formed by nature, without the necessity of forming an artificial one, and the subsequent treatment is the same as in simple cases. There is this other advantage—besides the objection of the patient to the knife or leeches—that he is not required to remain in bed any time to the neglect of duty. The reduction of the tumour may be accomplished in the evening, and after a night's rest he may attend to business in the morning. There is also the advantage of applying the local remedies to an unbroken surface, thus avoiding the risks which sometimes follow.

I might here remark in passing, that some hours of an interval should be allowed to intervene between the injection of astringent lotions and the administration of aperient medicine. Time is thus allowed for the accumulation of the natural mucus of the rectum, which will facilitate the passage of the feces, and in this way prevent the straining which often develops these tumours.

In cases where it is thought advisable to operate on these tumours by the clamp, ligature, etc., by first applying the taxis you may remove the necessity for the operation; but where other circumstances determine the operation, such as a relaxed condition of the parts, you reduce the pain and uneasiness considerably.

In hæmorrhoids ending in suppuration, of course the taxis cannot be applied, as the pile has become an abscess, and must be then treated according to the principles of treatment laid down for suppurating tumours.

WOUND OF THE ELBOW-JOINT TREATED ACCORDING TO THE ANTISEPTIC SYSTEM.

By ANDREW MARSHALL, M.D., Preston.

THE following short report of a case which occurred in my practice some time ago seems to me sufficiently interesting to be recorded.

On the afternoon of August 12th, 1869, A. B., a boy, 13 years of age, was brought to my house in consequence of an injury which he had received in a cotton-mill. He stated that, when sweeping the floor behind some machinery, a revolving-wheel caught his right arm, inflicting a wound over the posterior aspect of the elbow-joint; and he was alarmed by seeing the end of the bone sticking out.

On examination, I found in the situation indicated a wound three and a-half inches long: the elbow-joint was freely opened, and the articular ends of the humerus and ulna exposed. So far as I had observed, no account of a wound of a joint treated by the antiseptic method had at that time been published. Believing, however, in the germ-theory propounded by Professor Lister, and having previously witnessed the beneficial results obtained by the antiseptic treatment of ordinary wounds, I resolved without hesitation to adopt that treatment in this severe, and, so far at least as the joint was concerned, dangerous injury. Accordingly, I freely and fearlessly injected the aqueous solution of carbolic acid (one part of the acid to twenty of water) into the joint, where it was retained by my assistant holding the edges of the wound together while I freely moved the articulation, so that the lotion might be insinuated into every part of it. The lotion was then squeezed out; and, in order to ensure the destruction of any septic germs which might still lurk in the recesses of the joint, this part of the process was repeated. The edges of the wound were well washed with the lotion, and brought into apposition by wire sutures previously steeped in the same antiseptic fluid. The point of the syringe was introduced between the stitches and the joint once more injected with the lotion as before. A small piece of lint soaked in the carbolised oil (one part of acid to forty of oil) was placed over the wound, and the whole joint was enveloped in a similar covering; a piece of sheet gutta-percha covered this, and then a bandage soaked in the same oily solution was applied from the fingers to above the elbow-joint. The boy was put to bed, his arm placed on a pillow in the extended position, and his mother ordered to keep the dressing constantly wet with the oil.

August 13th, 10 A.M.—The patient was slightly feverish, and complained of thirst. Pulse 100, tongue furred. He had no pain in the limb, and there seemed to be no swelling.

August 14th, 11 A.M.—The feverishness had entirely disappeared. The patient expressed himself as being quite well. He had no pain.

August 21st.—The patient had continued quite well since the 14th. He had no pain in the joint. This afternoon the dressings were taken off for the first time in the presence of a medical friend. The wound was found to have completely united by the first intention. Not a drop of pus was present. The joint was not swollen. The antiseptic dressings were reapplied in a similar manner, and the limb maintained at rest in the same position as before.

August 24th.—The dressings were removed to-day for the second

time. The joint was apparently quite well. The stitches were taken out and the dressings reapplied.

August 28th.—The dressings were removed to-day for the third time, and it was not considered necessary to reapply them. The movements of the joint were perfect. A little ointment was applied over the line of cicatrix. The boy was allowed to resume his work in the following week.

A result so satisfactory could not, I think, have been attained in so short a time by any other than the antiseptic system of treatment. I am quite aware that the details narrated above are not in accordance with the present mode of applying antiseptic dressings. I never dress wounds in the same manner now. A much less troublesome and much more elegant method is now adopted. I had not then heard of Lister's antiseptic sutures, with which I now always stitch wounds, and I had none of his antiseptic plaster at hand. But the treatment was in every particular strictly in harmony with the principles which Professor Lister has all along advocated. The result was everything that could have been desired, and everything that the antiseptic treatment promises to realise in such cases. There was a rapid recovery without putrefaction in the wound, and, after the first twenty-four hours, without any local or constitutional disturbance whatever.

From this and several other cases equally satisfactory I have been led to place implicit confidence in the antiseptic system, and I am persuaded that nothing is necessary to ensure success except a firm belief in the germ-theory and a careful application of the treatment founded upon it.

