Observations on Ergot. By M. Antony, M. D., Professor of Obstetrics, &c. in the Medical College of Georgia.

It is not a little strange that, in the republic of Medicine, where demonstration is at the head of all evidence and authority, there should exist such a contrariety of opinion on a practical point, as is manifested amongst physicians at the present day, relative to the employment of Ergot. It is nevertheless the fact that both its utility and safety have been, and still are, much controverted, not only amongst practitioners generally, but in some of the public Journals.

By scrutinizing the facts connected with its ordinary use, we shall, however, find many other reasons than the actual demerit of this article, why such difference of opinion should exist.

On commencing an enquiry into this subject, it is but right to premise that when we speak of an article of the materia medica, we mean a good one; and when of its effects, we relate to its judicious administration under proper circumstances and, correct observation of its own effects when produced. No article should therefore be allowed to suffer in character from the inefficiency, or the ill effects of an impure, or adulterated preparation; or the injudicious prescription or improper administration of a good specimen, or the partial or superficial observations of very limited experience. I will name such of those reasons above referred to as have come under my observation.

1. Pharmacy has not done enough for Ergot. This article has, in consequence of the high price at which it was first sold.
and without regard to the selection of that which was good, or the best means of preserving it from the changes to which it is, on exposure in its natural state, so subject, been ushered into commerce, and distributed to apothecaries and physicians in the rude and careless manner in which it came from the granary or the field. In order to shew the proper effects of the article, much acquaintance with it is necessary, and great care should be used in selecting it of a good quality. But without these, the article is commonly ordered by \textit{name}, and used.

2. The various preparations made for administration, such as tincture, powder, chewing the grains and swallowing the saliva, infusion, decoction, \&c. all of which do not alike secure the desired operation. To this paragraph I may add, the great variety of the quantity given, and the plan of administering it at a single dose, instead of repeating to effect, \&c. \&c.

3. Idiosyncrasy. The stomachs of some women will never retain it under any circumstances, and the nervous systems of others alike forbid its use. These cases are rare.

4. Excessive exhaustion of the contractile energies of the uterus, either permanently, or for a time.

5. The presence of insuperable mechanical resistance to the passage of the child; as locked head—lodgment of the sagittal suture of the laena-ilio-pectinea—a tonic spasm of the os uteri—scirrhosity of the cervix or os uteri, \&c. Also, any malposition of the fætus or fætuses which may render the advancement impossible, without manual or instrumental aid.

6. I may name as one, not very uncommon, the too long retention of the liquor amnii, whereby the contractile energies of the uterus are exhausted; and by the timely discharge of which these energies are often so recuperated as to give rise to pain, without farther assistance; but when the exhaustion is too great for this, their discharge will often enable Ergot to act, when it could not, during their retention. This is done by that recuperation of passive power in the uterus by rest, which was before too far exhausted by over distention.

7. Too great exhaustion from previous hæmorrhage, as is often the case when the placenta is attached to the os uteri. In the early hæmorrhages from this cause, it has been often found to stop the flowing of blood; but after great losses are sustained, its powers are less available.
8. Limited experience; or partial, careless observation on the experience.

9. The cause of the slowness of the labour in which it is given. Labours are, cet. par. generally rendered more tardy by the previous death of the foetus.*

10. The foregoing character and circumstances of the labour; as the too long resting of the head in the bones, or pressure of the umbilical cord, &c. so as, in either case, to kill the child; and the previous death of the child from any cause.

It appears only necessary to direct attention for a moment to these circumstances, which every extensive practitioner must have had frequent opportunities of witnessing, to perceive at once how it is, that in some of them the power must often fail to produce its peculiar effects; and how, in many cases, it also occurs, that the child is still-born. Judging, therefore, from the very nature and frequency of these circumstances, and the reports and opinions of practitioners, together with my own observation, I am led to the conclusion that most practitioners prescribe the article only, or chiefly under some of those circumstances which contra-indicate its efficiency, and its success in saving the child; or, at least, in cases which, in their very nature, render these ends physically impossible.

Another cause of the death of the foetus, which has been attributed to Ergot, and which should not be passed over in this brief notice, is the very common, and indeed fashionable neglect of that manual assistance which is often abundantly necessary for preparing the passage and removing its resistances; and that judicious selection of position for the woman most calculated to expedite the passage of the foetus through the second stage of labour.

Jalap as a cathartic, and Tartar Emetic as an emetic power, are not, in my hands, more true to their several purposes than is Ergot in the increase, or production of parturient effort, or expulsive action of the uterus. After much observation on the use of this article, I have fixed on administration in the form of decoction. Always giving it in divided doses, I am not very particular as to the precise strength of the decoction; which, however, I vary according to the circumstances of the particular

* This, and the next paragraph, are applicable to the charge against the safety of Ergot.
Observations on Ergot.

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case—repeating or enlarging the dose by my judgment at the moment of giving each. This is, however, the strength at which I aim, without being particular to weigh the Ergot every time.

Ergot 3/4

Water 3/4, put into a suitable vessel, cover and boil four or five minutes. Dose 5 ss to 3 is every fifteen or twenty minutes, increasing as need may be. When the stomach seems disposed to reject the dose, I find it proper to reduce the proportion of water to one half, and the quantity of decoction given at each dose accordingly.

Under proper circumstances, after the administration of the first or second dose, the whole extent of the uterus will be found to harden and assume its own globular form and prominence, instead of the shape of the fetus within. The membranes too, if not previously ruptured, now become more tense; and if they have been ruptured, the presenting part of the child will be borne forward with more steady pressure. Soon after this, distinct, but short pains come on. These gradually lengthen until they nearly or entirely fill the space which ordinarily intervenes—in short, the last, long, effectual expulsive effort is produced, and the child is born. These, I say, are the common characters of its effects; but sometimes, one, two, or three expulsive efforts are very promptly produced, and the second stage of labour is completed.

This treatment, and these observations, are applicable to those cases of labour in which the whole powers of Ergot are needed. But my use of it is not by any means limited to such cases. I prescribe it in almost all cases wherein there is less promptness and energy of uterine contraction than is desirable; merely for bringing the efficiency of action up to that of ordinary, natural, and prompt cases.

Excessive haemorrhage after delivery is a most fruitful source of distress, alarm, and, with many, even of danger. In cases where I have reason to apprehend this, (and which may be often foreknown,) and in which depletion is not indicated, I administer Ergot in due time to secure its prompt effect, about the close of the second stage of labour, with the best effects.

In many cases there is a distressing head-ach, (differing essentially, however, from that state of head and general system which threatens puerperal convulsions,) and which seems to
take the place of uterine contractions; and the regular form of labour pains is not marked at all. In these cases I have often succeeded in so invigorating the uterine action, as to relieve the distresses of the head, and secure prompt, regular, and efficient parturient effort.

In cases wherein such a disproportion exists between the foetal cranium and maternal pelvis, that the former must be elongated considerably by uterine effort, or an appeal to instruments become necessary for the accomplishment of the second stage of labour, I often resort to the use of Ergot for the purpose of securing the little additional power necessary for this effect, with far less danger than to instrumental delivery.

In all of these cases, (which I only mention here to shew the manageableness and utility of Ergot,) and many more which I might name, I use the Ergot with the greatest confidence, arising out of perpetual demonstrations of its safety and its utility.

The most prompt and regular effects which I have ever derived from Ergot, were from the use of that preparation which was first vended by the northern druggists about twenty years ago, in the form of a fine dry powder, well secured in small bottles of two or three drachms. Less of that was found adequate than of the best which we now receive. This preparation is no more to be had of our Druggists; and I now select from the latest supplies, those grains which are dry and hard, and free from rot, worms, mould, and very strong urinous odour; and which, on being broken, exhibit a white amyloous fracture. The preservation, whilst fresh, in small close bottles, is so superior, that it never should be allowed to be found in commerce in any other form; and it is earnestly hoped that the College of Pharmacy will take the subject into consideration. Attention to this alone would cause great benefit to be derived from its use in thousands of cases which now suffer unnecessary misery, injury, or death, from want of its valuable effects.

This powder I also used in decoction, but in much less quantity than I now use the article.

So fully satisfied am I of its not injuring the child, (and this assurance is not from abstract reasoning, but the facts of observation,) that in cases which require additional haste to relieve the child's head, or the umbilical cord, from dangerous pressure in the pelvis, I often administer it for the sole, final purpose of saving its life.
ARTICLE II.

Remarks on Empiricism. By Joseph A. Eve, M. D. Professor of Therapeutics, &c. in the Medical College of Georgia.

To such a fatal extent does empiricism prevail in this country, at the present day, that it becomes the duty, not only of the physician, but of the philanthropist, to enquire into its causes, and suggest methods for its suppression.

In this enlightened age, when such splendid achievements have been made in the arts and sciences, and the state of medicine so highly improved as almost to have arrived at perfection, incredible as it is, and disgraceful to this land of light and liberty, where no shackle, no restraint is thrown upon the diffusion of knowledge, empiricism, more grossly absurd and destructive than ever disgraced the dark ages, still exists, in defiance of legislative enactment.

Were the history of quackery, even in this State, faithfully registered, its annals would be too black, too replete with horror, too appalling for perusal—they would record the cold-blooded slaughter of hundreds, if not thousands, of persons, whose lives have been deliberately and cruelly sacrificed, by the most ignorant and presumptuous charlatans that ever infested any country in any age!

In tracing the causes of this tremendous evil, much doubtless is attributable to the incompetency and dishonesty of physicians, many of whom, by their unskilfulness, negligence, and consequent ill-success, bring contempt and reproach on the profession, and compel their employers to resort to empirics for the benefits they fail to afford, and the latter arrogantly but vainly promise: others, false to science and humanity, have renounced their profession and adopted empiricism; or, becoming all things to all men, have, still more basely, declared themselves ready to practise their profession, or quackery, as ordered by their employers.

These physicians are divisible into two classes,—the first grossly ignorant—the second criminally dishonest—the former, too deficient in knowledge or intelligence to comprehend and apply the principles of medicine, become perplexed, embarrassed and
dissatisfied with their unsuccessful attempts at regular practice, and are therefore happy to adopt a method that requires neither sense nor learning; for the principles of medical science, though to the learned and intelligent, lucid, beautiful and harmonious, are to the ignorant and obtuse, all darkness, inconsistency, confusion and chaos.

Such practitioners, as well as their employers, are objects of compassion—we pity, and pass them by.

The second class consists of those who, actuated by sordid love of gain, are willing, taking advantage of popular prejudice and credulity, to sacrifice principle to profit, life to lucre!—for such deep, dark, demon-like depravity, words fail in expression—language has no adequate terms of horror—earth no appropriate retribution!

But the ruinous prevalence of empiricism is, by no means, wholly chargeable against the profession—it is mainly to be accounted for by the fact that the community are less informed on medicine, than almost any other subject. With respect to the other learned professions, they are incomparably more enlightened.

Divinity is more or less the study of all—the great Text-Book, containing all the principles and maxims of the science, is in the hands of every one—besides, ample instruction is afforded from the pulpit, in the Sabbath school, and by religious periodicals, which are extensively circulated and generally read.

People in general are much better acquainted with law than medicine, a considerable knowledge of which is acquired by attendance on Courts, which is at least equivalent to attending lectures—they read legal more than medical books, and are more assiduous in endeavouring to acquire the former than the latter species of knowledge; for such is human nature, strange and inconsistent as it may appear, that most persons take more interest and devote more attention to that which concerns property than health, except during sickness, when they are disqualified for the pursuit or acquisition of knowledge.

As the soul is superlatively superior to the body, and its interests paramount to all others, divinity, as it involves eternal happiness, is that study which commands the first attention of all men; but certainly next to it, of all human knowledge, medicine is that in which man is most deeply interested, and which
ought therefore to be neglected by none. We would not be understood to say that all men should become physicians; but that all men, as far as opportunity is afforded them, should read medical books, attend lectures, and acquaint themselves with the general principles of the science, so as to be qualified to become to some extent, guardians of their own health, and to make a judicious selection of a physician, when medical aid is required.

Of the principles of medicine, people generally are totally ignorant; few ever look into a medical book, unless it be some popular work on practice, or some empiric production, both of which are calculated to lead to error. It has often been said, a little knowledge is a dangerous thing, that persons should be profoundly learned or know nothing—this is certainly true as respects a little knowledge of practice, without the least acquaintance with principles.

A little knowledge of practice derived from popular writers, leads to arrogance and presumption, and is often productive of the most dangerous and disastrous consequences; whereas a knowledge of the true principles of medical science, as of philosophy in general, inspires modesty and diffidence: but while it prevents its possessor from ignorantly arrogating the weighty and responsible offices of physician, to the destruction of others, it qualifies him to discriminate between the scientific practitioner and the vain pretender, whether in or out of the profession, and is thus a source of much safety to himself.

Physicians have the best opportunities of observing, and are best qualified to discern the ruinous effects of empiric practice; and, moreover, as guardians of the public health, feel under most solemn obligation to expose and prevent them:—and different methods have been suggested to deliver society from this evil, more dreadful in its ravages than pestilence or war.

Although it is the duty of wise and virtuous legislators to enact laws to protect the safety of the people, legal prohibition will always prove ineffectual for the suppression of quackery until the public mind is enlightened on the subject. "Empiricism (says a contemporary writer) must flourish until the mass of the people are educated to a point or stage above it."* We have long

*The same author further observes, "we have always considered as highly complimentary to the general intelligence of our city, (Philadelphia,) that the Thompsonian follies, and perilous administrations of stewsings, and "Number 6," together with the species of medical monomaniac, called Homoeopa-
thought that there should be attached to all colleges and universities, Professorships of Chemistry, Botany, Anatomy and Physiology, and the Principles of Medicine; nor should instruction in these sciences be confined to those institutions; there ought to be public lectures delivered on each of them in Lyceums, that should be established in every town and county, for the promulgation of useful and salutary knowledge among all classes of people. We should then no longer behold, as at present, persons intelligent and well informed on other subjects, become the unfortunate dupes of ignorant and contemptible quacks, yielding assent to the preposterous and ridiculous absurdities of Thompsonianism, and submitting themselves and families as victims to this barbarous system of immolation. So far from enlightened members of society being deluded by these presumption pretending, even labouring men would possess too much knowledge to be deceived by such vile impostors.

A very moderate knowledge of Chemistry and Botany would disabuse the community of the false and ridiculous impression which empirics constantly endeavour to impose on their credulity, that is, the universal mildness and safety of all vegetable substances, and the mortal potency of all mineral medicines—they would soon learn that plants and flowers furnish some of the most subtle poisons and violent remedies—whilst many of the simplest and gentlest are derived from the mineral kingdom.

Very little insight into the extremely delicate and complicated structure of our organs, and the functions exercised by them, could not fail to render obvious the peril of ignorantly and carelessly tampering with them, and the necessity of the most profound knowledge to enable a physician to comprehend and correct the changes wrought by disease.

And but a slight acquaintance with the principles of medicine, founded on a knowledge of the organs and functions, and the modifying powers of medical agents, would be required to shew the absurdity and danger of empiric practice.

We repeat, the only sure and effectual method to suppress empiricism, is to enlighten the people. Legislatures would accomplish much more, indirectly, by establishing medical pro-

—but these and the like impostions on human credulity, seek for a refuge in the hearts of ignorance and mormonism.
fessorships in all colleges and large schools, and by directing attention to the dissemination of science, than by the most severe penal statutes. Indeed, so nugatory has legislative interference proven, that many members of the profession, as much as any opposed to empiricism, advocate the policy of removing all restraint, and allowing the evil to proceed unchecked until it effects its own cure, which they believe would soon be the result, if all opposition were removed.

Physicians are placed in a peculiarly delicate situation, and the part they are called on to act is difficult and embarrassing—duty and interest both require them to oppose quackery in every form—but it is necessary for them to exercise the greatest caution and moderation, or they will be accused of selfish and sinister motives, and the cry of persecution be raised, to the great benefit of the empiric; and, on the other hand, without the most uncompromising firmness, in refusing to acknowledge his claims to professional courtesy, they will be justly charged with sanctioning and approving empiricism.

It has been proposed by some physicians to obligate themselves to each other not to attend a patient that had been attended by an empiric—this, however, is contrary to the plainest dictates of humanity, and to the most obvious professional obligation:—if we are solemnly bound, when called on, to bind up the wounds and assuage the sufferings of the guilty suicide, are we not of him who has been unwittingly betrayed into the hands of the assassin?

But even did duty leave us at liberty to withhold our services, we would be denying ourselves one of the very best opportunities afforded of proving to the world the superiority of science over empiricism, for a large number, if not a majority of cases, given over by the empiric, may be cured by the scientific physician.

