saturation of the skin with the lotion secured, by using spongio-piline, fastened loosely by tapes round the limb.

All the cases which I have so treated—five or six in number—have made good and rapid recoveries; and in one only, which was not seen for several days after the disease commenced, was there any great amount of hardness left in the superficial venous trunks at the end of ten or twelve days. In this case, the application of equal parts of belladonna and iodide of potassium ointments was effectual in dispersing it. In all the cases, after the bowels had been freely acted on, the muriated tincture of iron, either alone or combined with quinine, was given internally.

The rapid introduction of waste material into the blood during the puerperal state affords, I believe, some explanation of the action of sulphate of iron externally, and of the muriated tincture internally, in cases of phlegmasia dolens.

Arnott (*Med.-Chir. Trans.*, vol. xv, "On the Effects of Inflammation on Veins") has shown that, in inflammation of veins, the changes begin in the connective tissue towards the *outer part* of the vessel; and this even when irritant bodies are introduced into the cavity of the vein itself. The application, therefore, to the immediate proximity of the coats of an inflamed vein, which it cannot fail to reach either by absorption or imbibition, of an agent which is known to control vascular dilatation in erysipelas and other allied forms of inflammation, seems a rational method of treatment; while the antiseptic effects of the remedies, both external and internal, are doubtless of great importance.

Whatever the true explanation may be, I venture to hope that the use of sulphate of iron locally in phlegmasia dolens, and possibly in other cases of phlebitis, may prove a valuable addition to the means of treatment at present employed in these affections.*

SHOULD EVISCERATION EVER BE PERFORMED IN ARM-PRESENTATIONS?

By F. W. WRIGHT, Esq., Derby,
Late Surgeon to the Birmingham Lying-in Hospital.

DECAPITATION *versus* evisceration in arm-presentations is a subject not without either interest or importance. Churchill says that, should ordinary measures fail "and version be impracticable, we must open the chest of the child and eviscerate;" and Dr. Collins condemns decapitation. Dr. Barnes, it would appear, gives the preference to evisceration; for he says that—"Sometimes perforation and evisceration are insufficient in themselves, and another step will be necessary in order to complete delivery. This ultimate step is decapitation." On the other hand, Dr. Davis makes this important statement: "It ought to be an established rule in practice, to decapitate in arm-presentations not admitting of the safer performance of turning." Perforation and picking out the viscera of the foetus is an operation so complicated and prolonged, and so abominable in detail, that it is matter of surprise how it comes to be advocated as preferable to the much more simple, much less disgusting, and much speedier operation of decapitation.

I propose the following as a simple and ready method of bisecting the foetus *in utero* in an arm-presentation, in which, from early evacuation of the liquor amnii, version is impracticable. The presenting member is to be seized with the right hand, and, while considerable traction is employed, the left hand is to be passed into the vagina as far as the shoulder-joint of the presenting arm, and thence to the neck of the foetus. The exact position of the neck having been determined, the left hand must be kept firmly upon it. A blunt hook, with a curve sufficiently large to embrace the neck, and having a perforation at the extremity of the curve, is armed with a piece of tape, and taken in the right hand; and the left hand being still in the vagina as a guide, the hook is passed over the neck and made thoroughly to embrace it, the tape which it carries being seized on the opposite side. The neck being now secured, to the end of the tape should be tied a leash of about a dozen very thin wires a yard long, twisted together at the ends. By pulling at the tape it will be drawn out of the vagina, and the wires attached to it will be drawn over the child's neck. By pulling these wires backwards and forwards with a saw-like motion, the head may be cut off in five seconds. The body may now be extracted by the

protruding arm; or if, as has happened to myself, it have been necessary to amputate the arm at the shoulder-joint to give room, the body may be readily removed by the crotchet hooked over the clavicle or one of the ribs. The head has now to be removed, and obstetricians are eloquent upon the difficulties which this part of the operation presents. But what can be more simple if the rule be observed, *decapitate close to the shoulders*? The head should then be firmly fixed on the pelvic brim by pressure on the abdomen from the hands of an assistant. A pair of strong forceps, somewhat resembling craniotomy-forceps, but with horrent teeth on the inner aspect of both blades, should then be made to seize the whole length of the neck which remains attached to the head, and traction made upon it until the head escape. I am confident that those who adopt this method will never again have recourse to evisceration.

