Messrs. Editors—In a few prefatory remarks in my first letter I stated that I had no motive in offering my views upon certain medical subjects to the profession, beyond a desire to add my testimony to the truth or falsity of the principles and the practice of medicine in the present day, which, of course, will be understood as being confined within the limits of my own observation and experience, otherwise I should consider my testimony as worthless, and would have spared myself the trouble of writing it out, and you of reading it; and I may add, that this desire is strengthened by a sense of duty which I think is incumbent upon every man, who has devoted the greater portion of his life to the alleviation of the sufferings of his fellow beings, (especially if he is conscious of having been generally successful,) to let his views and plans (by which he has accomplished the greatest good) be known, whether they have resulted from his own unaided observation and experience, or whether he has acted merely upon the suggestion of others, and followed out plans which had already been laid down for his direction.

Now, the testimony which I have to offer in favor of the value and efficacy of calomel in the treatment of most of the malignant N. S.—Vol. XII. No. V. 17
fevers, and other diseases of our climate, though by no means novel or original, is nevertheless the result of my own experience, and more particularly is it so with regard to the modes of its administration, and the peculiarity of its effects, according to the manner of its administration. I can *not* expect, however, that my testimony will be received by the profession with much favor, when there are so few who have the boldness and independence to avow themselves the advocates of its use, or, are willing that the *world* should know, or believe, that they ever used it at all in their practice. Some such *I wot of*, who boldly *discard* this, and other cardinal remedies, and endeavor to foist upon the profession, as their substitutes, such articles as phosphorus, bryonia, and aconite! Well, it is not for me to say who shall believe, and who not; it is only my business to testify, and all that I ask of the profession is to award to me the candor and honesty of purpose equal, at least, to my zeal and devotion to my profession, the honor and dignity of which I have so long endeavored to uphold.

In my last letter, I gave, in support of my views upon the uses of calomel, some testimony which was very good as far as it went, and upon high authority. But Dr. Wood, upon some of the most important points, namely, the use of large doses of calomel, gave us only heresay evidence. I now introduce a witness, who is not only able to testify to all the points which I wish to establish, but he does it from his own knowledge, which renders his testimony the more valuable. Doct. Jno. E. Cook, whose general principles I can not endorse, on account of his extravagant and ultra *cathartic* notions, which were at one time very popular in the western country, has done more to bring calomel into disrepute, by combining it with draconic cathartics, than by the quantities used, which were often unnecessarily and extravagantly large, notwithstanding which, his observations with regard to its peculiar properties, its mode of action, its value, and efficacy in certain diseases and conditions, will be found to be correct, by any one who has the boldness to test them by practice; and those who have not, are not competent to sit in judgment upon them. His general views, with regard to the cathartic action of calomel, are, that it draws directly from the biliary ducts, and relieves the vessels of the liver, and others connected with it, of engorgement or congestion; while ordinary cathartics draw upon the *arterial capillaries*, which open upon the internal surface of the intestinal canal. But I will let
him speak for himself. As a cathartic, he says: "Calomel is slow in operation, often requiring twelve hours; it does not operate frequently, but the discharges are large; it gripes little or none, in general, and is perhaps the most effectual medicine known in producing consistent discharges from the biliary ducts." Speaking of the difficulties often to be encountered in the treatment of autumnal fevers, Dr. Cook says: "These are a great disposition to serous discharges from the bowels, . . . . and extreme irritability of the stomach, in consequence of which almost every medicine is rejected as soon as swallowed." Now, these conditions I have seen presented by the opponents of calomel, as cases unsuited to the action of calomel, and they have argued that calomel, not only aggravated, but often produced them.

But I have no doubt that in these cases, as in many others, calomel has been made to bear the sins of other remedies with which it has been coupled or combined. A notable instance may be found in Wood's Practice, which deals calomel a hard blow, on account of the quarter from which it comes. Under the treatment of Pernicious fever we find the following:—"Not long since, under the notion that congestion was the evil to be encountered, copious bleedings and large doses of calomel were the remedies most relied on by many practitioners. Experience, however, has proved the frequent inefficiency and even danger of this practice, and the profession generally are rapidly abandoning it." In this case, it is very certain that calomel has to suffer for being caught in bad company, as, on the next page, we find its character somewhat cleared up by the following sentence: "Another remedy which is decidedly called for, is calomel." But to return. My experience is most decidedly with Dr. Cook, who says, "The disposition to serous discharges is readily overcome by the use of calomel; and it is a remedy that will not fail. There is almost no danger of exciting ptyalism, while these serous discharges continue, and therefore there ought to be no hesitation in administering calomel, until dark and consistent discharges are obtained. If the case is urgent, from a scruple to a drachm should be given at once, in order to obtain the desired effect as speedily as possible, and repeated, according to the necessity of the case." Of irritability of stomach, Dr. Cook says, "In some cases there are incessant and violent efforts to vomit for days together, or even until death. I have, in these circumstances, given, with the best effect, a drachm of calomel. It
produces a copious, tenacious, or viscid discharge, of a deep green or nearly black color, and affords the most marked relief. It very frequently happens that a physician will not venture, as he terms it, to give so large a dose, but will not hesitate to persist for days in repeating small doses, until they far exceed the quantity which, given at once, would have completely succeeded; thus the risk of salivation is incurred, without obtaining the full benefit of the cathartic operation; for it is to be remembered, that one or two large doses often so completely remove the irritable state of the stomach, that the case may be afterwards managed without calomel... It is exceedingly rare to find a patient require more than a dose or two, of the size above mentioned, to effect the object in view."

For fear that I may be accused of having borrowed my views, with respect to calomel, from Dr. Cook, I will state that, until very recently, I had never read a page from that author in my life. A young professional friend, knowing that I was engaged in writing out my views, and knowing also that I entertained opinions, which, if not peculiar, were not entertained generally by the profession, and supposing that I might find something corroborative or confirmatory of my views and opinions, placed his book in my hands, in which I find so much, which so perfectly coincides with my own experience, that I almost feel at a loss sometimes whether I am writing out Dr. Cook's notions or my own, so far as the action of calomel is concerned. This is my apology for drawing so largely upon Dr. Cook's book, with which I am not entirely done yet.

Dr. Cook, after giving the statement of a case, in which he gave a boy a little over an ounce and a half of calomel in seventeen days, with good effect, says, "The risk of salivation in these extreme cases is less than is supposed. I have never known a patient in the circumstances, as above stated, absolutely requiring some energetic mode of procedure, to be badly salivated after taking the largest dose." Dr. Cook further says, "I have even known salivation cured by purging with calomel alone." After giving the particulars of the case, and stating the condition of the patient, who, he says, was pale; the pupils were dilated; was restless and a little delirious; the stomach rejecting every thing, even water; the mouth sore, and saliva abundant—he states that he gave his patient a drachm of calomel each day, for six successive days; at
the end of which time the patient could sit up and eat, and every appearance of soreness had ceased in the mouth.

One more draft upon Dr. Cook, and I will close with his evidence. "Many," says he, speaking of salivation, "consider a patient safe, as soon as this affection of the mouth appears. This opinion is, however, erroneous. The safety of the patient depends, not on producing ptyalism, but upon daily evacuations of consistent bilious matter. Without the latter, in cases of any violence, the patient will die, even in a state of salivation; having them, he will get well without it."

I will now give a summary of the testimony, which I have adduced in support of the views which I have expressed in my last letter, respecting some of the peculiar properties of calomel, some of which are not recognized or acknowledged generally by the profession—namely: That, as a catartie, calomel acts directly upon the vessels of the liver, and not, like most other remedies of that class, upon the mucous surfaces of the intestinal canal; that it is slow in its operation, and produces few, but large discharges; that it is little or not at all irritating, and that it is the most certain and effectual medicine known for producing consistent bilious discharges. (I will add, that the sooner these effects are produced, in all cases which require its use, the better it will be for the patient, and the less will generally be required; hence the necessity of giving it in full doses, or in such quantity as will soonest effect the object.) That in those irritable conditions of the bowels, attended with frequent serous discharges, which are always troublesome and often dangerous, calomel is the best remedy, and will very certainly afford relief, if its use be persisted in until its action is impressed upon the liver; that large quantities are sometimes required to accomplish this, and that while these serous discharges continue, or while the condition lasts, which gives rise to them, there is little or no danger of producing salivation. (The case presented in my last letter is very conclusive upon these points, and I have several others, to the same effect, though none which required so large an amount of calomel.) That in cases of irritability of stomach and obstinate vomiting, calomel in a full dose will generally arrest it promptly, even before it has time to act upon the liver, and when arrested in this way, it is seldom apt to recur. (I have an innumerable quantity of cases demonstrative of this fact.)
With regard to the statement of Dr. Cook, that he had known salivation cured by purging with calomel, I must say that he has taken my thunder, as I have a case of the same kind to report, and thought I stood alone, never having heard of any other case of the same kind. As it is a practice, however, which should be resorted to only in extreme cases, I will give it notwithstanding. I concur with Dr. Cook, in opinion, that the risk of salivation in those extreme cases is not as great as is generally supposed; and that the largest doses, seldom produce it. This is explained by the fact, that large doses will act soonest and most effectually upon the liver, whereby a repetition of large doses are generally rendered unnecessary, and that in cases requiring a repetition of the doses, such as have been mentioned, attended with an irritable condition of the bowels, and serous discharges, which generally depend upon plethora or congestion of the portal veins. Thus a double barrier is placed in the way of its action; for while the plethoric state of the vessels retards absorption, the serous discharges from the arterial capillaries tend to hurry it away from the absorbents. It may be, too, that the same torpor, or insensibility, which would retard its prompt action upon the liver, would pervade the whole system, and prevent its action upon the other organs; but this is not probable, as we sometimes see salivation produced from the repeated administration of small doses of calomel, while the liver remains insensible to its action, and the disease goes on unchecked, as before. Such are the cases in which Dr. Cook says, he has known "salivation cured by purging with calomel alone." In such, I have seen both the salivation and disease removed by a full cathartic dose of calomel. The safety of the patient does not depend upon salivation, but upon the prompt action upon, and the unloading of the vessels of the liver.

While some physicians hail the appearance of salivation as the harbinger of safety to their patients, there are others who dread its appearance to such a degree that they will not venture to use calomel at all, whether from a regard for the welfare of their patients, or a greater regard for their own reputation, I will not decide. The popular sentiment, however, is unquestionably against it, under any circumstances, and so am I. Salivation is not what we want in the malignant and death-dealing diseases of the South; and if calomel is properly used, in these diseases, there is generally little or no risk of exciting it. Now, it is not always becoming
for one to speak of himself, but professing to speak for myself, I may be allowed to say—not, however, in an arrogant or boastful spirit—that the success which I have had in the use of calomel, (for which, I am not too modest to acknowledge, the professional brethren, acquainted with my practice, have awarded to me a full share of credit,) has been, in a great measure, the result of the manner in which I have used it; and the few general rules which I have observed in the use of calomel, have been—after determining the necessity of its use, then to use it in such a manner, and in such quantities, as will soonest accomplish the purposes for which it may be used; and when this is done, then to discontinue its use. Now these rules, though few, and apparently very simple, to be reduced to successful practice, requires the exercise of judgment, prudence, and discretion; for it cannot be denied, that the evils resulting from the use of calomel have often been from a lack of these, and that it has often been used when it was not required; has been used under circumstances, and in such manner, and in such quantities, as to produce its worst, without its good effects, in cases in which it was required; and has often been continued after its use had ceased to be necessary. From observing these few rules, (the minute details of which I purpose giving hereafter, such as the circumstances which indicate the necessity of its use—the time and manner of its administration, and the quantity necessary in each case; the signs for its discontinuance, &c.,) which I have found little difficulty in reducing to practice, on account of popular prejudice; having always been an open and avowed advocate of the use of calomel, I do not hesitate to declare that, with it, I have been the means of doing more good, and saving more lives, than with any, and I might say, all other remedies.

Quinine, which may also be styled a life-preserving remedy, stands next to calomel, in value and importance, each having the highest claim upon the profession in their respective spheres of action; for while calomel possesses the power of often rescuing or snatching a man from the jaws of death—quinine has the power of keeping him out of them. Opium, too, has its claims; and though high in the sphere of its action, which is more extensive than either of the others, it can be regarded only in the light of an auxiliary remedy. These, with the lancet, may be said to constitute the four cardinal remedies of the profession, with which, under proper management, the most malignant diseases may be successfully combated.
Now, these remedies can aid each other in the work of preserving life, but they cannot perform each others' work. Can quinine unload the liver and bowels?—can it restore suspended secretion?—can it stop vomiting and purging?—can it eliminate poisons from the system? Calomel can. Can calomel break up the periodicity of disease?—can it prevent or remove depression, congestion and collapse?—can it give tone and energy to the nervous system? Yes, to a certain extent it can do all these things, though not so well as quinine. Can calomel and quinine subdue a burning fever, arrest a raging inflammation, or assuage a throbbing or an aching pain? Only to a limited extent, and in an indirect manner; yet the lancet and opium will do it promptly. Is it not strange!—"passing strange!" that with all these things, full in view, there are physicians in our midst, whose opinions ought to be entitled to credit, who have openly denounced some of these remedies, (calomel and the lancet in particular,) as unsuit-
ed, or unsuitable, in the treatment of some of our most formidable and dangerous diseases, and have offered us for their substitutes, phosphorus! aconite! and bryonia! Nor is it less strange, that large numbers of our southern physicians should have assumed, that the free use of quinine will enable them to dispense with the use of calomel in our dangerous diseases, and malignant epidemics. And, stranger than all, that there should be some old and long tried physicians, who advise that little or nothing should be done, alledging that one system, and set of remedies, work about as well as another, and all are of no avail.

Now, to show all this matter up in its true light, I will give you an allegory: A poor fellow accidentally fell into a river, and in the act of drowning, called to some men on the shore for help. They had at hand a boat, and life-preserver, and a bundle of straws. One of them said to the other, I will throw him my life-preserver, it will hold him up better than the boat; besides, I do not know much about boats, and I am told that they are dangerous things any way: so he threw him the life-preserver. Another one said, that's just what I think about boats; they are dangerous and use-
less things to my certain knowledge, for I have tried them often; let me throw him some of my straws. The third one said, I know the boat will not do under any circumstances, and I have no con-
fidence in your straws, or your life-preservers either—one is as good as the other; let us watch him until he drifts ashore, and then
we will help him. So the poor fellow drowned. And when the
facts came to be known, how they had all refused to send him the
boat, when they might just as easy have saved his life, the people
all thought that it was very strange, that the men did not send
him the boat, and give him a chance, at least, for his life. Some
said they thought it a very cruel act, not to send him the boat;
others said they thought that it was a very foolish one; but the
men themselves did not seem to think or care much about it, and
it all soon passed off and was forgotten.

Finding that I shall not be able to make a statement of the cases,
which I had purposed doing, illustrative of the more important
points concerning the action of calomel, I will reserve them until
I come to speak of the diseases to which they respectively belong.

Having generalized to a sufficient extent, in my next letter I
will make a summary review of the general principles which I
have maintained, and afterwards will make a therapeutic applica-
tion of them to some of our more formidable diseases. It is said
that "drowning men catch at straws." For mercy's sake, let us
offer them something better; and if I can persuade one man only,
that there is not so much danger in a boat, I shall consider myself
well paid for my trouble.

Respectfully yours, &c.

SAML. D. HOLT.

ARTICLE XV.


Case I. Henry S., the son of a highly respected professional
brother of Coweta county, in this State, had experienced the usual
effects of stone in the bladder from early infancy until the age of
six years, when the bi-lateral operation of lithotomy was perform-
ed in June, 1851. This operation was, however, productive of
only partial relief, as he continued to suffer, although at first less
severely than before it. In a short time his symptoms became as
bad as ever; the wound, instead of healing as usual, was at the
end of three months reduced to the size of a quill, and finally
closed entirely about three months later.

The little patient was brought here and placed under my charge
in February, 1853. On endeavoring to sound him, I found that
although the integuments cut in the previous operation had healed,
such was not the case with the urethra, for the sound would pass from this canal into a pouch in the perineum, and could be felt just within the thin skin which covered it. This circumstance rendered catheterism somewhat difficult, as it was not easy to carry the sound into the canal beyond after it had entered the pouch. I succeeded, however, in detecting a large calculus, and at once determined to operate.

On the 22d February I performed the bi-lateral section, under the influence of anaesthesia, and seized the calculus, which crumbled into pieces on endeavoring to extract it. The scoop was then used, and about a table-spoonful of chalky-looking fragments removed. The bladder was carefully explored with the finger until every particle was brought away with instruments and repeated injections of tepid water. On the seventh day the wound had entirely closed.

The child returned home, with the injunction to use vegetable acids as freely as possible, so as to prevent a reproduction of the calculus, which was evidently ammoniac-magnesian. How long these instructions were carried out I am unable to say. In a letter received from his father, I am informed that the child “for twelve months after the second operation enjoyed fine health, and was growing rapidly, without any symptoms of a return of the disease. After the expiration of this time he was attacked again, and suffered as much as he had at any time previous, discharging quantities of pure pus, occasionally mixed with a little blood and small fragments of stone, which very much resembled those you extracted. He continued in this way some two or three months, suffering by paroxysms, when he was suddenly attacked with violent colic, accompanied with vomiting and purging, which terminated fatally in two or three days.” He died on the 27th September, 1854.