The proper course for physicians to pursue is to labour diligently and faithfully in their calling, considering their lives as consecrated to the sacred service of humanity, and to deport themselves with respect to empirics so as to avoid on one hand the slightest appearance of persecution, and on the other, the faintest shadow of sanction to their pretensions. But we conceive it is their duty, on all appropriate occasions, to expose errors that endanger life, and explain patiently and endeavour
to promulgate correct doctrines, relying confidently on the power of reason, the omnipotence of truth, and the certain triumph of common sense. We are aware that many of our professional brethren are opposed to the plan we suggest of endeavouring by all means to disseminate medical knowledge, and render all classes more intelligent on the subject of medicine. We regret differing with our brethren, but after much reflection we are convinced that every method devised for the suppression of empiricism, will be found altogether inadequate and futile, until the people are enlightened. Empiricism, we say, is founded and supported by ignorance, and when once the foundation and support are swept away, however high-towering or wide-spread be the superstructure, it must fall—before the light of knowledge quackery will vanish as the sable shades of night before the rising sun. To physicians the foregoing remarks are addressed; the object of which is to solicit co-operation or to invite discussion.

If we are wrong, we desire to have our opinions corrected; but if the views we entertain are correct, and we are fully persuaded investigation will establish their correctness, it is desirable that they should be properly appreciated by the profession.

Physicians are the depositories of medical knowledge—from them it must emanate and be communicated to others. Physicians must devise every plan, and move every enterprise for its dissemination. Let physicians memorialize Legislatures for the establishment of professorships in schools and colleges, and the building of Lyceums. Let them deliver public lectures on medicine, and labour to create in society a taste for medical literature. Let physicians adopt this course—let them speed the diffusion of medical knowledge through all classes of people, and the world will soon awake to its importance; medical books shall constitute a part of every library, and no person be considered to have received a liberal education who has not attended medical lectures—then and then only, shall our profession be duly appreciated, empiricism receive deserved reprobation and contempt, and empirics be no more tolerated than pirates or robbers in civilized lands.
**Thermometrical Observations for April, 1836, kept in Burke County, Geo.** Extract from the Journal of a Geological and Agricultural Survey. By Professor J. M. Cottig.

### REMARKS.

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<td>These observations have been made in different parts of the county, where the observer happened to be. In all cases the thermometer was placed in the shade, and with a northern aspect. The mean heat was obtained from a variety of observations during each day.</td>
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<td>Thunder showers, - - - - 7</td>
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<td>Prevailing winds, E., SE., S. and SW.</td>
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In running the East and West section line, from Shell Bluff, on the Savannah river, to Jefferson county line, the same formation was found on each extremity of the line; consisting of shell limestone and the genus Ostrea, of different species. On the extremities of this line, vegetation is nearly a fortnight earlier than on the middle. The Buck-eye (Æsculus pallida) was in blossom at the two extremities on the 29th of March, and in no instance in the middle until the 10th of April.

The temperature of springs issuing from the shell limestone formation, was found to be uniform at 64°, while those issuing from the marine sand or crag formation, the temperature was between 54 and 58 degrees.
In all cases, it has been found, in the survey of Burke county, that the forwardness of vegetation, and the high temperature of the water of springs, indicate the existence of a bed of limestone or calcareous marl. This fact is analogous to what has been observed in England and other countries in Europe. Bakewell, in his Geology, remarks that it is a well known fact, that the vegetation of perennial grapes, is, at least, a fortnight sooner on limestone and sandy soils, if not extremely barren, than on clayed, or even deep rich soils. It is equally true, though not so generally known, perhaps, that the difference is more than reversed in the autumn. This effect may be ascribed, with much probability, to the rich or clayed soils absorbing heat slowly, and parting with it again more reluctantly than the calcareous soils, owing to the greater quantity of moisture in the clay, which is a bad conductor of heat.

[We take pleasure in presenting to our readers the above Meteorological Ephemeris and remarks, from the journal of our esteemed and scientific friend, Professor Cotting. This gentleman, who is devoted to the natural sciences, has for some time been engaged in making a Geological survey of Burke County, and designs, as we understand, to extend those investigations to some other parts of the State. The age, experience, and extensive acquirements of Professor C. in the natural sciences, of which he has for many years been a successful teacher, fully warrant the belief that these researches cannot fail to afford results of deep interest to the State, the natural history of which has hitherto rested untold. We hope to draw, from time to time, from the same source, matter of increasing interest, as his investigations are extended; and indulge the hope that our State will extend to this able and worthy individual such patronage as shall secure to herself the incalculable benefits of his services in making a general survey.—Ed.]
Removal of a large fibrous Polypus from the base of the Cranium.

By Paul F. Eve, M. D. Professor of Surgery in the Medical College of Georgia.

Some of the particulars of the following case, having been verbally reported at the last meeting of the Medical Society of Augusta, a wish was expressed, to have them furnished the Southern Medical and Surgical Journal for publication—and as they may not be devoid of interest to the profession, I have consented to comply with the request.

Mr. Jonathan Stanford, now twenty-one years old, states that from early life he could not breathe through his right nostril. After having applied to several physicians of his neighbourhood, and tried every thing that promised relief, he was induced to visit the Faculty of our Medical College, in April, 1835. A few days after his arrival, an attempt was made to remove the portions of a Polypus projecting anteriorly into the naris of the right side, as well as posteriorly and downwards upon the soft palate, which latter portion could be readily felt by the finger introduced into the mouth and passed upwards alongside the uvula. By the use of forceps, &c. some inconsiderable portions were torn away, which permitted the patient to breathe through the nostril affected, after the slight inflammation produced by the operation had subsided. The part of the tumour directed backwards was found to be very large, and from the difficulty experienced in seizing it properly, it was deemed inexpedient to proceed further with the operation at that time, and the patient returned home.

In October following, about six months after this very partial relief was afforded, Mr. Stanford again visited us; having now the antrum highmorianum of the right side very much distended, the eye of the same side being somewhat protruded, turned upwards and outwards, and the molar teeth depressed below their natural level, the Polypus also projecting both anteriorly and posteriorly in the nostril of the affected side. In the presence of the class then attending lectures, an opening was made into the antrum, and a portion of the Polypus extracted from it.
The soft palate was next slit up for about three-fourths of an inch, and as the united efforts of several could not draw away that part of the tumour directed backwards, either with forceps, ligatures, or hooks, a considerable portion was removed with curved scissors. In a few days, our patient had sufficiently recovered to return home, the distance of about thirty-five miles.

About six months after this, Mr. Stanford again visited Augusta. A large tumour now protruded out of the antrum under the cheek, producing great deformity; he had had an attack of congestive apoplexy; the sense of hearing on the right side was diminished; the carotid artery of the same side was pushed outwards from its natural situation; and both nostrils were closed up, the patient breathing through the mouth. Mr. S. and his friends having been apprized of the nature and extent of the operation required for the removal of his affliction, and being persuaded from experience that nothing less promised relief or even a continuance of life itself, gave their consent to submit to whatever was thought necessary.

On the 19th of May, assisted by Dr. Dugas and Messrs. Alfriend, Roberts and Byrd, Students of Medicine, the operation was commenced by making an incision from one inch below the internal angle of the right eye, and extending it down through the upper lip. The knife was then carried from the angle of the mouth on the same side upwards and backwards to the lower edge of the malar bone, dividing all the soft parts for two inches or more. The flap made between the two incisions was dissected up and reflected upon the right eye. The tumour projecting from the antrum being thus fairly exposed, a very strong tape as a ligature was put around it in this cavity, and by very severe and forcible traction a large piece of it was torn off from the mass in the nostril. The haemorrhage was very great; but in this, as in all other instances, except a few small arteries in the lip which required compression, it was controlled by injections of a strong solution of sulphate of zinc. Finding it now impracticable to seize the Polypus either through the opening already made, the nostril or the mouth, a peculiar instrument was resorted to, with which it was proposed to cut away the bones. With a small pair of pruning shears, the superior maxillary bone of the right side was divided between the first and second incisor teeth, then the nasal process of the same
bone transversely by passing one blade of the same instrument into the antrum, after which the alveolar process with six teeth, (the wisdom tooth not being developed,) was gradually detached from the malar bone and the pterygoid process of the sphenoid bone. The palatine process of the superior maxillary bone, and the palatine plate of the palate bone, were now removed, and the soft palate completely divided through the centre. It being evident from repeated efforts with forceps, ligatures and hooks, that the Polypus could not even now be dragged away, after separating its slighter attachments from the surrounding parts, the curved scissors were employed, and it was found intimately adhering to the basilar processes of the occipital and sphenoid bones, and also to the internal plate of the pterygoid process.

The Polypus was of a very irregular shape, having several projections; one into each nostril, the large one into the right antrum, which had been torn off, besides the large body resting upon the soft palate and attached as already mentioned; and what was very remarkable, there was a small nipple-like process, extending into the left antrum. It was filled with large venous sinuses, and quite fibrous, particularly at its bony attachments. It was about the size of a man's fist—after being macerated ten or twelve days, and deprived of all its blood, it weighed three ounces, three and a half drachms. It can be seen in the Museum of our College.

In dressing the wound, three common interrupted sutures were made in the soft palate, and five more with adhesive strips to the two incisions on the face.

The patient, who bore the operation with great fortitude and resignation, had fainted several times, and did not fully revive until the third day, when he was considered out of danger. A little more than three weeks after the operation he returned home; the external incisions had healed, but that in the palate was still open. There was little or no deformity; the right cheek was neither depressed nor swollen. It is proposed to attempt hereafter, the operation of Roux, called Staphyloraphy, to remedy the defect in the soft palate.

Augusta, June 7th, 1836.
Purulent Ophthalmia of Infants. By L. A. Dugas, M.D. Professor of Anatomy, &c. in the Medical College of Georgia, &c.

The obstinacy with which the purulent Ophthalmia of infants not unfrequently resists the ordinary modes of treatment, induces me to present a few cases in which the chloride of soda has been most signally successful. I am not aware of its having been hitherto used in this disease. The well known anti-suppurative properties of the chlorides suggested the prescription, and its uniform success in the small number of cases I have had to treat, causes me to regret that I have had so few opportunities of testing it.

Case I.—15th of December, 1834. Mr. J. H.'s child, when five days old, experienced in both eyes the ordinary symptoms of Purulent Ophthalmia, which progressed and continued four weeks, notwithstanding the usual remedies. Mucilaginous poultices and washes, were first used; subsequently, lead water, alum curd, laudanum and water, breast milk, rose water, &c. &c. I now saw the infant, and found her eyes suppurating at least a table spoonful each in twenty-four hours. Palpebrae so much swollen as to overlap each other considerably and render it impossible to separate them sufficiently to examine the globe of the eye.—Child well in other respects, but cries very much; ordered the eyes to be bathed every hour or two with tepid diluted chloride of soda, (5 ss to a quart bottle of water.) During sleep a bit of linen to be placed over each eye, and kept moist with the same solution. The bowels to be moved every other day with castor oil.

16th, the quantity of pus has notably diminished.

19th, child cried so much last night, as to cause the eye-lids to become swollen—discharge still diminished—mother so uneasy that she insists on applying blisters the size of 12 1-2 cts. coin to each temple—chloride continued.

20th, eyes rather worse—blisters dressed with cerat. simp. —chloride solution.

23d, blisters quite well—pus much diminished—eye-balls may be seen—somewhat inflamed over the sclerotic.
26th, still improving rapidly.
30th, palpebral swelling entirely gone—no evidence of inflammation in the eye—no pus, nor agglutination—case discharged.

Note. It is worthy of remark that the disease was aggravated during the active stage of the blisters, and that its subsidence was in a direct ratio with the diminution of excitement in the blistered surfaces. The temporary swelling of the eye-lids which led to the application of the blisters, was evidently caused by the excessive crying of the child the previous night.

Case II.—18th January, 1835. Mr. G. W. C.'s infant, six weeks old, affected with purulent Ophthalmia of both eyes, since the fifth day after birth. Has had applications of mucilages, breast-milk, calomel, laudanum and water, &c. to the eyes, with only temporary relief. The palpebrae are now very much swollen and overlap; the inflammation extends from them over the eye-balls, as may be seen by separating them; suppuratation at least a table spoonful per day from both eyes—treatment, chloride of soda and Ol. Ricini, as in case No. 1.

27th. Have not seen the child since the above date, but am informed by the father that the chloride "acted like a charm;" that the suppuration has entirely disappeared, that the inflammation and swelling of the eye-lids is removed, and in short, that the child is well.

Case III.—20th May, 1835. Nancy's infant, (belonging to Mrs. B.) now thirteen days old, has had purulent Ophthalmia six days, and has been subjected to the mucilaginous treatment without benefit. Eye-lids now so much swollen as to overlap considerably, and to render any separation sufficient to see the cornea impossible—purulent discharge very abundant—health otherwise good—ordered chloride of soda, as above, without purgation.

23d, discharge much diminished.
28th, perfectly well.

Case IV.—20th March, 1836. Mr. L. P. D.'s negro woman Pat, on the 5th inst. gave birth to a fine child, who, on the 13th, was taken with purulent Ophthalmia. The disease has continued increasing to the present time. The eyes have been bathed with breast-milk—nothing else done. They are now discharging immense quantities of pus—eye-lids so much swollen
as to prevent their separation—prescribed the chloride wash, as above—nothing else.

1st April, eyes were well, but being neglected, have again commenced discharging a little—chloride re-applied.

5th, perfectly well.

Case V.—1st March, 1836. Mrs. P.'s infant, fourteen days old, has suffered five days from purulent Ophthalmia of one eye. The palpebræ and eye are both inflamed—pus abundant. The other eye slightly irritated. Breast-milk alone has been used. The chloride of soda, applied a week to both eyes, gave complete relief to the diseased, and prevented the development of the affection in the other.

ARTICLE VI.

Signor Segato's Discovery.

We are indebted to our friend, Dr. A. Cunningham, of this city, for the following very interesting communication, from our literary, scientific, and highly valued fellow-citizen, the Hon. R. H. Wilde, now in Rome. Although a considerable part of this paper is not strictly adapted to the pages of a medical periodical, still, on account of its great interest, and its necessary connection with that part which is of incalculable importance to the naturalist, and to the anatomist, we have determined on not interrupting its integrity by publishing a part only; and therefore present it entire for the gratification of our readers.

To the Editors of the Southern Medical and Surgical Journal.

I have just received from our friend the Hon. Richard H. Wilde, an abridged account of Signor Giromalo Segato's discovery, by his friend the Avocate Pellegrini. And inasmuch as it is one of great importance in the science of medicine, as well as to the naturalist, I cannot do better than offer it for publication in your Journal. Further proof I apprehend will not be required than is appended to the abstract.    A. C.
Giromalo Segato is a native of Vedano, a romantic village situated about seven miles from Belluno, in the Lombard-Venetian Kingdom. At the age of eighteen he attended the chemical and mineralogical lectures of Professor Tommaso Antonio Catullo, at Belluno, and accompanied that eminent person in various excursions to the mountains, for the purpose of collecting minerals and fossils. Even thus early, he gave indications of his passionate love of science, by exploring, alone, the mountains of Feltrino, and the environs of Agordo, returning laden with objects for the most part deserving the attention of the naturalist. In the short space of two years, 1812–1813, he collected above a thousand specimens, among which those of fossil shells were the most valuable. He discovered a mode entirely his own, of detaching them from the hardest rock, without breaking, or leaving any part of the shell behind. His thirst for chemical and mechanical knowledge was insatiable, but Belluno was too confined a theatre for his genius, and he often lamented that his lot had not fallen in some place where he could have executed some of the many experiments that occurred to him. Impatient of these obstacles he at length abruptly quittd his country and parents, and in 1820 his passionate love of travel led him into Egypt. An interesting outline of his journey is preserved in a letter to his brother, dated at Cairo on the 26th of December in that year, in which he says:—

"I will give you a sketch of my travels, of which you have already heard something by my letters written from Cairo at the moment of my departure, from the cataract of Assouan, from the island of Philoe, and from Abki, if they have reached you. I left Cairo on the 6th of May last, making part of an expedition destined for the conquest of Sennaar. To me, among others, was intended to be entrusted the superintendence of certain works at the second cataract, which the Pacha wished to have constructed for the purpose of facilitating trade and the passage of troops. Handsome rewards were proposed to me, but I declined them, desiring to avoid all restraints on my movements, and having no good opinion of the folks I should have to deal with; in which, as it turned out, I was not mistaken, for at the second cataract, disgusted with the dishonesty of one of our Italians, whose plan was plainly avowed by himself, I abandoned the expedition. But let us quit this subject and return to my
journey. Leaving Cairo then, I passed on to upper Egypt, traversing the Tolemaid, the Thebaid, and Sayd, and visiting the remains of thirty magnificent cities, as Cinopoli, Antioch, Ermopoli Magna, Tani-Eptanomica, &c. &c. Arriving at Assouan, I pitched my tents near those of his Excellency Kibiah-Bey, with whom I partook of a repast. I visited the well of the Sun, the sacred island of Philae, the ancient and magnificent place of initiation into sacred and sacerdotal mysteries, at present involved in the deepest obscurity. After a few days stay, I departed with his Excellency. I was the first who ventured to ascend the first cataract, being drawn against the stream by about two hundred men. The 20th and 21st we were at Qualabseh, a place precisely beneath the tropic, and with a temperature under double tents of 49 to 49 1-2° of Reaumur. Imagine to what a distillation we were subjected! By Heavens! I sweated as much in a day as a chemist's laboratory in ten.

