibly and suddenly inspires, in place of fixing her respiratory muscles to assist in expulsive efforts which would now prove availing. This state may continue for many hours, or even for days, with more or less complete dilatation of the os uteri, and with little or no advance of the child through the pelvis; the patient at length becomes fatigued. The irritation and restlessness continue, but the uterine efforts cease, and exhaustion setting in, we are obliged to have recourse to instruments to effect the delivery. In some, the os uteri is not even fully dilated at the period when force delivery becomes necessary, and the crotchet is then the only instrument available. In protracted violent labour, however, the child is dead in the great proportion before delivery, from the delay and violence of the parent. In these patients, where the pulse is full and the habit plethoric, venesection is often of service. The advantages that the use of tartar emetic offered in the cases already treated of, recommend it even more strongly to our notice in this. Long continued observation of its utility in cases of this kind, and the having found it

*In this species of rigidity, we have always succeeded in effecting the desired dilatation by the fingers; and more speedily than might generally be expected by the relaxing power of the antimonial, or of the Dilating Pomade (Belladonna Ointment.) Only three days since, we were called to a case of protracted labour, in which the woman had suffered the most severe pains which ordinarily attend the first stage of labour, more than 30 hours. The labour was every way regular, for the first stage, except that no dilatation whatever had been produced. From the exhausting power of continued severe labour, her strength was much impaired, and the pains had become comparatively weak. On examination, the parietes of the uterus were so attenuated that the midwife doubtless had mistaken them for the membranes covering the head. But on reaching back to the hollow of the sacrum, the os uteri was found thin, but so closed that the point of one finger could not be made to touch the membranes through it for many minutes. So strong was the contraction, that after the finger was passed into it, it caused not a little pain by its tension around the first joint of the finger. Soon, however, the end of another finger was passed—then a third; and without other means the dilatation was effected, and the woman conducted through the third stage of labour, and placed comfortably in bed, within two hours from our arrival.—[Ed.
procure the double effect of dilating the os uteri and softs parts, and suspending the irritability and violence which so much interfered with the natural progress of the labour, have convinced me, that by its full administration, in the cases described, we may often enable a woman to be speedily and safely delivered by her own efforts, who, without it, would have suffered from a tedious and dangerous labour, eventually, perhaps, requiring the use of instruments. To produce any good effect, it must be freely administered, the patient brought completely under its influence, and retained so whilst any tendency to irritability or violence remains; nor does it appear to suspend the labour altogether, as might be supposed; it merely mitigates or regulates the violence of the pains, and under its use the labour progresses, and the head advances into the pelvis. It should not, however, be persisted in so long as to reduce the powers of the patient too much; it should be discontinued when we have attained our object, quieting the patient.

These observations will also hold as to its utility and application in the cases alluded to at the commencement of this paper, where the os uteri remains undilated from the occurrence of premature, forcible or irregular uterine and abdominal efforts.

Puerperal Convulsions.—The efficacy of tartar emetic in puerperal convulsions, is quite as marked as in the preceding cases. It should, however, be understood, that it has not been used to the total preclusion of bleeding, which must always prove our sheet anchor in this violent disease. It renders unnecessary the repeated bleedings we have hitherto been obliged to have recourse to, as the only effectual means of checking or preventing the repetition of the fits. After one copious bleeding, the tartar emetic is to be freely administered, as already explained, and the patient kept well under its influence. The return of the fits will by this means, in the great majority of cases, be prevented; and even in the most obstinate cases, they will be lessened in their severity and frequency. Its administration must not be desisted from until the patient is delivered, unless it produces too great prostration, even in diminished doses; neither is its use to preclude a repetition of the venesection, if symptoms should be sufficiently urgent to require this; nor the use of such other local or ordinary means of treatment as are generally had recourse to. There is a form of puerperal convulsions, in which neither this nauseating plan of treatment nor free depletion afford the benefit generally derived from them; on the contrary, the disease appears to be aggravated by these. A remarkable case of this kind occurred some months since in the Hospital, in which, after the patient, undergoing the ordeal of depletion, the nauseating mixture, as well as purgatives, shaving and cold applications to the head, sinapisms to the feet, blistering, and so forth, the disease was becoming more and more violent under their use, when she was put freely and rapidly under the influence of opium, and with almost magical effect. It would, however, be wandering from the original plan of this paper, to go further into the subjects treated of, than in connexion with the use of tartar emetic in them; we shall, therefore, only add, that this medicine is admissible and eminently useful in all cases of puerperal convulsions, in which depletion proves serviceable.
[Extract from the Medico-Chirurgical Review, No. 62, page 448.]

On "Creosote."

As this powerful stranger, which has lately made its way into therapeutics, is occasioning considerable curiosity, we shall here introduce an account of its properties, mode of preparation, and medicinal agency, from a recent edition of Dr. Gully's "Formulary of New Medicines," published by Churchill.

"The name of this remedy is derived from the Greek, γρεώσα, flesh, and σκόλος, to preserve. It was discovered last year by M. Reichenbach de Blansko, in pyroligenous acid, in the first instance, and subsequently in the different kinds of tar.

In the process which led to the discovery of creosote, M. Reichenbach found that his fingers were deprived of their epidermis, and he conjectured, from this vehement action on organic matter, that this substance might be the mummifying principle of pyroligenous acid, and might also serve an important therapeutical purpose in the living body. This explanation has since been realized.

Physical Properties of Creosote.

Creosote is an oily, colourless, transparent liquid, of a penetrating odour, resembling that of smoke, or smoked meat, and of a burning and exceedingly caustic taste. It has a specific gravity of 1.037.

Chemical Properties.

It boils at 203° Centigrade, and is not congealed by a cold of—27° C. It burns with a strong fuliginous flame. With water at 20°, it forms two combinations, one a solution of one part in 50, and the other of 10 parts in 100. This aqueous solution does not change turnsol, nor is it neutralized by acids or alkalis. Nitric acid causes red vapours. A small portion of concentrated sulphuric acid turns it red, but a larger quantity blackens it, the acid itself being also decomposed. Acetic acid seems to be its specific solvent, for it holds any quantity of it. All the acids, even the carbonic, separate creosote from its combinations with potass and soda, without otherwise affecting it. It dissolves a great number of salts; some with and some without heat. Alcohol, ether, carburetted sulphur, and acetic ether, combine with it in any proportion. It decomposes or dissolves resins, resinous colouring matters, and other similar substances.

Shaken with white of egg, coagulation immediately takes place. Fresh meat, soaked for an hour in a solution of creosote, and then dried, may be exposed to the sun, without fear of putrefaction; in a week it becomes hard, has the smell of smoked meat, and becomes reddish brown. Fish may be preserved in the same manner. Birds poisoned with creosote, remain nearly two months without emitting any putrid odour.

These effects on animal matter closely resemble those of pyroligenous acid and tar-water, and demonstrate almost to a certainty that creosote is the preservative principle of those fluids. This, however, has been further shown by the extraction of creosote from both of them. I shall confine myself to the preparation of creosote from tar, as it is procured more abundantly, and by an easier process, from that substance.

Preparation of Creosote.

In the dry distillation of tar from wood, the fluid collected in the receivers contains an empyreumatic acid water, which is rejected, and oil of tar,
which is placed in glass retorts and rectified. In these two distillations the oil of tar is at first light, but as the heat is increased, its gravity augments. At one period of the process the oil sinks to the bottom, and a fluid which is poor in creosote, and consists mostly of eupione, and other substances that interfere with the purity of the creosote, floats above it: this is poured off, and the pale yellow tar-oil is heated. Carbonate of potass is added, until the carbonic acid is no longer disengaged on shaking; the mixture is decanted in order to separate the acetate of potass, and the oil is again distilled in a glass retort, and all the first products that float on the water are rejected. The oil is then dissolved in a solution of caustic potass of the specific gravity 1.12; heat is thereby developed, and a portion of the materials composed of eupione, &c. not being dissolved, floats on the surface, and is removed. The alkaline solution is poured into an open capsule, and regularly heated to boiling. It rapidly absorbs the oxygen of the atmosphere, whereby a peculiar oxidizable principle in it is decomposed, and the mixture then turns brown. After cooling in the open air, diluted sulphuric acid is added until the oil is set at liberty. It is then distilled with water, holding a little caustic potass, and the whole is kept boiling until the quantity of oil which passes from the retort becomes diminished; at this point the distillation should cease. The oil and water in the receiver are again distilled with potass, and the same treatment with sulphuric acid repeated, as in the former instance. A third distillation is then made, and a little phosphoric instead of sulphuric acid is added, in order to take up some ammonia retained in the oil.