CASE OF RUPTURE OF THE UTERUS.

By GEORGE CLEMENTS, Esq.,
Senior Surgeon to the Chorlton Union Hospital, Manchester.

E. E., aged 38, married, was admitted on August 25th, 1870. The patient, who was much emaciated, was in a state of extreme exhaustion, almost approaching collapse; the surface of the body being cold and clammy. The tongue was dry and parched; the lips and teeth densely covered with black sordes. The countenance was pale and haggard; while the expression revealed the fact that she was suffering intense pain. The pulse was small, rapid, and feeble; the respiration being hurried, difficult, and almost entirely thoracic. She complained of constant unceasing pain all over her belly; and, on inspection, the abdomen was found extremely distended. The tenderness, on the least pressure being applied to any part of the abdominal wall, was excruciating; and so great was the suffering thereby caused, that the patient refused to allow further examination to be made. It was ascertained, however, that the greatest pain existed in the left iliac fossa. There were tympanitis, and constant vomiting of dark greenish fluid. She was only comparatively easy when on her back, with her knees well drawn up.

On a vaginal examination being made, a very copious discharge of a thick, grumous, offensive character, was found freely escaping from the vagina. The os uteri was firmly contracted and closed, so that no presentation could be detected. The stethoscope was applied over the region of the womb, but neither foetal heart nor placental *bruit* could be heard. The patient could not pass urine without the aid of the catheter, and her stools came involuntarily under her.

She was the mother of four children, and stated that her confinements had been in every way natural, and unattended by difficulties. The circumstances connected with her domestic life had necessitated her working very hard to maintain her family, and this she did by taking in washing. But, after all, she had been living on in a wretched state of poverty and dirt, half starved and over-worked.

A day or two previously to her admission, and within a short period of the time when she expected to be confined, when lifting a heavy bucket of water, she felt of a sudden intense pain in the left side of her abdomen; it was much increased by her standing on a chair, and attempting to hang up the garments to dry. From this time, she took to her bed.

There is no evidence to prove that labour had commenced, for she stated, on admission, she had experienced "no pains" previously to her sudden illness; and the condition of the os uteri testified to the same fact. The rupture must therefore, in all probability, have taken place while she was lifting the heavy bucket, when she first complained of the intense pain. She remained at home three days; when, finding herself worse in every way, she came to Hospital.

Her condition, on admission, I have attempted to describe above; and it only remains for me to add that, during the seven days she survived, all the symptoms before enumerated became more and more exaggerated. The vomiting was relieved from time to time by the administration of bismuth and similar remedies, but opium was the chief agent employed to deaden, to some extent at least, the frightful agony she was suffering. She took it in various forms, but I think the subcutaneous injection of morphia gave her the most relief. The fact that labour had never commenced, and the knowledge that the child had been three days in the peritoneal cavity before her admission, together with the existence of active general peritonitis in a feeble exhausted subject, rendered all obstetric interference quite out of the question.

The necropsy was performed the day after the death of the patient, and the following are extracts from the notes taken on that occasion. The body was much emaciated and ill-nourished. The abdomen was extremely distended and tympanitic. There were scattered tubercles in

* As an illustration of the efficacy of a remedy applied externally, may be mentioned that of a strong infusion of digitalis in ascites. Dr. Christison (*Monthly Journal of Medicine*, October 1850) gives several cases where the drug so applied to the abdomen completely removed the dropsy, after the same remedy with many others had failed when given internally. He also found it useful when applied to the limbs in cases of dropsy in Bright's disease. I have frequently used a strong infusion of digitalis (one ounce of powdered leaves to twenty ounces of boiling water) in similar cases, externally, with remarkably good results.