Remarks.—This ease derives interest not only from the fact that the patient underwent at so early an age two operations of lithotomy, but also from the persistence, or rather recurrence, of the calculous diathesis even after the second operation. I say recurrence, because there is no evidence of any reproduction of the disease for upwards of a year after the second operation. From the little relief afforded by the first operation, the non-closure of the wound for many months, and the continually increasing severity of the symptoms, it may be questioned whether some portions
of the calculus had not been left in the bladder. Yet the operation was performed by an experienced surgeon, who could hardly be presumed to have committed such an error. I am informed by the parent that the first stone was of the same character as that I removed, and that it was likewise crushed in the extraction.

Case II. James F., of Dooly county, about twelve years of age, had suffered with symptoms of stone in the bladder from early childhood, but his general health was unusually good. Finding, upon examination, that the calculus was small, I determined to try to crush it with the lithotrite. Dilating bougies were accordingly used some days, but occasioned so much irritation in the urethra that they had to be discontinued, and I had to wait until this had subsided before making any further attempts. His urethral canal being very small, a correspondingly small lithotrite was passed into the bladder, and the stone seized; but its hardness was such that it could not be crushed by any force that could be applied without danger of breaking the instrument. A few days later another attempt was made, with similar result.

Lithotomy being now the only alternative, the bi-lateral operation of Dupuytren was performed on the 29th July, 1855, under the influence of concentrated chloric ether, and a calculus of oxalate of lime removed. Its shape was a flattened ovoid, seven-eighths of an inch long, three-quarters of an inch wide, and half an inch thick. It weighed seventy grains.

No unpleasant symptoms manifested themselves, and on the 9th August, being well, he returned home.

Case III. Columbus A., of Columbia county, had experienced symptoms of stone from early childhood, and was very much emaciated and debilitated. Although in his eighteenth year, his physical development had been retarded by excessive suffering to such a degree that he did not appear to be more than ten years of age. For several years his urine was continually dripping, so that there was rarely any accumulation in the bladder. Sometimes he would pass off once in the course of twenty-four hours as much as two or three ounces of urine. It was remarkable that moderate walking, or riding in a carriage, did not aggravate the symptoms.

Having been put under the anaesthetic influence of chloric ether, the bi-lateral operation was performed on the 13th November last,
and an hour-glass shaped calculus was removed, of which the accompanying wood-cut is a faithful delineation. It weighed about an ounce and a half, and was composed of ammonio-magnesian phosphate of lime.

Upon making a longitudinal section of this calculus with a fine saw, a nucleus of darker and more dense material was found occupying the centre of the neck, and projecting about equally into the two enlarged portions of the stone. This nucleus presented more length than breadth, being about three-fourths of an inch long and half an inch wide. The shape and size of this nucleus will serve to account for the position occupied by the calculus, the large extremity being found to be within the bladder, while its lesser end was in the urethra, and its neck consequently grasped by the orifice of the bladder. It would therefore seem that while small, as represented by the nucleus, it attempted to escape from the bladder, but was caught at the origin of the urethra, and remained there until by deposits upon its surface it reached its present dimensions. The deposit being more copious within the bladder, this portion of the stone grew faster than that in the urethra.

The abnormal position and form of the calculus rendered the introduction of instruments quite difficult, and much care was required not to break it in the extraction. On being removed, the pouch in the urethra was found lined with soft detritus, which had to be scooped out. The bladder was then carefully and repeatedly washed out until no vestige of fragment remained. On the fourteenth day after the operation the patient began to pass his urine per urethram, and he went home on the 10th of December.
The wound finally closed a few days after. He has continued to improve ever since, and is now in fine health.

The position of the stone and its consequent immobility will explain the stillucidium urinae and the non-aggravation of symptoms by walking and riding.

Observations on Hæmorrhages arising from Implantation of the Placenta upon the Cervix of the Uterus; with Remarks on the Pathogeny and Therapeutics of this Accident. By M. Legroux, Physician to Hôtel-Dieu of Paris, Agrégé Professor to the Faculty, etc. etc.

Hæmorrhage consequent upon the insertion of the placenta over the cervix of the womb, has, latterly, been the subject of much discussion, both in learned societies and medical periodicals.

The most complete and important document which has appeared among recent publications is Dr. Depaul's report* to the Academy of Medicine on a case of complicated labor, communicated by Dr. Gérard.

More recently, Professor Dubois has taken up this matter in his clinical course; and his lectures, which first appeared in the Journal de Médecine et de Chirurgie Pratique, have been very generally republished.

After such imposing authorities in obstetrical matters have given their opinions, I almost fear to enter on the question, or to give the results of my personal experience. For, if I have observed and appreciated facts aright, the generally admitted doctrine in respect to the pathogeny of placenta previa must be laid aside. If I am not deceived, some of the precepts of the masters of obstetrical art must be modified or revised, and a new therapeutical element must find a place in their teachings. May the desire and hope of being useful to humanity justify the boldness of my undertaking!

In the first place let me briefly recall the reigning doctrine on the pathogeny of this hæmorrhage.

"It is generally admitted that the flooding becomes more profuse as labor advances, and the separation of the placenta, from which the hæmorrhage arises, becomes more considerable; that whatever increases the uterine contractions necessarily augments the bleeding; that the means of arresting this are precisely those which suspend the contractions, for the hæmorrhage lessens and ceases only in the intervals between the pains," (Gardien, 2nd ed. t. ii. p. 404.)

And farther on, (p. 406,) it is stated that "the flooding produced by the separation of the after-birth, at any other part of the internal surface of the

* Bulletin de l'Académie, July 1852.
womb, augments when the true labor pains are suspended, and ceases when the pains are active."

The reason of this difference is that, in the latter case, the womb closes the orifices of the uterine vessels, as it contracts; whereas, in the former, the contractions of the body and fundus dilate the cervix, and separate the placental attachments more and more, the distended vessels remaining open-mouthed.

According to this theory, the haemorrhage is *placental*. A multitude of objeotions are at hand, but I pass them by for the present. With the opinion of Gardien, I collate those of Désormeaux and Professor Dubois.

"Blood flows more abundantly during uterine contraction in haemorrhage from insertion of the placenta over the cervix, while, in other haemorrhages, the compression of the womb suspends the flooding. The blood in the former case, is forced out of the vessels of the cervix and of the placental parenchyma by the recession of the circumference of the uterine orifice, and by the pressure of the child on the placenta." (Dict. de Méd. art. Menorrhagie, t. xix. p. 600.

This doctrine, attributed to Duparque, admitted by Désormeaux, M. Depaul, and Professor Dubois, and uncontradicted, so far as I know, is very similar to that of Gardien; only the latter attributes the haemorrhage to the *gradual separation of the placenta*, the vessels of which remain gaping; whereas the other theory takes account of the pressure of the fetus, and assigns an utero-placental origin to the haemorrhage. In both theories, however, the uterine contractions are considered the primary cause.

The haemorrhage is in direct relation to the activity of the labor, and the haemostasis depends on its suspension.

The practical deduction is this: *to arrest the haemorrhage, moderate the uterine contractions.*

But inasmuch as parturition must go on, after all, we are advised, in the face of theory, to hurry the labor by ergot, in order to hasten the delivery of the placenta. But we are necessarily placed between two perils. If we excite uterine contraction, as practical sense would seem to dictate, we incur the hazard of profuse and fatal flooding. If we moderate the pains, according to the indications of theory, the blood does not flow so fast, but the patient almost invariably succumbs to the progressive anaemia.

I hope to substitute for this theory one which subordinates the haemostasis to uterine action and reciprocally, and which will permit uterine action to be augmented without danger.

I shall state, in the first place, the facts on which this theory is based. My first cases* are designed to determine the source of the haemorrhage.

* We have found it necessary to abridge the reports of cases, but have endeavored to omit no important fact. Otherwise, we could not have published M. Legroux's paper in a single number, as it occupies over thirty pages of the Archives, a greater space than we can afford.—*Translator's note.
Case I.—A woman æt. 30, had been flowing, at intervals, for a fortnight, when she was brought to the Beaujon hospital in April 1852.

She was near her term. She had lost much blood; the fetal movements had ceased. She was still flowing moderately and though of robust habit, was pale and feeble. The os uteri admitted the end of a finger, and presented no abnormal appearance. (Rest in horizontal posture, astringent drinks and injections.)

The haemorrhage ceased, but returned in a few days; the patient became faint. I asked the advice of Dr. Robert, surgeon to the hospital. By digital and speculum examination, we made sure of a prominence of the posterior lip; the finger, after passing the os, perceived a spongy substance. The woman bore the examination, in both the horizontal and vertical positions, without discomfort.

We decided to give ergot. The medication had not been commenced, however, when, towards the close of the day, the woman, without more flooding, died unexpectedly in a swoon.

Autopsy.—Central implantation of the placenta over the os uteri. Placenta soft, brown, decomposed, not foetid, however; placenta easily detached. Foetus decomposed. No visceral lesion to explain the sudden death.

The decomposition of the placenta, resulting from the death of the foetus, forbids us to locate the haemorrhage in that organ. If the bleeding was utero-placental at the outset, it was assuredly purely uterine after the child’s death.

Notice also a fact, which is constantly observed in cases of placenta prævia, that flooding occurred long before labor, and therefore independently of uterine contraction, to which theory assigns the chief share in its production.

The following is a succinct summary of a case observed in 1844, at the hospital Saint-Antoine, and recorded with great care and detail by my friend Dr. Bernutz, who has kindly communicated it to me.

Case II.—A woman, æt. 44, was in the eighth month of her thirteenth pregnancy. She menstruated the first four months, but had seen nothing since, until towards the end of the eighth month, when, after bad treatment from her husband, she began to flow, and lost considerable blood at intervals for three days. The flooding ceased after a protracted syncope, and the next day the woman was brought to the hospital.

She was pale, but there was no haemorrhage. The os was dilated to the size of a quarter of a dollar, and was filled with a substance which felt like cup moss.

In the night, copious haemorrhage, sighing respiration, epigastric pain, feeble, frequent pulse, no uterine contraction, same state of os. (Cold vaginal injections.) The haemorrhage ceased. The patient took a little wine, and felt better. The tampon was employed, but the patient complained of it, and of a great pain at the epigastrium; the stomach retained two scumbles of ergot, which had been given in three doses. Soon after, the patient became delirious, the pulse failed, and a state of syncope ensued, which resisted every mode of stimulation.
Autopsy.—Heart contains black and fibrinous coagula; in the great vessels a quantity of blood analogous to what is usually found in examinations post-mortem. The uterus contains a foetus at term in a state of decomposition. The placenta, implanted on the anterior surface of the cervix, completely closes the orifice, and rises a few lines beyond the posterior border. The os is dilated to nearly the size of an half dollar piece, and is filled by the tampon, which is hardly stained. No open vascular orifices.

The anatomical conditions of the placenta are not mentioned in this case. Notwithstanding this omission, we may assume that the utero-placental circulation was more or less completely intercepted after the death of the foetus; for, according to Professor Moreau, when the foetal circulation ceases, the blood coagulates in the uterine vessels, and many of the latter are obliterated. Only enough blood goes to the womb as may suffice for its nutrition; the stimulus which invited more is gone, and hence dilatation may occur without much haemorrhage, albeit the vessels which unite the placental borders are torn. This is Dr. Cazeaux's rational explanation of the dilatation of the cervix without haemorrhage.

Death, in the two cases I have cited, was not the direct and immediate, but the secondary, effect of the haemorrhage. In the second case, indeed, the fatal termination was brought about by a series of accidents; but in the first it occurred unexpectedly, and without extreme exhaustion.

I think it useful to dwell on the dangers of the anaemic state induced by repeated flooding, dangers which continually menace the patient, even after a protracted cessation of the bleeding. I shall insist, also, on the danger of some of the obstetrical manœuvres which may be requisite under these circumstances.

Case III.—A year ago, a woman was brought, at the hour of my visit, to my lying-in ward at l'Hôtel-Dieu, who had been several days in labor, and was exsanguined by repeated haemorrhages.

A spongy substance, that was evidently the placenta, filled the orifice of the womb, which was detailed more than two inches, (6 centim.) The case was urgent. The extreme debility of the patient indicated that she could not withstand another haemorrhage. I attempted to deliver. Contrary to my anticipations, the cervix was so unyielding that I could not dilate it by introducing my fingers. I had scarcely commenced my manœuvre when the woman swooned and seemed about to expire. I desisted, and ordered stimulants, broths, sinapisms, and left directions that the tampon should be used on the slightest recurrence of haemorrhage.

Haemorrhage did not recur, but the patient sank gradually, and died in a few hours.

Autopsy.—Placenta over cervix, as had been recognized during life. No clot between the uterine and placental walls to explain the haemostasis. It was impossible to discover, at points where the placenta was separated, the orifices of any vessels.

What else could have been done for this poor woman, in her state of extreme exhaustion? Artificial delivery would obviously
have caused instant death, since even the introduction of the hand into the vagina induced syncope. Should the membranes and placenta have been perforated? There were no uterine contractions, and the sudden removal of pressure from the abdominal contents, after the escape of the waters would have aggravated the syncope. I have since regretted that I did not use the tampon, which might have induced uterine contraction, and stimulated the vital powers.

In this case, also, death took place many hours after hæmorrhage had ceased, and was a secondary result.

I observe the same thing, lately, in the case of a lady of Courbevoie, whom I attended with two eminent colleagues. She was exhausted by repeated hæmorrhages occurring in a lingering labor. When I saw her the flooding had stopped. The os was largely dilated; a large, spongy mass was behind it; the tissues were all relaxed. Extraction of the placenta, version and extraction of the child seemed easy. We decided that this operation was indicated. I practiced it. The whole manœuvre required less than a minute. The lady complained, at the moment of extraction, of faintness and a sensation of anguish. No blood followed. Notwithstanding, and despite the devoted care and attention she received, this patient succumbed in a few hours, without reacting.

In the last six months, two cases of artificial delivery in placenta praevia have been in my lying-in ward, under the care of Dr. Danyau,* specially charged with cases of dystocia. Both of them succumbed two or three days after the operation.

The simple extraction of the placenta, after the child is born, produces the sensation of anguish I have alluded to, in a woman exhausted from hæmorrhage. One morning during my visit, I found a young woman blanched by hæmorrhage, which doubtless was due to inertia of the womb after expulsion of the child. The extraction of the after-birth seemed urgently requisite. I relied on the contractions which the introduction of the hand would excite; but this simple operation, as rapid as it was easy, produced, at the moment the placenta came away, a dying sensation, which was followed, in a few instants, by actual death. Death was certainly impending, and inevitable perhaps, in the exsanguined state in which I found this woman; but I asked myself if I had not accelerated the fatal event, by performing an operation.

From these facts, the number of which I could readily increase, two conclusions may be drawn: 1. That anaemia due to repeated hæmorrhages, an anaemia which I would term acute, in contradistinction to the chronic anaemia induced by unfavorable hygienic conditions, which may be extreme without endangering life—that

* Dr. A. G. Danyau, son of an accoucheur formerly in great vogue in Paris, and son in law of old Roux, is surgeon to the Maternité. He is one of the eight members of the section of accoucheurs at the academy, and is great authority at the Surgical Society on matters pertaining to obstetrics. He has been in practice twenty-six years.
acute anaemia, I say, exposes patients to sudden and unexpected death, and demands all the solicitude of the practitioner. 2. That the slightest obstetrical manoeuvre, during the debility of acute anaemia, may superinduce a fatal perturbation.

After this digression, which I have thought might not be devoid of practical interest, I return to the facts which illustrate my views of haemorrhage in placenta praevia.

CASE IV.—Mrs. Lemasson, æt. 28, rue St. Antoine, reached the eighth month of her eighth pregnancy in May 1847, at which date she had an haemorrhage which seemed to threaten a premature labor.

Moderate venesection, indicated by a somewhat plethoric habit, and cold applications to the abdomen and thighs checked the bleeding. It returned, however, on three occasions, before term, and was thrice controlled with the same facility; but the third time, the bleeding was not restrained entirely, and it became abundant after three or four days, when labor began.

The presumption of placenta praevia was confirmed as soon as dilatation was sufficient to admit the finger, which encountered a spongy mass, so thick as to conceal the prominences of the fetus. The dilatation reached about two inches and then ceased, notwithstanding the intensity and frequency of the pains.

On exploring the orifice, carrying the finger as high as possible, I passed, on the left between the internal surface of the cervix and the placenta, and ascertained the following facts:

During the uterine diastole, the finger passed readily between the separated parts; but then the blood streamed by it into the vagina.

During the systole, the finger was driven out by the tense membranes, which were pressed firmly against the uterine walls; the blood then ceased to flow, but that which had been poured into the vagina during the diastole was expelled by the downward pressure of the womb.

Having repeatedly satisfied myself of the correctness of these facts, I considered it evident that the issue of blood from the vessels, the haemorrhagic fact, was diastolic, though the appearance of the blood externally, the apparent haemorrhage, was systolic indeed, and coincided with the suspension of the real haemorrhage.

The haemostasis was manifestly the consequence of the uterine contraction, of the firm application of the membranes on the inner surface of the cervix.

In order to arrest the haemorrhage, it was necessary to maintain this state of things during the repose of the womb; to cause the combined mass of the waters and theælius to press on the cervix in the intervals of the pains. The vertical posture fulfilled this indication.