Qualabseh, taken in a good point of view, is picturesque in its way. The two mountain chains, the Arabic and Libyan approaching each other, present walls forming a kind of theatre of the width of about eighty geometrical paces, or rather a gateway or pass, which the Arabs call Bab-el-Nil, or gate of the Nile. The mountains are black, ferruginous obsidian, of different varieties; nature harsh and sterile; the inhabitants darkly bronzed; mostly wretched fishermen, belonging to the isles of the internal basin beyond the pass; the women full of spirit, less repulsive than the Egyptians, but of the strictest chastity. The girls go naked 'till the period of their marriage, that is to say with nothing more than a piece of skin tied round the waist, which is cut into thongs, like the fly-guard on the heads of our oxen, and ornamented with various coloured bark and shells. They are never more than a foot and a half long. Every age and sex are lovers of song and dance, and accustomed to them even in their daily labours. Only conceive that each little company of labourers of every description has its singer and musician, and does nothing without music. I visited sixteen other splendid temples, and, especially those of Ebsam-boul, excavated, like many others, in the mountain, but more beautiful than any of the same description, being ornamented with bas reliefs from the floor to the roof of every room. I reached Abedunacti and then Abedurgam, the first with its
eighteen cataracts forming the second. I saw Soda and Amis-chientino, on the west bank of the Nile, and ascended the peak of Bak-bak, where I found the names of nine European travelers, among which were two Italians.—I made the third. This peak overlooks a great part of the cataract; a grand but gloomy prospect. The Nile shoots its proud roaring waters amid a thousand isles of dark granite, presenting a surface shining like glass. Some scattered palm and turpentine trees deck this dark solitude, inhabited by a few Berber families, who have a like disdain of clothing as their neighbors, but a more agreeable language and greater probity. Here, as I said before, I left the expedition. Master of my own movements, I desired to form, from personal observation, an accurate idea of the desert. Accompanied by my faithful Berber servant, and provided with some dried dates, water, and a little bread which I got from the soldiers, I passed on from Abki to Abdon, then traversed Colombo, and ascended the intermediate Troglodyte chain dividing Nubia from the great desert of the Abadi, into which I penetrated in the direction of East, a quarter South-East. Behold me a solitary wanderer amid an ocean of burning sand, precisely of the colour of melted metal, bounded only by the horizon on all sides, without a sign of vegetable and few of animal life, under a daily temperature of 64 to 65 of Reaumur, in a desert into which I was the first to penetrate. My dress was European, except the hat, which I exchanged for a red cap. In the evening when I stopped, my kingdom was all around me; I ate my luxurious supper of dates, bread and water, and wrapped up in a woollen coverlet, slept sweetly 'till the morrow, without a sound to interrupt my slumbers. My own voice, my servant's, and our camels, alone broke the silence of the desert. Sometimes we saw flocks of ostriches, but they fled like lightning. It was the twentieth day before we exchanged a word with any human being. It was a wandering horde we met. We approaehed each other, we spoke, I gave them some presents, they gave me some in return, and we parted. The thirty-seventh day we arrived at some miserable huts, the sight of which rejoiced me greatly. They were formed of layers of dog's grass, and inhabited by an Abadon chief, two young and pretty wives, and two beautiful children. I demanded hospitality, stammering in their tongue, and it was granted
me to an unexpected extent. The master of the household invited me to sit down in the midst of them: the women eyed me from head to foot, with great wonder, but without the least appearance of apprehension. The husband soon brought me some dates, and water which, though not good, was more delightful to my taste than the most exquisite liquor I ever drank. I had a few trinkets and skeins of silk, of which I made presents to the females. This was sufficient to establish me in favor. I passed seven days with these kind people, who grew fond of me, and treated me with the greatest affection. I became much attached to them, regarding and behaving to those amiable women as sisters, kissing their children as if they were my own, and envying their felicity. The constant tranquillity, cheerfulness and harmony of this rustic family, founded on the rigid simplicity of their habits and manners, presented a contrast, I assure you, shameful to civilization.

The 45th day, considering my slender stock of provisions, I resolved to return towards Abki, where I had left various effects. I took leave of my kind hosts, who kissed me a thousand times, and commenced my journey. After twenty-two days' travel, during which we saw no living thing, and not the smallest plant, we fell in with a caravan of slaves going to the market of Cairo. I travelled two days, in company with them, for the purpose of becoming acquainted with the habits and customs of their different tribes, for which the master of the caravan, who spoke Arabic perfectly, gave me every facility.

The sixtieth day, we encountered two wandering hordes, who did not molest us. These people were of tall stature, slender, very meagre, with fierce looks, eyes full of fire, and very little beard. They are tattooed in various parts of their bodies. The women especially, who are very lively, trace handsome drawings in blue-black upon the belly, under the breasts, and on other parts of the person. They stain the gums black, and have a spot of the same colour on the lower lip. All the men have black hair, curled, and hanging down behind, resembling a long wig, cut straight across, about two finger's length below the shoulders, and always greased, which defends them against the heat of the sun.

They have no riches or ornaments, but a camel or two, (not all of them even this) a shield of crocodile or hippopotamus's skin,
and a lance, which they manage with extraordinary dexterity. They have some peculiar superstitions, and practice circumcision and excision, which they perform in a barbarous manner with great solemnity. I had the good fortune to witness a marriage, a funeral, and an excision, of which I have preserved a minute description, as also of some other curious matters. Although I have often found myself in situations where others would have been discouraged, my resolution never forsook me. Anxious to penetrate still further, but prevented by the want of means, indifferent to heat, hunger, and even thirst, the most dreadful of all sufferings. If you knew, my brother, what it is to travel on a dromedary, through the desert, in the months of July and August, more than nine hundred miles within the torrid zone, for the most part without water. save such as is stagnant and stinking, and that hoarded as the most precious of your possessions, since the want of it for one day only, were certain death! Oftentimes I thought of the contrast between my situation in Italy in the midst of my family and friends, with all the comforts and amusements of life around me, in a temperate climate, and that of roaming a boundless desert, among naked black savages, where the whole of human desires are restricted to one want—water, and the daily heat is from 64 to 65 of Reaumur. Yet all this is nothing compared with the pleasure of seeing unknown places, and collecting interesting facts and recollections, which you will one day hear.

Finally, on the eighth day, I arrived at Oudi-Alfa, thence I went to Abki, at the second cataract, and descending Nubia, reached Philoe, and Elephantina, where I remained some days. From thence I departed for the Thebaid, to visit the magnificent tombs of Biban-el-Moluk, etc. The 29th uto. I arrived at Cairo in the evening, and experienced some moments of the greatest pleasure. At first, when I entered the Coffee-Room, black, ragged, and with a long beard, six months old, no one knew me; my good host, however, soon remarked and recognized me, crying out Segato! Segato! I cannot describe to you the salutations, the embraces, the demonstrations of joy that on all sides greeted my happy return. I can only tell you it was among the happiest scenes of my life. I swear to you my tears fell profusely at receiving proofs of such sincere affection from persons on whom I had no peculiar claims."
It was in the course of these travels that the first hint of his extraordinary discovery occurred to him. In going from Ouadi-Elfa to Wograt, in the province of Sokkot, across the Eastern chain, he saw one of those tremendous phenomena, not uncommon in the deserts, particularly those bordering on the Nile, in upper Nubia, a whirl-wind of the desert, or terrene water-spout. These terrible meteors sometimes continue in one spot, expanded in an oblong form, where they touch the earth, thence assuming that of a perfect cylinder, they reach high into the air, and darken it with clouds of sand whirled about in every direction. At the point where they touch the desert, so extensive and profound is the excavation they leave, that it might be taken for the bed of a huge lake. At other times becoming moveable, and in all other respects maintaining their ordinary character, they fly through the desert, tearing it up in their course to an extent in proportion to their width at the base, and leaving behind them what resembles the bed of a torrent.

Segato fell in with the track of one of these progressive whirlwinds, and unintimidated by the proximity of so dangerous a neighbour, continued to follow the deep ravine it scooped out, and to examine the wrecks it made or disinterred. Some fragments of a carbonized substance, presented themselves to the scrutinizing eye of the philosopher. Subjected to more minute examination, he recognized animal remains, and especially those of the human species. He at last found an entire body, the flesh and bones completely carbonized, the one black as charcoal, the other of a sooty hue, and both friable. He plainly perceived in this corpse the human figure, though shrunk to a third of its natural dimensions. That which to another, would have been merely an object of barren wonder, became to Segato the first hint of his discovery. He brooded upon it for years; he exhausted all his science upon various experiments; often disappointed, but never disheartened, he continued to interrogate nature, until wearied as it would seem by his importunity, he has at length extorted from her one of her mysteries. In the course of his persevering researches, he effected with great labour, an entrance into the pyramid of Abu-Sir. Remaining there six days, he contracted from the foul air of the catacombs, a tedious and painful malady, which was pronounced incurable, and the unfortunate Segato returned to his country, merely, as it was
believed, to die. After arriving at Leghorn, however, the strength of his constitution triumphed over the disease. He resumed his experiments with fresh ardor. The first public notice given of his success, was a very modest one, by the author himself, in the Antologia, Vol. 44, No. 132, December, 1831, p. 74. At that time, he had not acquired the means of petrifying animal substances so perfectly as at present; and in employing the terms petrify and petrifaction, he warns his readers that he uses them in a new literary sense, to signify an induration, resembling and approaching that of stone, not a petrifaction in the scientific sense of the world.

The process of Segato acts upon entire animals as well as upon their separate parts. It endues them with a consistence perfectly stony, which is more or less hard in proportion as the parts themselves are originally less soft and mucous. Skin, muscles, nerves, veins, tendons, fat, blood, all undergo this wonderful change, and what is most singular, is, that it is not requisite to extract the viscera or intestines for the purpose of effecting it: they themselves assume a like solidity with the rest of the body, and some of them even greater. Nor is there any material change of form, colour, or general appearance and character, all of which are retained. Not the least disagreeable smell is emitted from his preparations; they are entirely inodorous. Such is the power of the agents he employs, that putrefaction already begun, is arrested at the very stage at which it had arrived when his process commenced. He has even found the means of rendering animal substances inalterable without destroying their flexibility. The joints and articulations may be bent, and when the force applied is removed they resume their former position. His skeletons remain united of themselves by their natural ligaments, retaining their pliability, thus rendering useless all the clumsy contrivances heretofore necessary for combining the bones together. So unalterable are the substances thus preserved, that they are not only unaffected by atmospheric change, but even by a daily exposure to water, and the action of worms. Their volume is but slightly decreased, and their weight continues nearly the same. Even the spots upon the skin remain visible, whether natural or produced by disease. The hair adheres firmly; not one drops from the human scalp, where they continue fixed as freshly and firmly
as in life. Birds do not lose a feather, nor fish a fin or scale—both preserve their hue. Insects retain every extremity, antennæ, and cartilage, however minute. Reptiles, besides their perfect preservation, wear so strong an appearance of life, that it is difficult to believe them dead. With many of these animals even the eye still glistens, and from their immobility only is their death to be discerned. Many entire specimens, either petrified, or rendered inalterable, with a consistence less rigid, are to be found in Segato's cabinet. A few shall be enumerated which I have myself seen and handled. A mouse, with the entrails protruded, looking as fresh as if it were but that moment prepared. A canary bird, one of Segato's earliest specimens, yet retaining its life-like appearance. For ten years it has been annually exposed to the attacks of water and worms, without the least injury. During the first year thirty, in the next more than forty days, it was immersed in water to test its incorruptibility. For a longer time it was shut up in a box with worms, but came out unhurt. Various other specimens have been subjected to the same test with uniform success. A parrot, in excellent preservation. The frog in every state, from the egg to the perfect animal, and thence through different stages of decomposition to the skeleton. The land tortoise (Tertudo Greca, Linn.) in every stage. Numerous spiders apparently retaining the agility of life. A water viper, (Coluber natrix, Linn.) a toad, (Bufo Viridis, Linn.) and a cameleon, (Lacerta Viridis, Linn.) all admirable. In ichthyology there were many fine specimens. I will enumerate only, Tench, Flounders, the scorpaena scropha, labrus julus, and Lophius piscatorius of Linnaeus, and the torpedo narke of Riss.

The anatomical preparations of various parts of the human body are exceedingly curious, arms, legs, feet, hands, &c. The hand of a female, who died of consumption, in a state of extreme emaciation. That of a man, flexible in all the joints. A foot actually marble, yet bearing every mark of the skin, even the fine circular lines of the heel. On both hands and feet the nails adhere perfectly. The intestines of a child of the natural colour and form, from which even the faces had not been extracted. The liver of a confirmed drunkard, who died from intemperance, brown and shining like ebony. The entire human brain presenting all its convolutions, but of extreme hardness. A female
bosom, white and full, of the natural appearance, even to the fine
down of the skin, the roundness of the breasts, and the areola of
the nipple. A scalp, or hinder part of the head with long fair
hair, as bright and beautiful as in life. The head of an infant
subjected to the process, after putrefaction had turned it black,
and destroyed the eyes, yet by the power of the agent employed,
saved from farther change. The flesh and skin have become
hard, the cheeks continue full, the ears, nose, and even the fine
hair of the head are perfectly preserved, and the brain also, be-
ing equally indurated.

Segato has constructed a tablet, composed of different pieces
of the human body, indurated and inlaid in a tessellated form,
after the manner of those productions of art which are known in
Florence, by the name of works in Pietre Dure. It consists of
214 pieces of various shapes and colours, differently veined, and
of such hardness that all admit of polish, none are scratched by
the nail, few by the knife, and some scarcely by the file. The
Jasper of Siberia is imitated by portions of the spleen, kidneys
and heart. The Jasper of Sicily, Saxony, and Bohemia, by the
pancreas, the uterus, the placenta, and the upper part of the
tongue. Almost every variety of siliceous and calcareous stone
which has been applied to the purposes of use or ornament,
except only the gems, finds in one portion or other of the human
body, when thus indurated, either in its healthy or some disor-
dered state, a singular and striking resemblance. So perfectly
natural is the colour and appearance of the specimens of morbid
anatomy thus preserved, that a most distinguished surgeon of
our country,* who recently visited Segato's cabinet, on being
shewn this tablet, named immediately various parts of the body,
and the particular disease with which they had been affected.
It was impossible, he said, to avoid recognizing them; they
were exactly such as he had repeatedly seen in dissections.

Warm and honorable testimony to the importance and
utility of Segato's discovery, has been borne by several of his
learned countrymen. His name has already acquired some
celebrity in Europe, from his admirable maps of Africa, Mo-
rocco and Tuscany, prepared and engraved by himself,—for
among his other talents, he is an excellent chorographer and
engraver,—and from a work on Egypt, part only of which has

*Dr. Mott, of New York.
yet appeared. Several literary and scientific journals have mentioned his labours with the highest commendation. That you may not suppose me misled by ignorance or enthusiasm, I subjoin some extracts from communications on the subject of Segato's discovery, premising only that they are written by some of the most eminent anatomists and surgeons of Italy.

In July, 1833, Dr. P. Betti, at that time Professor of human and comparative anatomy, and of practical surgery, in the Imperial and Royal chief Hospital of Santa Maria nuova in Florence, says, “I have seen and examined, at different periods, various anatomical preparations dissected by the eminent Giromalo Segato, and preserved by him according to a particular method of his own invention, in which the neatness of the preparation and the durability of the subject preserved, were carried to so high an extent, as to leave nothing farther to be desired in either of these particulars, for which reason I believe the method employed by Signor Segato is by far more perfect than any yet known and used.”