The oil is then for the third time dissolved in caustic potass, and if the preceding processes have been carefully managed, they combine, without leaving any residue of eupione, and the mixture, on exposure to the air, does not turn brown, but takes on a slightly reddish tint. As long, however, as any eupione remains, and the mixture turns brown, the solution in potass should be repeated. In this state, the creosote is not entirely pure, but it may be used for medicinal purposes.

It may be obtained perfectly pure by distilling it with water alone, then rectifying the product of the distillation repeatedly, until no water passes over when the heat is raised to 203° C. The last product is creosote unalloyed by eupione, picamare, water, or other matters.

M. Reichenbach endeavoured to simplify this tedious process; but he found that the product was always unfit for internal use, while its action on the surface was much impaired. So procured, its emetic effects were most violent; a single drop applied to the tongue, caused, in the space of a minute, excessive nausea, with tremors, succeeded by vomiting and great prostration of the powers. These effects he attributes to the presence of eupione, and he therefore recommends the process above described to be followed on all occasions.

**Physiological Action of Creosote.**

Applied on the tongue in a concentrated form, creosote causes violent pain, though no redness or tumefaction is present: a strong taste of smoke extends to the throat. Poured on the skin, it produces a burning sensation, with rubefaction and erosion.

Flies, spiders, and small fishes die in the course of two minutes, when immersed in a solution of twelve drops of creosote, in two ounces of water.

Two drachms, given in half an ounce of water to a puppy dog, induced the following symptoms: complete prostration of muscular power, drooping of the head, fixation of the eyes, vertigo, apparent stupefaction of all the senses; the respiration, from being laboured, was at the end of three minutes almost entirely stopped by an abundant secretion of viscid, filamentous mucus; to which was added vomiting of whitish milky fluid, with spasmodic contraction of the abdominal muscles. These symptoms got gradually
worse for two hours, the respiration becoming more laborious, and at longer intervals, the limbs being seized with tremors, then with convulsive contractions, and the whole ending in death.

On opening the body of the animal, all the tissues of the body, except the liver, exhaled a strong odour of creosote. The mucous digestive membrane gave signs of inflammation throughout its whole extent; the matters contained in the stomach coagulated white of egg, and heated, gave out the powerful tar-smell of creosote. In the heart and the immediate great vessels, the blood appeared to be much more firmly coagulated than usual.—The lungs were gorged over the greater part of the extent with reddish-brown blood; the more ruddy parts of them floated in water readily: the darker portions scarcely swam at all. No sign of congestion about the brain appeared.

On injecting equal parts of creosote and water into the carotid artery of a dog, the same symptoms were produced, but death ensued more speedily.

If concentrated or diluted creosote be added to blood, the latter thickens and becomes reddish brown, with small spots of white, probable coagulated albumen: on further exposure to the air, the blood passes to a yellowish-red colour.

The signs of poisoning with creosote, therefore, are the redness of the gastro-intestinal mucous membrane, the peculiar thickness and colour of the blood, the property possessed by the matters in the stomach of coagulating albumen, and more especially the peculiar odour exhaled by all the tissues of the body.

Plants watered with a solution of creosote, fade and die in the course of a few days.

Medicinal Employment.

M. Reichenbach's first essays of his newly-discovered remedy were made on slight burns, infantile excoriations, and wounds. Subsequently he was induced to try it in extensive burns by hot iron and boiling fluids: in itch and various kinds of tæters: in gangrene consequent on extensive compound fracture of the leg: in caries of the phalanges of the fingers and toes: in tooth-ache, though it fails to put a stop to the caries of the tooth: in open, fungous whitlow: in scrofulous ulcers of the throat, leg, and joints of the fingers: in ulcerated white-swelling of the knee of two years' standing: in chancres and other syphilitic ulcers: in wounds from cutting and piercing instruments, caustic alkalis, &c., in which cases the wounds did not cure by suppuration, but by actual desiccation caused by the creosote. In all these instances he has found the remedy most effectual and astonishingly rapid in its operation. Thus in a case of old-standing and scrofulous ulceration of the throat, with purulent discharge from the ears, the ointment of creosote to the former, and the injection of creosote water into the latter, put an end to both in the course of three weeks.

Internally, M. Reichenbach has given it in several cases of hemoptysis; in two of these, the sanguineous expectoration had continued for upwards of a week, when the administration of four drops of creosote, on sugar, daily for four days, arrested the flow of blood.

Turning to the practice of the French physicians, we find that creosote has been successfully employed in burns by Berthelot and Goupil, who observe, that in treating these with creosote, the tendency to cicatrize from the circumference to the centre, and the consequent contractions and irregularities, are avoided; in various dry and moist tæters by Goupil, Coster, Berthelot, Martin-Solon, Duchesne-Duparc and Dauvergne; in chancres and old veneræal ulcers, by Kiœnckel, Lesserë, and others; in sanguine ulceration of the cervix uteri, by Colombat; in a cancerous ulcer of the nose, by Breschet; in chronic inflammation with suppuration of the edges of the eyelids, by Coster; in cancer of the womb, by Hyppolyte Cloquet and Tea-
lier; in varicose, ill-conditioned ulcers of the leg, by Goupil, &c. Chilblains are also considerably benefited by friction, with creosote ointment or water. M. Regnart, of Paris, among many other patients, had the good fortune to relieve the gifted Broussais from an excruciating tooth-ache, by the free application of concentrated creosote to the carious tooth; we cannot wonder that the worthy professor should be an advocate of the doctrine of irritation.

As this application of creosote may be of more extensive and familiar use than many others, it may be well to inquire how it acts as a sedative in this instance. When the teeth are painful it is almost always because the nervous pulp near the root is exposed to the contact of the air. If in this circumstance a few drops of undiluted creosote are applied, a fierce increase of pain is the first effect, then a total cessation of it: in this, either the nervous pulp is destroyed as by some caustic, or the creosote, by coagulating the albumen of the fluids that are always flowing from the caries, forms an albuminous layer that defends the pulp from the air; or, lastly, it acts as a powerful stimulant, causing the inflamed vessels of the pulp to contract and expel the load of blood by which they are oppressed. In any case the pain is apt to return, and this fact is only explicable by one of the two latter suppositions; for so long as the irritating cause, carious bone, remains, so long are the vessels of the pulp liable to relapse into their former congestion.

Creosote has been employed by the French physicians in pulmonary phthisis, but from all that I have read on the subject, the alleged successful cases are strained, and should not be recorded as such. It has not been more successfully used in several cases of chronic bronchitis by inhalation.

British practitioners have not as yet essayed the effects of creosote, and indeed this is too often the case with regard to new remedies. My friend, Dr. Copland, however, is an exception to this rule; he tells me he has employed it in cachectic affections as a tonic, and also in dropical cases, where it has proved diuretic. In two cases of diabetes, he considers that he was not allowed to make a fair trial of it. The dose he gives is generally from one to eight minims three or four times a day, combined with powdered liquorice root, into pills. In purigo favosa, he has used a lotion of saturated solution of creosote with good effect.

My own experience of the effects of creosote is as yet confined to cases of scrofulous ulcers of the leg, tooth-ache, lumbago, and aphthæ. In the first case, of ulcers, I premised a seton in the arm, and the rapid desiccation of the ulcers caused by the creosote had no ill consequence on the brain or any other viscus. In tooth-ache I have verified the reports above alluded to. In the case of rheumatism I found the remedy at first produce distressing nausea, but the warm and copious sweat that ensued soon compensated for that symptom, and effectually removed the rheumatic pain; copious diuresis was also one of its effects.

In a case of extensive aphthous ulceration of the mouth occurring in an adult, I employed the following wash with the greatest advantage; the sloughs came away after the second time of washing, and the depressions in the mucous membrane filled up with astonishing rapidity; several of the ulcerated surfaces were as large as half of a sixpence:

Creosote, 1-2 a drachm; Gum Arabic Mucilage, 1 1-2 ounce; Camphor Mixture, 10 1-2 ounces. Mix. To wash the mouth every two hours.