THE PHYSICAL NATURE OF VITAL ENERGY.

By LIONEL S. BEALE, M.B., F.R.S.,

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THE conviction that it is "*only* by recognising the *physical nature of vital energy* that we can ever hope to establish therapeutics on a firm and sound basis" has, perhaps, led Dr. Ferrier* to express himself rather decidedly against some views which I ventured to put forward some years ago, but which I am ready to give up as soon as convincing evidence shall be adduced in favour of the physical doctrine of life.

If Dr. Ferrier will explain what is meant by "*molecular organisation*" and "*molecular machinery*", he will serve the cause he has at heart far better than by attacking me; for, as he must have gathered from many of my remarks, I am quite as anxious for light as anyone can be. What I desire is to learn in what particulars the "*living*" resembles and differs from the "*non-living*". I am quite ready to admit that one living thing is only some other living thing, or dead thing, or non-living thing, "*variously modified*" "*under sundry circumstances*", by "*subtle influences*"; but I should certainly like to have the meaning of these very comprehensive phrases explained. A man may be said to be but dust "*variously modified*"; but consider what is comprised in the "*variously modified*"! And perhaps I may be permitted to ask why, if it is right to attribute the marvellous phenomena of nutrition to "*subtle influences*", am I to be condemned because I prefer to employ provisionally the simple term "*life*" or "*vitality*" or "*vital power*"?

It is *possible* the "*molecular machinery*" may be discovered; but at present it is absolutely unknown. It has never been seen, and no one has yet told us what it looks like even in his imagination. But yet I must admit that it is *possible* such machinery may be beyond the microscopic limit. The imagination of *highly gifted persons* may be able to conceive the structure and mode of action of the molecular machinery of the existence of which they are perfectly certain, although it has not yet been rendered evident even to their senses. Nay, I will admit further, that a *sufficient* intelligence might be able to predict from the properties of its component parts the characters which the offspring of any given piece of "*molecular machinery*" will assume after it has continued to grow and multiply, say for a thousand years. But do such suggestions enable us to unravel the mystery of the life of even the simplest thing now alive, or to determine in what particulars a *living* particle differs from the same particle *dead*; or why a portion of a mass of living matter moves upwards as well as downwards, or in what manner it takes up non-living matter, and communicates to this its own properties, and divides into separate portions, every one of which possesses equal powers? It may be answered, "These phenomena are due to the properties of the molecular machinery which has long been known to exist in the imaginations of highly gifted persons; and, although as yet no one has succeeded in actually producing such machinery artificially, the efforts of philosophers tend towards such a con-

* Introductory Lecture on Life, etc. (BRITISH MEDICAL JOURNAL, Oct. 22nd).

summation"! But surely no observer, no worker at science, will feel satisfied with such statements as these; and a few will probably agree with me in thinking that, although it be in a sense unphilosophical, it is neither inconsistent nor absurd, to entertain the opinion that the vital phenomena of living matter which was derived from pre-existing living matter are due to a peculiar power; although at the same time I object to accept the view that the action of a steam-engine, which was not produced by a pre-existing steam-engine, is due to a "steam-engine principle"; and I confess it appears to me very extraordinary that many advocates of the physical theory of life cannot be convinced that the analogy they draw between a machine, which does not make itself, or grow, or multiply,—and living matter, which seems to do all these things, is so very slight as to be beyond every limit except that of the fancy. If those who support the view which Dr. Ferrier so strongly advocates could explain by physics and chemistry (a) *the movements*, (b) *the growth*, and (c) *the division of any particle of living matter of any organism in this world*, they might have some excuse for the very positive statements they make about the *physical theory of life*.

People are beginning to doubt whether, after all, living things are really so like machines and crystals and physical bases, and complex albuminoid matters in a state of rapid chemical change, as they have been led to believe them to be. And people are also beginning to doubt if those who have spoken so positively on the physical side really know much more than any one else knows about the nature of life; although, from their very decided manner, it was natural to believe they possessed very peculiar and perfect knowledge of the subject. Whether the physical theory of life would have resisted much better the "*furious onslaughts*" that have been made against it, if some other course had been pursued, is a matter of opinion; but it is quite certain that some of the strongest supporters of the doctrine are modifying their views, and are preparing to modify them still further. Those who have watched for ten minutes, under a high magnifying power, the varied movements of living matter, and have thought a little over the question of the nutrition of that living matter, will not easily be brought to believe that such phenomena are due to physical and chemical changes only. The number of such observers increases daily.

CASE OF RHYTHMIC CHOREA OF THE RIGHT ARM AND HAND: WITH PARTIAL PARALYSIS OF THE RIGHT SIDE OF THE HEAD AND THE LEFT LOWER EXTREMITY.*

By R. H. B. WICKHAM, F.R.C.S.Ed.,

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G. J., aged 77, was admitted into the Royal Edinburgh Asylum on the 22nd July, 1870. He is married, a baker, and resided last in St. Cuthbert's Poorhouse. About three weeks before admission, his mental health, which had previously been good, gave way, and he was admitted to this asylum labouring under the following delusions. He thinks himself the proprietor of the hospital attached to the poorhouse, and the owner of considerable property besides. He orders the other patients about to do his bidding. He says he is a Jew, and that his brother Jews are keeping guard over his money, which is locked up by them in Edinburgh Castle. Certain spirits appear to him from time to time, and put poison into his legs, and tell him to go to hell, for he has no business to go to heaven, as he is not a Jew. They also put searching questions to him about his estates, which he refuses to answer, being of opinion that they inquire for no good purpose.