In April, 1835, Dr. Antonio Targioni Toretti, a member of the Medical College of Florence, Professor of practical chemistry in the Royal and Imperial Academy of Arts, and of botany and materia medica in the Imperial and Royal chief Hospital of Santa Maria nuova of Florence, declares, that “having attentively examined and observed the different anatomical and anatomico-pathological preparations, made by Signor Giromalo Segato, as well as others in comparative anatomy, and various fish, reptiles, insects, and other animals prepared for collections of natural history, I am enabled to assert: That besides the high degree of anatomical knowledge, and great skill in preparation exhibited by him, he has discovered a method heretofore unknown, and altogether peculiar to himself, by means of which bodies and parts of animals are preserved, maintaining their natural colour, and exhibiting all the peculiar appearances incident to certain pathological conditions. Besides this, they acquire a hardness which may be called stony, since they are not scratched without difficulty, and they resist the action of the air, of humidity and of worms, so that they may be considered absolutely inalterable and incorruptible. Over and above this invaluable property of incorruptibility, is that possessed by his preparations for exhibiting the natural form and
colour, so that the most delicate spécimens of anatomy seem freshly made, such is their truth and nature. I therefore believe that the method practised by Signor Segato will be of infinite advantage to science, as well for collections of human, comparative, and pathological anatomy, as for those of natural history and zoology, and therefore worthy of all praise and encouragement."

In April, 1835, Dr. P. Ferdinando Zanetti, Professor of Anatomy in the Royal chief Hospital of Santa Maria nuova of Florence, states, that having already, in June, 1833, given to the distinguished Giromalo Segato an attestation of his excellent mode of preserving organized animal substances, he feels it a duty, at present, in consequence of more recent and repeated inspections of préparations since made by Signor Segato according to the same method, to certify the great utility of his discovery, as well for the perfect preservation of the form, and the identity of colour and lustre, as for the great solidity imparted, securing to his specimens, with the most entire certainty, an indefinite duration; and this as well in reference to separate pieces and organs, as to entire animals, whether reptiles, fish, or others of more complicated formation."

In May, 1835, Dr. Bettì, before mentioned, then become Professor of Physiology, and Superintendent of the Public Hospitals of Florence, attests, "that he has examined various spécimens of parts of men and animals solidified by Signor Giromalo Segato, to such a degree as to assume a stony hardness, similar to that of the finer marbles, and pietre dure: and moreover, that Segato in his presence tried the experiment of filing with an English file various spécimens of marbles and other hard stones, and with the same file his own préparations, the latter not being touched by the file, which had more or less scratched, or taken off, portions of the former. The hardest pieces were—muscle—coats of the intestines and bladder—liver—placenta—testicles—arteries—veins and the blood itself."

It is well known even to those little versed in such studies, that Nature has at all times exhibited spécimens of animal and vegetable petrifactions. Petrified branches and roots of trees and shrubs, and pieces of the trunk half of wood and half of agate or other stone, are not uncommon. Walnuts, pine cones, and even peaches and melons, it is supposed, have been petris.
Signor Segato's Discovery.

fied, though the latter are believed by eminent naturalists to be only stones accidentally formed into the resemblance of fruit, as the lapides Judaici of Mount Carmel are not olives, but a species of marine shell fish. It is scarcely requisite to mention the innumerable marine petrifications, madreporas, corals, nautilus, &c. found in almost every part of the world. Germany and Switzerland abound in petrified fish. The Tyrol and central Italy are rich in fossil remains, some of them extinct species. In Asia, Africa, and Europe, as well as in America, huge bones of various animals have been discovered. In Tuscany, those of the Elephant, Rhinoceros, Mastodon, Tapir, Hippopotamus, and others, have been found. In various caverns of France, England, Germany and Hungary, those of bears, wolves, dogs, foxes, hyenas, tigers and lions. The petrified remains of birds are much more rare, but these too are said to exist. Fossil bones of the human species are the rarest of any, yet the petrified skeleton of a savage was found in digging the foundations of the city of Quebec, two human skeletons by Rosenmuller in the grotto of Geiss-knok, and one in the rocks of Guadaloupe verified by Cuvier.

Nature, however, does not seem to have any where presented the petrifaction of the entire human body, more especially not of the softer and intestinal parts, nor of the blood. The tales of a petrified man said to have been found at Aix in Provence, in 1583, of those alleged to have been found in Switzerland—of the pretended city of Bidollo in Africa, and village of Rassemi in Barca, whose inhabitants with their cattle and utensils are said to have been turned into stone, are all certainly fabulous. A very few well attested instances of extraordinary natural preservations of the human body have occurred; as that of Cristoforo Landino, one of the commentators on Dante, still shewn in Casentino, (Tuscany) turned into a mummy, and uncorrupted after the lapse of nearly five centuries. In the cemetery of Venzone in the department of Passeriana, there is found a narrow calcaro-siliceous stratum, in which dead bodies are preserved for ages, but only superficially, for all the internal parts turn into dust. It is remarkable that the bodies interred partly in this peculiar stratum, and partly in that above, or below it, are partially preserved, and partially putrify.
There are obvious reasons why the natural petrification of flesh should be much rarer than that of bones, in the different properties of the two substances. The latter being calcareous, have a greater analogy with the earths, which replace them particle by particle as they decay, while the former is so soft, that it does not give time for the stony matter to insinuate itself and form, before putrefaction commences.

Art has not heretofore succeeded better than nature. The Egyptian mummies—the embalming heretofore practised—the method of Ruyschius (unfortunately lost)—the mummies made by Chaillot, Capron and Boniface, much talked of in France—the preservations effected by Chaussier, and reproduced by Dr's. Tranchina and Giovacchino Romeo—the sepulchres of Sicily, where bodies divested of the intestines and fluids are kept dry for many years, all attest the wonderful ingenuity of man. None of them however it must be confessed have arrived at that degree of perfection evidenced in the discovery of Segato. From an article obligingly communicated by the distinguished Dr. Passeri it appears, that being made acquainted with the Creosoto* discovered by Reichemhach, and reflecting on its chemical properties, it occurred to him, that it might be employed to render animal substances solid and inalterable. He mentioned this idea to several, and his wish to try the experiment. Nor does his idea seem entirely unfounded, for about fifteen or sixteen months since, the eminent chemist Signore Gaetano Caramesii having prepared an aqueous solution of Creosote placed in it a human finger and a small bird. Three days afterwards they were exposed to the air to dry. They in fact became hard, but as to their incorruptibility, though it might in some degree be inferred from their solidity, it would not be proper to affirm it, as they have not been exposed to the test of humidity or worms, nor as yet, of sufficient time. Besides, they had contracted a dusky colour by reason of the action of the creosote, which becomes dark when exposed to the light. These specimens are now in the hands of Segato.

The ingenious Signore Carraresi imagined and tried another experiment. He deprived some small pieces of animals of

* The Creosoto is a volatile oil contained in the Norwegian pitch, and is produced along with smoke whenever vegetables are burned. It was discovered not long since by Reichenbach, and its most remarkable property is that of preserving animal substances.
their aqueous particles, by means of pure alcohol saturated with boracic acid, and that being effected, for the purpose of solidifying the albumine, so that it might be secure from putrefaction, he immersed it in the same alcohol, in a boiling state. Subsequently exposed to the air, and dried, they became solid, so as to be susceptible of some degree of polish. It must be admitted, however, that these preparations are very far from the perfection of Segato's, as well with respect to colour as solidity. Besides which, his having for ten years resisted the attacks of moisture and worms, precludes all possibility of comparison between them and pieces recently prepared. I have not seen the specimens of indurated heart and blood, mentioned in an anonymous article inserted in several Italian Journals, said to have been prepared by Dr. Mori, of Piza, and of course have nothing to remark upon them. I suspect, however, that the observations of Dr. Passerì upon the experiments of Carraresi, will be found equally applicable to those of Tranchini and Mori also.

Florence, 10th January, 1836.

[It is now our painful duty to announce, on the authority of letters of a later date, from Mr. Wilde to his brother, the Hon. John W. Wilde, the death of Signor Giromalo Segato. This is an event greatly to be deplored. There was a lively hope that Mr. Wilde would be enabled to induce him to come to the United States; where his genius, scientific attainments, and untiring perseverance might have spread an influence around, the value of which to this country no one could estimate. With regard to the process by which he effected those wonderful preservations above described, it is greatly to be feared the world will never be informed; for, at the date of the last communication from Mr. Wilde, no account of it had been found.—Ed.]
PART II.—REVIEWS AND EXTRACTS.


Our medical college has just received a number of highly interesting and valuable works from Europe, many of which, from their high price, are unfortunately excluded from the private libraries of the great majority of the profession. We rejoice that we have amongst us an institution through the influence of which we are permitted to have access to the publications of our transatlantic brethren, however costly they may be. This privilege is peculiarly valuable at the present period of medical science, inasmuch as most of the improvements are promulgated in foreign languages, and cannot therefore be republished without the slow and often inaccurate process of translation. Indeed, many of the most useful works in medicine have never been translated, and will probably never be extensively known in our country, except through the medium of periodicals.

Among the works received, are the two last fasciculi of Cruveilhier's pathological anatomy. One of these completes the first volume, and the other commences the second. The plates are, as usual, of the most perfect finish, and a real treasure to those whose opportunities of post-mortem examinations are limited. These numbers are rich in specimens of affections of the bones, of the brain, of the stomach, and of the heart. M. Cruveilhier having assigned no limits to his work, will, we trust, continue with his accustomed judgment and zeal, thus to treasure up the interesting cases which are continually presented to him at the Salpetriere, and at the Société Anatomique.

The second edition of Alibert's large treatise on cutaneous diseases, is at last completed. The fasciculus just received fully sustains the great superiority which has been claimed for this over the former edition. The plates are incomparably more perfect, many of the specimens better selected, and their number greater than in the old work. It is much to be regretted that such a work cannot be in the hands of all practitioners. There is perhaps no class of diseases less generally understood than that of which Alibert so ably treats. The reason is that they are difficult to describe, and require to be seen to be understood. Alibert, in reprinting and improving his plates, has therefore rendered a signal service to the profession, by placing before the reader correct representations of every variety he describes.
Another work received is Bourger's Anatomy, with plates. It is the most extensive publication ever undertaken on any branch of medicine, and has, we believe, never been surpassed in magnificence and correctness. We hope that, notwithstanding the heavy cost of the entire work, the mode adopted for its publication will enable many to subscribe to it without serious inconvenience. The following is an extract from the prospectus handed us by Dr. L. A. Dugas, of this place, who is authorized to receive subscriptions.

This great system of anatomy, then, will be comprised in eight volumes, folio, and be embellished with from four hundred and fifty to five hundred lithographic plates. It will consist of four parts:—Descriptive anatomy; Surgical anatomy; General anatomy; and Philosop hic anatomy.

The descriptive anatomy will be presented with all its details, and with its physiological and pathological applications. This division will consist of five volumes: the first containing osteology and syndesmology; the second, myology, the aponyeroses, and the synovial bursa; the third, the nervous system, the organs of sense, and the larynx; the fourth, the apparatuses of circulation and of respiration; the fifth, the digestive and generative organs, and the anatomy of the fetus, or embryotomy.

The surgical anatomy will be composed of three sections, comprised in the sixth and seventh volumes. The first section, or anatomy of inter-organic isolation, will show the organs apart from the ensemble, and some of their diseases circumscribed mechanically and fixed in the interior of the aponyerotic cells and bony confines of the viceral cavities. The second section, or anatomy of inter-organic communication, on the other hand, will exhibit the means of connexion between the organs, the pathological effect of which is to facilitate the development and extension of disease. The third section will present the anatomy of every important region of the body in reference to the various operations of surgery, the whole of which, and the different instruments, employed, will for the first time be systematically represented in the plates, and described in the text. Statistical corollaries, deduced from results obtained in an immense number of operations performed in different countries, under the most varied circumstances and at various epochs, will show the relative value of each plan of operation proposed.

The general anatomy will present the study of every tissue under two points of view, which form the connexion between histology, properly so called, and pathology:—1st, as a whole, as one of the separate systems of the economy; second, as a part, in reference to the various places in which it is found, and as an integral item in the constitution of any particular organ or system of organs.

The philosophic anatomy will contain three sections:—first, the laws of the formation of the organism or economy, depending on which are the theories of the vertebra and of monstrosity; second, the influence of physical and moral causes on the economy; third, the comparison of the economy of man with that of the vertebrate animals;—subjects extremely interesting not only to the medical man, but to the moralist, the philosopher, the legislator, and the political economist. The general and philosophic anatomy, together, will form the eighth and last volume of the work.

The translation into English, now offered to the public, has been called for by a number of subscribers to the work both in Great Britain and America. Undertaken by a gentleman familiar with the subject, and from a copy with the latest corrections of the author, it is presumed that it will be found in nowise inferior to the French edition. The plates for both the English and French editions are the same.
The complete work, as has been said, will consist of eight volumes, folio, and will appear in about fifty monthly parts, each containing from three to four sheets of text, and eight lithographic plates, with their explanations.

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N. B.—The publication has reached the middle of the third volume.

[From the Medical Journal of Medical Science:]


[CONTINUED FROM JUNE NO.]

Obstructed and Inflamed Mammae.—There are two distinct states of the mamma, occurring after delivery, which demand our notice. In both, pain and tenderness, tumefaction and hardness, are present; but one is an inflammation, the other merely an obstructed state of the organ; though the latter generally precedes, and may produce the former, yet it does not necessarily go in all cases. There is no case within the range of obstetric practice so clearly under the control of the medical attendant, as the tumified, lobulated and obstructed state of the mammae, and none so sure to terminate unfavourably, if improperly managed. To treat it with effect, it is necessary to look to its cause. The immediate state is a vascular determination to the glandules, together with an accumulation of the lacteal secretion within the ducts and tubes, and often infiltration into the connecting cellular tissue; a state most frequently arising from a disproportionate action between the secretories and excretories. We can easily understand the frequency of the occurrence of this state of the breasts, when we consider how suddenly in most cases determination occurs to them after delivery. Let us, then, bear in mind the function the glandular part of the organ is so suddenly called upon to assume, and this, perhaps, for the first time: thus rapidly converting the freely determined blood into a nutritive fluid. Let us also call to mind the obstacles afforded to the escape and extraction of the milk in impervious, ill-formed, or diseased nipples, as well as the difficulty that opposes itself to the transmission of milk through ducts, perhaps for the first time; or after a long suspension of their action, called upon to perform the office of conduits for this new
and rapidly formed secretion. These considerations tend to explain a fact observed in practice, that, with first children, or after long intervals from child-bearing, more trouble is experienced with the breasts, on delivery. When, in addition to what has preceded, we recollect the varying calibre of the conduits, their ramifications, and the accidental obstacles occurring in them, the effect either of present or previous disease, narrowing them, or perhaps rendering them altogether impervious, and amongst the most common of these, determination to certain parts of the organ, from exposure to cold, we need not wonder at trouble being so frequently caused by the breasts, after delivery, but rather feel astonished that milk abscess is so rare an occurrence. The rationale of the plan of treatment necessary to adopt will appear from what has preceded, to be, simply, checking or preventing too rapid a determination to the breasts, and relieving the ducts and tubes by facilitating the transit and escape of the milk when secreted. In effecting the first object, free saline purgation is necessary in the commencement, after which nauseating doses of tartar emetic appear to act almost as a specific in preventing inordinate determination. They also, no doubt, act in producing absorption. Tartar emetic, however, appears to effect the second object as well as the first, by its well-known power of relaxing contractile tissues, thus rendering pervious the laciferous ducts and tubes, and accomplishing the double object specified. It is not to be understood that tartar emetic has been had recourse to in all cases where the breasts were hard and full after delivery, nor even that this medicine would prove sufficient of itself to correct their obstructed state. The general plan was to administer saline aperients, rub the breasts most assiduously, stupe them, extract the milk from them, if necessary, and improve the state of the nipples, if they were diseased or indented. In the great proportion of cases, this is quite sufficient to produce softening of the breasts with free discharge of the milk. It is only when this plan don’t succeed, or that symptoms are urgent, that it is deemed necessary to nauseate the patient. The result of this practice is, that in the Lying-in Hospital, where it is strictly enforced, a case of abscess in the breast is scarcely ever met with. It is but right to state, that in private I have not found the practice succeed so well; a circumstance ascribable simply to the impossibility of having the necessary directions strictly and effectually complied with. Ladies get fatigued with continued friction, and they do not like the nauseating medicine. Where it has been fairly tried, however, its results have been the same as in Hospital. Friction, to be attended with benefit, must scarcely for an hour be desisted from, until the hardness disappears and the ducts accommodate themselves to the secretions. The usual orders to our nurses are, “to rub until the breast softens under the hand.” Warm oil is used to prevent irritation to the integument from the friction. In inflammation attacking the breasts after delivery, either the glandular or tubal structure, the investing sheath, or the connecting or surrounding cellular tissue may be engaged in the inflammatory action from the commencement, or the inflammation may occur consecutive upon the state of the breast already described. In either case, throbbing pain, general redness of the surface, with extreme tenderness to the touch, and hardness at one part, will be present; and these symptoms may be ushered in with a rigor, or rigors may occur in their progress. When this attack is observed, the patient is to be put immediately and freely under the influence of the tartar emetic. If purgation has not been previously attended to, a grain of tartar emetic, given in a full dose of black bottle, is a good commencement. This should be speedily followed by the nauseating mixture, and if vomiting should be twice or thrice freely produced at the outset, all the better, provided our patient can bear it. Warm stuping and fomentations must be used, and the breasts drawn by a strong healthy child, or by the exhausted bottle, and friction, if unattended with much pain, is to be persisted in. Lecches, under this plan of treatment, are seldom necessary,
and their efficacy, when used, appears very questionable. By a steady perseverance in this plan, in cases even the most unpromising, the inflammation has been again and again subdued.