I boldly substituted it for the horizontal position hitherto adopted. The patient, too feeble to stand alone, was held by strong persons on either side, while I sat in front, supporting her feet and knees by mine, and sustaining her with one hand, while I manoeuvred with the other. As soon as she was placed upright, there came a torrent of liquid blood and coagula well calculated to frighten me and cause me to repent of my experiment. But my fears were speedily dissipated; the first gush over, the haemorrhage ceased entirely!

I satisfied myself by the touch that, in the intervals between the pains,
The womb remained on the floor of the pelvis, and that the weight of the waters and foetuses maintained the separated vascular surfaces in apposition.

The uterine contractions became at once stronger and more frequent. But the os did not dilate. What was the obstacle to dilatation? Undoubtedly, the peripheral adhesions of the placenta, detached on a small part of the left side only.

I attempted, passing my finger up on the left, to reach the membranes, but unsuccessfully. I presently detected, however, a fissure between the placental lobules which I separated, tearing with the finger nail the parts that offered resistance. I finally reached the membranes, and ruptured them during a contraction. A large rent was immediately torn in the placenta as the waters escaped. The placenta was thrust to the right by the head, which engaged at once, and after delivery was accomplished without any accident. The child was living and lusty.

In a portion of its circumference, the placenta was torn for about two and a half inches. Near this rent was a smooth white surface, the cicatrix, probably, of an antecedent laceration.

The woman had a good getting up.

Case V.—A few months after this confinement, Mrs. Lemasson became pregnant again. The abdomen increased rapidly in volume. By the eighth month it was enormous.

During this month, she suffered from several haemorrhages, each of which lasted several days, and was treated by rest, refrigerants, astringents and injections. Before her confinement, the bleeding became continuous, and produced a state of anaemia. The pains were feeble; they were not aroused by ergot; the os did not dilate.

The feebleness was such that I could not resort to the vertical posture. I plugged the vagina with bits of lint saturated with a solution of alum. When the tampon was removed, it was evident that it had suppressed the haemorrhage completely.

The presence of the tampon excited contractions. In three hours, I cleared out the vagina, and found notable dilatation of the orifice, which was occupied by a spongy mass. Following the periphery of the orifice, I found, on one side, a fluctuating membranous protrusion, which I ruptured. The head engaged and rapidly enlarged the opening. In a very few minutes two children were born. They had been dead for some days. The after-birth was delivered without difficulty.

The subsequent history is less pleasing. The patient narrowly escaped death from metro-peritonitis. She had double phlegmasia dolens, followed by incomplete anchylosis of the knees, which was not ultimately relieved, until she had passed two seasons at the Bourbonne springs.

The menses have not returned since; but at the supposed monthly periods, the patient suffers from hypogastric pains and hysteriform symptoms requiring anti-spasmodics, and occasionally, leeches to the anus. The general health is blooming, however, and these periodical indispositions are less severe at each return.

This complete observation furnishes a demonstration of the propositions I have advanced, as will appear, I hope, from the following considerations:

Source of the haemorrhage.—When the child is dead, and the
placenta decomposed, it is obvious that the bleeding is purely uterine. This was the case in the first patient whose history has been detailed.

Admitting that after the death of the child, the placenta remains grafted to the walls of the womb, from which it receives materials for its nutrition through special vessels, it is evident that the vascular connections between these organs must be too restricted, the utero-fœtal circulation having stopped, to produce a notable hæmorrhage, such as caused death in case 2.

In one case as in the other, the bleeding was exclusively, or almost exclusively, uterine.

Is it so when the circulation between the mother and child is intact?

A priori it might be argued that, nothing being changed in the progress of the accident, the blood comes from the same source. This rational deduction receives a practical confirmation from the case of Mrs. Lemasson. In her case, the bleeding was arrested by maintaining the placental and uterine surfaces in contact, while a portion of the placenta was exposed over an orifice two inches in diameter. If this organ had been the source of the hæmorrhage, would it not have bled freely, while thus exposed, during the active pains excited by the vertical posture?

Therefore, in all cases, the hæmorrhage is almost exclusively uterine.

The death of the child, which precedes delivery in the majority of cases, (in seven out of eight that have been under my care,) would allow us to suppose that the hæmorrhage, at the onset, was placental and fœtal. But there was no placental hæmorrhage in Mrs. Lemasson's case, and her child was living and not anaemic by any means. The death of the fœtus is due to the interruption of the utero-placental communications.

It may be objected that Dr. Simpson's plan of extracting the placenta at once arrests the hæmorrhage: Sublata causa, tollit tur effectus.

If this objection was valid, the decomposition of the placenta should have the same effect, which it has not. Why this difference? In the latter case, the placenta, although deprived of vitality, still retains its mechanical connections with the uterine walls. As these connections are broken up by the retraction of the walls of the womb, vascular orifices are exposed. Hence those intermittent hæmorrhages, which occur during labor, although the child has ceased to live. In Dr. Simpson's operation, the portion of the uterine surface corresponding to the placenta is exposed at once; uterine contraction is excited by operative manœuvres, and the vascular orifices are closed. Hence the cessation of the hæmorrhage.

It is unquestionable that this operation would be injurious in cases of inertia of the womb.
The practical deduction from this theory is: hasten, expedite the labor.

The suspension of haemorrhage is commonly attributed to the formation of an obstructing coagulum. I have never been able to find this coagulum in any of my autopsies. If the haemostasis was due to such a salutary clot, the therapeutic deduction would be: let the clot alone, retard the labor, a most pernicious result.

In the exposure of the uterine sinuses by the growth of the womb during pregnancy, and by the dilatation of the os during labor, in this mechanism, we find an explanation of the phases of apparition, suspension, and recurrence of haemorrhages from placenta praevia.

*Nature of the haemorrhage.*—Dr. W. Mackenzie's experiments on bitches near the full term of gestation, equally tend to prove that in partial separation of the placenta, bleeding occurs from the denuded uterus, and not from the separated placenta. From these same experiments, and from injections into the uterine vessels, through the hypogastric arteries, of defibrinated blood, this English author concludes that inter-uteroplacental haemorrhage is arterial. With Dr. Jacquemier I am unwilling to admit this conclusion, when I consider the prodigious development of the uterine venous apparatus during gestation, and the free communication between all parts of it. This question, however, has more theoretical than practical importance. The capital point is to determine what organ furnishes the blood.

*Relation of the haemorrhages to uterine contractions.*—I repeat my remark that hemorrhage in placenta praevia occurs long before term oftentimes, and is consequently independent of uterine contractions.

It has been asserted that the hemorrhage, in placenta praevia, takes place at each pain, and is arrested in the interval, and that the reverse obtains when the placenta is separated from its attachment to the fundus or body.

In the first case, the observation is correct, but the interpretation is erroneous. I have shown that the placenta is, at the most, only a very secondary source of haemorrhage. Common sense suggests the improbability of much effusion of blood between the surfaces of the ovum and uterus, when these surfaces are strongly pressed together; and what common sense indicates, experience corroborates. It is, indeed, a matter of ordinary observation that, in the horizontal posture, the flooding ceases in the interval, and returns with the pains; but the interpretation of this fact is that the real haemorrhage occurs in the interval, and that the apparent haemorrhage is only the elimination of blood already effused.

In the second case, observation has certainly been defective, but the conclusion is correct. The haemorrhage does occur during the repose of the womb, but it is impossible to believe that the flooding

* Gazette hebdomadaire de Méd. et de Chir. March 24th, 1854.*
is manifested externally at this period; it is only when the womb contracts that the blood that has filled the vagina during the diastole is expelled.

It is incorrect, therefore, to institute any distinction between the different insertions of the placenta, in respect to the time at which the haemorrhage takes place.

*Vertical position in labor.*—In the horizontal position, in which the parturient woman is commonly placed, the uterine contractions force the womb towards the vulva and the foetal extremity towards the cervix. When the pain is over, the womb reascends in the pelvis, and the child falls back in the uterine cavity. The weight of the ovum is supported by the posterior wall of the uterus; a part of the force of each contraction is expended in raising the foetal mass, and depressing the womb to the point at which the preceding pain left it; this force is lost as far as expulsion is concerned.

In ordinary labor the womb is equal to its double task; but when the pains languish, the force of the contractions is barely sufficient to raise the foetal mass and imperfectly depress the womb. The labor becomes stationary, and may remain so for hours or days, unless art intervenes.

Ergot may render good service in such cases, or it may be insufficient, and the forceps may be resorted to. Now, under these circumstances, the vertical posture alone, or aided by a dose of ergot, will almost invariably induce sufficiently active labor to bring about a natural delivery.

In this position the foetal mass presses constantly on the cervix, and is a permanent cause of dilatation. However feeble the contractions may be, they are exclusively employed in expulsion, for the womb ascends but little in the intervals. Moreover, this position almost always excites more frequent and energetic pains.

By this means, the use of the forceps may be avoided* in a great majority of cases, a desirable result, inasmuch as many persons who practice obstetrics are not familiar with the application of these instruments.

I have already treated of the haemostatic effects of this position. It assuredly does not always succeed, however, and may often be prohibited by the exhaustion of the patient. What resource have we then?

*The Tampon.*—Methodical plugging of the vagina, advocated in 1776, by Leroux of Dijon, is now generally admitted to be an invaluable remedy.†

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* I was present, a short time since, when a distinguished obstetrician delivered a robust lady by means of the forceps. She had been in labor three days in the horizontal posture. While the operator was preparing the bed, the patient experienced a desire to go to stool, and was placed for a moment on a chair ad hoc; such violent pains came on, that if the operation had been delayed for a few minutes, the child would inevitably have been precipitated into the vessel.—Author's note.

† Dr. Legroux introduces here a long extract from a lecture of Prof. Dubois on the tampon, which we omit, as we intend to publish that lecture entire.—Translator.
I usually introduced the speculum, and filled the vagina with little balls of linen or charpie by means of a long pair of dressing forceps, and when the tamponnement is complete, I apply a T bandage. Many accoucheurs employ the simple pessary of vulcanized india-rubber, invented by Gariel, and recommended particularly by Dr. Chailly. This is inflated after its introduction; the facility with which it is applied permits frequent examinations during the labor, without discomfort to the patient.

Perforation of the membranes.—To evacuate the waters, and allow the uterus to contract and close the vascular orifices laid bare by the separation of the placenta, is a practice advised by the majority of authorities, in all cases of profuse flooding towards the end of gestation.* Nearly all, however, require that the commencement of labour should be clearly indicated by unmistakable pains.

The author of the excellent treatise from which I learn these facts, considers rupture of the membranes preferable to the tampon. Professor Dubois is so convinced of the utility of rupturing the membranes, that he lays it down as a maxim that this manoeuvre should be employed in preference to forced delivery by the podalic version; but he makes it necessary that there should be strong and frequent pains, a certain degree of dilatation and dilatability of the cervix, and a favorable presentation. This is something more than a "commencement of labor," certainly. It reduces us to the ordinary indications for the operation almost.

Dr. Cazeaux (loc. cit.) observes that, after hæmorrhage, the pains are generally feeble, and that labor may advance considerably without any noticeable pains; that the pains may be suspend¬ed after having been strong and frequent, although the cervix is dilated and soft. In these two cases, the condition of the cervix will determine the accoucheur's conduct. If this is favorable, the best way to excite or renew the contractions will be to rupture the membranes.

But, notwithstanding the authority of Dr. Cazeaux, I cannot believe it prudent to perforate "when the end of the finger can be introduced, and feels the membranes growing tense at intervals." I am more struck by the dangers than by the advantages of perforation at this stage. It is not certain that this operation will arrest hæmorrhage. If delivery is not rapidly accomplished, the contractions will separate other parts of the placenta, and the hæmorrhage will return. A premature evacuation of the waters retards the labor, and far from being favorable to the child, subjects it to the dangers of uterine compression. When the tampon affords this security, why not wait until the os is sufficiently dilated and soft? Moreover, if hæmorrhage returns after premature evacuation of the waters, we cannot have recourse to the tampon with the same confidence; the blood may accumulate in the uterus.

When the placenta is partially implanted on the cervix, a period always arrives when a portion of the membranes protrudes at the os. It is at this point, obviously, that they should be ruptured at the opportune moment. But when the placenta is centrically implanted, should it be directly perforated? Dr. Gendrin adopted this procedure in two cases. He traversed the centre of the placenta with a female catheter; the waters escaped, and the haemorrhage ceased. Notwithstanding his success, I should not dare to imitate him. If such a perforation is converted into a laceration, and the foetal head passes through it, the placenta may be caught upon the shoulders, and constitute a grave obstacle to delivery. I deem it safer to wait for dilatation, and to rupture as near the edge of the placenta as possible. The escape of waters will make a rent, through which the foetal extremity will pass, pushing the placenta to one side.

The proposal to rupture the membranes early is attributed to Prezos. But it is to be observed that this accoucheur, by dilating the os with his fingers, in the first place, excited contractions, and that active pains being induced, the membranes could be ruptured with less hazard.

It is admitted that, when the waters are evacuated, the contraction of the womb brings the foetus in contact with the vascular orifices, whence a salutary compression. Now it is not certain that contraction will ensue; neither is it certain that some prominence of the foetal ellipse will be pressed against the part at which the placenta is separated. Do we not deprive ourselves of the most efficacious compressor, of an upper tampon or bladder pessary, by evacuating the waters prematurely? Before disgorging the ovum, is it not rational to wait until the foetus, closely compressed on all sides, will suffice for a tampon?

To sum up what I have said, the conduct of the accoucheur in the floodings towards the end of gestation, due to separation of the placenta, is as follows:

1. To use the tampon, in the form, if possible, of the bladder pessary, which allows the condition of the parts to be examined, without discommoding the patient.
2. To place the patient in a vertical position, having her held if necessary. This position completes the tamponnement. It suffices alone, if the labor is active.
3. Induce and promote pains by ergot, if requisite.
4. Perforate the membranes when the pains are strong and regular, when the cervix is soft and dilated, when the presentation is good.
5. If the tampon and vertical posture fail, the membranes must be ruptured prematurely, which will temporarily restrain the haemorrhage.
6. Lastly, if the haemorrhage still persists, and menaces life, the placenta must be extracted.
Extraction of the placenta.—Complete separation and extraction of the placenta, advised by Dr. Simpson of Edinburgh, will arrest the haemorrhage immediately, at least in the majority of cases. This operation is indicated when the means I have described are unavailing. It is an extreme resource. It is inadmissible unless the child is dead or not viable, and delivery by version or the forceps is impossible. (Dubois.)

Case.—A woman, at term, was seized with an haemorrhage, which was attributed to insertion of the placenta on the inferior segment of the uterus. Unsuccessful efforts were made to perforate the placenta; but, even after tearing away a portion of the placental parenchyma, the operator failed to reach the amniotic cavity. The tampon did not arrest the bleeding.

The woman was carried to the hospital des Cliniques. The membranes were ruptured, and ergot was administered. The uterus contracted incompletely; the haemorrhage moderated, but was still alarming.

Professor Dubois presently arrived, and found the vagina filled with blood. The os was dilated to the size of a silver dollar; the placenta was implanted over it centrically. The pulsations of the foetal heart could not be perceived.

As the want of dilatation forbade an attempt to deliver by version or the forceps, M. Dubois observed that it was legitimate to separate and extract the placenta. He introduced his hand, secured an edge of the placenta, separated, twisted, and extracted it. The haemorrhage ceased. In an half hour, active pains came on, and the child was delivered in five hours.*

This case proves that I was correct in supposing the rupture of the membranes was not a certain haemostatic. Inertia of the womb might allow the haemorrhage to continue after the placenta was extracted, also. There cannot be complete security, therefore, after that operation.

Artificial and forced delivery.—If the means that have been described did not arrest haemorrhage, rather than stand by helplessly while life was ebbing, it would be right to resort to an hazardous operation, to deliver forcibly, making an incision in the cervix if necessary. Such an operation will be very rarely indicated.

But when there is good dilatation, and a soft and yielding cervix, ought we to deliver immediately by version or the forceps? I may be wrong; but in such a case, I should wish to wait for natural delivery, if I was master of the haemorrhage. I should be still more inclined to this course if the waters were intact, and I could count on the amniotic bladder as an upper tampon to aid my vaginal or lower tampon. If the waters have escaped and the woman is exhausted, artificial delivery is the only resource. But, I repeat, I have a dread of the perturbation produced by obstetrical manoeuvres at such a moment. If the woman is so feeble that artificial delivery is deemed too hazardous, she should be placed with her head low, her limbs raised by pillows; a bandage should be placed around the abdomen; hot wine, broth, and other resto-

* Journal de Médicine et de Chirurgie Pratique, June 1855.
Cataleptic Hysteria.

Dr. Ringland communicated to the College of Physicians, in Ireland, April 4th, 1855, the following very curious case of cataleptic hysteria:

Mrs. —, an English lady, of literary tastes and sedentary habits, about thirty years of age, and married eight years, had been very delicate from her earliest infancy. During the six years antecedent, and the year immediately subsequent to her marriage, she suffered from most intense headache. Two years prior to her marriage she was under treatment for spinal irritation, as she was informed by her then medical attendant. About this period, too, she voided several portions of tapeworm, and had frequently, both before and after her marriage, passed large quantities of ascarides. She was at all times subject to palpitation of the heart, and had on one or two occasions a slight hysterical fit. She suffers intense pain on touching the last dorsal vertebra, which for some years has projected to about the size of a nut. A sound as loud as the snapping of the fingers is frequently heard proceeding from this locality whenever she is much fatigued, or has been standing for a considerable time; and this sound Dr. Ringland has more than once heard. She also experiences, since her first confinement, great pain on the least pressure being made against the coccyx, which has been slightly dislocated downwards and backwards, and has become ankylosed in that direction.