both lungs, but, with this exception, the thoracic organs were normal. On opening the abdominal cavity, a quantity of most offensive gas escaped; and, on reflecting the skin, the body of a full-grown male child presented itself. The nates pressed against the under surface of the liver, and displaced that organ upwards. The body crossed the peritoneal cavity, and the head was found deep in the left iliac fossa. The placenta had also been expelled, and was in contact with the face and chest of the child. All the abdominal organs were covered with lymph, and bound together in every conceivable manner; there was, moreover, a large quantity of very dark offensive fluid in the cavity. The foetus, placenta, and umbilical cord were in a state of advanced decomposition. The uterus was firmly contracted, and occupied its usual position in the pelvis. On its left side, a rent extended from the fundus to within an inch of the cervix. Decomposed clots and shreds of membrane covered the edges of the laceration, which were very jagged and irregular. The bladder, vagina, and rectum had sustained no injury.

REVIEWS AND NOTICES.

LECTURES ON THE PRINCIPLES AND PRACTICE OF PHYSIC. By Sir THOMAS WATSON, Bart., M.D., F.R.S., etc. Fifth Edition. London: Longmans, Green, and Co. 1871.

[Concluded from page 441 of last number.]

In the lecture on Pulmonary Hæmorrhage, Niemeyer's recent doctrines as to the relationship between hæmoptysis and phthisis are discussed; and, while it is admitted that hæmoptysis may result from the accidental rupture of vessels in a lung previously healthy, and that a portion of the effused blood, being retained in the lungs, may give rise to secondary changes there, it is believed by Sir Thomas that, if tubercular disease is ever a result of such retention, a predisposition to tubercular disease must have existed.

Introductory to the subject of Phthisis Pulmonalis, the modern doctrines relating to tubercle are concisely and clearly set forth. We will endeavour by extracts to indicate the course of the argument.

"The key-note to the latest hypothesis on this subject was struck, I apprehend, when Villemin first announced, in 1865, that tubercles may be introduced into the lungs and other organs of the body by *inoculation*. It seemed probable that the tubercles found in human lungs—the tubercles with which we as physicians have to deal—might or must have a similar origin. But where or whence was the contaminating matter? Now it is asserted by Buhl, and especially insisted upon by Niemeyer, who is the chief expounder of the modern doctrine, that, speaking generally, this problem has been solved; that the source of the tubercles can be assigned. Niemeyer and the rest affirm that the grey granulations, which all agree to call tubercles, are derived in the greater number of cases, if not in all, from pre-existing inflammation—a proposition which you see is exactly the reverse of what Laennec's theory asserts—not that the tubercles are the *direct* product of inflammation. To simplify the explanation, I will confine myself for a moment to what takes place (they say) in the lungs. In pulmonary inflammation, of whatever kind, there will always be inflammatory products. Some of these are from first to last fluid, and are soon and easily expelled through the mouth. Some are more solid, consisting of coagulable and coagulated lymph, or of an unnaturally profuse and crowded cell-growth, or of both of these together. These more solid products often undergo gradually a fatty or other degenerative change, liquefy, and so become reabsorbable, and are actually reabsorbed and gotten rid of; and then the recovery from the inflammation is complete. But in other cases there is no such liquefaction. The mass of cell-forms grows denser and denser, till the compressed shrivelling cells lose something or all of their vitality, and suffer a change which, from the colour and consistence of the resulting material, has received the disagreeable name of *cheesy*. Now the new theory says that particles of this cheesy or caseous matter, whatever may have been its origin, are liable to enter the blood by a sort of internal inoculation, and so to give rise to a crop of miliary granulations which are truly nascent tubercles. And this may happen in lungs which previously to the inflammation were quite healthy, or in lungs which were previously phthisical and tubercular. More than this. Products of inflammation that have not been reabsorbed, but remain pent up in *other parts than the lungs* (remnants of pleuritic, pericardial, or peritonitic effusions, of chronic inflammations in joints, in bones, in lymphatic glands, and so forth) may and often do undergo the caseous transformation, and so at length give rise to the dissemination of tubercles in the lungs and in other parts of the body. In this way is explained the occasional existence of crude tubercles in lungs which are free from any other