The child was generally applied to the breast early after delivery, at least as soon as milk could be obtained. Ulcerated and fissured nipples, which did not improve under slight stimulating lotions, as Sir A. Cooper's spirit and borax wash, were touched with a solution of nitrate of silver, ten or twenty grains to the ounce, a plan found particularly serviceable where there were sprouting granulations or excrescences projecting in the fissure, attended with excruciating pain. In obstinate cases of this kind, even touching with solid caustic was necessary, and often relieved the patient from immense protracted suffering.

Puerperal Mania.—This form, which constitutes so great a proportion of the malignant cases met with not merely in the Hospitals for insane, but in the incurable cells, when treated properly from the commencement of the attack, is a very manageable disease. Were it only for its efficacy in this distressing malady, the accoucheur should esteem tartar emetic as a most invaluable article in his prescription formulary. In several years' observance of this medicine's application, in Hospital and private practice, but two or three cases have been met with which held out against it, when commenced sufficiently early. The moment a patient was observed to exhibit any incoherence after delivery, attended, as it usually is, with rapid pulse and wild expression of the eye, she was placed under its nauseating influence, and retained so for twenty-four or thirty-six hours, or longer if necessary. In almost every case the disease yielded immediately; the real ills produced by the medicine taking the place of the imaginary ones previously occupying her attention. The only treatment in general necessary, in addition to this, being the administration of aperients, and ensuring sleep by free opiates, when the patient had been sufficiently subjected to the action of the tartar emetic. Diagnosis in puerperal mania requires attention. The case most likely to be mistaken for it, is hysteria: an affection of no very uncommon occurrence after delivery. An error in diagnosis, between these diseases, is not, however, attended with any very serious inconvenience in the treatment, as I have found from experience the plan here recommended for puerperal mania proves most effectual in curing hysteria; although it is perhaps, somewhat more violent than the nature of the case demands. It may be right to mention that two fatal cases of peritonitis occurred in Hospital, which commenced with all the symptoms of puerperal mania, and which were treated at first with tartar emetic. In one case, in the course of a few hours from the exhibition of the maniacal symptoms; in the other, after a lapse of two days from their commencement, unequivocal evidences of peritonitis set in, and in both the disease ran rapidly to its fatal termination. A peritonitic tendency was very prevalent at the time. In puerperal mania peculiar care is necessary to prevent the depressing effects of tartar emetic being produced, and with this view a larger quantity of laudanum may be added to the nauseating mixture. Patients labouring under this disease, are not able to bear the same active treatment as some of the other cases alluded to where this medicine has proved efficacious. The pulse in puerperal mania, whilst it is very rapid, is generally small and hard, often wiry, and here a medicine possessing such depressing propensities, must be used with the greatest caution. A case occurred to me in consultation with Dr. Harvey, of this city, some years since, strongly illustrating the necessity of caution in this respect. We had placed our patient under the influence of the medicine, with the usual directions to her friends of administering or withholding it, as might be necessary. These, however, were unattended to, and on our next visit we found her in a most alarming state. The medicine having reduced her to such a degree of debility as to deprive her of the power of
motion, her pulse was barely perceptible, and the extremities and surface quite cold. Stimulants were freely administered, and friction and warm applications used to the surface and extremities, and she immediately recovered, not merely from the remedy, but from the original disease.

In concluding this paper, it may be mentioned, that it is not swelled out with cases, (an abundance of which could have been furnished,) as it is neither wished to extend it unnecessarily, nor to put forward the practice recommended as that tried experimentally in a few cases, but as the ordinary plan of practice adopted, as well in private as in an Institution containing one hundred and forty beds, and where about two thousand five hundred patients are annually admitted. As much of it was adopted by my predecessor in office, Dr. Collins, an opportunity will shortly be afforded of testing its success, and observing the proportion of recoveries in these cases, recorded in that gentleman’s report of his seven years’ mastership, shortly to be published; and it is confidently anticipated that in this report will be exhibited a degree of success, not merely in the cases treated of, but in midwifery practice generally, never before recorded. I ventured to publish an expression of my opinion of Dr. Collins’ talented, accurate, and laborious undertaking two years since, how far correctly, the recent vote of thanks presented by the Anatomical Section of the British Association to him, for this very report, has proved.

Dublin, September, 1835.

Extracts from that part of the proceedings of the Medical Section of the British Association in the session of August, 1835, which is detailed in the Medico-Chirurgical Review for October last.

First Day, 10th August. Internal use of Chloride of Sodium in Fever.

Dr. B. Graves read an interesting paper on the internal use of chloride of sodium in fever, from which we make the following extract, as embodying the pith of the practical portion of the communication.

"With respect (said Dr. G.) to the time for its exhibition, and the cases to which it is adapted, the following remarks may be made. When the early stage of fever is past, when all general and local indications have been fulfilled, when there is no complication with local disease, when the patient lies sunk and prostrated, when restlessness, low delirium, and more or less derangement of sensibility is present, when the body is covered with mæculæ, and when the secretions from the skin and mucous membranes give evidence of a depraved state of the fluids, it is then that the chloride of sodium may be prescribed with the most decided advantage. The mode in which I prescribe, it is in doses of from fifteen to twenty drops every fourth hour, in an ounce of water or camphor mixture. How it acts I will not attempt to explain; it is sufficient to say, that there is no remedy from which, in such cases, such unequivocal benefit is derived. It operates energetically, though not very rapidly, in controlling many of those symptoms which create most alarm. It seems to counteract the tendency to tympan-
nts, to correct the fætor of the excretions, to prevent collapse, to promote a return to a healthy state of the functions of the skin, bowels, and kidneys; in fact, it appears admirably calculated to meet most of the bad effects of low putrid fever. To those who have witnessed its efficacy, it is unnecessary for me to say any thing. Of course it will fail, like all other remedies, when the disease has reached a certain point of intensity in individual cases. There is scarcely any acute disease, to which the human body is liable, which may not in some particular persons assume an intensity capable of baffling all the efforts of medical skill. This, however, is no argument against the employment of a remedy of extensive utility and unquestionable value.

Although it is not my intention to give an account of what has been done in France with respect to the exhibition of this remedy, yet I may mention that it has been extensively tried in fever by Chomel, and as I have learned with great success. This excellent physician is still, I believe engaged in making further clinical experiments on the subject. In the Gazette Médicale de Paris, published on the 28th of last February, we have an account of Dr. Dor, of Marseilles, of several cases of typhus, in which the chloride of sodium was found beneficial in 1833. He attributes a more rapid amendment to the use of this remedy than I have even seen follow from its exhibition, and he also asserts, that if not given with great caution, it produces a very tedious convalescence. In the latter remark, especially, I cannot concur; for all who witnessed this mode of treatment here, were struck with the security and quickness of recovery which ensued in those cases where it had been employed. Perhaps, the precaution we adopted of always diminishing, as soon as possible, the strength and frequency of the doses, rendered the results in our hands more satisfactory than those obtained by Dr. Dor."

Dr. Graves concluded his observations by reading a letter from his colleague Dr. William Stokes, in which the use of this remedy is stated to have been followed by the most satisfactory results. It gradually but steadily removed all the bad symptoms, and in all cases the patients had most favourable convalescences. Dr. Stokes remarks, that all these cases recovered without any evident crisis.

Second day, 11th August. **Motion and Sounds of the Heart.**

The motions and sounds of the heart occupied the whole of this sitting. A committee had been appointed to experiment on this subject, and having made their experiments and drawn up their report, they presented them to the meeting. We cannot notice all, or many of the experiments performed by the committee, but only one or two to elucidate the inquiry.

**Experiments on the motions of the Heart.**

"Experiment 1. A calf, two days old, having been secured on its back, and prepared as above described, the sternum and a portion of the ribs on both sides were removed, when the following motions were observed. The heart was beating strongly, at the rate of one hundred and forty-four pulsations in the minute, but in a short time fell to eighty. While still enclosed in the pericardium, the heart was observed to have a slight vibratory motion on its longitudinal axis, which motion, it may here be remarked, may assist in explaining the phenomenon of *fröttement* in disease. On cutting open the pericardium, and turning it aside, both the auricular appendices were seen to project with a rapid motion upwards, or towards the place of the sternum, and immediately afterwards to recede. When coming forwards, they were swollen and soft to the touch; when receding they became hard to the touch, were diminished in size, and flattened. Immediately after the recession of the auricular appendices, the ventricles with
a rapid motion assumed a somewhat globular form in their middle part, which projected towards the sternum, and the apex at the same time was pushed considerably in the same direction. During their continuance in this state, the ventricles were hard to the touch, and if grasped by the hand, at the commencement of the movement, they communicated a shock or impulse, and separated the fingers. When the ventricles had remained for a short time in the state just described, they suddenly sank downwards or towards the spine, and became elongated, broad and flat, and soft to the touch.

This succession of motions having been observed for some time, a small glass tube was introduced through a puncture into the left auricular appendix, and the blood was seen to rise in the tube during the recession of the appendix, and to subside during its upward movement. A similar tube was introduced through a puncture in the right ventricle, and a jet of dark-coloured blood was thrown forth during the globular and hardened state of the ventricles, and subsided when these became flattened and soft. A puncture was made in the pulmonary artery, close to the ventricle from which it arises, and through it a stream of blood issued synchronously with the jet from the tube in the right ventricle. A tube having been introduced through a puncture in the left ventricle, and one of the mesenteric arteries having been exposed and opened, the jet from the ventricles was observed to precede the jet from the arteries, by an interval easily appreciable. The femoral artery was opened, and a similar observation was made as to the interval between the jet from the left ventricle and the jet from that artery. Previously to opening the chest, the committee had satisfied themselves, that the heat of the heart, felt through the sternum and cartilages of the ribs, preceded the pulse, felt in arteries at different distances from the heart by intervals of time which were proportioned to those distances; and they were also satisfied, that the jets of blood from the mesenteric and femoral arteries were synchronous with the pulses felt in those arteries.

Experiment 2. In a calf, prepared as the former had been, and placed on its right side, a portion of the ribs on the left side was removed, the sternum and part of the cartilages on that side being left in their natural position, and the pericardium was opened. It was now seen that when the ventricles assumed their hardened state, their apex, and a considerable portion of their anterior surface were closely applied to the sternum, and when the hand was interposed between the latter and the surface of the ventricles, a strong compression was exercised on the fingers, during each approach of the ventricles to the front of the chest. When the ventricles were in their softened state, their interior surface, by which is meant the one corresponding to that called anterior in the human heart, was sometimes in contact with the sternum, and sometimes removed to a little distance from it, and from the contemplation of this, and the preceding experiment, the committee were satisfied that the situation of the heart in the thorax is affected by the position of the body, as has been observed by others; for instance, that in the recumbent state, on the back, the heart recedes somewhat from the sternum: if the individual lie upon the face, the anterior surface of the ventricles is in constant apposition with the front of the chest, the pericardium of course being interposed. The yielding texture of the lungs, and the mode of attachment of the pericardium and the great vessels, are such, as to allow the gravitation of the heart to influence its position in different postures of the body. These experiments were repeated on different subjects, and the observations recorded above were confirmed."

For the experiments on the sounds of the heart, we must refer to the Dublin Journal, contenting ourselves with the conclusions to which the committee came from the said experiments.

"From the experiments on the sounds of the heart, it appears to follow: 1. That the sounds are not produced by the contact of the ventricles with
the sternum or ribs, but are caused by motions within the heart and its vessels. 2. That the sternum and front of the thorax, by their contact with the ventricles, increase the audibleness of the sounds. 3. That the first sound is connected with the ventricular systole, and coincides with it in duration. 4. That the cause of the first sound is one which begins and ends with the ventricular systole, and is in constant operation during the continuance of that systole. 5. That it does not depend on the closing of the auriculo-ventricular valves at the commencement of the systole, because such movement of the valves takes place only at the commencement of the systole, and is of much shorter duration than the systole. 6. That it is not produced by the friction of the internal surfaces of the ventricles against each other, as such friction cannot exist until the blood has been expelled from the ventricles, whereas the first sound commences with the beginning of the ventricular systole. 7. That it is produced either by the rapid passage of the blood over the irregular internal surfaces of the ventricles on its way towards the mouths of the arteries, or by the bruit musculaire of the ventricles, or probably by both these causes. 8. That the second sound coincides with the termination of the ventricular systole, and requires for its production the integrity of the semilunar valves of the aorta and pulmonary artery, and seems to be caused by the sudden check given by the action of these valves to the motion of the columns of blood driven towards the heart after each ventricular systole by the elasticity of the arterial trunks.

The Committee wish, in concluding this report, to express their opinion, that although much light has been thrown on the subject of the Motions and Sounds of the Heart, by recent investigations, here and elsewhere, the nature of the enquiry is such as renders it difficult in many instances to arrive at satisfactory conclusions. They also think that the subject, from its importance, whether in a practical view, or as an object of philosophical inquiry, is deserving of further investigation."

As might be expected, a long discussion ensued, in which Dr. Williams, of London, and Dr. Corrigan, of Dublin, were the most prominent orators. Dr. Corrigan candidly confessed that he was wrong in some of his first conclusions, and was convinced that his character would not suffer by this avowal. We are sure it will not; but, on the contrary, be raised by such honorable and honest procedure. The thanks of the meeting were voted unanimously to Dr. Williams.

Third Day. Action of the Heart and Pulse.

Dr. M'Domell, of Belfast, read a paper this day on the action of the heart and pulse. Our author has some claim to antiquity, as well as to "priority," in such observations, having commenced as early as 1784,"—that is, rather more than half a century back.

"He finds that in lying, sitting, or standing, there are three distinct numbers in the pulse, any one of which being given, the rest may be discovered by inference. This variation amounts generally to twelve, fourteen, or sixteen beats per minute, as its normal state, and therefore, that all observations of the number of the pulse, which have been made without reference to this principle, must be considered as nugatory, unless it be implied that the person was in the horizontal position when the observation was made. This rule for reducing the number of the pulse to a regular standard, applies to health, but not precisely to disease; the effects of posture must be investigated separately in each disease.

The differential pulse appears to be confined to man. It is not observed in brutes, probably because from their form, their posture may be considered as always horizontal; but when placed erect, this peculiarity appears also in them.

The variation, in the human species, is at its maximum in tall and feeble subjects, particularly in convalescents from typhus; the minimum is gene-
rally found in children. These facts lead to the supposition, that this phenomenon is connected with some hydrostatic law, and not depending entirely on vitality. This, however, is merely thrown out as a conjecture, and requires further investigation. But in whatever manner it may be considered, it is plain that in all attempts to ascertain the effects of remedies, as well as of natural causes, due allowance must be made for these fixed differences produced by posture. What avails it to say that a medicine, or venesection, or heat, or cold, or a thousand other natural causes, raise or depress the pulse by four, six, or eight beats per minute, when the mere change of posture would raise or depress it twelve, fourteen, or sixteen per minute, and this merely in health, for in disease the differential pulse is often double this proportion.

In tracing the connexion between the pulse and respiration in man and quadrupeds, he finds that it ranges in health from four to six pulses for one respiration. This he considers a new and material fact; for if it be established by further observation, that this is a general law, we shall be able to infer the pulse from the respiration, and vice versa. This may be of advantage in enabling us to ascertain the number of the pulse in ferocious animals which we dare not touch, as well as in man during action or progression.

There is a coincidence between the number of pulses and steps in walking, at the common rate of progression in man, that is very remarkable and has not been hitherto noticed. His breathings are also singularly proportioned to his steps, so that it is easy to deduce these numbers from each other. But in hard labour or violent muscular exertion, as in running or ascending heights, the proportions are greatly altered. The same thing occurs in many forms of disease. There is reason to believe that the carbonization of the respired air has a great influence in all those cases where the number of respirations is greatly disturbed.

Dr. M'Donnell finds that the number of respirations, and by inference the number of pulses, are much the same in passing over the same space, whether we run or walk, i.e. they depend as much upon the space traversed as on the time. Thus he finds, if he walks one thousand yards in ten minutes or in eight, or runs over it in five minutes, the number of breathings are nearly the same. It is to be observed, however, that this rule does not apply to small portions of space, such as fifty or one hundred yards. These facts, he thinks, are all complicated with carbonization and muscular motion, so as to require separate investigations.