On the second night after she was married, whilst engaged at prayers, she was suddenly, and without the least premonitory indication, seized with the first of the series of fits about to be described; and this was shortly followed by a second, of a like character. An interval of six months then elapsed without their recurrence; when, however, being much about that length of time pregnant, she was again attacked, and, as on the former occasion,
without any premonitory symptom, and whilst in a state of complete mental quiescence, having been previously engaged in calm, unexciting conversation with her husband. The headache from which she had previously suffered was greatly aggravated from this period until after her confinement, and she has described it as though a tight iron cap was violently pressed on the upper half of her head, to which the headache was strictly limited. The fits now returned with but very short intervals, and it was with considerable difficulty her medical attendant prevented a premature confinement.

Some little time after the fits became completely established, she observed that, if she was engaged in conversation immediately antecedent to the access of one, she could not command the words she uttered, although fully aware of what she ought to say, and thus she frequently appeared to give expression to the most absurd ideas, and to opinions which were quite opposed to what she had intended to convey. Often, too, having spoken a portion of a sentence, she terminated it on a subject quite different from that upon which she had commenced her observations, or came to an abrupt close, finding herself totally deprived of further utterance.

Up to, and during her confinement, she had frequent attacks, sometimes so many as thirty in the twenty-four hours, and seldom less than fifteen or twenty. After her confinement, which was easy and natural, they were reduced to two or three in the day, and on very rare occasions one whole day has elapsed without their recurrence. Within the last eighteen months her health in this respect has considerably improved, as, repeatedly, days, frequently weeks, and sometimes even a month, has elapsed without a fit.

The origin of this affection she attributes to excessive fright, produced by witnessing very violent paroxysms of hysteria, almost amounting to insanity, in a female relative, with whom she was on a visit shortly before her marriage.

Fatigue, excitement—whether pleasurable or the reverse—or even music—if loud or prolonged—noise—the slightest start—the least pressure against the painful part of the spine, or against the coccyx, instantly induces a fit; they frequently, however, come on without any apparent exciting cause.

The duration of each fit is very variable; sometimes it lasts only three or four minutes, and sometimes it is prolonged to an hour and a half. Dr. Ringland has witnessed several which lasted from twenty minutes to half an hour each.

She has never had less than two fits when attacked, the second being of much shorter duration than the first, and invariably succeeding it after but a short interval.

She appears to have been obnoxious to the attacks at all times and seasons, in all postures, and under every circumstance. She has been liable to them in summer as well as in winter; has been
attacked whilst in bed or at her meals; whilst engaged in reading, writing, or in conversation; whilst standing, walking, or sitting; whilst alone or in the midst of strangers;—frequently with a word half uttered, or a piece of food partially masticated; and more than once has her life been placed in jeopardy by the fit occurring when she was near a fire, or whilst she was engaged in the act of glutation. The presence or absence of menstruation has no apparent connection with the attacks, nor has that secretion ever been in the least affected by them; neither does the existence of pregnancy or lactation seem in any respect to influence this strange affection, excepting that the fits have been much more frequent from the moment of impregnation up to the period of quickening, than at any other time.

Instantly, on the access of a fit, she falls backwards and forwards, according to the direction in which her head has been at the moment. Should she, however, have her baby in her arms at the time, she holds it firmly clutched in her hands, which cannot, without considerable violence, be opened; although, when the fit ensues at any other time, her hands, though closed, can be easily opened.

The particulars of this lady's case Dr. Ringland, learned from herself some months prior to her then approaching confinement—her fourth—and which took place early in December, 1854. Immediately after the birth of the child, which was mature and healthy, she had one of her customary fits, which was followed by a second, immediately after the expulsion of the placenta. The following is a brief description of the first fit witnessed by Dr. Ringland.

Without any previous indication whatever, she suddenly seemed to faint, and lay in a state of apparently total unconsciousness. She, however, was quite aware of every circumstance that occurred around her, and could afterwards detail the conversation which had taken place in the room. Her limbs remained in whatever position they were in at the time of the attack, or in any other to which they were subsequently changed. There was no alteration in the color of her lips, in her complexion, or in the appearance of her skin, which remained of the natural temperature. Her eyelids were closed, but when raised, continued open until closed again. The pupils contracted well on exposure to light. Her pulse was about 100, but very feeble. There were no apparent heaving of the chest nor movements of the nostrils. Repeatedly during the existence of the fit, but more violently towards its close, there were convulsive twitchings of the muscles of the face, spasmodic clenching of the fingers, and forcible supination of the hands on the forearm. There were no convulsive movements of the lower extremities, although such occasionally occurred, as she informed Dr. Ringland, and were always present during the first few months of the existence of the fits.
No restoratives were applied during the fit, as she had previously intimated to Dr. Ringland that the employment of the most simple of these had always produced violent and prolonged hysterical paroxysms, which never presented themselves when interference was not had recourse to.

After the lapse of about five minutes she gave a deep sigh, then opened her eyes, looked about her, and feebly held out her hands. On this signal, which is well understood by her attendants, she was without delay raised into a sitting posture, and after a brief interval of quiet she was perfectly restored.

Had not her attendants, as she informed Dr. Ringland, at once placed her in the erect position, she would have relapsed again and again into the fit. She, too, is so conscious of this necessity, that instantly on the subsidence of the fit she holds out her hands, as described, thereby indicating her desire for the requisite assistance. Should she at this time be handled roughly, or should the tender part of the spine or the coccyx be touched, she at once relapses into the fit.

She is not able until after the relapse of considerable time, and not even then without the greatest effort, to utter a single syllable, the peculiar condition excited throughout the system appearing in her case to attach itself more firmly to the tongue than elsewhere.

After the subsidence of the attack she is greatly distressed with tremors of the whole body, which last sometimes for only a few minutes, but at times continue for several hours.

Dr. Ringland, before concluding, made a brief summary of this singular case, directing attention to its leading characteristics and points of interest; especially to the previous existence of spinal irritation; the occurrence of the attacks in summer as well as in winter; the existence of consciousness during the fits; the erect position being necessary at the close of the fit, and neglect in this respect causing relapse; the loss of speech being prolonged after the subsidence of the other symptoms; and finally, to the fact that restoratives induced hysteria.—[Dublin Quarterly Jour. Med. Sci.

Cases of Pharyngeal Abscess.

Dr. Wm. Lochhead, of Glasgow, records (Glasgow Medical Journal, October, 1855) the two following interesting cases of pharyngeal abscess:

"Case I. On 1st April, 1855, I was called to an infant, aged six months, that was very much reduced by the discharge from abscesses, which had formed on various parts of the body, but which had now dried up. It was breathing with some difficulty, every inspiration being accompanied with a sound, as if the nasal passages were obstructed. On examining the nose, nothing could be found sufficient to account for the symptoms; neither was there
any enlargement of the tonsils, nor indeed any morbid appearances, so far as I could observe, except that the mucous membrane was redder than natural, this being the only evidence of the presence of inflammation. The dyspnoea appeared to me to depend on some obstruction connected with the posterior nares, and not upon any inflammatory action going on in the organs of respiration, as the sounds of the chest were quite normal. I ordered the child to be placed in an easy posture, allowing it perfect liberty to move its head in whatever direction it seemed to be most at ease, while it was made to inhale the vapor from warm water, and had a blister applied to the nape of the neck. Next day, and indeed for several days afterwards, the breathing got very little worse. But on the 8th of April the symptoms were much aggravated, the breathing being accomplished with difficulty, and attended with a loud noise, the head thrown back, the face pale and anxious, and the mouth wide open, with great restlessness. On examining the throat minutely, there was observed the rounded form of an abscess, deep in the pharynx, situated in front of the fourth cervical vertebra. Its real position, however, could not be accurately ascertained, as retching was induced whenever the tongue was touched. I was satisfied that it was an abscess, from its having so suddenly assumed its present prominent position, nothing having been observed the day previously. Deeming the case now of sufficient interest and danger to justify a consultation, Dr. Lawrie was called in, who at once confirmed my views, both as regarded the nature of the case, and the immediate treatment to be adopted. The swelling being very deeply situated, and not easily brought into view, was with some difficulty reached; but by pressing down the tongue with the index finger of the left hand, a bistoury, guarded to within a short distance of its point, was thrust into the swelling, when there issued a copious discharge of pus, with instant relief to the little sufferer.

"On the 9th the dyspnoea had again partially returned, from the sac of the abscess having again filled." I did not, however, interfere until the symptoms were more urgent, thinking that the matter would soon find its way through the old opening. Early on the 10th I was summoned in great haste, as the child was said to be dying. I found all the appearances of impending suffocation more marked than ever they had been. So hastily, having guarded my abscess lancet, I proceeded to make a free incision into the tumour, as far down as I could reach, when a large quantity of fetid pus was discharged, and complete and permanent relief followed. For a few days I emptied the sac occasionally, by pressing upon it with the finger; but from that time up to the 3d May the child has done well, and is at present in vigorous health.

"I ought, perhaps, to state that the patient had been put upon syrup of the iodide of iron, quinine, port wine, and every other means that could be thought of to improve the general health; but
these means having nothing to do with the abscess under considera-

Case II. On the 2d of August, I was requested by my friend Mr. R. Renfew to see a child, aged eleven months, with an inflamed submaxillary gland, which had been gradually subsiding under appropriate remedial measures. But as the dyspnœa seemed to increase, although the swelling was not so great, he thought there might be some inflammatory action going on in the larynx. On accurate examination, however, it was found to be a case of abscess in the pharynx. As the danger was not imminent, we agreed to defer interference until the swelling became more point-
ed. On the succeeding morning there was still no urgent necessi-
ty for interference, and as the breathing was not worse, we thought it better still to wait. In the evening the symptoms became more alarming, the dyspnœa very great, and the abscess more enlarged and prominent. As I found great difficulty in reaching the abscess, guided, as in the former case, by the index finger, I pressed down the tongue by means of a spoon, bent to nearly a right an-
gle, which enabled me to see the tumour, and to open it exactly in the mesial line, and at its most dependent part, which had the sub-
sequent advantage of allowing the sac to empty itself completely, without further interference, which certainly happened, as the case gave no further trouble.

Remarks.—These cases of abscess do not differ essentially in
their nature from abscesses in general, but derive their peculiar interest from their situation alone; and as, according to the adage, to be 'forewarned is to be forearmed,' I may save some of my professional brethren much anxiety by having given them a hint regarding the formation and means of diagnosis of abscesses in this region of the body, I have presented the details at what some may think a greater length than their importance demands. When, however, we consider the comparative frequency of inflammation in the air-passages and surrounding structures, more especially in children and infants, practitioners cannot be too well acquainted with every concomitant circumstance that may assist the diagnosis in each particular case. Indeed, no one who had not really seen such cases as those described could believe the difficulty in the diagnosis in the earlier stages of the disease. For my own part, although watching my little patient carefully for some days, it was only when the case reached its height that I was sure of its real nature. Many might think they had to treat a case of ordina-
rlaryngitis, when the violence of the dyspnœa suggests a particu-
lar examination of the air-passages, and an abscess is discovered.

As to the exact situation of the abscess, I believe in both cases, that it was about the fourth cervical vertebra, or between the fourth and fifth; but it is difficult to fix its real position, as the movable pharynx ascends when the tongue is pressed down. But from the
great obstruction which it causes to the respiration, it appears to be immediately behind the larynx.

"The treatment when the real nature of the case is made out, is simple enough, viz: to open the abscess in the mesial line, and at the most favorable point for the free exit of the pus. In order to avoid the loss of blood, which is of importance when the child is weak, and to prevent the necessity for a second operation, I would not recommend the use of the lancet until the abscess became well defined.

"The causes of pharyngeal abscess may be found in that of abscesses in general, and, consequently, the prophylactic as well as remedial measures must be adapted to the exigency of each particular case. But as my object in this paper has been merely to call attention to the termination of the inflammatory process, and to put upon record these two cases, it is not necessary to go into the origin and history of this very rare and highly interesting affection."—[Amer. Jour. of Med. Science.

Minute Anatomy of the Liver.

The minute anatomy of the liver has been lately examined by Beale,* who, from his dissections and injections, comes to the following results:

1. That the essential constitution of the liver is that of a double network of minute vessels, one of capillary bloodvessels, and another of cell-containing tubes, naturally adapted to each other. Both of these sets of tubes in each lobule appear to communicate with those of the neighboring lobules in all livers excepting that of the pig; and this circumstance is connected with the fact, that in all other animals but the pig, the hepatic lobules are not isolated by intervening and limiting fibrous tissues or capsules. As to the latter position, Beale agrees with Weber.

2. That the cell-containing tubes are in all vertebrata continuous with the ultimate fine ducts of the viscera; in some cases directly so, whilst in others, as in the rabbit, and slightly in man and the dog, a fine network of the ducts themselves intervenes. The basement membrane of these tubes being, after foetal life, incorporated with those of the capillaries, so that the secreting hepatic cells are only separated from the stream of blood by a single intervening membrane. The cell tubules contain the hepatic cells, as also granular and coloring matter and cell débris; the cells observing no order of arrangement, as some have thought, and contrasting in size, &c., greatly with the epithelium lining the ducts, from which they are strictly separated.

3. That the fine ducts are many times narrower at the point where they are continuous with the cell tubes, than those tubes

* Proceedings of the Royal Society, June, 1855.
themselves; and that the larger ducts and larger interlobular ducts freely anastomose with each other.

4. That whilst the finest biliary ducts are only composed of basement membrane, that of the larger ones is more complex, containing numerous cavities; especially in the pig, which, although generally considered to be glands, are in fact reservoirs for the bile, retaining it, and bringing it into intimate relation with the abundant surrounding bloodvessels, so that it may undergo requisite changes. This the author also considers to be the function of the vasa aberrantia, so named by Weber.

In this view, it will be seen that Beale considers the structure of the liver to be strikingly different from that described by Kolliker and Hanfield Jones, and assigns a different office to the secreting and epithelium cells; for, whilst the latter looks upon the cells of the ducts as chiefly forming the bile, Beale considers that they stand in relation to the hepatic cells as the columnar epithelium (lining the stomach tubes) does to the secreting cells at the bottom of them.

Beale prepared his specimens by injecting the portal vein with lukewarm water until the bile was washed out of the ducts by it, and then injecting the ducts; after which the portal vein was injected with size. The ducts were also examined in specimens hardened in alcohol, to which a solution of soda had been added, in order to render the sections transparent.

Dusch* finds that the hepatic cells are dissolved in bile and in solutions of glycochlorate of soda. They also enlarge on the addition of chloroform, according to Lereboullet, their contents becoming very clear.—[Brit. and For. Med. Chir. Rev.

We find in the "American Medical Monthly," a report of some exceedingly interesting "Practical Lectures on Military Surgery," delivered at the New York Medical College, by Isidor Gluck, M.D., Chief Surgeon to the Hungarian Hussars, and to various Hospitals during the late war in Hungary, &c., &c. His description of the mode of using Gypsum or Stucco bandages in the treatment of fractures on the field of battle, will suggest to the ingenious surgeon the use of such dressings in civil practice.—Western Lancet.

Gypsum or Stucco Bandages.

"Although even in compound fractures, where the wounded place has to be left uncovered, the application of Scutin's starch bandage answers this purpose best, still there are some objections to its being used in the field, or even in the hospital.

1. It dries too slowly, and cannot replace therefore immediately manual extension, that is required in order to retain the ends of

* See Caustatt.
the broken bone in mutual contact. It is, therefore, necessary to use machines or apparatus till the bandage becomes dry for 24–48 hours.

2. The thickness of the walls of the bandage diminishes, while the bandage becomes dry, and thus receding somewhat from the limb, cannot serve instead of the manual extension.

3. The application of the starch bandage costs on the field much time and trouble. The limb must first of all be surrounded by a roller, then covered with compresses, and rollers; pasteboard and splints are then applied, and the whole again surrounded by a roller. The application of openings (windows) in Scuitin's bandage is combined with difficulties. If the windows are made at the time when the bandage is applied, the same keeps badly together, the fractured ends and wood or tin splints must be used; if the windows have to be made when the bandage is dry, the wounded portion remains covered for a day or longer, and the excision or formation of the openings is in the hardened starch bandage yet more troublesome.

4. However dexterously we may apply the bandage, it will be pretty difficult to make so large openings as required, in order to expose the injured portion without loosening at the same time the whole bandage, while small openings or windows expose but a portion of the injured part.

5. In suppurating wounds, the pus discharged, as well as the fluid applied for cleansing the wound, and the moisture of the cataplasms, will run under the bandage and destroy the epidermis.

6. The hardening and unequally contracting starch bandage, (i.e. quickly hardening at its thin portions and slower in its thicker ones); exerts an unequal pressure and therefore an injurious effect on the swollen parts.

7. The starch bandage cannot be applied for transporting the wounded soldier, who receives on the battle-field a compound fracture, because it requires warm water, (not always ready in the field) for preparing it; then again it dries slowly, the formation of windows causes loss of time and trouble, requiring the application of splints, and because the parts being covered for a day or two, are injured as suppuration may follow, and the pus stagnates and runs into the bandage: in damp weather it becomes moist and soft in the rain; it is, therefore, necessary to have ready made capsules of starch bandage, and the so-called movo-amovable bandage, which often do not appose sufficiently, and cannot therefore replace manual extension.