The patient is a hale-looking old man, of rather above the average height, being about five feet ten inches. When spoken to, he answers questions readily and intelligently. He stoops a little in walking, but not more than usual in men of his age. The right side of the face droops slightly, especially at the eyebrow and the angle of the mouth. The tongue, when protruded, keeps well in the middle line, except for about an inch at the tip, which turns off at a sharp angle to the right. This state of matters is not affected by pinching and kneading it, nor by forcibly directing it to the left side, as it immediately returns to its former position. On examining the inside of the mouth, the uvula is observed to droop to the right side, and the arch of the right half of the posterior buccal orifice is about the eighth of an inch or more lower than on the left side. The pupils dilate equally, and the hearing is good on both sides.

The arm on the left side presents no peculiar features, except slight tremulousness; but that on the right is markedly tremulous, and is being

constantly put through a series of rhythmic movements, beginning when the patient converses and ceasing when his conversation is over. These movements are made in the following order. He holds the right arm at semiflexion, the hand being supinated, and the humerus being nearly perpendicular from the shoulder. He then draws back the elbow, and when it is at its full retraction he suddenly pronates the hand, raising the elbow at the same time until it is on a level with the shoulder, when he brings the arm forward until the humerus is restored to its perpendicular position, finishing the movement with a rapid supination of the hand. During this evolution the fingers perform independent motions, the forefinger not moving so freely as the others. These movements are confined to a flail-like action of the middle, ring, and little fingers, the forefinger and thumb being held steady. From time to time the arm is not concerned in the evolution at all, the movements being confined to the forearm and hand. When the patient is silent no movement of the arm is observed, but he seems quite unable to speak without performing the automatic actions already described. When answering simple questions, he confines himself to the movement of the hand and forearm; but, when he is pressed on the subject of his delusions, the upper arm is called into requisition.

In walking, the left leg drags very much, and he is unable to place it in front of the right. He seeks support from objects such as the wall, chairs, tables, etc., using either hand indifferently, and apparently deriving as much support from the one as the other. He seems to experience considerable difficulty in sitting down—standing with his back to the chair, and leaning back without bending the hips, until his hands touch the seat, when he lets himself drop. In getting up again, he pushes himself up off the chair with a jerk.

There is no history whatever of the case; but I have little doubt that the patient has suffered from a paralytic seizure at some period of his life; and, from its not being referred to in his schedule, I am inclined to think that it cannot be recent, as such an occurrence would in all probability have been mentioned by the parochial officers. The most important feature in the case is his inability to carry on any conversation without performing the movements which I have endeavoured to describe. It would appear that he has partially lost the power of procuring proper words at command to express his ideas, and endeavours to make up for the want of them by these gestures. When talking about his age, or other simple matter, he only uses the hand and forearm, as I have said, and when he becomes interested in a subject he brings the upper arm into play. But he does not appear to be capable of being interested in anything except the subject of his delusions; and, consequently, the regularity of the movements may be accounted for (if they are emotional) by the fact that he is incapable of more than one series of emotions.

A NEW INSTRUMENT FOR SECURING THE PEDICLE IN THE OPERATION OF OVARIOTOMY.*

By GRAILY HEWITT, M.D., F.R.C.P.,

Professor of Midwifery in University College; Physician-Accoucheur at University College Hospital; etc.

SURROUNDED as this operation of ovariectomy is with difficulties of various kinds, one of the greatest of these is unquestionably the treatment of the pedicle: not merely the securing of the vessels enclosed therein in such a way as to prevent hæmorrhage, but the dealing with it in such a manner as shall best conduce to the prevention of the pyæmic complications attendant or liable to be attendant on the healing of the wound.

For the purposes of the present paper, I assume that the best method of securing these two results consists in bringing the pedicle to the external wound, and there fixing it; considering as I do that, on the whole, this method is attended with less risk of secondary hæmorrhage; while it does not appear to be, judging from the results—the magnificent results, they may be termed—of Mr. Spencer Wells's practice, more liable, at all events, than others to the pyæmic complications. Mr. Wells has largely employed, as is well known, the *clamp* in his operations. My experience, a far more limited one than Mr. Wells's, has made me acquainted with difficulties which seem inseparable from the present manner of clamping the pedicle, and which have given me no little trouble in some of the operations I have performed, and in which the clamp was used. The clamp, by its shape and form, hides from view the part of the wound immediately beneath it, and it is diffi-

* Read in the Psychological Section at the Annual Meeting of the British Medical Association in Newcastle-upon-Tyne, August 1870.

* Read in the Midwifery Section before the Annual Meeting of the British Medical Association in Newcastle-upon-Tyne, August 1870.