In quadrupeds, especially when trotting or cantering, he has found that the steps, divided by the respirations, never give any fraction in the quotient, i.e. that these are universally proportional without any deviation. In man this does not occur, a circumstance which may arise from some peculiar anatomical or physical law in the connexion between the respiratory and muscular construction of these animals."

“While engaged in these enquiries, about thirty years since, he had found that the pulse in the arteries of the foetus, before it breathed, was slower than in those of the mother. He had found also, that if the child, when born, remained for some time without breathing, the pulse continued slow during that interval, and became accelerated only at the instant it took its first breath. This fact appearing to him new, he had investigated the circumstance in the cow, and finding the phenomena similar, he had communicated his observations to Dr. Clarke, Dr. Labatt, Dr. Stokes, and Dr. Douglas in Dublin, none of whom had ever noticed it in any other. Dr. Jeffrey mentioned it in his lectures, and in his ‘Observation on the Heart and on the Peculiarities of the Fœtus,’ and thought it might hold true of quadrupeds, and of all warm-blooded animals. He thought it probable that the foetus before respiration was in the condition of a cold-blooded animal, and partook of that slowness of the pulse which characterizes the tribe.”
Dr. Collins observed that, from the experiments he had made on the subject, he had come to a very different conclusion. "He had invariably found the circulation of the fœtus much quicker than that of the mother." In this observation we concur. Why should the circulation be quicker in children than in adults, if it were slower in the fœtus than in the child. Perhaps the respiration may account for this difference.

Fourth Day. Bruit de Soufflet, (Blowing Noise.)

"The sound to which bruit de soufflet has been given, is produced in various parts of the circulating apparatus. Its existence has been ascertained within a comparatively short period, and is due to the inquiring spirit of modern investigation. Few things are more interesting, as objects of pathological curiosity, than the production of sounds in the vessels of the human body under certain circumstances. The nature of these sounds has been examined with all the attention which the subject deserves, and not only has their existence been determined, but it has been found that they constitute some of the most important signs of disease.

It is interesting to inquire, on what peculiar mechanism bruit de soufflet depends, as unless we are properly acquainted with the manner in which it is produced, we never can apportion to it its due importance, or estimate its proper value as an indication of morbid change. The first part of this communication I shall not read; it consists of an analysis of the various opinions of others, as to the mode in which this sound is formed. I shall merely state, that Laennec supposed it to arise from spasm; and to Dr. Williams, who has followed him in the same path of inquiry, we owe the suggestion that it might be found to arise from the operation of physical causes. Dismissing the examination of these and various other opinions, I shall proceed at once to the statement of my own views on the production of this sound, remarking in limine, that it is heard under a great variety of circumstances. We hear it in narrowing and in dilatations of the aorta, in narrowing of the ventricular opening from disease of the valves, and in permanent patency of the aorta, in varicose aneurisms, in aneurismal varix, in the vessels of the uterus during pregnancy, and even in vessels without any appreciable disease. For the production of bruit de soufflet the simultaneous presence of the two following conditions are necessary:—first, an irregular current-like motion of the blood, (instead of its natural equable movement,) tending to produce corresponding vibrations on the sides of the arteries or cavities through which it passes; and secondly, the state of the arteries or cavities themselves, by which, instead of being kept in a state of tense approximation on their contained inelastic blood (and which would necessarily prevent any vibration in their sides), they become free to vibrate from the play of the currents within on their parietes, and by these vibrations give to the sense of touch 'fremissement,' (trembling) and to the sense of hearing 'bruit de soufflet.'

If you press on the femoral artery below Pouart's ligament, so as to diminish the calibre of the vessel, you necessarily diminish the supply of blood to the artery below the point of pressure, while the outlet through its branches continues as before. You do not interfere with the action of the heart above or the artery below, you merely diminish the area of the vessel at the part where pressure is applied. Now if a finger be placed on the artery, a short distance below the point of pressure, a fremissement is felt, and if the stethoscope be applied over the same spot, bruit de soufflet is heard. This sound is present in a very remarkable degree in narrowing of the auriculo-ventricular openings of the heart. In this disease the free edge of the valves is most commonly the seat of morbid action, it becomes thickened and drawn in, and thus narrows the opening. Now the ventricle after each contraction leaves its sides in a flaccid state, favourable for being acted on by the next gush of blood from the auricle into the ven-
tricle. The consequence of this is, that the fluid, passing through the narrowed auriculo-ventricular opening, is, in obedience to a well-known law in hydraulics, thrown into diverging currents, and if the hand be applied to the chest, a fremisement may be felt, and a loud bruit de soufflet heard.

Having mentioned the occurrence of bruit de soufflet in the narrowed state of an artery, as also in narrowing of the auriculo-ventricular openings, I shall contrast with those a peculiar condition of the aorta, viz. permanent patency of its mouth, in which the sound is heard without any narrowing whatever. [Dr. Corrigan here exhibited drawings of the disease in question.] In some of these cases, the semilunar valves have perforations or holes in them; in others they are thickened and bound back to the sides of the aorta; in others they are ruptured. In some instances, however, the valves remain healthy, the mouth of the artery becoming dilated, so that they cannot close across its mouth; and in these instances, how is this sound produced? It arises from the artery not admitting, in these conditions, of being kept in a sufficiently tense state, so that at the next rush of blood the blood sent in does not move equally, and this current-like motion of the blood playing on its sides produces in them corresponding vibrations, and the sound is heard.

I have noticed all these cases to show under how many various and seemingly contradictory circumstances it may occur. During pregnancy it may be distinctly heard in the vessels of the uterus after the fourth or fifth month. If we examine the state of these vessels, we shall find that the conditions necessary for the productions of bruit de soufflet are present. Their free anastomosis with veins and sinuses permits them to become partially flaccid in the intervals of the heart's contraction, their sides are thin, and the rush of blood into these comparatively flaccid tubes at the next contraction of the ventricle, gives rise to the current-like motion on which the sound depends. The existence of similar conditions will explain its occurrence in varicose aneurisms and aneurismal varix.

Having alluded to those cases in which it is heard in certain diseased conditions of the heart and arteries, I may notice those cases in which its occurrence is unconnected with vascular disease. If a patient be bled too much, or if an animal be dying from the effects of hemorrhage, this sound is heard in the heart and great vessels. Here, in consequence of the quantity of blood which has been abstracted, the equilibrium of the circulation is destroyed, and the arteries not having a sufficient quantity to keep them in a tense state, bruit de soufflet is the consequence. We also meet with it occasionally in the healthy state of the heart, in nervous and irritable individuals. In this case the equilibrium of the circulation is destroyed by various causes of excitement, and the calibre of the vessels becomes disproportioned to the quantity of contained blood, so as to give rise to a certain degree of flaccidity of their walls. It is a well known observation, that this sound is never heard in plethora or inflammatory fever, for in these conditions of the system, there is not room for the vibrations of the arterial tunics.

Dr. Corrigan concluded, by detailing an expriment in proof of the foregoing theory. A small bladder in one instance, and a length of gum-elastic tube or gut in another, were interposed between two cocks, the upper connected with a water cistern; the cock at the other or lower end being the discharging orifice of the bladder or gut. On allowing the water to flow through, the sound of bruit de soufflet and the sensation of fremisement were perceptible in the intervening bladder or tube until (from the upper pipe pouring in fluid faster than the lower discharged it) the bladder or gut became tense, and then both sensations ceased, the discharge of fluid from the lower pipe continuing all the time. This experiment was applied to explain the occasional presence or absence of bruit de soufflet in aneurisms; the sound being present in an aneurism, if the parietes can from any circumstance be-
come at all flaccid in the interval of the heart's contraction, and being absent where the parietes are distended and tense."

The thanks of the meeting were voted to Dr. Corrigan by Mr. Crampton. Dr. Harty had observed bruit de soufflet in all the arteries where a polypus of the left ventricle of the heart existed. Dr. Williams observed that his views had not been stated quite correctly by Dr. Corrigan. He had attributed the bruit de soufflet to narrowing or obstruction of the vessels; but he did not deny that circumstances might modify the course of the blood, and have a share in producing it. He thought Dr. Corrigan's explanation would not apply to ossified aorta, in which the bruit is sometimes heard. But Dr. C. was able to defend his doctrine against all objections.

"In reply to Dr. Williams' observations he would say, that he was aware of the existence of the bruit in ossification of the aorta. In such cases, when the first current has been thrown back, the next impinges on a portion of the tube most likely to be thrown into sonorous vibrations. This circumstance had been already noticed by Dr. Wm. Stokes, and he had remarked that where this intense musical sound occurs, you may guess fairly that the disease is ossification of the aorta."

A paper was then read by Dr. Perry, of Glasgow, on typhus; but no particulars are published. An ingenious curved drill catheter was shewn by Mr. L'Estrange when the meeting was adjourned.
PART III.—MONTHLY PERISCOPE.

Pathological Anatomy of Phthisis.

The plan of medical improvement which now occupies the profession, of investigating with the knife in the most careful and patient manner the seat of disease, preserving the morbid specimens, and illustrating the views obtained, by paintings and coloured engravings, is worthy of all attention. It cannot fail to afford important aid to diagnosis, and consequently to therapeutics and prognosis. Whilst, therefore, we should be careful lest, by our observations on the mortal effects of disease, we be drawn into improper theorizings; and whilst we are particularly cautious that we be not led to look to those effects of disease as the only cause; we cannot, on the other hand, fail to derive great benefits in practice by as full a knowledge as may be obtained of their pathological truths.

Few things, therefore, can be more valuable to us than minute, candid and faithful accounts of these phenomena, as detailed by those of ample talents, and who have no favorite doctrine to sustain; but only search for the truth as exhibited by nature herself.

The excellent opportunities afforded M. Louis, in the Hospital of la Charité, during some years in the prime of life, with the vast store of the most valuable acquirements of which he was previously possessed, to which we may add his present service in the Hospital of la Piété, and an independence of mind and a spirit of honest research after truth, alike creditable to the moral and intellectual man, have enabled him to determine the fallacy of some of the fashionable and exclusive doctrines of his late preceptor, M. Broussais; and to establish many facts of primary importance in the pathology and diagnosis of Phthisis.

We shall direct our attention for the present to a few of those results, which we have extracted from the Medico-Chirurgical Review, the truth of which, says the English Reviewer, M. Louis has the merit either of having first announced and proved; or if they had been discovered before, of having finally and irrevocably established.

1. The existence of tubereles in any organ or tissue of the body, after the age of fifteen, indicates their simultaneous presence in the lungs.*

2. Tubereles, when co-existent in the lungs and in other parts of the body, are invariably more advanced in the former; whereas, in the latter, the developement is usually equal.

*Whilst the experience of M. Louis in these is confirmed by Dr. Stacker, C. Smith, Bonitus, Morgagni and others, it is contrary to M. Laennec's.
3. Tubercular deposition almost invariably commences in the upper lobes of the lungs; it is found more frequently in the left than in the right side, in the proportion, as far as his observation has gone, of five cases of the former to two of the latter.

4. Simple Bronchitis commences at the base of the lungs, pursuing a course inverse to that of phthisis.

5. Chronic Peritonitis generally indicates pulmonary tubercles.

6. Large vomicae are generally nearer the posterior than the anterior surface of the lobes of the lungs.

7. Large excavations are almost exclusively formed in the upper lobes; and it is a very rare occurrence that when a very small vomica is discovered in the lower lobes, when the upper ones are altogether exempt.

8. Although tuberculous deposition more frequently takes place on the left than on the right side, still, in a large majority of cases, both lungs are simultaneously diseased.

9. Of eight cases of vomicae which had opened into the cavity of the pleura, seven were observed on the left side.

10. The great tuberculous excavations of the upper lobe were nearer the posterior than the anterior edge of the lungs; and in many instances their sides in the former direction were found almost wholly formed by a false semi-cartilaginous membrane from a line to a line and a half in thickness, enveloping the summit of the organ. Inferiorly they were sometimes only separated from the pleura of the interlobular fissure by a thin layer of pulmonary tissue, more or less modified; or there was a perforation of their parieties communicating with another excavation situated in the posterior part of the inferior lobe. In no instance did M. Louis find extensive excavations in the centre of the lower lobes.

"These, and other results of M. Louis' researches," says the reviewer, "speedily attracted the attention of his cotemporaries; and although they were contradicted and cavilled at on their first announcement, their truth and value have since been very generally admitted, and have tended to establish the reputation of the author as one of the ablest pathologists of modern times." Such are the merits of this acute and independent investigator, and such the power of truth, that, we are informed, "by far the greater number of the advanced students in Paris, (principally English, American, and German,) have of late deserted the Clinique of M. Broussais, and now follow the visits and lectures of his pupil."

The extremely accurate and minute observations of M. Louis, on the whole one hundred and twenty-three cases of his inspection, do not confirm the observation of Laennec and others, of the existence of cavities communicating with the bronchia, and lined, as in tuberculous excavations of long standing, with a
light grey false membrane, semi-cartilaginous and semi-opaque, surrounded by healthy pulmonary parenchyma; for he found this in no one case. He also failed to meet with those masses of condensed cellular tissue in which the bronchial ramifications, more or less dilated, terminate; and which Laennec considers as the cicatrices of tuberculous cavities.

We think it strange, but nevertheless not impossible, that the observations of all may have been correct, and that in Louis’ one hundred and twenty-three cases, there may have been none of those cicatrices which were observed by others. But we would suggest a view of this phenomenon, which may perhaps tend to reconcile these apparently opposite observations. We are of the opinion that abscesses do form in the lungs, as simple, and every way of the same character as those which form in the superficial cellular tissue; that they terminate by suppuration, and discharge through the bronchi; and entirely heal, and the patient recovers from all appearance or evidence of disease. This opinion is founded on actual observation of facts. The fact relative to this matter, then, is probably this, that those masses of condensed cellular tissue, and fibro-cartilaginous membrane which were by Laennec and others considered cicatrices, were really those of obliterated or healed, but not of genuine tubercular cavities—that they were only the cicatrices of abscesses which had been previously formed in the pulmonary parenchyma, discharged and healed; after which, and when the strumous character of the case became more completely developed, genuine tubercular cavities were formed.

11. In one hundred and twelve cases, M. Louis found but one case in which both lungs were free in their whole extent from adhesions between the surfaces of the pleura. In eight cases the right, and in seven the left lung did not adhere at any point of their surfaces. It appears that the pleural adhesions indicated, by their extent, firmness, &c. the number and size of the tuberculous excavations of the lungs.

12. M. Louis observed in one-tenth of his cases, that pleuritic attacks had been made in the last stage of pulmonary Phthisis, as evinced by a layer of soft yellowish coagulable lymph on points of the pleura, indicating its formation within four to eighteen days preceding death.

13. The false membranes, formed by pleural inflammation, were found in a few instances to have acquired quite a cartilaginous firmness, in consequence of the deposition of genuine tuberculous matter in them.

14. An effusion into the cavity of the pleura of a clear fluid, in quantity a pint and upwards, was found in one-tenth of the cases. This, M. Louis believed, had taken place very rapidly; because he had found in two instances, that the thorax gave every where a very clear sound on percussion thirty-six hours
before death, in which, after death, he found two pints of fluid in one side of the chest.

15. In thirty-one out of one hundred and two cases examined, there was ulceration of the mucous membrane of the bronchia, with or without inflammatory redness of its surface. These ulcers were round or oval; and when small, were scattered throughout the circumference of the air-tube, and varied from a line to a little more or less in diameter. These, we are told, have, from their edges being flat, and their base formed by the cellular tissue, slightly or not at all thickened, escaped the attention of many pathologists.

16. The ulcerations are usually more numerous and large in the lower than in the upper half of the trachea.

17. The large ulcerations of the trachea are more scattered and apart than the smaller ones; and are generally found on the posterior, fleshy part of the tube.

18. In two cases M. Louis found a certain number of the cartilaginous rings completely denuded, diminished in thickness, and either partially or entirely destroyed; and in five cases the complete destruction of the mucous membrane of the trachea throughout almost the whole extent of its fleshy portion.

19. These anatomical investigations have proved that the symptoms of ulcerated trachea are very obscure. Pain, with a sense of burning, and of obstruction just above and behind the sternum, was experienced in a few cases. These distresses were sometimes referred by the patient to the larynx, whilst this part was exempt from disease, and only the trachea ulcerated.