Recently gypsum bandages have been suggested in Belgium, but their application, according to Dr. Mathieson and Van De Loo, is troublesome, and takes much time, so precious on the battle-field. This bandage is not lasting, its preparation and preservation still more difficult than that of Scuitin's starch bandage, much more preferable and practical is the preparation and application of gyp-
Gypsum or Stucco Bandages.

SUM bandages, as made by Pirogoff,* and used by him to the greatest extent with the best results.

The gypsum bandage is, on the battle-field, in many respects preferable to the starch bandage.

The gypsum solution requires but cold water, and turns hard as soon as applied, and replaces therefore immediately manual extension, and neither machines nor apparatus are required for that purpose. The dry gypsum bandage becomes so hard, that no splints are required, even if large windows are made, and transporting of the wounded soldier is, immediately after the application of the bandage, possible without injury.

The gypsum bandage is simple and cheap, as it consists of old coarse linen and gypsum; its application is simple and quickly made. The gypsum bandage replaces manual extension perfectly, the assistants need only for a few minutes keep the limb extended after the bandage has been applied, then the gypsum bandage is stiff and hard enough to retain the ends of the broken bone in the position given to them. Their displacement is impossible as long as the swelling does not diminish, and a considerable interspace is not formed between the limb and the bandage. Thus the gypsum bandage renders superfluous all machines for extension, as required, while the starch bandage becomes dry. Only by the application of the gypsum bandage in oblique fractures of the thigh it is necessary to fix the pelvis, and to retain the limb extended by means of a bed-table, and by weights attached to the extremity.

More apparent yet are the advantages of the gypsum bandage in oblique fractures, where the ends of the broken bone are distant from each other, in compound fractures and generally everywhere where it is necessary to keep open a wounded spot.

In Pirogoff's mode of applying the gypsum bandage, the openings (windows) may be made at once, through them it is possible to view the position of the broken ends, the excoriations and wounds, and the curative process may be watched in its course.

The gypsum bandage does not contract like the starch bandage, interspaces form slower between it and the leg, as in the gypsum bandage the interspaces depend upon the decrease only of the swelling, and not like in starch bandages also, from unequal hardening of the bandage, and then again it does not become moist and soft in rainy weather.

In complicated fractures the pus may be discharged, and find exit through the large windows made, and does not burrow itself under the bandage as is common in the starch one.

Wet dressings are applied immediately on the wound itself. The gypsum bandage becomes hard immediately after having been applied; wounded soldiers may therefore be safely transported immediately after application of the gypsum bandage, from one place to another, even in the rain, without the bandage being dis-

*Prof. of Surgery in St. Petersburg (Russia.)
turbed, although the gypsum bandage may appear wet externally, which sometimes lasts for a few hours.

The gypsum bandage may therefore be cut through immediately after the application in the interspace of the splints, if that should be required, in consequence of too great a pressure or pains, &c.

In the battle-field, as well as in the hospitals, for transportation of the wounded soldier in the treatment of complicated fractures, with great dislocation of the ends of the fractured bones, the gypsum bandage is preferable to every other kind of bandages.

Requisites necessary for the application of Gypsum Bandages in the battle-field as well as in the hospitals.

1. Long, old hospital stockings made of linen, cut in front along the seam, (if the seam is behind the stocking it must be turned and cut); old drawers also cut along the seam, and divided for one or the other limb; sleeves of old shirts, (or instead of those, long linen flaps cut in the form of stockings); drawers or sleeves; jackets or old vests, abdominal bandages covering the body once and a half; for fractures of the bones of the rump, pelvis, and of the neck of the thigh bone.

These pieces of linen used for surrounding the limb must be equal, soft and dense. All seams must be removed.

2. Cotton or cleaned soft flax, pads filled with soft material, lint or flax for filling up, (for instance, around the trochanters, around the malleoli in the popliteal region, and around the achilles tendons) simple and graduated compresses.

3. Splints of different dimensions in regard to length, width and thickness, made of old coarse sack linen, as used for instance in hospitals for mattrasses or straw mattrasses.

The old sack linen is folded twice, thrice, or four times, to the width of two fingers to one-third of a yard. The splints must in fractures of the leg, the upper and forearm, exceed at least one-third of a yard the fractured bone, and in fractures of the thigh, and that of the neck of thigh it must be one-third of a yard longer than the whole extremity.

4. Strips (compresses) of the same linen from two inches wide, and of such a length as to surround the limb once or twice; they are calculated to fasten the splints, and are called transversal stripes. (Pirogoff.) These transversal stripes may be made also of fine linen, if the bandage should be a light one.

5. Plaster of Paris (gypsum) in form of fine powder and well dried. For the application of a bandage, never less than 2 lb. have to be used, (as for fracture of the forearm,) nor more than 7 lb., as for fracture of the neck of the thigh bone.

6. A vessel with cold water. The gypsum solution should not harden sooner than in five or eight minutes, in order to allow the application of the bandage. Although hardened, it still looks wet
from the evaporation of the water, out of the bandage painted over with gypsum solution, and the patient may safely be carried with it.

7. Large brushes as used by house painters.

Besides those necessary requisites in hospitals, may be used finer linen rollers for simple fractures and splints made out of pasteboard, and for complicated fractures, with large wounds, splints of wood, of different dimensions, together with pads attached to them on both ends, and also a few pieces of sheet iron or tin may be held ready.

The Application of Gypsum Bandages, is made in the following way:

The injured limb is first surrounded with dry linen, a sleeve, a linen stocking, or with half a drawer.

Bony prominences must be wadded, and hollows filled out with cotton. The linen surrounding it must not be too thin, nor have holes in it, in which case the linen must be doubled, or the limb first covered by cotton. If this is not done the moisture passes to the skin, and the patient complains of a cold or burning sensation.

2. The broken limb is put in the required position, the extension is then made, and the fractured ends then approximated. Sometimes it is necessary to begin with the reduction, and subsequently follows the surrounding of the limb.

3. The splints and the transverse strips of sack linen, each three or four times folded, are put near the patient in that order as required to be later applied to the limb.

An assistant prepares the solution of gypsum, and paints with it the splints and strips, or rather dips them into the solution and brushes them with it.

4. The proper application of the bandage depends now upon the gypsum solution. If the solution be too thick it dries quick; the splints and transverse strips are not united firmly together: nor are the splints firmly fixed if the solution be too thin. When the solution becomes denser, water must not be added to it, as the solution becomes through it creamy, is not imbibed by the linen, cannot be smoothed, does not adhere, and takes a long time to become dry.

5. The splints and strips of linen must be dipped in the solution, which I now prepare by adding to two pounds of water the equal weight of gypsum. They must be extended and swinging free, and must thus be brushed over on both sides with the gypsum solution.

6. The splints must be applied longitudinally to the limb, and must be fixed by the transverse strips, carried around both the limb and splint. The transverse strips are applied in pairs, so that the one should cover the other partially.

The splints may be applied in such a manner that the one should
cover the other partially, or, what is preferable, in such a way that between the splints should remain a free open space on the side in front of, or behind the limb. The assistants producing extension must continue to do so until the bandage is hardened—i.e., about eight minutes after the gypsum bandage has been applied. During its application the limb must be kept extended free, in order to be accessible from all sides. The splints must be pressed firmly to the limb by the hand. The transverse strips must be drawn firmly and tightened around the limb, and by the hand or brush well covered with gypsum solution, in order that all prominences and hollows should be equalized. In oblique fractures and dislocations of the fractured ends, at least two layers of transverse strips are necessary. But if the bandage has yet to be removed, it is necessary—

1st. To apply the splints so as to leave a space between them.

2d. The transverse strips are covered from the middle (where about the extent of two inches remains uncovered) towards their ends with gypsum solution.

3d. The transverse strips are applied so that the uncovered part should correspond in its situation to the longitudinal interspace between the splints.

In the field it is necessary to have arranged, before the application of a bandage, all requisites in one package for each fracture separate. Thus, for fracture of the forearm the bandages should be separate from those for fracture of the leg.”

Report of Three Cases of Dislocation of the Femur Reduced by Manipulation.—New Method of Reducing Dislocations of the Femur on the Pubes. By E. J. Fountain, M.D., of Davenport, Iowa.

Recently I sent to Dr. Reid, of Rochester, New York, a brief report of three cases of dislocation of the thigh,—one of dislocation upon the dorsum ili, and two upon the pubis—all reduced by manipulation. At his suggestion, I send a full report of these cases for publication. The case of dislocation upon the dorsum was reduced very quickly and easily by following exactly the directions given by Dr. Reid, with whom this vastly improved method originated. The two dislocations upon the pubis, I reduced by manipulations based upon the same principles; but by a mode of manipulating quite different from that required for the reduction of a dislocation upon the dorsum ili. The report of these two cases will be the first of the kind upon record. A concise summary of the rules for the operation will be appended to the report.

Dislocation upon the dorsum ili.—Oct. 7th. I was called in the night to go in haste to the relief of a lady, Mrs. S—, who had received, as stated, some serious injury of the hip, or thigh, by being thrown from a wagon. I was accompanied by my partner, Dr. Adler. We found the patient in bed, complaining of pain in the
left hip. The examination revealed at once the nature of the injury, which was a dislocation of the left femur upon the dorsum ili. On placing the patient erect, the characteristic appearance was presented. The knee resting upon the lower third of the thigh, the great toe of the foot upon the instep of the opposite limb, and the trochanter major approximated to the crest of the ilium. The diagnosis was confirmed by an attempt to rotate and abduct the limb. A mattress was thrown upon the floor, and upon this the patient was placed upon her back. A towel was carried around the sound thigh and hip, and held down by Dr. Adler; but this assistance I found to be quite unnecessary. I then grasped the knee with my right hand, and the foot with my left; flexed the leg on the thigh, and carried the knee and thigh over and upon the sound one, and then upwards as high as the umbilicus, keeping it constantly pressed down upon the body. I then carried the knee outward, bringing the heel inward and the foot over the opposite limb, at the same time making gentle oscillations of the thigh, when the head of the bone slipped suddenly into its socket. The force required was quite moderate, and the pain almost nothing. The time occupied by the manipulation, from the instant I took hold of the knee and foot, until the operation was completed, did not exceed ten seconds. The manipulations were made by one continuous uninterrupted motion. The knee was caused to make a "semi-circular sweep" over the sound limb and across the body, then a few quick oscillations, and it dropped down into its natural position. I held the thigh up firmly and steadily, while making the oscillations; and in this position, at right angles with the axis of the body, and abducted, and the foot over the opposite thigh, the head of the bone entered socket.

Dislocations on the Pubes.—Case 1.—In June, 1854, I was called to see a man who had fallen from the second story of a house to the ground, upon some pieces of timber. His lower jaw was fractured, and his left hip dislocated. The limb was a trifle shortened and the foot strongly everted. The prominence of the trochanter major was lessened, and the head of the bone could be felt upon the pubes. While waiting for the appearance of Dr. Arnold, who had also been sent for, I was reflecting upon the necessary arrangements to be made for the application of the pullies. While thus meditating upon the subject, I began to think of the possibility of reducing the dislocation by manipulation. Considering the position of the head of the bone and its relation to adjacent parts, it occurred to me that by rotating the limb still more strongly outward, I might elevate the head of the bone from its resting-place—the trochanter major acting as a fulcrum. Then, by carrying the leg and foot, and after it the knee and thigh, over the opposite thigh, while the limb was still strongly rotated outwards, the head of the bone would be made to move upwards and outwards in the arc of a circle of which the trochanter major would be the centre, and
the neck the radius. After being thus brought over and upon
the edge of the acetabulum, a motion of the limb directly upwards
would, in the same way, throw the head of the bone into its sock-
et,—the muscles attached to the trochanter major holding that
point comparatively fixed.

Before the arrival of Dr. Arnold, I had determined to test the
timey; and on explaining my views to him, he at once expressed
his willingness to have the attempt made as I suggested. At
worse, it could only fail without much, if any, harm, and then we
had the pullies ready for application after the "classical method."

The patient was placed upon the floor on a quilt. Being a man
of strong muscular development, I thought there would be more
certainty of success if relaxation was first produced by the inhala-
tion of chloroform. He readily came under its influence. When
quite unconscious, the limb was taken by the foot and knee and
rotated outwards, the leg flexed and carried over the opposite knee
and thigh, the heel kept well up, and the knee pressed down. This
motion was continued by carrying the thigh over the sound one,
as high as the upper part of the middle third, the foot kept firmly
elevated. Then the limb was carried directly upwards by eleva-
ting the knee, while the foot was held firm and steady, at the same
time making gentle oscillations by the knee, when the head of the
bone suddenly dropped into its socket. Time required in the
operation, from twenty to thirty seconds. The force used was
slight; I believe it could have been reduced about as well without
the chloroform.

Case 2.—Oct. 31st, 1855.—John McCarthy, an Irishman, had
his hip dislocated by falling with a horse he was riding. The
horse slipped and fell, rolling over upon him. I found the limb
about the same in length, as the sound one; but greatly everted,
the toes pointing directly outward. On attempting to rotate and
flex the limb, pain was produced, and a comparative immobility
manifested by resistance. The head of the bone was felt forward
upon the pubes. As soon as I discovered it was a dislocation, my
first thought was to send for Dr. Adler to witness the operation.
But the temptation to take hold and reduce it immediately, was
too strong. The patient was resting upon a low eouch. I imme-
diately took hold of his knee and foot, rotated outwards and flexed
the leg by carrying the foot over the sound thigh, keeping the
heel well up, and pressing the knee down. After I had brought
the thigh in this way over the upper part of the sound one, I car-
rried it directly upwards, holding the foot firmly up and making
oscillations by the knee, when the head of the bone slipped into
its socket, and the limb at once assumed its natural appearance and
mobility. A little more force was required in this, than in the
other case; but it was still quite moderate, and the pain very slight.
In this case I had no assistance whatever. Time occupied in op-
ereating, about twenty seconds.
The history of these cases fully demonstrates, to my mind, the immense value of this new method of reducing dislocations of the hip. Notwithstanding the unsatisfactory results of the trials at the New York Hospital, I have perfect confidence in the correctness of Dr. Reid's method of manipulation. It is certainly one of the greatest improvements of modern surgery, the value of which may be understood when contrasting an operation requiring but ten or twenty seconds and without pain, with the instructions of Sir Astley Cooper, viz: Venesection to syncope, hot bath, tart. antimony to nausea, and then the application of the pullies from four to six hours, if necessary! To Dr. Reid is due the credit of this splendid improvement, in which the whole profession must participate, as a most valuable contribution of scientific surgery to the relief of suffering humanity. It remains to be seen how far the test of future operations will confirm the value and correctness of the method of reducing dislocations on the pubes, as illustrated by the two preceding cases.

It is my opinion that dislocations into the thyroid foramen may be reduced by the same method as the last.

In conclusion, I will recapitulate the method of operating for dislocations on the pubes.

Taking the knee in one hand, and the foot in the other, rotate the whole limb outwards, and flex the leg on the thigh by carrying the foot over the opposite knee. Then carry the limb, foot forwards, over the opposite thigh, at the same time twisting the heel upwards, and pressing the knee down. Carry the thigh in this way over the sound one as high as the upper part of its middle third, then elevate the limb by raising the knee while the foot is held firm, at the same time making gentle oscillations, when the head of the bone will slip suddenly into its socket.—[N. Y. Jour. of Medicine.

Dr. J. D. Trask's Prize Essay on Placenta Prævìa.

The following are the corollaries deduced by the author of this interesting paper: (published in the Transactions of the American Medical Association.)

1.—"We have shown that, as a general rule, cases in which delivery takes place prematurely, are attended with greater risk to the mother than those occurring at the full time, with the exception of those before the seventh month, which rarely prove fatal, in consequence of the undeveloped condition of the blood-vessels of the womb at that early period. The probabilities of the child being saved are probably better at full term, though this is not so distinctly shown by our statistics. Hence, if it be possible, cases in which premature delivery is threatened ought to be conducted to the full period."
"This was the advice of Mr. Kinder Wood, a successful obstetrical teacher, who was in the habit of detaching the placenta in cases of dangerous haemorrhage from its presentation. When haemorrhage comes on before the completion of the term of pregnancy, absolute rest and cold, with, in some cases, opium, should be resorted to for the purpose of restraining haemorrhage, avoiding the use of the tampon until the progress of the case indicates that extreme measures must be resorted to; for the introduction of the tampon, in the cases in which it is noted, was, in certain instances, soon followed by labor pains more or less effective. But, when its use is determined upon, a suppression of the haemorrhage may be confidently relied upon for a time, at least, provided its introduction be skillfully effected. In many instances, however, at this early period, the haemorrhage continues, and artificial delivery is the only resource.

2.—" Most cases of partial placental presentation require only rupture of the membranes. By this simple expedient, the uterus is brought into active contractions, and haemorrhage restrained within, moderate limits, or entirely suppressed, until delivery takes place spontaneously, as occurs in a large proportion of cases, or is accomplished by art. But haemorrhage, in cases of partial presentation, is not always thus controlled, and our first table furnishes not a few which were attended by most alarming loss of blood.*

3.—"In cases of complete presentation, if haemorrhage does not yield to simple measures, and in dangerous cases of partial presentation, early delivery is of the first importance. To select the most favorable opportunity, for this is often one of the most critical tests of the physician's skill. To do this before the os has become dilatable is to incur the risk of inflicting serious lesions upon the uterine neck, and a difficult and protracted withdrawal of the child; while, to wait unnecessarily long, is to expose the patient to great hazard from unnecessary loss of blood. The rule should be to wait not for a dilated, but a dilatable condition of the os. The great source of danger in the conduct of cases of placenta praevia is the delay required to permit the necessary dilatation of the mouth of the womb; while waiting for this necessary prerequisite to delivery, exhausting haemorrhage has often taken place, from the effects of which the patient has never recovered.