*Mode of administering Creosote.*

M. Reichenbach says, that his observations demonstrate that in the cure of certain ulcers, terrors and wounds, creosote water was sufficient. But it should be remembered that water does not dissolve more than about 1-50th of creosote—a proportion that will be found insufficient in the generality of obstinate cases of ulceration. In such instances the employment of pure creosote becomes necessary.
The application of concentrated creosote to ulcers, causes, in the first instance, more or less of inflammation, which, however, quickly subsides; as soon as this inflammation appears, the remedy should be discontinued for a few days, and the wounds allowed to remain quiet. The application is then renewed with similar consequences; and this is repeated until the bad condition of the ulcer is changed, that is, until the greenish pus becomes white, the blue or white flesh becomes red, and firm granulations fill up the solution of continuity. Creosote should therefore be employed more freely at the commencement than at the close of the treatment of these cases. When the ulcer has taken on the appearance above described, it will suffice to dress it with the creosote ointment, or water, or even desist altogether from its use, and introduce other desiccating remedies.

The best mode of applying it, is by means of a camel-hair brush to paint the surface of the sore; or from five to a dozen drops may be placed on the surface of a poultice, and this applied over the diseased point.

When used to stop external hæmorrhages, it may be poured by drops into the wound; but in these cases it seems to act with more certainty if imbibed by cotton or lint, and thus applied.

To form a lotion for the employment of frictions, from two to eight drops are added to each ounce of distilled water. Creosote ointment is made of ten drops of that substance and one ounce of lard: it may be used either to dress ulcers or to rub into the sound substance.

The internal administration is either in draught or pill; the former being composed of one or two drops of creosote dissolved in camphor mixture; the latter of the same quantity and some absorbent powder with mucilage. This dose may be repeated three or four times a day, and may gradually be increased to eight drops.

The inhalation of creosote is effected, first, by steeping paper in it and placing this in approximation with the nostrils; next, by heating the creosote in the immediate neighbourhood of the patient, so that he cannot fail to inhale the fumes; or, lastly, a portion of it may be poured into hot water in a Mudge's inhaler, and the creosoted vapour inspired in the usual manner.

It should not be continued internally for too long a period, for it is apt to produce irritation of the system and pains of the stomach and intestines. Demulcents should accompany its employment, and should occasionally replace it.

From all that I have advanced concerning the therapeutical properties of creosote, the following general conclusions may be made.

1. That creosote is beneficial in the different stages of burns.
2. It cures the majority of herpetic, furfuraceous, squamous, and crustaceous skin diseases.
3. It cicatrizes obstinate syphilitic ulcers, prevents or diminishes suppuration, and destroys the fungous growth without injuring the surrounding tissues. It also corrects the condition of cancerous ulceration.
4. In phthisis and bronchitis, though it fails to cure either, it facilitates greatly the expectoration.
5. Chronic lymphatic tumours are frequently dispersed by frictions or fomentations of creosote.
6. It is almost always successful in allaying the pain of carious teeth, but does not prevent its return or the progress of the caries.
7. It arrests capillary hæmorrhage with remarkable certainty, but fails in that from the large vessels.
8. It is an effectual remedy in atonic rheumatism, and may be tried with chance of success in cachectic disorders.
Cause of Sleep.

[From the Medico-Chirurgical Review, Oct. 1835.]

The Cause of Sleep.

Many of our readers are aware that a sharp controversy has existed, for some time past, between Messrs. Macnish and Carmichael, respecting the cause of sleep. The following extract embodies the chief points of Mr. Carmichael’s doctrine.

“The absorbents and seccering vessels never remit their offices—those carrying off the old particles from every part of the frame, and these depositing new ones in their place; the absorbents being most busy with the muscular fibres, which are most exercised by labour, or the nervous fibres most exercised by the operations of sensation, volition, and thought. Yet these fibres, so exercised, are always the strongest and most powerful of their kind in the frame: the seccering vessels must therefore be equally busy in restoring new particles in the place of the old, or during certain intervals, rather more busy, because more are restored than are taken away, as is proved by the increase of size, proportioned to the occasional or habitual exercise of the parts. Yet it is evident that it is not during the moments of exercise that the great mass of new matter is deposited, otherwise the muscular and nervous fibres in question would go on thickening and strengthening, the longer the exercise of labour and thought was continued; and this, we know, is contrary to fact;—fatigue ensues, and rest is necessary, and during that rest it is probable that the seccering vessels, though always depositing new particles, deposit much more, or the absorbents remove much less, than at other times. By rest, I mean a mere cessation from labour; and such rest is not sleep. The large mass of new particles deposited on the muscles cannot affect their tough and insensible fibres by any striking phenomenon; but when such a mass is deposited on the delicate, tender, and sensible structure of the brain and nerves, how different must be the effect. If small in quantity, and while these organs are in a state of active energy, it may be hurried unobserved into the existing activity of the living matter; but if large in quantity, and while these organs are resting from their labours, can it be that the extraneous and unassimilated mass does not press its increasing weight on their fragile machinery, and produce an effect something like the pressure of the over-swollen blood-vessels, but natural, necessary, and healthful—the Paralysis, not of apoplexy, but of sleep!

While the incumbent mass thus paralyses the encephalon, the body is powerless; there is no voluntary motion, no perception, no thought, no dream. But when the assimilation is complete in any one of the organs of the mind, then thoughts arise; but there is no perception until the assimilation is also complete in one or more of the organs of the senses; until then the simple current of our thoughts constitutes an ordinary dream.

If the nerves of motion continue invested in a newly deposited mass of nervous matter, while the mind anxiously desires and essays in vain to move the limbs—this is nightmare. If these nerves are extricated from their trammels, and those desires and efforts of the mind still continue—if they command and the nerves obey—this is somnambulism. But these dreams, whether ordinary and natural, or attended with the horrors of nightmare or the perils of somnambulism, vanish as our senses admit the impressions of the external world. We are then awake; but while thus awake, if the nerves of motion are still asleep—if their trammels still continue upon them—this is the daymare, so feelingly described by Mr. Macnish. If through any idiosyncrasy the process of assimilation were never sufficiently considerable to paralyse, by the mass of new particles, the brain and nerves of sense, the individual would exist as one that never slept, even
though his nervous system should obtain, in some degree, those blessings which are the peculiar concomitants of sleep, a sufficiency of nourishment and a renovation of vigour. If, through an opposite idiosyncrasy, the deposit of new-particles should be so superabundant and incessant as to continue the paralysis beyond the usual and natural period of slumber, this state would present the rare and hitherto mysterious phenomena of protracted sleep, sometimes terminating even in death, as in the case of Elizabeth Perkins, detailed by Mr. Macnish. These two opposite idiosyncrasies seem to arise from opposite diseases of the secreting vessels of the head, one promoting to excess, and the other in an equal degree preventing, the effusion of the due quantity of nervous matter requisite for the healthy and vigorous state of the nervous system.

If it should be asked, How can the same cause operate in different ways? If, in the assimilating process at one time cause sleep, and another not cause it? How can it, though unremitting in activity, at one time paralyze the brain and nerves, and at another rather enliven and invigorate them?—These questions are difficult, and the more difficult because, in the material world, we can find no object wherewith to compare and illustrate the phenomena of mind. The element of fire must suffice on the present occasion, where no better ligament of analogy between things so different can be had:—

Nutritur ventis, ventis extinguitur ignis;
Levis alit flammas, grandior, aura necat.

If a fire burns clearly, brightly, and fiercely, still it requires a constant supply of fuel to keep up its intensity, and replace the solid particles expended in combustion. A small quantity frequently added, so far from paralyzing, increases the activity of the fire; but when that activity is exhausted, when the very energy of the flames, like the exertion of a powerful mind, has wasted away the substance on which it fed and these flames sink enfeebled and the fire is diminished and dull, if you heap over it a heavy mass of fuel, the flames are smothered, the activity ceases, the element sleeps. Hours are required to extend the vivifying influence to the new matter; at length the increasing warmth pervades the whole mass, the assimilation is complete, and the smallest incitement stirs up again all the energies of the furnace. If too little aliment be supplied to the glowing mass, it will burn out like an over worked brain in similar circumstances; while too great a weight of fuel cast on the exhausted hearth overwhemls the expiring embers, and the result is the slumber of death, not of sleep."

The hypothesis (for we believe it may be considered only as a hypothesis) of Mr. Carmichael is ingenious—perhaps it may be true. The laws of alternate sleep and activity, like all the laws imposed on us by the Creator, are, no doubt, the wisest and the best that could be devised. We can trace the operations of many of them—but very few of them can we explain. It strikes us that there are some difficulties in the way of Mr. Carmichael’s explanation of the causes of sleep. If this image of death be occasioned by the deposition of large masses of new matter on the delicate organization of the brain and nerves, inducing the "paralysis of sleep, it is curious how the bite of a flea or a bug will often disperse all these depositions, and start us into wakefulness! It is also curious that all animals become more or less sleepy, during the very first process of digestion, in the stomach and long before assimilation, much less deposition of assimilated matters, can possibly commence. The dog, the hog, and the glutton fall fast asleep as soon as the stomach is crammed to satiety. They are most awake and active after digestion, and when assimilation, secretion, &c. are in full play.