semblance of disease. Blood detained in the lungs after pulmonary hæmorrhage may (it is held) have similar changes and consequences. . . . It is especially maintained by Niemeyer that 'the formation of tubercle never takes place unless preceded by pneumonia terminating in caseous infiltration of the pulmonary tissue'. He elsewhere virtually excepts from this broad statement those rare cases in which (according to his theory) tubercles in the lungs are derived from decayed inflammatory products pent up in other parts of the body. . . . In connexion with these theories, the careful experiments made in this country by Mr. Simon, Dr. Sanderson, and Dr. Wilson Fox, are of extraordinary interest." And the conclusion is thus stated: "Upon the whole, we must believe with Laennec, with Niemeyer, with (I think) Drs. Sanderson and Fox, that the yellow opaque tubercle is often merely an advanced stage of the grey semitransparent granule; but we must also believe that it may occur independently of the granule, and even become its parent."

Defining phthisis pulmonalis, in the words of Dr. Andrew Clark, as "comprehending all progressive consolidations and circumscribed suppurative degenerations of the lung", it is shown to be a disease of many forms and aspects. The chief of these are discriminated and separately surveyed. We extract the following account of the anatomical characters of the lung in cases of "fibroid phthisis", as a model of clear and concise description.

"The affected lung is shrunk within its natural dimensions; and a great part of it is solid, dry, heavy, and tough, and grates sometimes when cut through with a knife. The cut surface is slate-coloured, or like grey granite, or of an iron-grey tint. Through these solid portions run fibrous septa in various directions. The connecting tissue that bounds and separates the pulmonary lobules is hypertrophied and augmented, and therefore unnaturally visible. Cavities are sometimes found in the apex of the lung, or scattered through the indurated parts. These appear to consist for the most part of dilatations of the bronchial tubes. Occasionally, however, the ragged sides of a cavity and the offensive odour of its scanty contents suggest the notion of its having originated in circumscribed gangrene. Amid the grey fibroid degeneration may sometimes be seen a few cheesy-looking spots of soft consistence. The pleuræ are often adherent, or, if not adherent, are considerably thickened. Both lungs are liable to this morbid condition; but it is often limited to one lung only, and, so far as observation has yet gone, the left lung is most frequently the one affected; and the disease begins almost always in the upper lobes."

It is stated in books that in cases of pericarditis distension of the pericardium with fluid beyond a certain amount stops, for a while, the friction-sound. Sir Thomas demurs to the accuracy of this statement, and suggests that this temporary suspension of the friction-sound "has been more often inferred as probable than actually observed; inferred through a supposed analogy with the friction-sound of pleurisy." He explains that "the two cases differ materially. In pleurisy with effusion the yielding pulmonary surface is held apart from the fixed and rigid costal surface during the successive acts of respiration; whereas, the tilting movements of the heart against its loose containing bag, can seldom fail to bring the roughened surfaces into partial collision, especially towards the base of the organ. I find that Dr. Latham's experience led him also to say, that serous effusion within the pleura *always* obliterates the attrition sound, and that serous effusion within the pericardium *generally* leaves it unaltered."

In the treatment of peritonitis, as also of obstinate obstruction of the bowels, the value of opium is strongly insisted upon. In the latter class of cases "we seek to restrain within salutary limits the healing force of nature; to moderate without suspending the propulsive movements of the affected bowel."

By the kind permission of Sir Thomas Watson we some weeks since had the satisfaction of making our readers acquainted with his views as to the mode of diffusion, the pathology and the treatment of cholera; it is, therefore, scarcely necessary for us to say that he has treated this subject with his usual ability, and that he adopts the doctrines and the practice which have long been advocated by Dr. George Johnson. The theory of choleraic collapse he believes to be "a reasonable theory, it is founded on a true analogy; it is consistent with the symptoms noticed during life, and with the conditions discovered after death. We may therefore legitimately regard it, until fairly refuted, as a sound as well as a most ingenious and important theory. In truth, it derives strong confirmation from the fact that it unlocks, like the right key, the whole of the pathological intricacies of the disease." Now this is more than can be said of any other theory of the disease; and, in short, it must in fairness be conceded, that while Dr. Johnson's theory of collapse has successfully withstood all the assaults that have been made upon it, and they have been neither few nor feeble, all other theories have been shown to be untenable, on account of their obvious incon-