There were no pathognomonic characters in the breathing, cough, or expectoration. As an example, in one case wherein the whole length of the wind-pipe, with the epiglottis, including the appendages, to the termination of the trachea, exhibited patches of deep and extreme ulceration, so that some of the cartilaginous rings were denuded, and others more or less completely destroyed, no prominent symptoms were present during the life of the patient.

20. Simple inflammation of the trachea is more frequently accompanied with pain, and a sense of heat in the part, than ulceration.

21. Ulcerations of the larynx are more frequent than, but are very rarely unaccompanied by, those of the trachea. They were found in twenty-two out of one hundred and two cases. They were generally more or less irregular, of a certain depth, and from one to two lines broad, their edges of variable thickness, sometimes lardaceous, and greyish or whitish; the mucous membrane was pale, and perfectly sound in the rest of its extent.

22. The most frequent seat of laryngeal ulcerations was first the junction of the vocal cords themselves; especially their
posterior part. Only once was a very small ulceration observed at the back of the arytenoid cartilage, the superior part of the larynx, and the inferior of the ventricles. Sometimes one or more of the vocal cords were completely destroyed, and the base of the arytenoid cartilage laid bare; the cartilages themselves remaining unaffected.

23. The signs which during life, characterize ulcerations of the larynx, are much more obvious than those which accompany ulcerations of the trachea. They vary according to the part of the tube affected, and the depth and extent of the ulcers. When the vocal cords, the ventricles, or the arytenoid cartilages were the seat of disease, hoarseness, more or less alteration of the voice, pain, sense of heat, and pricking, and subsequent aphonia were generally present. The pain was sometimes very acute, pungent and lancinating, and in most cases exasperated by coughing, speaking, &c.

24. Ulcerations of the epiglottis were almost as frequently found in phthisical patients, as those of the larynx. Of one hundred and two cases, eighteen were found to have ulcerations of the epiglottis. These were sometimes found alone, but most commonly associated with those of the larynx and trachea; so that twelve cases out of eighteen were thus associated. Only in one case was the ulceration on the upper surface of the valve. In four cases was the edge festooned by ulceration, and in one was there complete destruction of the epiglottis.

25. In no instance were tubercular granulations found in the substance, or on the surface of the epiglottis, larynx, or trachea. This led M. Louis to conclude that inflammation was the most frequent cause of their ulcerations.

26. These ulcerations were twice as frequent in men as in women. This M. Louis considers not the effect of hazard; because the proportion was about the same in the three species, viz. six examples of this state of the epiglottis in women, out of eighteen, seven of the larynx out of twenty-three, and nine of the trachea out of thirty-one cases.

27. The symptoms of ulceration of the epiglottis are often obscure; but may be stated to be a fixed pain in the upper portion of, or immediately above the thyroid cartilage, soreness of throat, hoarseness with greater or less dysphagia, increasing with the progress of the disease, so as to cause fluids to be rejected by the nose; the pharynx and tonsils remaining healthy at the same time.

As symptoms during life are more or less equivocal with regard to those ulcerations which attend genuine Phthisis, we feel it important to familiarize the reader, as much as possible, with those which are more or less connected with such cases. We therefore give the following case, in which the epiglottis, the lateral ligaments, and the superior vocal cords were found
after death completely destroyed, and in which the succession of symptoms was well marked.

At first the voice was hoarse, unequal and discordant; a lancinating pain was felt between the thyroid cartilage and the os hyoides; this was increased by any exercise of the vocal organs, by flexion of the neck forward, and by deglutition; the latter being frequently so difficult as to provoke the rejection of fluids by the nose. Towards the close of the case, the pain in the neck became more severe, and the deglutition so destroyed, that no solid food could be swallowed; complete aphonia had supervened. The progress of these symptoms had been slow and constant—the rejection of the liquids by the nostrils having existed for four months preceding the death of the patient; and the acute local pain had been felt during the whole of this period. "It is however," says M. Louis, "to be remembered that these symptoms are by no means invariable occurrences, even when the destruction of the epiglottis is complete."

Magendie relates two such cases, in which deglutition was not at all impeded.

Medicinal Leeches.—We find, by an advertisement in the Boston Medical and Surgical Journal, that the Massachusetts Medical Society have, with a spirit and liberality becoming Americans, offered a premium of five hundred dollars, for the best sample of not less than one thousand leeches from a foreign stock, bred in that commonwealth—the premium to be awarded at the expiration of seven years, if occasion should be.

We are much pleased with the spirit which actuates that respectable body to such a movement.

It appears to us, however, unnecessary to require that they should be propagated from a "foreign stock." This requisition is calculated to embarrass the experiment with unnecessary expense and trouble.

Some of the varieties (of which there are a number,) of the native leeches which abound in our creeks, branches and swamps at the South, are, when well selected, found with us to answer all the purposes to the fullest extent, of the best foreign specimens. They are brought in by the country people, and sold to the apothecaries and physicians at six to twelve cents. Many are of small size—others are very large. Doubtless they would be much improved by a system of management which a minute knowledge of their natural history could afford. Last autumn we had occasion to deplete from the dorsal region for the relief of spinal irritation, which had produced colic and other neuralgic distresses to a considerable extent. Knowing that there were no foreign leeches in the city, we prescribed forty domes-
tic. Our apothecaries sent us the remnant of their stock, amounting to twenty-six, all of which were applied on the dorsal vertebre. Not one of the whole number failed to operate. They were allowed to remain until they dropped. The depletion was afterwards encouraged by warm napkins for twenty or thirty minutes, by which time the patient became very sick and faint. The circumstances render it reasonable to suppose that between two and three pounds of blood were lost by the operation. The depletion was indeed excessive; so much so that our patient was troubled for a week thereafter with a coldness of the extremities, and debility with oedema, such as ordinarily follow excessive haemorrhage. The same leeches have been preserved during the past winter, with no more care than daily changing the water in which they were kept; notwithstanding the bottles in which they were have been sometimes broken by the freezing of the water, which was entirely congealed. These leeches were left charged with the blood which they had imbibed at their first application in October. They have all been since used with the best effect, except two which died in the beginning of spring, and two which are still on hand.

There was no selection of these—they were the remainder of a considerable supply which had been but a few weeks before received, and were probably the smallest of that parcel. None of them were, however, less than six, and many of them upwards of seven inches long, when swimming or suspending themselves by one end in the bottle. They were larger than most of those which are brought to this market; but our apothecaries inform us that there are certain streams in the neighbourhood which afford such samples abundantly.

An observation of the peculiar character of the streams and places where they are found, would doubtless afford some useful hints relative to procuring as well as propagating them.

The following very interesting case, serves well to illustrate the wonderful resources of the system and powers of surgery, for surmounting inveterate and otherwise mortal disease. We scarcely know what we may not expect from the knife, with good constitutional powers.

Cancer of the lip—resection of the lower jaw.—M. August, Marseille, in a recent letter to Dr. Clot-Bey, gives an account of a very extensive operation on the lower jaw and the neighbouring parts. The patient had been attacked three several times with cutaneous cancer of the lower lip. Twice the tumour was excised, but the third time, the disease had made horrible progress before surgical aid was requested. When the case was presented to M. Marseille, the condition of the patient was as follows:—He was decidedly attenuated, his complexion pale yellow, with a slight
leaden hue, and there was no fever. The cancerous affection invaded externally all the lower lip and parts about the chin, extending, in the shape of hardened lumps, to the region above the hyoides. All these parts were in a disgusting state of ulceration, pouring out fetid pus. The lower jaw was swelled and softened to within half an inch of the angles, the teeth displaced and sticking here and there over the tumour, and the sublingual cellular tissue in a decidedly cancerous condition. The operation being demanded by the patient, and refused by the surgeon, the former declared his determination to commit suicide unless indulged in his wish, on which the latter reluctantly consented. The mouth was dilated by cutting the commissures to the right and left above the level of the diseased skin, and from the extremities of these incisions two others were carried down obliquely, until they met each other at the little groove or centre of the os hyoides, thus enclosing all the diseased parts in one large V incision. The lower jaw was then sawed through by a chain saw, within half an inch of each of its angles, and the bone, with the mass of the diseased parts, were then removed by the straight bistoury. The frenum linguae was next secured by waxed thread, and the tongue thus held aside by an assistant, while the diseased sublingual tissues were dissected off by curved scissors and forceps. Many vessels were secured seriatim, and the patient was imminently threatened with suffocation, but no actual cautery was necessary. The wound was nearly closed by six points of suture, one of which held and drew forward the frenum linguae, and by a methodical bandage. The shocking deformity was concealed by an artificial jaw or mask, and the constant percolation of saliva was prevented by a sponge. The patient departed for his native village two months after the operation, eating easily and speaking intelligibly.—Am. Jour.—Gaz. des Hôpitaux, May 9th, 1835.

On the Removal of Sequestra without an Operation.—Dr. Bouget has published a new plan for the removal of sequestra without an operation, in the Journal de la Société de Médecine de Bordeaux, in an article entitled, "Souvenirs de la Clinique de Delphech."

M. Delphech, discouraged at the unfortunate results in several cases of necrosis of the tibia, turned his attention to measures which might remove the sequestrum without having recourse to the painful operation which is generally necessary. In this search he was successful, for he found that, by means of diluted sulphuric acid, he could destroy the phosphate of lime in the bone to be removed, which is then reduced to its gelatinous parenchyma, and can be easily taken away with the common dressing forceps.

Delphech first employed this application in the year 1834. At this period, the wounded at the battles of Orthes and Toulouse, flocked in such numbers to Montpelier, that the Hospital St. Eloi was soon crowded, and a supplementary one was formed, at the head of which was placed M. C. Fages, since so well known by his valuable lectures on external pathology.—Hospital gangrene soon appeared in both hospitals, and caused such extensive ravages that the majority of the amputations terminated fatally; even in those cases which were the most successful, a greater or smaller portion of bone was left exposed by the destruction of the soft parts. A young man who had undergone amputation of the arm, and had twice suffered from hospital gangrene, which had been with difficulty arrested, had the humerus projecting about an inch and a half beyond the flesh. According to the ordinary treatment the sequestrum would not separate perhaps for months, but it happened far otherwise under M. Delphech's directions. He caused the external surface of the bone to be covered with a pledget of lint, soaked in dilute sulphuric acid, and a wad of the same, equally wetted, to be passed into the medullary canal, whence the reticular apparatus had been previ-
ously removed; at the end of twenty-four hours the portion of denuded bone was so softened that it could be easily detached; ten days after the extremity of the bone was covered with fleshy granulations, and a complete cure was speedily accomplished.

In the year 1816, a man entered the clinical ward, having a necrosis which extended through the whole length of the tibia. Although he evidently possessed a good constitution, and was apparently capable of undergoing a serious operation, M. Delppech determined to have recourse to the proceeding which had proved successful in the previous instance. He destroyed the soft parts at the upper part of the leg by means of the potassa fusa, and when the eschar, which was about the size of a crown piece, had sloughed, he applied a pledget of lint, soaked in the dilute sulphuric acid, to the bone; after two or three dressings, renewed every five or six hours, it became soft enough to be taken away by dressing forceps. This being effected, the application of the potassa, followed by the acid, was made lower down; the sequestrum was exposed to the extent of five or six inches in length, and an inch and a half in width; it was then extracted with the greatest ease. It was more than six inches long, and constituted nearly two-thirds of a cylinder. The patient left the hospital quite well one month after his admission.

From that time until 1822, when I left Montpellier, adds M. Bouget, I have seen M. Delppech constantly have recourse to this plan of treatment, both at the hospital and in private practice, and always with success. I have also used it myself with advantage in a case of necrosis of the tibia in a child.—Amer. Jour. of Med. Sci.

Treatment of Colica Pictornum. Lead Colic cured by Hydrochloric Acid.—M. Gendrin communicated to the Academy of Sciences, at their sitting in December, 1834, some additional observations on the treatment of Colica Pictornum. He has ascertained that the administration of sulphuric acid does not produce the same relief where the colic has been induced by the deutoxide of lead, as when it has been caused by the carbonate. In white lead manufactories, the use of this acid has always been attended with the happiest prophylactic effects; whilst, in those of red lead, it has proved powerless. He then announces that he has found that diluted hydrochloric acid would remove the poisonous effects of the deutoxide, as rapidly and certainly as the sulphuric cures those caused by the carbonate.


It may be well to remark in this place, that the form in which lead is found in the hydrant water conducted through leaden service pipes in this place, and probably in all places, is that of carbonate. According to the experience then in the treatment of this disease in white lead manufactories, the sulphuric acid would be found prophylactic of lead colics and other forms of disease liable to be produced by drinking hydrant water, and curative, when they are produced.

The following is the formula of M. Foucat in the treatment of lead colic. "To a pint of water, add half an ounce of sulphuric
Correctives of Opium.—According to M. Puchelt, a German physician, sulphate of soda is an excellent corrective of the unpleasant effects of Opium, given in the proportion of a scruple to half a grain of Opium. This dose may be repeated two or three times a day. In combination with Glauber salts, he says that Opium may be administered when it would otherwise be contra-indicated. In obstinate haemorrhages especially, this mixture will produce the happiest effects. The author also asserts that if this neutral salt prevents the congestion sometimes produced by opium, so castor prevents its narcotic effects, without diminishing its sedative powers.—Am. Jour. of Pharm. Lond. Med. and Sur. Jour. and Am. Jour. Med. Sci.

Dignified Consistency.—The governors of the London Fever Hospital, an institution of high reputation, at a special meeting a few weeks ago, at which four hundred persons were present, removed Mr. Hentsch, the House Surgeon, from his office, in consequence of his having given a written testimonial in favour of a quack medicine. A resolution was brought forward, also, to remove Mr. Tweedie from the post of Chief Surgeon, for a similar offence; but before it was acted upon, the meeting adjourned for one week. Mr. Bransbury Cooper was present, and defended his professional brethren with considerable energy, but to no purpose. The further doings will be narrated whenever the intelligence arrives.—Boston Med. and Sur. Jour.

Antidote for the poison of the Hygeian (Morison’s) pills.—A correspondent of the London Lancet makes known, for the benefit of those who are guilty of the folly of taking Morison’s pills, a remedy for the distressing vomiting and purging which frequently follow their use, viz. copious draughts of luke-warm water, which will assist the stomach in its attempts to dislodge the poison. Mucilaginous and gelatinous drinks, such as barley water, linseed tea, mutton and chicken broth, will also mitigate the severity of the purging, and afford some protection to the internal coat of the intestines from the acrid and irritating effects of the gamboge, aloes, and colocynth, which are found in the pills.—Ibid.
**Butler's Aperient effervescing Magnesia.**—Of all the frauds practiced upon the public, in these times of nostrums and quackery, this is one of the most shameful. It is called, forsooth, a magnesian preparation, and recommended as serviceable in heart-burn, acidity and the numerous ills dependent on acidity of the stomach; and yet in the state in which it is swallowed, there is not a particle of alkaline property in the mixture; on the contrary, there is a considerable quantity of free acid remaining in the solution, after the effervescence has subsided. We shall here give the true composition and qualities of this fashionable absorbent, that those who are using it under the idea of its providing them with an alkaline medicine, to correct the dreadful inconveniences of Dyspepsia, may no longer continue to use this saline and acid preparation. For although, by its purgative properties, it may afford temporary relief to some of these distresses, yet its continued use cannot fail to injure the stomach and lead to a state of habitual constipation of the bowels.

It is simply a mixture of Sulphate of Magnesia, (Epsom Salts,) Tartaric Acid, and super carbonate of Potash.—So that it purges by virtue of the Epsom Salts it contains. It is analogous in its effects and composition to the Seidlitz Powders, and far less pleasant to the taste; for the neutral salt used in the composition of these last, is the Tartrate of Potash and Soda, (the tasteless purging salts.) In order to prevent the Tartaric Acid and super-Carbonate to be mixed with the Sulphate of Magnesia, without exciting their mutual action upon each other, all the water of crystallization must be driven from it by heat, which can be done without decomposing any portion of the salt.

We object not to the preparation itself; it is useful in some cases, and frequently very convenient; but our objections are against the imposing name which it bears, and the outrageous fraud attempted upon the public.

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**Preservation of Anatomical Preparations.**—M. Le Reboulet, conservator of the Museum of Natural History, at Strasburg, has given the following formula, for a liquid for the preservation of anatomical preparations, &c. This fluid is peculiarly applicable to the preservation of the brain. When any tissues kept in this solution become hardened, as sometimes happens, they can be restored to their usual flexibility by keeping them in fresh water for a short time.

R Water, 16 parts.

Chloride of Lime, 4 parts.