* The Phrenological Journal, June 1, 1835.
Then, again, extreme cold and hunger induce an almost irresistible propensity to sleep. Does this arise from depositions of matters on the brain and nerves, for the renewal of their parts and powers?

It appears to us that every thing is periodical or alternate in this world, and nothing constant in action, even for a short time. "The muscles cannot always be in a state of contraction. The brain cannot always be thinking. But the organ of the mind cannot cease to think, except through the mysterious agency of sleep—and, therefore, sleep was ordained. How it is induced we know not. Opium will often lull to repose by diminishing sensibility; but still we are totally ignorant how the sleep is produced in consequence. We must, therefore—

"Wait the great teacher Death, and God adore."

[From the American Journal, Feb. 1836.]

Physiological and Chemical Researches on the Blood of the Vena Porta.

The first No. of the forty-fourth volume of Rust's Magasin contains an account of some highly interesting researches by Professor Schultz, respecting the chemical and physiological differences between the blood of the vena portla, and that of the arteries and other veins. The following is a succinct summary of the results, as given in the Gazette Med. de Paris, (15th August, 1835.)

1st. The blood of the vena portla is in general blacker than other venous blood, although this difference is not always manifest to the sight; it is not reddened by the neutral salts, or exposure to the atmosphere, or by the action of oxygen.

2nd. The blood of the vena porta does not generally coagulate, but when it does, the coagula are less firm than those of the other arteries. In those cases in which it has coagulated, it liquefies entirely or partly at the end of from twelve to twenty-four hours, and produces, as well as that which does not coagulate, a black sediment, upon which is formed clear serum.

3d. The blood of the vena porta contains on an average, when fresh, 5.23 per cent., and when dry, 0.74 per cent. less fibrine than the blood of the arteries and the other veins.

4th. The liquid blood of the vena porta contains generally a little less solid matter (0.18 to 0.3 per cent.) than the arterial blood and the other venous blood.

5th. Its serum contains generally 1.58 less solid matter than the arterial serum, and 0.80 less than that of other venous blood. In the dry state, the first is of an ash-gray, the second yellow, the third greenish-yellow.

6th. The blood of the vena porta contains proportionably more euphor and less albumen; the contrary is the case in the arterial blood: the dry euphor of the vena porta is brownish gray, that of the other veins deep red, that of the arteries bright red.

7th. The blood of the vena porta contains in its solid parts almost twice as much fat as that of the arteries and the other veins. The proportion is as follows:—

<table>
<thead>
<tr>
<th>Blood of the vena porta</th>
<th>1.66 per cent.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arterial blood</td>
<td>0.92 &quot;</td>
</tr>
<tr>
<td>Venous blood of the other veins</td>
<td>0.83 &quot;</td>
</tr>
</tbody>
</table>
Hydrocele of the Neck.

Ever since its existence was first declared, this disease has been generally unnoticed by practitioners and by teachers. We are pleased with an opportunity of re-publishing the notice of it contained in the last No. of the American Journal, from James O'Beirne, M. D. alike on account of the great importance of its diagnosis and treatment, and of the opportunity afforded of exposing the injurious influences extended to the cause of humanity by the anathema of high authority. Those who are full fledged with the brilliant plumage of fame, or whose vanity causes them to think themselves so, are often wont to proscribe, in the most pointed and dogmatical manner, the opinions and facts of those who have not been so puffed abroad as themselves. Thus it has been with the valuable manuscript memoir of Professor Maunoir, of Geneva, on the disease to which he gave the name of Hydrocele of the neck, and which, though essentially different in its nature, and requiring a very different mode of treatment, has such a resemblance to Bronchocele, or goitre, that it has been constantly confounded with the latter disease, and treated accordingly. This valuable memoir was read to the Royal Institute of France in 1815, and, as we are informed, subsequently transferred to the Academy of Natural Sciences, by which body the late celebrated Baron Percy was selected to report on its merits. It was not, however, until April, 1817, that the Baron presented his report, which proved highly unfavourable to Professor Maunoir's opinions and practice. With the burden of this proscription, Professor M. did not rise to the publication of his memoir for seven whole years; at the end of which time he did for the first time publish it, with the whole of the unfavourable report made thereon, and a most able and satisfactory de-
ence of his peculiar views on the subject. But, (continues O'Beirne) it would appear that, as too often happens, the authority of a great name, aided by bold and specious objections, proved more powerful than either the strongest facts or arguments, as 'proven' by the fact that nothing has been said about it in France or England; and, even Delpech of the former, and Lawrence of the latter, have reported cases of this very disease which they have treated by incision, without making the least allusion to the less dangerous and disfiguring treatment so successfully adopted by Professor M.

Since he was accidentally possessed of the essay "sur l'Hydrocele du cou," O'Beirne has been favoured with three striking examples of the disease, all of which displayed the utter fallacy of Baron Percy's objections, and which he proceeds to give, as follows:

**Diagnosis.**—According to Professor Maunoir, the disease has been often observed without its true nature being known; as may be seen in treatises on tumours, and from one detailed by Heister, and three cases quoted by Bouquet. He declares also, that all the cases of it which he has seen, had been confounded with and treated as goitre, by numerous members of the profession. The disease consists in the formation of serous cysts, commencing very small at some point of the side of the neck, and gradually increasing for several years, to such a size as to occupy the whole of the front and of one side of the neck, and seriously to impede respiration, deglutition and speech.

The tumour so formed conveys to the touch a distinct sense of fluctuation, and contains a fluid of either a limpid, a reddish, or a dark coffee colour, and coagulable by heat. In the great majority of instances, it exists independently of any enlargement of the thyroid gland: and in its fourth case, it was situated behind the angle of the lower jaw, and of course, quite removed from this gland. But he has, in two instances, observed the contrary; and the second of his cases, in which the gland enlarged and indurated formed one-eighth of the whole tumour, is an example of this complication.

**Treatment.**—With respect to the treatment of this disease, the learned Professor's opinions and practice are these: "Although," he says, "there may be great affinity between encysted tumours in the neck, and hydrocele of the tunica vaginalis, yet it appears to me that, in hydrocele of the neck, the cyst is more dense, and more difficult to be excited to adhesive inflammation. Accordingly its treatment should not be directed by analogy, and it is not proper to have recourse to the cure by injection, although it seems, at a first view, to be the best. I wished to try it, and have been obliged to renounce it as a bad plan, and not one free from danger. An injection, which is not very stimulating, will effect nothing, or almost nothing, on a very thick, and in general, an old cyst. If a very active injection be employed, it will cause great pain, and give rise to very alarming spasmodic symptoms. Moreover I have to observe, that sometimes enlargement of the thyroid gland complicates the treatment. In that case, the object is not merely to produce adhesion of the walls of the sac; it will be necessary to employ a mode of cure by which we may succeed at the same time in resolving this gland, when it projects into the tumour, as I have seen in two patients." As to living open the tumour by incisions, as practised by Heister, or extirpation of the whole or of only a part of the cyst, he condemns these operations as being serious, difficult, and calculated to prolong a cure, by producing a large wound, and one of a kind very slow in cicatrizing. In short, the treatment
Hydrocele of the Neck.

which he has been led to adopt and recommend consists in puncturing the tumour, and, after evacuating its contents, passing a seton through it in the direction of its longest diameter. By this plan a fresh accumulation of fluid is prevented, the adhesion of the walls of the cyst, is insured, and the thyroid gland when it happens to be enlarged, is gradually reduced to its natural size.

He relates three cases, all of which are so generally interesting, that I shall here give them in a comparatively abridged form.