"With the hope of keeping the bleeding in check during this necessary delay, the membranes may be advantageously ruptured; for we need not, in these cases, fear any embarrassment to delivery from this cause, insomuch as the uterus is almost invariably relaxed after severe haemorrhage. The administration of ergot, under such circumstances, in the manner already described, with the view of keeping up a pressure upon the mouths of the bleeding vessels until the os should dilate, is sanctioned by the results

* Of the eight cases lost among Dr. Lever's cases, four were complete, and four partial presentations.
in some of our cases in which it was employed; and although not often given, as we judge, with this particular view, it promises to be, in many cases, a valuable resource. In Dr. Fountain's two cases of complete presentation, rapid dilatation took place under its repeated administration; a compression of the placenta was kept up until the os permitted the introduction of the hand for turning, and both mothers and children were saved. In this way we imitate, to a certain extent, the course pursued by nature in spontaneous expulsion of the child.

"The inhalation of ether, in one instance, quickened labor, and chloroform, in another, seemed to favor relaxation of the uterus. How far these agents, especially the latter, may prove subservient to this important object, experience has not yet determined.

4.—"But whatever means may be resorted to for keeping in check the flow of blood while the os is undergoing dilatation, the physician should not leave his patient after that process has begun. Dangerous, and even fatal, flooding sometimes takes place even when the os is yet undilated, as happened in a case recorded by Smellie. Dr. Rigby laid down the rule, that the patient should not be left by her physician after the placenta was discovered to be presenting. This rule he afterwards modified, as the interval, in such cases, is too long to justify the sacrifice of time. But the physician should remain beside his patient until active haemorrhage has ceased; and if dilatation is in progress, it is imprudent to leave the bedside until delivery has been effected. It has occurred in the experience of every physician to be surprised by the unexpectedly sudden dilatation of the os in some cases of ordinary labor. On reading several of our cases, it is very apparent that from a neglect of the precaution here urged, the physician failed to be at hand when sudden and fearful haemorrhage took place, followed by perilous and even fatal exhaustion. Such sudden losses of blood are not uncommonly accompanied by a degree of dilatation of the os uteri that would render immediate delivery inadmissible, as in Case 69, from Rigby.

"It corresponds with the experience of those who have had the largest opportunities for observation, and is an inference certainly warranted by a general survey of our cases, that of patients who enjoy intelligent and active medical assistance from the commencement of haemorrhage until the termination of labor, a very large proportion are conducted through their perils in safety, and no inconsiderable proportion of the children are saved. An early delivery by turning has been sanctioned by long experience, as the best general mode of treatment for securing safety to mother and child.

5.—"But in some instances, haemorrhage will not yield to the means thus far recommended, and the os continues unprepared for artificial delivery. In these cases we may separate the placenta, with the confidence of almost certainly putting an end to the
haemorrhage, and with an almost equal certainty of destroying the child; unless the os should permit artificial delivery within a short time after the separation is effected. The urgency of the symptoms in such instances, is sometimes very great, and it must be left to the judgment of the practitioner, in each individual instance, to determine whether to separate the placenta or to wait still longer.

6.—"The os may be dilated or dilatable, and the patient in a state of extreme exhaustion. Here, turning could be performed with facility, but delivery would be hazardous. In these cases, the placenta may be detached with much less disturbance to the mother than would occur in turning under such circumstances, and an opportunity afforded for the patient to rally before she should be delivered. Table III, affords several instances in which spontaneous delivery took place after such separation, and the patient recovered. Yet even in these cases, we must bear in mind that children are by no means necessarily destroyed by excessive loss of blood by the mother; and a resort to the stethoscope would doubtless often prove of great assistance, where in doubt as to the propriety of detaching the placenta. When we have satisfactory evidence that the child is dead, there can be no objection to an early resort to the separation of the placenta."—[N. Y. Jour. Med.

On certain forms of Fistula in Ano, with reference chiefly to their Treatment without dividing the Sphincter Muscles.

Mr. Hird read, Oct. 20th, before the Medical Society of London, a paper on this subject, and also gave his opinion in favor of the treatment of many special cases of complete fistula by means of the ligature. After alluding to the painful and hazardous operations practised by surgeons for the cure of fistula until a more correct view was taken of the disease by Percevall Pott, by whose influence and example the barbarous treatment at that time had recourse to was renounced by the profession in this country, the author gave a minute description of the anatomical structure of the lower part of the rectum, and of the tissues which fill up the ischio-rectal fossae, and observed that many obscure collections of matter can only be diagnosed by those who are familiar with the complicated fascial and muscular boundaries of the space surrounding the extremity of the gut. Mr. Hird then described the varieties of spontaneous abscess which affect this region, and gave the result of several cases of fistula which had not entered the rectum, or laid bare its walls, in which no operation was performed; and strongly opposed the assertion made by Mr. Syme, and many other surgeons who have written on this disease, "that all remedial measures, except the knife, are ineffectual." As a preventative treatment against the formation of fistula, he urged the necessity of freely laying open all abscesses in the neighborhood of the rectum before the walls of the bowel are laid bare. The incision
should be directed from before backwards, and not transversely, so that the discharge may have no mechanical difficulties to overcome in its exit. When the abscess does not close by the ordinary process of granulation, Mr. Hird advises the use of mild injections of nitrate of silver (four grs. to the ounce), and the application of well-adjusted pressure on the part. In two cases of eight and ten years' standing in which this treatment was not successful, he effected a cure by means of a platinum wire heated by electricity, and connected with the poles of a galvanic battery, similar to the one used by Mr. Marshall for applying electric cautery to fistulous openings in the cheek, and advises the use of this agent before resorting to division of the septum. In cases of complete fistula, the author has no confidence in any treatment except that of laying the cavity of the abscess and of the rectum into one by dividing the sphincters. This, he said, might be accomplished either by means of the knife, the ligature, or electric heat. Although the knife is the favorite instrument of the majority of surgeons, he prefers the use of the ligature in all cases where the hemorrhoidal veins are unusually large, or when the patient has a dread of the knife. He considers, also, that this method of operating possesses advantages over the knife in many special cases, and, if judiciously applied, and only tightened by means of the fistula-tourniquet to a degree of tension sufficient to accomplish the division of the septum, is not so painful as the operation with the knife, less so in the after-treatment, and frequently accomplishes a cure in a shorter space of time. Hemorrhage and the dread of a cutting operation are avoided by this plan. Mr. Hird's experience does not confirm the opinion of Sir B. Brodie, that all fistulae have an internal orifice leading into the rectum; neither do his observations verify the opinion of many writers, that fistulae are most frequently found in phthisical patients; but, on the contrary, are in harmony with the views of Andral and Louis, both of whom demonstrate, by statistical inquiries, that these affections, occurring simultaneously in the same individual, are merely the result of accident, and that they do not stand to each other in the relation of cause and effect.—[Med. Times and Gazette.

Tracheotomy in Croup. By Dr. Troussseau.

I am firmly decided, for my part, not to be discouraged, but to advocate tracheotomy with so much the more conviction, as the proportion of successful cases increase; and if that proportion remained, even as it was ten years ago, I will still proclaim the necessity of tracheotomy, and I would not cease to uphold it as a duty—a duty as imperious for a surgeon as the ligature of the carotid artery, after a wound of that vessel, even if death followed the operation as often as the cure. Here are the results of my operations for tracheotomy, during the year 1854:—I operated on
nine children. Of these, two died, while seven were cured, and are now living in perfect health. Certainly, the proportion of cured is not always so great; still, if I make the sum total of the operations I have performed in the last four years, I find twenty-four operations, and fourteen cures, equivalent to more than half.

At the Hôpital des Enfants Malades, in the last five years, the proportion of cures has been nearly a quarter. Here are the official numbers—viz:

<table>
<thead>
<tr>
<th>Year</th>
<th>Operations</th>
<th>Cures</th>
</tr>
</thead>
<tbody>
<tr>
<td>1850</td>
<td>20</td>
<td>6</td>
</tr>
<tr>
<td>1851</td>
<td>31</td>
<td>12</td>
</tr>
<tr>
<td>1852</td>
<td>39</td>
<td>11</td>
</tr>
<tr>
<td>1853</td>
<td>61</td>
<td>7</td>
</tr>
<tr>
<td>1854</td>
<td>44</td>
<td>11</td>
</tr>
<tr>
<td>Total</td>
<td>215</td>
<td>47</td>
</tr>
</tbody>
</table>

This result is considerable, if we remember the social condition of the children who are brought to the Hospital, the deplorable treatment they are subjected to, by "sagefemmes," quacks, etc., in a word, those persons the poor generally consult in preference to doctors. We should bear in mind, too, the unfavorable condition of the Hospital, where the children operated upon are placed in the midst of the most varied and fatal contagion; so much so, that often, when the operation for tracheotomy is succeeding as well as could be desired, the scarlet fever, measles, small-pox, or whooping-cough, cause the most fearful complications.

I do not doubt that half the operations performed out of Hospital are successful, always provided tracheotomy takes place when the chances of cure are possible. This restriction is important; for, if the diphtheritic infection is thoroughly rooted in the system, if the skin, and particularly the cavities of the nose, are invaded by this special phlegmasia; if the quickness of the pulse, delirium, prostration, indicate a profound poison, and if the danger is rather in the general state, than in the local lesion of the larynx or of the trachea, certainly the operation should not be tried, for it is invariably fatal; when, however, the local lesion constitutes the principal danger of the disease, no matter at what degree asphyxia has arrived, even if the child has but a few moments to live, tracheotomy succeeds invariably, as well as though it had been tried three or four hours sooner.—[Ibid.

Excisions of Joints.

On a recent occasion, Mr. Fergusson submitted to the inspection of the pupils of King's College Hospital, a number of patients on whom excision of the various joints had been performed from time to time, and took the opportunity of making some valuable remarks upon the improvements which had been made in this department of surgery, and upon the individual cases now submitted
to notice. He first made some observations upon the introduction of excision of the elbow joint, in the place of amputation through the arm. Passing a eulogium upon Professor Syme for the part he had taken in introducing and recommending this operation, he observed that it was not followed out even yet, as it ought to be, notwithstanding its acknowledged superiority over all other modes of treating incurable disease of that joint. As illustrative of these remarks, two patients were introduced in whom excision of the elbow-joint had been performed, in one of which it had not been done more than ten weeks, and yet the patient (a woman) had already got an excellent arm.

Mr. Fergusson stated that, in reference to this proceeding (in the elbow), there was now no question in the mind of any surgeon; but in the instance of some other joints, there had been much controversy, and he would now draw their attention to a case where he had performed the operation of excision of the head of the thigh bone several years ago with the most complete success. [The individual on whom this operation had been done, was brought into the theatre; he was a fine healthy young man, and walked with the greatest facility, and stated that he sometimes walked sixteen miles in the day]. He was particularly glad at being able to show them this patient, inasmuch as some very erroneous remarks had been made in reference to the propriety of this operation. Mr. Syme had, in his lectures in the Lancet, recently published, stated that, if the head of the thigh bone had been taken away with success, the limb could not be of any use for the support of the body; but those who now had the case before their eyes could see for themselves how gratuitous such an assertion was.

Three patients were next brought forward, upon whom excision of the knee-joint had been successfully performed. The first was a fine healthy woman, who had undergone the operation about two years since; a perfect ankylosis had taken place, and by the help of a high boot, well fitted to the limb, she walked with the utmost facility. The second was a little boy who had undergone the operation twelve months since, and could also walk, even without artificial assistance, with great facility; and the third case was also a lad upon whom his friend, Mr. Henry Smith, had operated nine months since, under the greatest disadvantages; but here also, as the pupils could see, the patient had made an excellent recovery, and could walk about with the same facility.

Mr. Fergusson made some lengthened remarks upon the operation in question, and stated that although, to his regret, most unjustifiable and unhandsome remarks had been directed by Mr. Syme against the promoters and pursuers of this mode of treatment, the proceeding had been followed out by several surgeons, and the success was so admirable that, notwithstanding the veto of the Edinburgh Professor, the operation was now fairly estab-
lished; taking the opportunity of eulogising Mr. Jones, of Jersey, and the late Dr. Mackenzie, for their efforts in this direction, he concluded his remarks by stating that he hoped his pupils would endeavor, in fitting instances, to follow out the same line of practice, for which they had ample authority in the cases he had just had the pleasure of bringing before them that day.—[Med. Times and Gazette.

Structure of the Spinal Cord and Spinal Nerves.

In an inaugural dissertation before the University of Dorpat, by Philip Owjannikow, the author has entered at great length on the structure of the spinal cord and spinal nerves. The conclusions drawn from the observations were as follows:—

1. That all the fibres of the spinal nerves which enter into the spinal cord are united to gangliated cells.

2. That one filament extends to each gangliated cell from the anterior spinal root, and one from the posterior root; a third, a commissural one, from the other part of the spinal marrow; and in many fishes a fourth, passing from the brain. The presence of this single fibre passing to the brain, may, as the author throws out, be of moment in reference to the question of the possibility of the same fibre being both afferent and efferent in function, a position which Du Bois-Raymond thinks tenable, as judging from his experiments, though, as a rule, this power is not put into action, in his opinion. The author of the paper now considered, thinks, on the contrary, this aforesaid power is always put into use.

3. That from each cell of the spinal marrow, a filament extends to the brain, forming the white substance.

4. That the chief mass of the spinal marrow, containing fibre and cells, is a united areolar web, which being arranged in great abundance about the central canal, and furnished with numerous bloodvessels, produces the ruddy gray color of the substance which is generally supposed to be owing to pigment cells.

5. That the gelatinous substance of Rolandi is connective tissue.

6. That the cells found as well in the posterior horns as in the surrounding substance of Rolandi, are corpuscles of the united web.

7. That the cylindrical axes are of a round form, and are composed of the same substance as the nervous cells.

8. That the cylindrical axes in the grey substance are formed of a membrane peculiar to themselves, which surrounding also the nerve cells, may be separated from the fundamental mass composed of the united web.

9. That in some fishes, the cylindrical axes of the spinal cord are exposed, the cellular web in which they are placed forming no especial investment.

10. That in those fishes which have anterior and posterior spinal roots, round gangliated cells are found, sending out in various directions divided branches.—[Brit. and For. Med. Chir. Rev.
Premonitory Diarrhoea.

The New York Journal of Medicine, for January, 1856, contains an article by Dr. Macloughlin, of London, upon the Premonitory Diarrhoea of Cholera, from which we extract the following important conclusions:

1.—That cholera—that is, vomiting, spasms, etc.,—is always preceded by a diarrhoea, for a few hours, or for a few days, or for a few weeks.

2.—That there is, as yet, no well-authenticated case of cholera without an attack of spasms.

3.—That a painless diarrhoea may drain away almost the whole serum from the blood, until the blood has ceased to circulate, and until the heart has ceased to beat, before the patient is attacked with vomiting, spasms, etc., that is with the second stage of cholera.

4.—That if the disease is scientifically attended to in its diarrhoeal stage, it can be cured, and, consequently, the developed stage prevented, and life saved.

5.—That these two pathological facts are now acquired to medical science, viz.:—1. That every case of cholera is preceded by a diarrhoea, for a few hours, a few days, or a few weeks. 2. That the disease, scientifically treated in the diarrhoeal stage, is easily cured.

6.—That it is in the power of human foresight to prevent an attack of developed cholera.

In a letter dated 2d July, 1855, inserted in the Association Med. Journal, it was attempted to point out what diarrhoea, if left to itself, will run into cholera in a few hours; and what diarrhoea, if left to itself, will not run into cholera for a few days, or for a few weeks.

"I am fully aware that this pathological point requires to be further studied. I, therefore, submit it to the profession, in the hope that more careful and more attentive observers will be enabled to give us valuable information on this important subject, so that the medical attendant, on arriving at the bed-side, may be enabled to pronounce whether his patient will be attacked in a few hours, or in a few days, or in a few weeks, with cholera, if the diarrhoea is not scientifically attended to, or whether the diarrhoea will be cured by the efforts of nature; and so that the medical attendant may not be left, as he now is left, to establish his prognosis on conjectures.

There is, also, another point to which I beg leave to call the attention of the profession.

I have now seen five severe outbreaks of epidemic cholera, and I have reason to believe that a great and an important change takes place in the constitution of every individual, where epidemic cholera is about to break out, which change in the constitution of every individual, persists while the disease rages, and after the disease has passed away for some time.
That this change in the constitution of individuals is manifest by the facts, that those of a costive habit, who have a passage from their bowels only every two, three, four, or five days, of hard faecal matter, have now a passage from their bowels daily, of soft faecal matter.

That those who are in the habit of having a passage daily, of solid faecal matter, have now two or three passages daily, from their bowels, of soft faecal matter.

That those who usually require laxatives to keep their bowels free, now do not require laxatives; or if they take any, they find that one-half, one-third, or one-quarter, the usual dose has the same effect as a full dose had formerly.

And further, that it is now dangerous to give a full dose of purgative medicine, lest this dose should induce diarrhoea, followed, too often, by fatal cholera. The Medical Times, of September, 1854, page 272, contains the report of four cases of cholera, which were induced in St. George's Hospital here, by the administration of the full dose of purgative medicine, and of which, one died.