Alum, 2 "

Nitre, 1 "

Influence of different Professions on Pulmonary Consumption. By H. C. Lombard, M. D., Geneva.—The following facts were derived from five sources, viz. 1. The list of cases collected by the pupils of the hospitals of Paris. 2. That of M. Julius, in his researches on the sanitary state of the town and hospitals of Hamburg. 3. The Medical Annuary, published at Vienna in 1803, containing the sketch of the diseases treated in the General Hospital during the years 1798, 1799, and 1800. 4. The results of the recent researches of M. Benoiston de Chateauneuf, on the number of patients furnished by each profession to the hospitals of Paris, with the number of deaths caused in each profession by pulmonary consumption; and 5. The results of M. Lombard's own researches in the mortality records, from 1776 to 1830, of the city of Geneva, including the township of Plain-Palais and Eaux-Vives. All these sources afford him records of the death of 57,463 persons of various professions, 5,752 of whom died of pulmonary consumption.

By ascertaining, in the several lists, how many of the professions of the subjects of this disease were above, and how many were below, the average, in the number of cases of consumption which they furnished, and by subsequently comparing the results together, he was enabled to arrive at the following facts:

Professions situate above the mean.

A. In men.
1. In all the lists.—Sculptors, printers, hatters, polishers, gendarmes, brush-makers, soldiers, jewellers, tailors, millers, quilmakers, lacemakers, lemonade dealers, domestic servants, and wigmakers.
2. In the majority of the lists.—Copying-clerks, cooks, turners, joiners, barbers, cordwainers, and cooperers.
3. In a single list.—[M. Lombard gives a great many professions, but we select only those of our own country.] Ironmongers, commission agents, brokers, tin smiths, pavers, engravers, design-painters, street-sweepers, pastry-cooks, teachers, draymen, upholsterers, file-makers, chimney sweeps, feather-dressers, lapidaries, &c. &c.

B. In women.
1. In all the lists.—Laundresses, cordwainers, and embroiderers.
2. In the majority of the lists.—Polishers.
3. In one list.—Dress-makers, teachers, smoothing-ironers, knitters, flower-makers, lace-women, &c. &c.

A. In men.
Students, plasterers, stone-cutters, saddlers, terrace-makers, clockmakers, carmen, cellar-butlers, goldsmiths, stocking-makers, charcoal dealers, gilders, musicians, sawyers, and glass-makers.

B. In women.
House-keepers, day-labouring-women, wire-workers, weavers, gauze-makers, gilders, patchers, and mantua-makers.

3. Professions situate below the medium average.

A. In men.
1. In all the lists.—Coachmen, quarrymen, carpenters, inn-keepers, butchers, hall-porters, wharf-porters, street-porters, tanners, bleachers, watermen, confectioners, slaters, founders, infirmary-attendants, and nurses.
2. In the majority of the lists.—Bakers, blacksmiths, farriers, locksmiths, masons, and weavers.
3. In a single list.—Surgeons, braziers, cutlers, different merchants, wood-cutters, advocates, agriculturists, literary men, grocers, public officers, binders, druggists, annuitants, grooms, dyers, physicians, lawyers, candle-
misters, snuff-dealers, book-sellers, harness-makers, professors, miners, mercers, comb-makers, &c. &c.

"B. In women.

"1. In all the lists.—Wadding carders, infirmary nurses, bleachers, and garden women.

"2. In the majority of lists.—Dress-makers.

"3. In a single list.—Cooks, domestic servants, annuitants, laundresses, grocers, midwives, bakers, appliers of leeches, door-keepers, &c. &c.

M. Lombard's next inquiry is into the causes which may influence the frequency of Consumption in different professions, and under the following heads he has arranged the results of his researches:

I. State of comfort or indigence.—His calculations show "that the more indigent classes of society are twice more accessible to consumption than the persons more elevated in the social scale."

II. Muscular Exercise.—Of the eighty professions situate above the average, fifty-eight, or nearly three-fourths, are almost completely sedentary. A fact showing that the sedentary life furnishes a much greater number of consumptive cases than an active life. The proportion M. Lombard found to be that of 141 to 59. He also ascertained that "conditions completely sedentary produce a greater number of consumptive patients than those which require a certain degree of muscular exercise; and from it may be inferred, that if the sedentary life augments the frequency of consumption, muscular exercise is in some degree a means of counteracting this influence.

Concussions given to the chest by the continual motions of the arms, which have been enumerated among the causes of consumption, he found to have a tendency varying according to circumstances—in slightly diminishing the frequency of consumption in sedentary occupations, and augmenting that frequency in active professions.

The constant exercise of the voice he statistically proves, is not an unfavorable circumstance in reference to consumption. The mean number of victims to this disease being one hundred and fourteen in one thousand—that of the professions in which the voice is much exercised is only seventy five;—a result in accordance with the observations of M. Benoiston de Chateauneuf, and with the experience of the celebrated Cuvier, who asserted that the frequent exercise of his voice, consequent upon his appointment to a professor's chair, was the means of curing him of a pulmonary affection.

The incurvated attitude is unfavorable in reference to consumption, but is more so in those professions which are completely sedentary than in those in which much muscular exercise is required, where this influence is fully corrected by the exercise of the muscles. This conclusion is strengthened "by the rarity of consumption among tanners, gardeners, bleaching and washing women, who are constantly bent at their work."

III. Influence of the purity or impurity of the surrounding atmosphere.—An epitome of the results of his comparisons and calculations under this head, is as follows:

1. Those workmen who pursue their occupation in the open air are twice less liable to consumption than those who work in shops, and the degree of liability is in proportion to the smallness of the shop, or the imperfectness of ventilation.

2. Workmen surrounded by an atmosphere charged with watery vapour—for example, dyers, tanners, washer-women, &c. are much less liable to consumption than the general average. In Geneva, the average number in this class of workmen who are attacked with consumption is inferior more than one half, to the general average.
3. On the contrary, workmen surrounded by a hot, dry atmosphere, yield more readily than other workmen—in the proportion of one hundred and twenty-seven to one hundred and fourteen.

4. Workmen surrounded by animal emanations, butchers, tanners, candle-makers, sick-tenders, &c., are about twice less liable than others to contract pulmonary consumption. The exact proportion is sixty to one hundred and fourteen.

5. Air loaded with emanations of living plants, (in day-time of course,) is a preservative against consumption. The emanations, from fermenting or decomposing vegetable substances, on the contrary, are injurious; and the volatile vegetable oils, as turpentine, the drying oils, &c., exert a very unfavorable influence.

6. Among the mineral emanations, are the gazes arising from the combustion of charcoal, which are unfavorable: the vapours of the mineral acids, which are not as unfavorable as is generally believed: chlorine, which has been used as a remedy in consumption. M. Lombard asserts, that consumption is rare among the workmen employed in the manufacture of chlorine. He tested the statement as to the harmlessness of this gas in a great manufactory of chloride of lime. "The only inconvenience felt by a workman who had been employed in it for more than twelve years, is a transitory uneasiness, when one of the retorts, from which the chlorine is disengaged, happens to break and to diffuse the vapours abundantly in the manufactory."

Metallic emanations, he found, are not directly injurious to the lungs, and notwithstanding their action on the nervous system, and the debility which they produce, the production of consumption does not seem to be one of their secondary effects.

7. Bodies suspended in the atmosphere are highly injurious to the lungs. Mineral particles are more so than animal, and these more so than vegetable particles. Coarse particles are less hurtful than minute ones, and hard particles are more injurious than soft ones. Hence, "the powders most hurtful to the lungs are those which proceed from very hard bodies, and are reduced to an impalpable powder." The inhalation of the dust of emery, steel, or flint, is well known as a frequent cause of consumption.

"The workmen who employ emery, the hardest of all the substances used in the arts, are also the first in the order of frequency of consumption. Thus the watch-hand makers present fifty-five per cent., and the steel-polishers furnish thirty-five per cent., of consumptive cases.

Almost all the workmen employed at Sheffield in polishing steel, become the prey of pulmonary consumption. It has been observed, that in two thousand five hundred persons employed in this department, scarcely thirty five reach the age of fifty years, and scarcely seventy that of forty five years: while the majority die before the thirty sixth year. Dr. Johnson remarked, in 1799, the great frequency of consumption among the workmen occupied in pointing needless on ground stones;* and recently, Dr. Knight, of Sheffield, published a new memoir on the same subject, and has added new facts to those already known.† He remarks, that no polish-er of steel-forks reaches his thirty sixth year. Among two hundred and fifty steel-polishers admitted into the dispensary of Sheffield, one hundred and fifty four had diseases of the chest, and thirteen died within the year; while of two hundred and fifty pursuing other professions than that of polishing, fifty six only had diseases of the lungs, and only one died within the year. The age of eight hundred and twenty seven of these patients deserves to be remarked.

The table shows how much steel grinding abridges the lives of the workmen engaged in this occupation. Numerous attempts have been made to render this operation less injurious, but all have been inadequate, and the grinding of steel is at the present moment as hurtful to the health of the workmen as it was thirty years ago.

The inhalation of silicious or calcareous particles is also injurious; the former much more than the latter; the inhalation of light filamentous substances, as cotton, flax, hemp, is also very injurious, owing probably to their flexibility, and the ease with which they may thus be introduced far into the bronchi. The practical importance of these facts is evidently great. We will give the author's conclusions in his own words:

"Reviewing, meanwhile, the preceding facts, we arrive at the following conclusions.

1. The circumstances which multiply cases of consumption are, indigence, a sedentary life, and the absence of muscular exercise, the concussions of the workshops, the bent posture, the impure air of shops and manufactories, the inhalation of certain mineral or vegetable vapours, and lastly, air loaded with powders, coarse or impalpable, or with bodies light, elastic, and filamentous.

2. The circumstances which exercise a preservative influence are, opulence, an active life spent in the open air, the regular exercise of all parts of the body, the inhalation of aqueous vapours, or of animal or vegetable emanations.

"But it is not enough to specify these different circumstances. It is requisite to estimate the degree of influence of each in the production of consumption. The following table, which gives the mean number of consumptive persons among the workmen exposed to these several influences, will serve to determine this question:

Mean number of Consumptive cases 114 per 1000.

1. Noxious Influences.
   1. Mineral and vegetable emanations, 0.177
   2. Various sorts of powders or dust, 0.145
   3. Sedentary life, 0.140
   4. Life spent in shops or manufactories, 0.138
   5. Hot, dry air, 0.127
   6. Bent posture, 0.122
   7. Motions of the arms causing shocks of the chest, 0.116

2. Preservative Influences.
   1. Active life, (muscular exercise,) 0.089
   2. Exercise of the voice, 0.075
   3. Life spent in the open air, 0.073
   4. Animal emanations, 0.060
   5. Aqueous vapours, 0.058"

Thus the most hurtful circumstance to the lungs is the inhalation of sundry mineral and vegetable emanations; and the most important prophylactic influence is the inhalation of aqueous vapour.

The author makes the following hygienic and therapeutic applications of the foregoing facts:
New and successful remedy for the Croup.—In the following note, from J.
D. Fisher, M. D. of this city, he speaks of a new and successful mode of
treating that alarming disease of childhood, the croup, which ought to be
made known through the newspapers, wherever they circulate. Should
subsequent observation establish the fact of the superiority of the remedy,
Dr. Fisher deserves to be remembered in the first class of public bene-
factors.

My Dear Doctor.—I was called, at five o'clock last evening, to a child
which was laboring under a severe attack of the croup, consequent upon
a sudden disappearance of the eruption of meaz'-s. The croupy symptoms
appeared suddenly, and had existed one hour before I was called. The
child, on my arrival, was in extreme agony, struggling and gasping for
breath; and I thought the little sufferer was in danger of immediate suffu-
cration. The first means I employed was the application of very hot,
almost boiling, water to the throat and upper part of the chest, by means of
large sponges. These applications I repeated every two minutes, and
immediately the skin became coated and red, and in the course of a quarter
of an hour the little girl breathed much easier, and her croupy cough and
respiration became less shrill and tubular, and much modified. Soon after
making the first application of the sponges to the throat, I wrapped the
child in a woolen blanket, wrung out in hot water, as a substitute for a
warm bath, and gave it twenty drops of the wine of antimony in a little
sweetened water, which she swallowed with difficulty. I persevered in the
applications of the hot moist sponges for an hour, when the child was so
much relieved that I ventured to leave it for half an hour—ordering the
remedy to be continued. On my return, I found the patient breathed
with comparative freedom, its respiration and cough less sonorous and
shrill, and its pulse softer and more natural. I recommended the applica-
tions to be continued until the child should be decidedly relieved, and pre-
scribed six drops of antimonial wine to be given every hour in a little
water. The mother of the child informed me, this morning, that she

New and successful remedy for the Croup. [July,
continued to apply the hot-water remedy for five hours, but not so often as I applied them—that the child continued to improve, and fell asleep soon after I left it. This morning she is bright and playful, and asks for food. The respiration is quite easy—pulse soft and natural—cough humid and loose—its sounds having lost the shrill croupy character.

I was induced to employ the above remedy, in consequence of having lately read in a foreign journal, that it had been suggested and employed by a German Physician with decided and uniform success. As the remedy is simple, and is at ready command, and as its application in the present case was attended with such decided and immediate happy effects, I would with a good deal of confidence advise mothers and nurses in similar cases to apply it early and perseveringly until medical aid can be obtained. The sponges should be gently squeezed before they are applied, so that the water shall not ooze from them, and should be gradually compressed during the time they are applied, so as to continue the temperature up to the highest degree that can be sustained by the patient. Should sponges not be at hand, nankins wrung out in the boiling water may serve as good substitutes.—Trans. Jour.—Bost. Med. and Sur. Jour.

Recovery from Asphyxia in a new born infant.—The following case, very remarkable and interesting from the length of time animation was suspended, has been communicated to the Edinburgh Medico-Chirurgical Society, by Dr. MacWhirter, and is contained in our esteemed Edinburgh contemporary for January, 1835.

"I was called, at about half past 11, P. M., to a lady who had been several hours in labour. I found the os tincæ expanded to the extent of a crown piece; the membranes pressed forward by every pain, and the presentation 'breech;' pain recurring regularly and forcibly every four minutes. About a quarter before one, the membranes gave way, the liquor amnii was discharged, and the labour, which was a first one, advanced slowly, until half past one, when the breech was born. Suspecting that resuscitation would be necessary, I desired the nurse to have warm water at hand. The body and head were long in transitu; the funis was round the neck twice; I disengaged it, but could feel no pulsation. I got my fingers into the mouth of the fetus, and succeeded in bringing it beyond the verge of the perineum, but it did not breathe. In about ten minutes, by management and the uterine action, the head was delivered, and along with it the placenta.

"The infant appeared dead; indeed, it was thrice felt convulsed in transitu. The face was white as paper, but there was some colour in the lips; still no pulsation of the heart could be felt.

"I placed the child, with the placenta attached, in a warm bath; gently inflated its lungs with my own breath, in the usual way; rubbed brandy on the chest, abdomen, head, spine, extremities, &c. As the funis when cut did not bleed, I therefore
tied it. After immersion of about half an hour, I took it out of the bath; dried, and wrapped it in a warm flannel, and made the nurse carry it near the fire. I then continued the gentle inflation from time to time, and the spirituous friction, to the extent of nearly two bottles of brandy and whiskey, occasionally slapping the bottom, when at length, about forty or fifty minutes after birth, it gave a sob. This was indicative of existing life, and encouraged me to persevere. It continued to sob or gasp at intervals of a minute or two, and I now found that I could feel the heart beat.

"The above means were most perseveringly continued, until the circulation and breathing very gradually increased. At the end of an hour and a half, the child gave a whimper; the eyes opened; the lips became red; it breathed regularly; cried lustily. It lived and continues to live.—Am. Jour. of Med. Sci.

**Acute pain in the Vagina after delivery.**—Dr. Chopin, in an article in the *Gazette Méd. de Paris* (31st Oct. 1835.) states, that shortly after delivery, and especially of first children, he has discovred on the posterior surface of the vagina of the mother, small excrescences of the size of a grain of wheat, rarely of the size of a small pea, and of a deep red colour. They are easily recognized by their saliency, their exquisite sensibility, and their deeper colour than that of the vagina. The pain attending them, he describes as more insupportable than that of labour. His patients describe it as that of a hot iron in the vagina. He says that the pain is relieved by the application of lint, dipped in chloride of lime, to the tumours.—Am. Jour.

**Early Impregnation in the Cow.**—A writer in the London Lancet states that recently a bull calf less than three months old, and a quay calf of about two months, copulated; and within nine months the female brought forth her first born—she and the offspint being yet alive. In the *Veterinarian*, one case is related in which impregnation took place in a calf of six months, and another at four months. *Boston Med. and Sur. Jour.*

**Neuralgic Pains in the Stomach.**—The new article creosote has been employed in London in the treatment of spasmodic and neuralgic pain of the stomach. The dose was gradually increased to seventeen minims every four hours, which entirely removed the pain, and cured the patient.—*Ibid.*