Case I.—A washer-woman named Martin, aged 49, still menstruating, with a spherical tumour on the front and left side of the neck, as large as an infant's head, presented the first example of the disease that the Professor had seen, read, or heard of. Originally this tumour had been very small, but increased in quite an insensible manner. It did not force the head to incline to the left, but to the right side, and formed a sort of cushion for her head to rest upon. She had taken burnt sponge, and many other boasted remedies for goitre, but without any benefit. Difficulty of breathing and swallowing came on, and increased in proportion to the growth of the tumour. One day, while washing at the river side, she threw up a very great quantity of blood, fainted, and was supposed for some moments to be dead. The haemoptysis and oppression continuing, and the swelling being felt to contain a fluid, a trochar was passed into the most prominent and fluctuating part of the tumour, and gave exit to a pint and a half of a deep brown liquid, which coagulated by the application of heat. Complete relief ensued. On the following day, the swelling had returned to its former size, but fluctuation was less manifest, for infiltration had taken place between the tumour and the skin.

At the end of fifteen days this infiltration had disappeared, and the cyst was punctured by a trochar, and after being emptied, filled with warm red wine and a small portion of alcohol. This injection, although retained but for a few moments, caused great pain and suffering. Swelling, redness, trismus, and increasing pain, on the following day: leeches, poultices, apertient medicines, and opium, ordered. An abscess, external to the cyst, opened and treated in the ordinary way, until it healed. A third puncture made in the upper part of the cyst by a sharp-pointed bistoury, and giving exit to as considerable a quantity of fluid as at the second. A button-pointed probe was then introduced into the opening, and passed until it became prominent at the most inferior part of the tumour; the point of the probe then cut upon, and the instrument withdrawn, leaving in its place a single thread. This thread frequently renewed: no accumulation of fluid. A seton of ravelled linen passed, and caused abundant suppuration. This seton continued for six weeks, and then removed by the patient, on account of interfering with her ordinary occupations. Both openings fistulous for some months; the upper first closed; and in the year 1813, when she was 63 years of age, her neck was very slender, and her health robust.

Case II.—Monsieur C., of Vevay, aged 40, had for many years a tumour situated on the front and right side of the neck. This tumour extended from the chin and lower jaw to the sternum and clavicle; and in the greater part of its extent, there was a manifest sense of fluctuation, but points corresponding to the thyroid gland appeared to be hard and prominent. The swelling increased daily, became fatiguing from its weight, and ultimately caused difficulty of respiration and speech, and occasionally attacks in which he seemed to be on the point of expiring. A puncture made into the upper and left portion of the tumour, and a pint of limpid, amber-coloured, and perfectly inodorous fluid evacuated. This evacuation reduced the tumour to one-eighth of its size, the remaining portion being formed by the thyroid gland in an enlarged and indurated state. A blunt probe now introduced into the opening in the sac, and carried down to the inferior and anterior portions of the tumour; the point of the probe cut upon, and a single thread passed, in the usual way, as a seton. Great freedom of respi-
Hydrocele of the Neck.

rational and in moving the head, instantly followed the complete evacuation of the tumour. Next day, a fresh accumulation of fluid, but much less in quantity, and of a fetid, sanious kind; some fever; stomach deranged. Hyppo, followed by infusion of bark, and Spa and Seltzer waters employed, and restored the patient to his ordinary calm state. Pieces of linen gradually increased in size, and smeared with simple digestive ointment, introduced as setons; injections of plain and hydrosulphated water, and decoction of bark, with honey thrown into the sac.

Discharge less in quantity, and more purulent: the extent of the cavity greatly contracted; and the thyroid gland diminished in size. In a few months the patient's health was completely restored, and his neck became of its natural size.

Case III.—Mademoiselle T. D. aged 20, having for many years a large tumour on the front, and a little to the right side of the neck, had been subjected to all the known modes of treating goitre. This tumour was of enormous size, and consisted in a great degree of fluid. The least movement brought on cough, and attacks of suffocation. Her parents and friends refused to permit a seton to be passed, but a puncture with a trochar was made in the most depending part, and a cupful of fluid, resembling infusion of coffee, was drawn off. The canula was then withdrawn, with a view of retaining the rest of the fluid, and enabling a second puncture to be made and a seton to be passed. The tumour was very little diminished; the wound was then covered with adhesive plaster, and a roller applied with moderate firmness. After passing some hours in a very quiet state, she indulged too freely at dinner, and in the evening felt oppressed in her breathing, and the tumour became quite black. It was evident, in fact, that the contents of the sac had passed into the subcutaneous cellular membrane. She passed the night badly, and could scarcely swallow a few drops of an anodyne draught. In the morning great difficulty of respiration, and total incapability of swallowing; the parts surrounding the tumour so swelled that the neck was raised to the level of the chin and lower jaw, with which it seemed to form one continued pillar. The whole of the upper part of the thorax was also infiltrated, and the alteration of the voice and dyspnœa were such as to lead to the belief that the effused fluid had penetrated into the internal cellular tissue of the trachea. In the course of the day, however, all these symptoms gradually diminished in severity, and the swelling was considerably reduced towards evening. She passed a good night, and on the following morning deglutition and respiration were free. On the fourth day from the operation, the original tumour was diminished by one half, the infiltration and black colour of the skin had disappeared, and the patient was in excellent health.

On the 30th of January, 1812, that is, after about six weeks had elapsed, the tumour was as large and as distressing as ever. A hydrocele trochar, with a flat elastic canula, was passed into its most depending part, and two pints of a dark brown fluid, coagulable by heat, were discharged. On emptying the tumour, the thyroid gland was found moderately enlarged. A blunt probe, armed with a single thread, introduced through the canula, made prominent at the upper part of the cyst, and there cut upon until it could be withdrawn, and the thread left as a seton. For some days nervous symptoms appeared. The two little incisions contracted so much, that the thread could not be moved backwards and forwards but with great difficulty, and such as to create a suspicion of its being lodged in the tissues of the walls of the cyst, which it had cut in gliding, and of having thus left the cavity of the tumour. The silk thread withdrawn, at the instance of her parents, and in order that a fresh accumulation might permit a puncture to be made by a bistoury, (instead of the trochar which had been found so ill-suited,) and enable a cotton wick to be passed as a seton. The tumour soon regained its former size, and the oppression returned. The necessity of this operation repeatedly urged, but as often delayed from some frivolous
Hydrocele of the Neck.

The Professor sent for in great haste, on the 16th of April, 1812, and found her with complete loss of sense and motion, slow and stertorous breathing, cold extremities, dilated pupils, and no pulse. No person being at hand to assist in the proposed operation, the tumour was punctured by a hydrocele trochar, and a pint of dark brown fluid discharged. Immediately pulse, respiration, and in short, animation were restored; but permission to pass a seton could not be obtained. On the 7th of May, the size of the tumour required that it should be again punctured. On the 24th of June, she complained of violent pains in the head, great suffering and oppression. Another puncture made in the swelling, and a quantity of fluid mixed, with purulent matter, discharged. 25th, pains returned; astringent applications; increased enlargement of the neck; distress and oppression alarming. Six leeches applied, and the patient well purged, with castor oil, without any relief. 27th, tumour punctured, and a less quantity of fluid, but more mixed with pus, discharged. 21st of July, symptoms severe, and increasing so much in violence, as to require another puncture, which was rendered difficult by the thickness which the infiltrated cellular membrane had acquired, and, consequently, the increased depth at which the cyst was placed. A silk thread, and, subsequently, a large seton inserted; abundant fetid suppurition; gradual contraction of the sac; an abscess formed and opened at the inferior and lateral part of the neck; a fistulous opening for some months at this point, and at length healed by an injection of a weak solution of sulphate of copper. Seton removed; tumour completely dispersed; and recovery perfect in all respects.—Dublin Journal of Medical and Chemical Science.
On Cancer.

PART. III.—MONTHLY PERISCOPE.

Cancer.—Professor Benedict states that during a certain period, the operation for cancer (not including cancer of the lip) was performed at the Clinique thirty-seven times; and that, with the exception of one or two cases treated by arsenic, a radical cure was not obtained in a single case.

Exirpation of the breast was performed three times, and under circumstances apparently very favourable; in all of which the disease returned again. Of ninety-eight amputations of the breast, which he has performed since he undertook the charge of the Clinique, two ended fatally, from exhaustion during the healing of the wound; and in all the rest, with the exception of thirteen, the disease returned after the wound was healed, and terminated in death. With regard to the remaining thirteen, he observes he is morally convinced that, in several cases, an error in diagnosis was committed, and breasts were removed that were merely affected with scrofulous tumours, sarcoma, or some other innocent change of structure.

On this statement, the editor of the Lancet observes: "The above results are worthy of serious attention, and serve, unfortunately, to confirm the opinion advanced by many surgeons, that in most cases cancer is a constitutional, not a local disease." Amer. Jour. Feb. 1836, p. 513.