That, further, every individual in the locality is troubled with more flatus than usual, especially between one and five in the morning, and that every one about to be attacked with diarrhoea has a pressure, and a weight on the sphincter of the anus, and a feeling of insecurity, as if at any moment, he would lose command over it.

If in consequence of the observations and of the researches of the profession in every country, it is ascertained that this change in the constitution of all the individuals in a locality where cholera is about to break out, does take place, and that this change persists while cholera rages, and after it has passed away some time, it may throw some light on the etiology of the disease, and prove that cholera is not a contagious disease."

**Skin Diseases.**

The following notes from Professor Hebra's Annual Report of Diseases of the Skin, treated at the Vienna Hospital, is from the Assoc. Med. Journal:

I. *Acne.*—17 cases (13 males, 4 females). Vapour bath and washing with soap and alcohol, sufficed to cure all these cases. There were 4 cases of the allied affection *sycosis*, all of which were successfully treated by inunction with iodide of sulphur ointment, and the application of strong nitric acid as a cautie.

II. *Ecthyma.*—13 cases (11 males, 2 females), generally associated with scabies or pediculi, and induced by the scratching. Warm fomentations sufficed for the cure.

III. *Eczema.*—150 cases (96 males, 54 females). Hebra includes under this term the various forms of impetigo, tinea, and porrigo; there being, as he believes, no difference between them and eczema impetiginosum; for, on destroying the efflorescences, or removing
the crusts and scabs, we then perceive the characteristic phenomena of eczema—red, moist places, with more or less infiltration of the cuticle. With regard to the cause of the disorder, it was traced with certainty to an elevated temperature (either exposure to the sun or working at the oven) in 22 cases; to irritation of the skin by ointments, plasters, etc., in 21 cases; to the repeated action of water in washing clothes, to fomentations, etc., in 9 cases; to scratching the skin, in consequence of the irritation caused by pediculi, in 20 cases; to varicosity of the veins in 19 cases; and in eight cases it was associated with anomalies of menstruation.

The modes of treatment were very various, but in each patient the system commenced with was adhered to.

1. In 46 cases, cold water alone was used, in the form of fomentations, baths, douches, etc.

2. In 6 cases, a wash of sulphate of zinc (3 j to the pint of water) was used.

3. One case was treated with corrosive sublimate baths.

4. In 2 cases, the parts were kept moist with a dilute solution of potash (3 j to the pint of water).

5. In 3 cases, the caustic action of a concentrated solution of potash (3 j 5 j of water) was tried.

6. In 70 cases, soft soap was used. It was usually applied night and morning for three consecutive days, to the diseased places, which were then covered with flannel, and left untouched for four consecutive days. This process was repeated till the moisture and itching disappeared, and there was merely a red, dry, squamous surface remaining, (pityriasis rubra,) which was treated with tar.

7. In 19 cases, tar was used; the best being that obtained from the wood of the beech or of the juniperus oxycedrus (the product in this case being the oil of cade). The action of both these agents is nearly the same, but the latter is the least disfiguring, and, therefore, most applicable for diseases of the face. We have already indicated the proper period for commencing this form of treatment. The affected parts are smeared over once or twice a day, till an unbroken blackish brown investment is formed, which usually happens after about half a dozen applications. During this time, the parts must not be touched with water. The longer the tarry covering remains, the more certain is the result of its action. If it soon falls off, this is a sign that moisture is still exuding, and we must return to the preceding treatment (merely with soft soap).

8. In 3 cases, the expectant method was trusted to.

Whatever was the external treatment, internal remedies were at the same time used, to improve the general health: as, for instance, cod-liver oil in the scrofulous cases, aloes and iron in the chlorotic cases, etc.

IV. *Elephantiasis Arabum.*—6 cases (4 males and 2 females). In 5 cases, the leg was affected; and in one, the penis and scrotum. One patient recovered in consequence of prolonged pressure by
bandaging; and in 4 others, an improvement was manifested. One woman died from phlebitis, but compression had not been used.

V. Favus.—13 cases (7 males, 6 females). In all these cases the scalp was the seat of the disorder; and in this position the disease is especially persistent, from the fact that the peculiar microscopic fungi of favus occur within the hairs, which thus form a reservoir of spores, from which a new development of favus masses springs up when the older masses have either fallen off or been removed. [When favus occurs in any other part, it always runs an acute course, and disappears spontaneously in a few weeks.] The treatment consisted in keeping the affected spots as clear as possible, and extracting the diseased hair with the fingers.

VI. Herpes.—28 cases, (21 males, 7 females). One was a case of herpes cecinatus, 2 of herpes iris, and the remaining 25 of herpes zoster. The treatment in all the cases was expectant.

VII. Herpes Tonsurans (occurring in 5 men), and Pityriasis Versicolor (in 13 men) were always cured in the course of a week or two by active inunction with soft soap, and then covering the part with flannel. The soap should be rubbed in for the space of ten minutes daily for from four to six days, and a layer of about a line thick left, before flannel is laid.—[N. Y. Jour. of Med.

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Apoplexy in Relation to Chronic Renal Disease.

The following extract is from an interesting paper, by W. Senhouse Kirkes, M. D., in the Med. Times and Gazette.

The intimate connection thus apparently subsisting between sanguineous apoplexy on the one hand, and diseased cerebral vessels, enlarged heart, and renal disorganization, on the other, as deduced from the foregoing analysis, will, perhaps, be best apprehended by viewing the result of this analysis in a kind of tabular form. The 22 cases of sanguineous apoplexy may then stand thus:

<table>
<thead>
<tr>
<th>Cerebral Vessels</th>
<th>Heart</th>
<th>Kidneys</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diseased</td>
<td></td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>Healthy</td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Diseased</td>
<td>Healthy</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Healthy</td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Diseased</td>
<td>Healthy</td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

From this it appears that

The Cerebral Vessels were diseased 17 times
The Heart " 17 "
The Kidneys " 14 "

It cannot but be evident from this impartial analysis of 22 fatal cases of sanguineous apoplexy, in which the different organs were
carefully examined, that disease of the kidneys, heart, and cerebral vessels stand in very close relation to the apoplexy; and this relation is the more evident when it is borne in mind that in more than half of the cases, the kidneys, heart, and cerebral vessels, were found coincidently affected, while in only two cases was there absence of decided disease of any of these parts.

Such being the principal information yielded by an analysis of these cases, two questions seemed naturally to be suggested by it: first, what relation do the renal, cardiac, and arterial diseases bear to each other? Secondly, what share do they severally take in the production of apoplexy? As regards the relation subsisting between the renal, cardiac, and arterial disease in sanguineous apoplexy, I believe that the affection of the kidneys is the primary disease, and that the other lesions are developed secondarily, and in the order just indicated, viz.: hypertrophy of the heart, disease of the cerebral arteries, and extravasation of blood from rupture of these diseased vessels. That structural disease of the kidneys, of such nature as to interfere permanently, or for a long time, with their functions, has among its most frequent and prominent accompaniments, an hypertrophied condition of the left ventricle, is, as already said, a fact now almost generally admitted by pathologists. Of the various explanations of this pathological fact, the most probable, perhaps, is that which regards the blood as so far altered from its normal constitution by retained principles of urinary excretion, as to move with less facility through the systemic capillaries, and thus to require increased pressure, and consequently increased muscular growth of the left ventricle, to effect its transmission. To this, perhaps, may be added, among other additional causes, the direct influence on the circulation, resulting from the impeded transit of blood through two such large and vascular organs as the kidneys, in consequence of the structural change which has taken place in them. On whatever cause, or set of causes, it may depend, however, hypertrophy of the left ventricle of the heart, in consequence of prolonged renal disease, may, I think, be regarded as a well established fact; and to the affection of the kidneys, therefore, may be referred the enlargement of the heart found in 9 of the 13 cases of associated cardiac and renal affections in the analysis above given, and part of the enlargement noticed in the 4 cases where the valves were considerably diseased.—[Ibid.


M. Verneuil lately read a paper before the Academy of Medicine of Paris, on the above subject, in which he endeavoured to make out the following points:

1. Whenever varicose veins which have sprung up spontaneously are observed on the lower extremity, there are deep veins similarly affected in the corresponding part of the same limb.
2. The converse, however, does not hold, for the inter- or intramuscular veins may be found dilated, without any change having taken place in the superficial vessels. But when the deep veins alone are found in an exposed state, it is almost certain that sooner or later the superficial ones will in their turn swell, become tortuous, and very apparent under the skin.

3. The varicose state of the veins of the lower extremity, as it is usually seen, does not primarily arise from the subcutaneous vessels (the internal saphena not excepted,) but generally from the dilatation of the deep veins, and most often from the muscular veins of the calf of the leg! The deep veins are first affected with valvular inefficiency and dilatation, and these two lesions then spread to the super-aponeurotic branches of the second and third order.

4. This succession of phenomena is not only made manifest by simple dissection, but also by a careful study of the special arrangement of the venous system of the lower extremity.

5. These facts, which may be looked upon as a new discovery, throw much light on the whole subject of varicose veins of the lower extremities. The etiology and symptoms of the affection are thus elucidated, and this circumstance allows of a more rational choice of therapeutical means.

6. The mechanism of relapses will henceforth be more easily understood; for it must be confessed that the obstinate return of the complaint, which experience shows to be so frequent, has been explained more by a train of reasoning than by direct demonstration.—[American Jour. of Med. Science.

Description of a New Operation in Cases where the Joint has been firmly Ankylosed in the Straight Position after Injury. By Richard G. H. Butcher, Surgeon to Mercer's Hospital.

There is a condition of the elbow free from disease, the result of injury, when it has become fixed by bony ankylosis in the straight position, that requires special notice. I at once see the point that, by many, such an inconvenience might be borne with rather than running risks by submitting to a severe operation; but, on the other hand, there are some upon whom the effect would be to deprive them of the means of earning their bread, and, having no resources, would, of necessity, consign them to be inmates of a poor-house for the rest of their days. Here, I think, surgery legitimately offers her powers to relieve. In such a condition of parts I would not excise the joint, but would execute the following operation. I have frequently performed it on the dead body, and a dexterous hand may readily accomplish it in the living. The arm being placed in the same position as that for resection, an incision should be made, about an inch in length, behind the internal condyle, and the ulnar nerve freed from its bed, and drawn
forwards with a blunt hook; a second incision should pass outwards to the most prominent part of the external condyle, at right angles with the first, dividing the integuments and ligamentous expansion covering the olecranon. The fine blade of the saw which I use for resection being detached, it should be passed from the extremity of the transverse incision, that is, from without inwards, in front of the condyles and the joint, its flat surface being applied to them; the blade, being sharp at the point, can be readily made to pass along this direction, and by drawing the integuments a little in front of the internal condyle it will appear through the perpendicular incision, or that made in the first instance; the serrated edge may then be turned backwards, the blade connected with its frame, a few movements will sever all resisting parts from before backward, corresponding to the line of the transverse incision through the soft parts; the limb should then be bent at less than a right angle, and any vessels requiring ligatures must be secured. The after-treatment should be exactly in accordance with the rules laid dawn when speaking of resection. An operation accomplished from this plan is not, I conceive, nearly so serious a measure as excision of the joint; the brachial artery need not be considered in danger, except through undue rashness, and the hopes of a more perfect motion may rationally be expected, when no muscular attachments are divided.—[Dublin Quart. Jour. of Med. Science.

Diuretics in Renal Dropsy.

The question as to whether diuretics should be employed in the treatment of those cases of dropsy, which, from the condition of the urine, are known to depend upon diseased kidney, is one of great practical importance. Our readers may be glad to know the opinion of so excellent a physician as Dr. Burrows, respecting it. A few days ago, Dr. Burrows, at the bedside of a patient who was recovering from a very severe renal dropsy, made the following remarks:—"I wish, gentlemen, that you should notice the treatment which has been here pursued. I well recollect that long ago it used to be Dr. Latham's observation that this form of dropsy was often very efficiently treated by the tartrate of potash. That salt was, indeed, his favorite remedy. Then came the addition to our pathological knowledge, and the announcement of the fact that the disease was essentially one of renal disorganization. From this it was thought to follow clearly, that whatever stimulated or irritated the kidney must do harm. Diuretics, consequently, fell into almost universal disuse. Latterly, however, some of us are again coming back to the old practice; we find that no other remedies effect so much for the relief of the patient as diuretics, and we, therefore, prescribe the latter. The matter is one of experience, and my own is to the effect that the kidneys, though in a state of
Bromo-Ioduretted Preparations

translated from the French, by
M. Morton Dowler, M. D., New Orleans.

The following is a summary of the conclusions arrived at by Dr. Lunier, in a long memoir contributed by him to L'Union Médicale:

PART FIRST. 1. The cod-liver oil acts at one and the same time by its oily matter, and by the iodine and bromine of potassium which enter into its composition.
2. These two haloid salts, favor the digestion of the oily matter, by increasing the activity of the pancreatic secretion.
3. This fatty substance, and highly combustible aliment, play an important part in the act of respiration, and in the development of animal heat.
4. The iodine and bromine associated together, act with much more energy than when separately administered.
5. That we can supply the place of the cod-liver oil, by the bromo-ioduretted preparation, associated with any hydro-carbonaceous substances, as chocolate for example.
6. The bromo-ioduretted medicine augments the secretion of the digestive juices, gives activity to the organic functions, and especially favors the development of the adipose tissue.
7. This agent sometimes determines on the skin and mucous membranes, a light inflammation, which has not, however, any tendency to suppuration.
8. It excites also, some cerebral affections, which take on the form of nervous fever, and more generally it puts on the form of general progressive paralysis.
9. The oily matter enters the digestive apparatus, or provides for the transformation of the immediate non-azotic principles.
10. The oily matter is deposited in the tissues when the oxygen introduced into the system is insufficient to consume it. (Labbüler!)

PART SECOND. 1. Leanness, which has not its origin in any serious organic lesion, is successfully treated by the cod-liver oil, or the bromo-ioduretted agent, mixed with oily matter.
2. Opium, more than any other medicine neutralizes the effects of this medicine; (the cod-liver oil) employed with precaution is capable of being useful in the treatment of obesity.
3. The bromo-ioduretted treatment would appear to modify, advantageously, certain diseases of the pancreas.
4. In phthisis pulmonalis, the cod-liver oil acts in a special manner, in furnishing an aliment to the pulmonary combustion; (un aliment à la combustion pulmonaire!)

5. It is therefore contra-indicated in the acute stage of the disease, when there is an urgent necessity of leaving the affected organ in a state of repose.

6. The mineral waters, the fucus, the lichens, and sea-salt, owe their virtues, in the treatment of pulmonary consumption, to the iodine and bromine which enter into their composition.

7. In tuberculous chloro-anæmia, and in certain inveterate cases of chlorosis, the bromo-iodine treatment should be associated with the use of ferruginous preparations.

8. In scrofulous and syphilitic affections, in goitre and glandular enlargements, the bromo-iodine treatment succeeds by impressing on the capillary circulation, and the secretions, an excess of activity which eliminates the morbidic elements from the organism.

9. It is especially to the fatty substance that we most attribute the good effects of cod-liver oil in rickets.

10. In chronic coryza and ulcerated ozæna, bromo-iodine treatment modifies rapidly the state of the mucus of the nasal fossae.

11. This treatment, owing to its direct action on the uterus, and the active impulse which it gives to the capillary circulation, will often be employed with success to re-establish or excite menstruation.

1. Bromo-ioduretted cod-liver oil:

   B. Iodide of Potassium or of Iron, Bromide of Potassium or of Iron, of each, gr. iv.; Cod-liver Oil (brown) $xvij.$

   Ft. Mist. secund. art., of which take from one to five spoonfuls daily.

2. Bromo-ioduretted oil:

   B. Iodide of Potassium or of Iron, Bromide of Potassium or of Iron, of each, gr. viij.; Neat's Foot Oil, or Sweet Almond Oil, $xvij.$

   Ft. Mist. secund. art., and take from one to five tablespoonfuls daily.

3. Bromo-ioduretted Chocolate:

   B. Iod. of Potas. or of Iron, Bromide of Potas. or of Iron, of each, gr. iij.;

   Cake Chocolate, Powdered White Sugar, of each q. s.

   M. ft. secund. art. a mass of $xvij.$, to be divided into troches, (tablettes,) of $ij.$ each, of which from one to five are to be taken daily.

4. Bromo-ioduretted Biscuits:

   B. Iod. of Potas. or of Iron, Bromide of Potas. or of Iron, of each, gr. iv.;

   Bread Biscoté q. s.

   M. ft. secund. art., ten biscuits, and take four or five daily.

5. Bromo-ioduretted Salt:

   B. Iod. of Potas. or of Iron, Bromide of Potas. or of Iron, of each gr. iv.;

   Gray Table Salt $xij.$

   Mix carefully, and preserve in a close vessel. Take from $ij.$ to $v.$ daily by salting.
6. *Bromo-ioduretted Butter*:
\[ \text{R.} \text{ Bromo-ioduretted Salt } 3 \text{v.}; \text{ Fresh Butter } 3 \text{xiv.}; \text{ to be consumed in two or three days.} \]

7. *Bromo-ioduretted Solution*:
\[
\begin{array}{ll}
\text{No. 1.} & \text{No. 2.} \\
\text{Iodide of Potas. or of Iron,} & \text{gr. xix.} & \text{gr. xij ss.;} \\
\text{Bromide of Potas. or of Iron,} & \text{gr. xij ss.} & \text{gr. xix.;} \\
\text{Extract of Gentian,} & \text{ } & \text{ } \\
\text{Water,} & \text{ } & \text{ } \\
\end{array}
\]
M. ft. secund. art., a solution of which take from one to three tablespoonfuls daily at meals. The extract of Gentian ought to be left out when a nearly tasteless mixture is desired.