We give the above extract, not by way of recommending the intelligence it contains, but of staying, if possible, its injurious tendencies. We had thought that it was plain to all surgeons by this time, that there were two grand errors in the practice of surgery in this disease: 1st. A want of early diagnosis. 2d. procrastination of the operation to too late a period—the latter arising sometimes from the former; but most commonly from the patient's objections to the operation, or the surgeon having been called in too advanced a stage of the disease.

Our experience in the treatment of this disease has certainly not been great; but still, small as it may have been, it leaves us in far better hope of benefit from the knife than the above statement would seem to justify. We have not kept a record of cases, but will give the last four. Of these, two cases, as well characterized for the state of their advancement as those which ordinarily bid defiance to the knife, were amputated. The wounds healed kindly by adhesion, without any exhausting discharge or irritation. The women remained well. In the third, the well marked scirrhus was so small and distinct that we could not resist the temptation to extirpate it; a practice so long and so justly condemned by the most judicious. This was done, with the removal of a considerable portion of the adjoining sub-
stance, making in all three to four oz. in weight; and a substance, whose whole diameter was not less than double that of the scirrhus. The wound healed within few days. A few months after, however, the disease returned in the same place with rapidly exasperating symptoms. A distinct scirrhus tumefaction soon presented itself, larger than the whole substance before extirpated; manifesting the extension of its influence towards that part of the breast nearest the axilla. Entire amputation of the whole glandular portion of the breast, with all the adipose substance before the pectoral muscles, was now adopted—the incision extending to the glands and lymphatics between the mammae and the axilla, whereby these were removed. This wound was found well on removing the dressing on the fifth day, and the patient has to this day, (now thirteen years,) had no return of symptoms. The fourth case was one in an old lady, who had been watching its progress for ten or eleven years. Its development, although it had been slow, had now arrived so near the state of ulceration that the nipple and a little of the adjoining part dropped off during the operation. It was, however, amputated very entirely, and the wound dressed for adhesion. A consecutive haemorrhage coming on, caused the wound to be re-opened for staunching the haemorrhage. This delayed the cure to about the thirteenth day, by which time it was so well that she was discharged to go home, about ninety miles. About six or eight months after this operation, I received a letter from the husband of the patient, stating that her health was every way greatly improved—that there had been no threatened return of the disease, but that she had been extremely well, had thriven finely, and that, in short, her health was every way better than it had been in twelve years. Before two years had elapsed, however, this patient's health became impaired, manifesting, as her attendants said, a general cancerous diathesis, of which she died after some months.

This experience, we say, leaves us in better hopes from surgery in these cases. And we are compelled to believe that there has been something, nay, much of the common errors to which we have before alluded, in the practice, the ill success of which has been given us by Professor Benedict.

We are not of those who are willing to allow an English or a Continental surgeon to doom a practice, because he may have been unfortunate in not making early diagnosis, or in not performing his operations with that science and thoroughness he should have done. And more especially are we so, when we know of very many practitioners throughout our Southern country, and freely venture the opinion that there are many hundreds in these United States, whose practice, if faithfully detailed, will prove these points: that the amputation of the cancerous breast, (not the extirpation of the scirrhus tumour,)
will, if performed before a certain advanced and extended stage of the disease, generally, if not always, prove finally curative; and that when advanced to, or near the ulcerated state, especially if its progress has been slow, and after the close of menstruation, the disease will very generally return in the same, or some other part; or a general impairment of health supervene, for which the science affords no hope.

We are aware that there have been, and still are many breast cutters, who occasionally find glorious opportunities of mounting surgical stilts by cutting off and curing as cancerous, a breast which has suffered a contusion by corsets, or a tedious obstruction of the milk tubes.

Some such cases we have had the ill fortune to oppose in consultation, but too often unsuccessfully. These misfortunes are, however, the faults of ignorance or empiricism, and not of science. We have long been of opinion that in several of the important points of surgery, as well as practice, there is in the United States at least a practical superiority over the transatlantic. We know this to be the fact in some places in the South as well as North. And we should be pleased to see the results of Dr. Physic's practice on the point under consideration laid beside the practice at the Clinique.

Morbid Adhesion of the Placenta.—In the American Journal for Feb. 1836, we find a case of morbid adhesion of the placenta, as reported in the London Medical Quarterly Review for July, by Dr. Litchfield.

Mary Farrel, æt. 32, was attended in her first confinement in March, 1835, by Mr. Barry, of Brunswick Square. Labour lingering—pains light, and after long intervals. Sixteen hours after the commencement of labour, the accoucheur administered half a dram of powdered Ergot, and repeated the dose every two hours. At the expiration of twenty-four hours, a dead child was expelled, and the uterus contracted forcibly around the placenta, so as to baffle the frequent attempts of the accoucheur to remove it. Eighteen hours after delivery, Dr. Litchfield saw her in consultation. The uterus was found high up beneath the abdominal parietes, and contracted at its fundus into a hard, irregular tumour. The external parts were swollen and painful, and the os uteri so rigid and unyielding as to resist the persevering efforts of the hand to dilate it. Pulse full, hard, and 95. Tongue furred and feverish: the face flushed, and severe pain in the head.

Depletion, and small, repeated doses of tartarized antimony, with fomentations of flannel to the pudendum, were prescribed. Under this treatment the violence of the symptoms subsided, and
fresh, long continued, but unsuccessful attempts were again made to dilate the os uteri, and deliver the placenta. Being of opinion that it would be impossible in the present state of the parts to reach and overcome the adhesion, and having no fear of immediate haemorrhage, it was resolved to wait, and watch closely both the local and constitutional symptoms, abstaining for the present from farther manual interference.

Thus continued the case, the patient remaining in a very satisfactory state, until the fourth day, when the discharge, which had set in as usual, became very copious, offensive, and of a greenish colour. Chloride of soda was used for the correction of the offensive odour, and the patient went on without unfavourable symptoms till the eighth day, when a portion of the placenta, equal to 1-3 of its usual weight, was thrown off in a putrid state. From this time, small portions continued to be detached at intervals until the twenty-first day, by which time all the placental structure was thrown off.

The progress of the case was unattended with pain or haemorrhage; the patient improved rapidly, during the time, in spirits, strength, and appetite; and at the end of one month from delivery, menstruated in a regular way. Strong ligamentous bands were found in the placental mass.

We consider this case as one of no trivial importance. And whilst we regard it as a faithful relation of facts, we feel it a duty to guard young practitioners, (and we may say some old ones too,) against the danger of adopting a practice already too common, and to the increase of which this case is calculated to contribute—we mean that of leaving placental delivery to nature, from an undue confidence, not only in the efficiency, of unassisted nature, but in the safety to the mother with which the placenta may be allowed to remain and putrify within the uterus.

It should be remembered, that a putrid foetus seldom fails to manifest by various symptoms its deleterious effects on the vital energies of the mother; and that the injurious influence of the putrid placenta is still more manifest and certain.

It should be borne in mind also, that the decision of the consultation in this case, of leaving to nature the final deliverance, was not, by any means a matter of election; but was really the absolute and unavoidable necessity of the case. It was done, and prudently too, because there could be no alternative but what would be fraught with still greater danger. The case truly resulted most happily. To adopt this plan however, in our practice, whilst it might suit the partial theorisings of the expectant practitioner, so well calculated to let patients die, would, we apprehend comport but ill with the duties and obligations of the truly rational, which rank much higher than mere passive expectation. These surely demand not only a knowledge of the structure and functional arrangements of the
animal organization and the vital energies, both physiologically and pathologically considered; but also of the powers of the various resources, whether medical, instrumental, or manual, which are at his command for assisting inefficient nature in the removal of noxious causes, and the correction of their effects. To fold one's arms then, and rest in confidence, that unassisted nature will accomplish every good, would be, in many of these cases, but to leave the patient to die. Whilst, therefore, the practitioner is bound not to administer mortal powers, he is no less bound not to withhold anything which may contribute to the well being of the patient: for there is little difference to the interest and feelings of his employers, whether he kills, or allows death to supervene for want of those administrations, which were at his command. It is not enough for the practitioner to have done what he chanced to think best by his partial reasonings, and speculative views—he is bound to do all that the science of medicine can afford for the welfare of his patient.

Whilst therefore, we acknowledge most candidly our great obligation to Dr. Litchfield, for having reported the case, and express our desire, that all similar cases may be made public, still we would only look on them as messengers of hope from afar, which may serve to cheer us when we are brought to bow under our impotence, and humiliation, and witness the final failure of our physical resources: and as calculated to shed a ray of hope and comfort on her who is otherwise overwhelmed with weakness, misery and despair.

It is stated that during the latter months of pregnancy, the patient suffered fixed pains in the womb, arising, as she supposed, from a blow on the abdomen. It seemed probable to Dr. Litchfield, that under these circumstances, the vessels of the uterus, being stimulated to undue action, had thrown out coagulated lymph, whereby the placental and uterine surfaces had become morbidly united.

We believe Dr. Litchfield accounts correctly for the undue attachment of the placenta: and are able to give a case of very recent occurrence in corroboration, so far as relates to this pathological point.

Last February we had the management of a case of very protracted premature labour. The presentation when made, was abdominal. Turning was of course effected as soon as the hand could be passed, and an eight month child delivered. On finding the placenta not detached, the patient being much fatigued and having no pains after delivery, was allowed to rest about two hours.

Uterine contractions were then promoted by friction with the hand, but no separation was effected. After occasional efforts, for several hours, in the ordinary ways for deliverance, without any encouragement, the hand was passed to the placenta, which
could not then be detached in less than two hours, with all the effort prudence would allow. On inspection when delivered, a considerable portion of the uterine face of the placenta presented an unusually dense, even and whitish appearance, which induced me to believe that adhesive inflammation had existed. This woman had, by a ride on the rail-road to Charleston, or some accident attending the trip, brought on a flooding, which, though very considerable, and causing some days illness, was not followed by abortion. She recovered, and returned home; after which she was occasionally troubled with irritations of the uterus, from depression, which continued to increase until the gravid uterus was placed high in the abdomen, and the patient confined to bed for several days. In one instance, free venesection at the arm was necessary, on account of the inflammation of the uterus from this cause. Indeed the present premature delivery was brought on by a neglected return of the same circumstances.

Do not these facts afford ground to suspect at least, that the circumstance of adherent placenta is generally attributable to inflammatory action some way produced? And should it not serve to direct the attention of the practitioner more particularly to that state so often produced in the posterior region of the uterus by even slight degrees of prolapsus in pregnancy?

Reid's Independent Spring Truss.—This is a truss invented by our townsman, Rev. Henry Reid, and is truly what its name imports—an independent spring truss. It needs neither buckle, button nor strap for its accurate and effectual retention in place. It is retained solely by a spring power, and is alike applicable to Hernia on either or each side, by having a block at one end and a cushion at the other; or a block at both. A block similar to Stagner's is adopted, but altered to suit the peculiarities of cases. The pressure is made by a well tempered spring, which passes from one groin, behind the pelvis and to the opposite side—the metal being left untempered near the block, in order to make, by binding it at pleasure, any little change in its direction which the case may require. The whole metallic part is covered with a strip of flannel, and is so shaped as to lie in contact with the skin, making no sensible pressure but on the hernial openings. We have witnessed its application in a variety of cases, and are pleased with its neatness, simplicity, and efficacy in the power of retention; and we have no reason to doubt but that, whatever curative powers may attach to Stagner's or Chase's blocks, will also be found with this. It has an advantage over all other trusses in this, that as it needs no strap*

* Hull's has no strap, but has not the power of retention.
Dr. Pratt's improved Nipple Shield.—We have recently had the pleasure of witnessing the effectual use of Dr. Pratt's latest improvement of this valuable article; and have been delighted with the ease and efficacy attending its application. Although it would seem a trivial thing, being nothing but a small metallic cup, with the nipple of the heifer attached, still, when we reflect on the great sufferings and injuries we have often witnessed in consequence of the want of just such an article, we cannot but feel the greatest satisfaction in being able to recommend it most freely to the notice of all those whose office it is to prevent and alleviate the sufferings of those for whose benefit it is intended. However simple the instrument may appear on superficial observation, still it is just what it should be. The metallic cup is so constructed as to adhere well, and at the same time, prevent that drawing of the substance of the breast into it, as to obstruct the milk ducts; and the nipple is so finely tanned and prepared as not only to possess all the softness of velvet, or of the best buckskin, but is so well dissected and prepared as to be capable of being inverted for cleansing, and of collapsing so effectually on suction, as to retain its place on the breast without being held by the hand. We give below the report of the Committee of the Medical Society of Augusta, to whom it was referred.

"The committee to whom Dr. Pratt's improved nipple shield was referred, take great pleasure in reporting, that they have been able to demonstrate, in the most satisfactory manner, the very complete adaptation of that instrument to its intended purposes.

Your committee have been so fortunate as to see its application to a breast in which, from great previous inflammation, the milk vessels about the nipple were contracted, and consequently always disposing to serious obstructions. All other means of drawing the breast had been repeatedly used in the case, with no better effects than those of drawing so much of the breast into the opening of the instrument as entirely to obstruct the passage of milk; and affording pain in various degrees. The peculiar shape of the metallic portion of Dr. Pratt's instrument completely prevented both these difficulties; and at the same
time, with all practical force in drawing, prevented the tender nipple from touching the metallic cap within. The valuable quality of remaining adherent without being held on by the hand, or when the suction was discontinued, was also fully demonstrated.

In conclusion, your committee are truly happy in feeling assured that in the instrument invented by Dr. Pratt, the community is presented with the means of both obviating, and removing when present, all that incalculable sum of misery which women have been accustomed to bear for a length of time, in consequence of sore nipples; and even of preserving the lives of many infants, who, in consequence of diseased breasts, and the want of nipples, are turned over to hand-nursing—a prolific source of disease and death; for this instrument supplies the place of the natural nipple most admirably and perfectly."

Mr. Middlemore, in his annual report of the Birmingham Infirmary for diseases of the eye, which we find in the Medico-Chirurgical Review for July, briefly describes his usual plan of operating on children from one to three years old, for complete congenital cataract. He fully dilates the pupil by the use of a strong solution of hyoscamus. The child's body is securely enveloped in a napkin, with the arms fixed to the sides. The child is placed upon a table of convenient height, with the head slightly raised. The head is firmly fixed by an assistant pressing his hands on either side of it. If the right eye, he raises the upper eyelid, and fixes the ball by pressing the index finger upon the temporal, and the middle finger upon the nasal side of it. Thus prepared, he rapidly passes a very fine needle through the cornea, near its junction with the schlerotica, and simply lacerates the capsule by slightly moving its point a little backwards, and to either side.

He directs the needle to be very fine and slender, sharp at the point, a little flattened towards the point, having a cutting edge on either side for a short distance from the point; and gradually becoming round towards the handle.

Mr. M. gives the following very rational description of this mode of operating:

"The advantages of this mode of operating, are neither few nor unimportant.

In the first place, it is quite efficacious, and quite competent to the removal of the disease, or, at least, only requires to be performed a second time; secondly, when properly performed, it involves no risk of injuring any important texture, except the cornea; thirdly, it gives rise to scarcely any pain; and fourthly, it excites hardly an appreciable amount of inflammation."
Carcinoma of the Tongue.

Having always had a great aversion to wounding the cornea, we have never operated through it, either for extracting, or causing absorption. But we have some reason besides Mr. M's experience, to believe in the superior claims of this particular operation. In two or three of our last cases we have been greatly perplexed with the severe and ungovernable inflammation which has superceded on re-cretion by Scarpa's needle in the common way, notwithstanding the re-cretion was easily and effectually done, and the power of very distinct vision proved immediately after the operation. These operations were effected with but very inconsiderable pain. The subjects were all old, but were as carefully prepared for avoiding inflammation as possible. The pupils in these cases were all dilated by the use of Belladonna, the long application of which was necessary to effect the purpose. The inflammation, however, in all of them, ran high: and in one case, particularly, in which the operation appeared to have succeeded very finely, and the patient had been prepared under our own immediate attention, with great care, so extreme was the inflammation for more than a month, that when it did subside, the power of vision was entirely destroyed; nor has it improved in the least,—now ten months since the operation. The pupil is perfectly clear, and the iris retains its natural susceptibilities. Perhaps, too, the Hyoscamus may be a more safe dilating power than the Belladonna.

In the same report, Mr. Middlemore earnestly entreats his brethren to test the effects of Strychnia in Amourosis. With those effects he is amply satisfied, and is a warm advocate of the value of this remedy. Yet he thinks it has been employed in an indiscriminate manner, and he feels convinced that all who employ it with judgment and care, will form the same conclusions of its qualities as he has done.—Medical Chirurgical Review, for July, 1836, p. 254.