8. *Bromo-ioduretted Pills*:
\[
\begin{array}{ll}
\text{No. 1.} & \text{No. 2.} \\
\text{Iodide of Potas. or of Iron,} & \text{gr. xix.} & \text{gr. xij ss.;} \\
\text{Bromide of Potas. or of Iron,} & \text{gr. xij ss.} & \text{gr. xix.;} \\
\text{Powder and Syrup of Gentian,} & \text{q.s.} & \text{q.s.} \\
\end{array}
\]
M. ft. secund. art. pil. xl., of which take from one to three daily at meals.

9. *Emmenagogue Potion*:
\[
\begin{array}{ll}
\text{R.} & \text{Iod. of Potas. or of Iron, Bromide of Potas. or of Iron, of each, gr. iv.;} \\
\text{Syrup of Artimesia } 3 \text{v.}; & \text{Distilled Water of Artimesia; Distilled Mint Water, of each, } 3 \text{x.} \\
\end{array}
\]
M. ft. secund. art., a portion of which take one or two tablespoonfuls every morning on an empty stomach.—*New Orleans Med. and Surg. Jour.*

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**On the mode of Presentation of Dead Children in Labour.**

The *Association Medical Journal* for Aug. 31, contains an interesting paper on this subject by Dr. J. Mathews Duncan. The following are the author's conclusions drawn from the observations he has made:

1. The healthy foetus floats obliquely, with its head lowest, in a fluid of its own specific gravity—a position corresponding to that it has *in utero*.

2. The foetus has a specific gravity of about 1050, while that of the liquor amnii, at the full time, is nearly 1010.

3. Soon after the death of the foetus *in utero*, changes take place in it (probably chiefly in the brain) which alter its position of equilibrium in a fluid of its own specific gravity, so as to be generally the reverse of that of the healthy foetus; that is, so as to be oblique, with its head highest.

4. It may happen that an advanced stage of decomposition of the foetus, with collapse of the cranium, may make its position of equilibrium, when floating, again oblique, with the head lowest.

5. These circumstances have probably considerable influence in determining the frequent malpresentations of dead children.

*[Am. Jour. of Med. Sciences.*
EDITORIAL AND MISCELLANEOUS.

The Action of Medicines in the System; or, "on the mode in which Therapeutic Agents introduced into the Stomach produce their peculiar effects on the animal economy." Being the Prize Essay to which the Medical Society of London awarded the Fothergillian Gold Medal for M.DCCCLII. By Frederick William Headland, M.B., B.A., F.L.S., M.R.C.S., etc. Second American, from the second revised and enlarged London edition. Philadelphia: Lindsay and Blakiston. 1856.

We took occasion to speak favorably of this work on the appearance of the first edition, and the correctness of our estimate of its value has been demonstrated by the early demand for another supply. It is certainly an excellent book for students as well as practitioners who may not have kept pace with the improved views of therapeutics. The action of medicinal agents introduced into the stomach is treated of under the heads of the following Propositions:

Prop. I.—That the great majority of medicines must obtain entry into the blood, or internal fluids of the body, before their action can be manifested.

Prop. II.—That the great majority of medicines are capable of solution in the gastric or intestinal secretions, and pass without material change, by a process of absorption, through the coats of the stomach and intestines, to enter the capillaries of the portal system of veins.

Prop. III.—That those medicines which are completely insoluble in water, and in the gastric and intestinal juices, cannot gain entrance into the circulation.

Prop. IV.—That some few remedial agents act locally on the mucous surface, either before absorption, or without being absorbed at all. That they are chiefly as follows:

a. Irritant Emetics.
b. Stomach Anaesthetics.
c. Irritant Cathartics.

Prop. V.—That the medicine, when in the blood, must permeate the mass of the circulation, so far as may be required to reach the parts on which it tends to act.

That there are two possible exceptions to this rule:

a. The production of sensation or pain at a distant point.
b. The production of muscular contraction at a distant point.

Prop. VI.—That while in the blood the medicine may undergo changes, which in some cases may, in others may not, affect its influence. That these changes may be:

a. Of Combination.
b. Of Reconstruction.
c. Of Decomposition.

Prop. VII.—That a first class of medicines, called Hæmatics, act while in the blood, which they influence. That their action is permanent.

1. That of these some, called Restoratives, act by supplying, or causing to be supplied, a material wanting; and may remain in the blood.
2. That others, called Catalytics, act so as to counteract a morbid material or process; and must pass out of the body.

Prop. VIII.—That a second class of medicines, called Neurotics, act by passing from the blood to the nerves or nerve centres, which they influence. That they are transitory in action.

1. That of these some, called Stimulants, act so as to exalt nervous force, in general or in particular.

2. That others, called Narcotics, act so as first to exalt nervous force, and then to depress it, and have also a special influence on the intellectual part of the brain.

3. That others again, called Sedatives, act so as to depress nervous force, in general or in particular.

Prop. IX.—That a third class of medicines, called Astringents, act by passing from the blood to muscular fibre, which they excite to contraction.

Prop. X.—That a fourth class of medicines, called Eliminatives, act by passing out of the blood through the glands, which they excite to the performance of their functions.

The work is then concluded by considering the action of some of the more important medicines in particular.

It is for sale by T. Richards & Son, of this city.

Minutes of the Seventh Annual Meeting of the Medical Society of the State of Georgia, held in the City of Macon, April 9th, 1856.

The Society assembled in Temperance Hall at 10 o'clock A.M., and was called to order by the President, Dr. L. A. Dugas. The Recording Secretary, Dr. O'Keefe, being absent, Dr. Ellison was requested to act pro tem.

On calling the roll, the following members answered to their names:—

Dr. R. D. Arnold, of Savannah, | Dr. J. M. Green, of Macon,
" J. R. Boon, of Macon, | " M. A. Franklin, "
" S. W. Burney, of Forsyth, | " D. W. Hammond, "
" H. F. Campbell, of Augusta, | " G. Harrison, "
" G. F. Cooper, of Americus, | " P. M. Kollock, of Savannah,
" L. A. Dugas, of Augusta, | " R. H. Nesbit, of Macon,
" I. E. Dupree, of Twiggs county, | " Thomas Lamar, "
" W. W. Flewellen, of Columbus, | " E. S. Way, of Pulaski county.
" J. C. Ellison, " | " J. G. Westmoreland, of Atlanta.

The minutes of the last meeting were read and approved.

On motion, the rules were suspended, and the following gentlemen, on written application, were duly elected members of the Society:—

Drs. C. E. Bellamy, of Columbus; B. S. Carswell, of Twiggs Co.; A. A. Trammel, of Forsyth; O. S. Profitt, of Jasper Co.; Ebon Hillyer, W. H. Oliver, J. H. Ethridge, of Atlanta; J. Harris, of Crawford Co.; J. R. Janes, of Starkville; W. E. Vason, of Albany; C. B. Sutton, of Lee Co.

The election of officers being next in order, a ballot was ordered, and the following gentlemen duly elected:
President—IRA E. DUPREE, M. D., of Twiggs county,
1st Vice-President—THOMAS LAMAR, M. D., of Macon,
2d Vice-President—S. W. BURNET, M. D., of Forsyth,
Cor. Secretary—F. C. ELLISON, M. D., of Columbus,
Rec. Secretary—D. C. O'KEEFE, M. D., of Greensboro'.
Treasurer—C. B. NOTTINGHAM, M. D., of Macon,

Drs. Flewellen, Arnold and Burney, were appointed a committee to nominate delegates to the next meeting of the American Medical Association.

At 12 o'clock M., the hour appointed for the purpose, an interesting oration was delivered by Dr. W. W. Flewellen, of Columbus, upon "The Rise and Progress of Experimental Sciences.

After which, on motion, the Society adjourned, to meet again at three o'clock P. M.

**Afternoon Session.**

The Society was called to order by the President, and business was resumed.

Reports from auxiliary societies being called for, Dr. Ebon Hillyer presented a report of the organization, officers and members of the auxiliary society in the city of Atlanta—which, on motion, was received.

Written communications being next in order, Dr. Arnold presented an instructive and interesting paper upon the Relations between the Remittent and Yellow Fevers, showing conclusively that they were distinct diseases, and that they need never be confounded with each other. He also presented, for the inspection of the Society, representations in oil colors of the liver in Yellow fever, and in Bilious fever; that of the former being of a bright box-wood color, and the latter a decided brown. The discussion of this subject was continued for some time by Drs. Dugas, Campbell, Kollock, Hillyer, and others—all sustaining the views advanced by Dr. Arnold.

Dr. Arnold also presented for the inspection of the Society, a new and simple method of preserving specimens of morbid Anatomy.

Dr. Kollock next presented an interesting paper upon the Health of the City of Savannah, during the winter and spring of 1856—Epidemic Measles, and its complications with Pneumonia, Laryngitis and Varicella.

After which, the Society adjourned, to meet again at 8 o'clock P. M.

**Evening Session.**

The Society re-assembled, the President in the Chair.

Dr. G. F. Cooper, who had just reached the city, appeared, and read a practicable and interesting paper upon the Influence of Diet in the Management of Diseases.

The Committee on Business, consisting of Drs. Dugas, Green, Kollock, Flewellen and Way, reported the following subjects and essayist, for the next annual meeting:
1st. Dr. P. M. Kollock—on the Treatment of Vesico-vaginal Fistula.
2d. Dr. J. G. Westmoreland—What is the difference between the "Country fever" of the sea-board, and the Remittent fevers of the middle counties of Georgia?
3d. Dr. H. F. Campbell—Are there any means by which the extension of Yellow fever into the interior may be prevented?
5th. Dr. L. D. Ford—On the connexion of Pneumonia with Remittent fever.
6th. Dr. C. B. Nottingham—On the Discases of the Spinal Marrow.
7th. Dr. F. C. Ellison—On the relation of Epidemic Dysentery to Malarial fevers.
8th. Dr. W. M. Chartres—On the relation of Acute Meningitis to Malarial fevers.
9th. Dr. E. F. Way—On the Pathological difference between acute, articular and chronic Rheumatism.
10th. Dr. Ira E. Dupree—On the Treatment of Prolapsus Uteri.
11th. Dr. Ebon Hillyer—Under what circumstances is Treppeining justifiable?
13th. Dr. R. D. Arnold—The Pathology and Treatment of Erysipelas.

On motion of Dr. Dugas, the Essays read by Drs. Arnold, Kollock, and Cooper, together with the Address of Dr. Flewellen, were ordered to be published.

On motion of Dr. Arnold, the thanks of the Society were tendered Dr. Flewellen for his appropriate and erudite oration.

The selection of orator for the next annual meeting being next in order, Dr. G. F. Cooper was unanimously elected, and Dr. R. C. Mackall his alternate.

The city of Augusta was selected as the next place of meeting. The Committee of arrangement are Drs. Campbell, Harris, Doughty, Walton, and Phinizy.

At a late hour, on motion, the Society adjourned, to meet again at 10 o'clock A.M., on the second Wednesday in April, 1857, in the city of Augusta.

F. C. ELLISON,
Recording Secretary, pro tem.

Mode of Testing the Translucency of Hydrocele.—Dr. W. Frazer directs attention (Dublin Hospital Gazette, Nov. 1, 1855) to what he believes to be one of the best methods of employing the valuable test of translucency in hydrocele, a test which is practically so important as a differential diagnostic in discriminating between mere serous effusions in the cavity of the tunica vaginalis and various affections of the testicle, or scrotal hernias. Of course, every one is aware that the test is not free from objection; thus
it is almost or entirely useless in those instances in which the effused fluid is of very dark color, or is mixed with blood, &c., and also whenever the tissues of the tunica vaginalis are of unusual thickness, or are the seat of cartilaginous or osseous deposit, or when they are coated internally by the products of previous inflammatory action. Independent of these exceptional cases, there are a number to be met with in practice, in which the test is of value.

As ordinarily employed, by placing a candle at one side of the tumour, and excluding the passage of the light laterally by means of the hand, it is, at best, a clumsy proceeding, and liable to errors. I have found the stethoscope much more useful, as a means of excluding the diffused light, and by applying the eye to its expanded bell-shaped portion—the ear-piece being firmly placed upon the scrotum, held in a tense condition—we can even map out the state of the parts with tolerable accuracy, if the contained fluid be of ordinary character, and detect the position of the testicle by the opacity it produces, especially when it occupies any unusual locality, as the front or sides of the scrotum, or is adherent from inflammation after previous tappings. We can employ either a lighted candle or bright sunlight, as our best means of obtaining the requisite illumination; but even in diffused daylight I have succeeded very well in the manner I mention.—[Am. Jour. Med. Sciences.

New Form of Astringent Application. By Dr. William Bayes, Brighton.—Pure glycerine dissolves nearly its own weight of tannin, affording a very powerful local astringent application.

The solution of tannin in pure glycerine appears to me to supply a desideratum long felt, and capable of a great variety of useful applications. The solvent property of glycerine over tannin allows us to form a lotion of any desirable strength, as the solution is readily miscible with water.

The solution of tannin in glycerine, in one or other of its strengths, is peculiarly applicable to many disorders of the mucous membrane, readily combining with mucous, and forming a non-evaporizable coating over dry membranes; hence it may with benefit be applied to the mucous membranes of the eye and ear in many of its diseased conditions. It forms a most convenient application to the vaginal, uterine, urethral, or rectal membranes, where a strong and non-irritant astringent lotion is desired.

In local haemorrhages, where the bleeding surface can easily be reached, it will prove very convenient, and may be applied either with a sponge or small brush.

The solution must be kept in the dark, and should not be prepared for any great length of time before used, or decomposition will occur. It is singular that glycerine does not possess the same property towards gallic acid.—[Association Med. Jour.

On Forcible Feeding.—Dr. Szignondy describes a simple and effectual means of administering fluid nourishment to persons who are unconscious, suffer from trismus, or obstinately refuse food. The patient is laid horizontally on a bed, with the head somewhat raised, and the food is poured by teaspoonfuls through the nostrils. Reaching the pharynx, the movement of deglutition is provoked; and as soon as this is perceived, another small portion is poured in. In this way too, physic can be given to children who resist. He relates a case of severe alcoholic coma, with spasmodic
closure of the jaws, which was speedily relieved by the introduction of a solution of tartar emetic. This means is far easier to practise, and causes less irritation, than the introduction of the stomach-pump.

Dr. Beer states that by the magnetico-electrical induction apparatus, the mouth can be sufficiently opened to admit of portions of solid food being introduced.—[Wien Wochen.—Med. Times and Gaz.

**Ergot of Wheat.**—Dr. Jobert makes the following statement, as the results of his observations:—1. The medical and obstetrical properties of this ergot are as incontestable as those of the ergot of rye, and its effects are as prompt, as direct, and as great. 2. Its haemostatic action appears certain. Dr. Jobert has administered it several times, against abundant discharges of blood, and immediately after labour it has almost constantly and fully succeeded. 3. In the dose of from one to two grammes, (fifteen to thirty grains,) according to urgency, in cases of uterine haemorrhage during any period of pregnancy, it has frequently succeeded in lessening, if not in completely arresting, the hemorrhage, and this without appearing to produce any stimulant action on the uterus.—[Gaz. des Hôp. Asso. Med. Journal.

**St. John Long's Celebrated Liniment.**—The yolk of an egg; oil of turpentine fʒiss.; strong acetic acid fʒi.; pure water fʒii.; first rub the yolk of the egg, the water, and the acetic acid together, then add the oil of turpentine, and agitate the whole until they are well mixed. This counter-irritant liniment is applied by means of a sponge; its effects vary with the force which is used in rubbing, and the length of time the application is continued.—[Edinburg Med. Journal.

**Formula for the Internal use of Chloroform.**—M. Dannecy, pharmacien, at Bordeaux, recommends the following formula:—Pure chloroform, half a drachm; oil of sweet almonds, two drachms; gum arabic, one drachm; syrup of orange flowers, one ounce; distilled water, two ounces; mix the chloroform with the oil, and make an ordinary oily draught. The author also gives a very ready mode of testing the purity of chloroform. Mix the latter with some oil; if the chloroform be quite pure, the limpidity of the oil will not be destroyed; whereas, any chemical impurity, however small, will give rise to a cloud.—[Lancet.

**New Treatment for Itch.**—MM. Dussard and Pillon assert that itch may be often cured immediately by painting the body over with chloruret of sulphur dissolved in sulphuret of carbon. The application kills the acari and their eggs. Sometimes it is necessary to repeat the application, as some of the acari, or some of their eggs, may not have been killed by the first.—[Gaz. Hebdom. Am. Jour. Med. Sciences.

**Spender's Chalk Ointment in Ulcers of the Leg.**—Dr. Patterson has collected 125 cases of chronic non-specific ulcers of the leg, in which, under this mode of treatment, the cure has been rapid and complete. The following formula he prefers:

8. Crete preparata, biv.; adipis suilli, Bi.; olei olivae, ʒiii.

Having heated the oil and lard, add gradually the chalk, finely powdered.

The ointment and a bandage being once applied, it is left until the cicatric forms and becomes firm.—[Edingburg Med. Jour.