Carcinoma of the Tongue, successfully treated with the Ligature.—In the American Intelligence contained in the American Journal for February, we have an account of a case reported by Dr. Donnellan, of Donaldsonville, Louisiana, of a large, ragged, ill-conditioned ulcer of the tongue, which, from its present character and the history of the case, he considered cancerous; cured by the ligature, as recommended and practiced by Sir Edward Home. The ulcer occupied the right anterior part of the tongue to a considerable extent, and was progressing very rapidly. The subject was a very corpulent woman, 25 years of age, and in the 8th month of pregnancy, when he first saw her: at which time there was but a small ulcer on the part, apparently of no importance. On the 23d day after, on being called to the case,
he found that the ulcer had made such fearful progress, that he deemed it proper to operate, and risk its effects on her pregnancy, in preference to allowing the ravages of the disease, even for the short remnant of the gestation period.

A crooked needle armed with a strong ligature was passed through the middle of the tongue behind the ulcer. The ligature was then cut at the needle, and one tightly drawn and tied on each side of the ulcer; thus cutting off the circulation from the diseased portion which constituted a considerable segment of the right side and tip of the organ. The pain on tightening the ligatures was very intense, which was soon relieved by 60 drops of Tr. Opii.

A few hours after the operation, a copious salivation supervened, which continued till the dropping off of the diseased part. Five days after the operation—29th April, deep sloughs were produced by the ligatures. On the 4th May, ten days after the operation, a single ligature was applied in the fissures caused by the old ones, so as to embrace the whole, which dropped off on the 6th—twelve days after the operation. On the 11th May, the vacuity was found fast filling up with granulations, and on the 23d, was perfectly cicatrized—the patient having given birth, some eight or ten days previous, to a fine healthy child. Her articulation was but slightly impaired, and at the last observation she continued in excellent health.

Goitre—cure of by extirpation.—Two cases of this disease have been cured by Professor Graeßle, of Berlin. In the first case given, the tumour was of the size of a goose’s egg, in the middle and anterior part of the neck, which caused extreme difficulty in deglutition and respiration. These symptoms assured the Professor that the tumour adhered closely to the larynx and trachea, which fact he bore in mind during the operation. An incision was made through the skin, commencing a finger’s breadth above the superior margin of the thyroid cartilage, and extending down the median line, to the top of the eternum. The subcutaneous and sterno-mastoid muscles being then drawn to the right and left, exposed the tumour, which presented a shining aspect. The surrounding parts were detached with the finger, and a bistoury, and some arteries were tied. The tumour was now found to adhere closely to the larynx and trachea, without the intervention of any cellular substance. The excision of the tumour was then performed with the greatest caution, by small strokes of the knife; and the portion of it which adhered to the air-tube was, not removed. Only eight arteries were tied during the operation. The wound was filled with lint, to avoid adhesion, that the still adherent part of the tumour might be
discharged by suppuration, which accordingly took place. The lips of the wound were afterwards closed, and placed in accurate apposition, and the cure was complete at the end of six weeks.

In the second case, the tumour was much larger—had afflicted the woman from infancy, and was divided into three distinct lobules. The immense size of this tumour prevented its entire removal at one operation; it was therefore determined to begin with the middle lobe, which was the largest, and appeared to be the nucleus of the morbid growth. The operation was conducted as in the preceding case, except that the tumour being attached to the larynx and pharynx only by loose cellular tissue, there was no necessity for leaving any part of it adherent. The wound was dressed for adhesion, and was cicatrized in six weeks. The lateral lobes, instead of enlarging, as there was reason to fear, diminished considerably, confirming the opinion of M. Graeële that the middle lobe formed the nucleus of the tumour. Perhaps, also, the inflammation consequent on the operation, and the obliteration of the vessels that were tied, contributed to the absorption of the remaining lobules.—American Journal, from Ryan's London Medical and Surgical Journal.

Reduction of Hernia by the Air-Pump.—Every efficient measure in surgery which is calculated to prevent resort to the knife, we hail as an improvement of the first order. With Bell's improvement in the operation for hernia, we are greatly delighted, because, severe, and dangerous as the bistoury sometimes is, we had in it a most comfortable and composing hope, on which we reclined in perfect case. But we rejoice to find in the European Journals several reports since the year 1818 of the successful application of the air-pump, for the reduction of strumulated hernia, which had resisted all the practicable means before known except the operation, and when even this had been determined on in the consultation of surgeons. In such cases the exhausting pump has been applied over the abdominal ring with the effect of speedily and completely restoring the parts to their natural portion.

A series of twenty, folio, Lithographic plates, illustrating the causes of displacement in the various fractures of the bones of the extremities, has been recently published in London, by G. W. Hind, M. R. C. S. Formerly House-surgeon to the Middlesex Hospital, late curator to the Museum of Anatomy in the University of London.

The subject of this very meritorious series of Lithographic plates is, to exhibit, in a plain and striking manner, the causes
of displacement in the various fractures of the bones of the extremities. The work is appropriately dedicated to Sir Charles Bell, whose pupil the author formerly was.—*Med. Chirurg. Rev. Oct.* p. 487.

The source, as well as the purpose, is a good one; and as Lithographs are now well and cheaply executed in the United States, we hope it will not be long before Dr. Doane or some other enterprising American will place this work in the hands of American practitioners and pupils.

**Pulsations of the heart of the Fœtus.**—The Medico-Chirurgical Review for July, 1835, contains some observations on this point in Physiology, by G. O. Fleming, M. D. of the Pancras Infirmary. Dr. F. feels authorized to consider Laennec's and Kirgaraedec's double pulsations as erroneous; because, in the first place, he listened to the foetal heart in Glasgow, and found the number of beats to be 110, and pronounced them not double, but single beats; and each two pulsations were one double beat or pulsation. And in the second place, because he had an opportunity of counting the pulse in an infant just born, but which had not breathed, and it was 70. The moment, however, at which gasping and breathing took place, the pulse became much quicker. It was irregular at first, but soon became 140 in a minute. He concludes, therefore, from these facts, that the foetal pulse is doubled immediately upon the perfect establishment of respiration.

On this subject we are clearly of the opinion that Dr. F. has mistaken the whole matter. We have often observed the fact of the double beat as described by Kirgaraedec, certainly less loud, but not less distinct than the beat of the adult heart. What we mean by double beat, is a pulsation of double the frequency of that of the mother. We have also often observed the foetal pulse in that stage of semi-suspended animation which is presented to our view on the decline of placental circulation, and before the pulmonary route was well established. This we have found of various frequency, and in many instances, none at all, for minutes. These, however, are only the temporary effects of the change the circulation undergoes, and are generally of short duration. For so soon as the new route is well established, that frequency of pulse which is determined by the existing causes of frequency, is also re-established. We have seen a foetus born at the end of the sixth month, in which the pulsation of the heart was not perceived at all until some time after birth, and never became more frequent than 25 to the minute, during the six hours of its life. Can this be considered as determining the frequency of its pulse whilst in utero? Certainly not.
It does appear to us that, setting aside all observation of facts, by auscultation before birth, and feeling, after, no one can contemplate the foetal circulation, and find reason not to know that the causes of frequency exist alike before as after birth, with only this difference of circumstance, that the oxygenation is more direct after than before. The size of the heart is the same, the length of the circulating route shorter, and the delicacy of the fibre and redundancy of irritability very much the same as before. These are, we apprehend, the chief causes which determine the frequency.

_Delirium Tremens._—Dr. Cless, of Wurtemburg, professes to have found Digitalis purpurea to be a specific in Delirium Tremens. Eleven, out of thirteen cases in which he administered it, recovered; the other two relapsed. A table spoonful of a strong infusion was given every two hours.—American Journal.

_Extraordinary case of Childbirth in old age._—In the Boston Medical and Surgical Journal for April, 1836, we have the report (dated, Whitehall, N. Y. 23d. Feb. 1836.) of a case of pregnancy occurring in the person of Ann Cook, aged 64 or 65 years. She had not menstruated for the last fifteen years, and her last child was twenty-six years old. She was delivered of a female infant the week before the 23d. of February, 1836, and both mother and child are now doing well. Her husband is 63 years of age.

_Aloes in Amenorrhœæ._—Dr. Schönlein, late Professor of Medicine at Würsburg, is of opinion that an injection of Aloes, (ten grains in a small quantity of warm water,) thrown up the rectum at the time when the menses ought to make their appearance, is more certain in its effect than any other emmenagogue.—American Journal.