perseverance for six months, the skin would get nearly smooth: but a month's intermission would be sufficient for a return of the roughness.

The power of arsenic over the secretion of the dermis was fully demonstrated in this and several other cases, in which I have tried the same experiment; but in no case does it appear to have the power of preventing the ichthyotic formation from being again developed. These facts are, however, interesting, as proving that arsenic does exert a specific action on the dermis, which may in part account for its therapeutic efficacy in the squamous affections.

[To be continued.]

Alfred Place, Bedford Square.

WOUND PENETRATING THE KNEE-JOINT: RECOVERY.

By SAMUEL DREW, Esq.

On the 20th of May last, I was called to attend George Chatfield, who had wounded his leg with an axe. On reaching his cottage, I found him sitting in a chair complaining of slight faintness, and was told that the bleeding had ceased, but that he could feel the blood "churn", as he termed it, whenever he moved his leg.

On examining the limb, I found an incised wound of about three inches in length on the inner side of the left leg, just below the centre of the patella. The wound at its upper angle, where it was deepest, had laid open the interior of the knee-joint, into which I might have passed my finger through the opening. On bending the joints, or making pressure on the patella, a quantity of bloody froth mixed with synovia issued from the orifice, showing that air had entered the joint. Indeed, I learned that the man had actually walked without help nearly half a mile to his home, after the wound was inflicted.

I had him removed to bed, and placed the limb on a long splint, securing it from movement by bandages. The edges of the wound I secured at the upper part by a single suture, including the skin only, and at the lower part by adhesive strapping only. The joint was then covered by a thick compress wetted with cold water, and from a vessel of water suspended to the frame-work of the bed a constant dropping was arranged on the compress, so as to keep the temperature of the injured part very low. The next day, I found the joint considerably swollen, but with little pain; the pulse being about ninety, and hard, a few doses of a solution of tartarised antimony were given with an aperient draught. These relieved the febrile symptoms in a short time. The limb was kept in this state without interruption for a week, when the supply of water was stopped; but finding after a few hours that the joint was becoming hot and painful, it was again applied, and continued for two days more; after which, it was finally discontinued, the compress over the wound being still, however, kept constantly wet by frequent sponging.

On the fourteenth day, the opening into the joint appearing to be completely closed, although the external wound was still unhealed, the splint was removed, but the patient was kept in bed, and directed to bend the joint as little as possible. At the end of the third week, the wound was completely on a level with the surrounding surface; the compress was now removed, and the patient allowed to leave his bed; the wound being covered with a slip of adhesive plaster only. The joint was for a few days rather stiff and painful, but soon improved; and at the end of the fourth week, the patient, who is a member of a benefit or sick club, was considered both by himself and by me fit to resume his usual occupation, the wound being completely cicatrised. He has since being engaged in the usual employments of an agricultural labourer, without suffering from any pain or inability of the wounded joint.

REMARKS. The wound in this case did not heal by simple union, as, though the exterior edges could easily be kept in apposition, I found that the edges of the internal opening

into the joint could not be. Finding this impracticable, my endeavour was to induce the filling up of the wound by slow granulation, without allowing suppurative inflammation to occur; in this, I fortunately succeeded. Scarcely any appearances of inflammation showed themselves; and no pus was secreted until after the patient had left his bed, and then in very minute quantities. Had suppuration been established before the opening into the articulation was closed, the functions of the joint, if not destroyed, would in all probability have been very seriously injured: to a labourer, a thing of the utmost importance. Of course, the case throughout required careful watching.

Robertsbridge, Sussex, January 1855.

BIBLIOGRAPHICAL NOTICES.

THE PATHOLOGY OF THE BRONCHIO-PULMONARY MUCOUS MEMBRANE. PART II. By C. BLACK, M.D. pp. 101-155. Edinburgh and London: 1855.*

In the second part of his work on the Pathology of the Bronchio-Pulmonary Mucous Membrane, Dr. BLACK commences the discussion of the non-inflammatory diseases of that membrane; and the pages before us are devoted to the consideration of tuberculosis.

The author recognises three pathological conditions of tuberculosis; viz.: 1. The stage of local predisposition; 2. The stage of deposition; 3. The stage of germination.

Stage of Local Predisposition. The evidences of local predisposition are found in a deviation from the healthy standard of blood which the vessels of the bronchio-pulmonary membrane contain. To the unaided eye, the membrane is often more puffy and of a deeper colour than natural; while, by the microscope, the vessels are found increased in diameter. The local predisposition, thus constituted by an overplus of blood, may be more or less extensive or limited. It is a generally recognised fact, that the upper lobes of the lungs are the most usual seat of tubercle. Of this Dr. Black gives the following explanation:—

"The more frequent invasion (of the upper lobes) by tubercle is probably due to their deficient mobility, as compared with that of the middle and lower lobes, during the respiratory movements. The greater the mobility of a part, the more quickly is its circulation accomplished. If, then, different parts of an organ manifest differences in the degree of their mobility, the vessels of the less mobile part will fail to transmit their blood in a ratio equivalent to that of the vessels of the more mobile parts; and thus a comparatively partial retardation of the flow of blood through the former vessels takes place. Now it is evident that, when these different parts are supplied with blood by branches of the same vessel, the blood sets out with equal velocity to each part; and that, if in the extreme vessels that velocity is more efficiently maintained by the mobility of one part than by that of another, a comparative retardation must necessarily take place in the vessels of the latter. Hence, this normal condition of the circulation in the upper lobes of the lungs is more favourable to the occurrence of tubercle than is the circulation through the lower lobes; and hence the probable reason why, under the exciting causes of the localisation of tubercle, the deposit more frequently takes place in the former than in the latter portion of the lungs." (p. 102.)

This explanation of the liability of the upper parts of the lungs to tuberculous deposit, seems more rational than any other with which we have met.

Dr. Black asserts that the "local predisposition to tuberculosis of the bronchio-pulmonary mucous membrane modifies, to a certain extent, the normal function and the physical signs of the lungs". In replying to an objection which may be urged against this statement, that no evidence of disease will be found in many cases of predisposition to pulmonary tuberculosis, he is led to give a very clear definition of the distinctions between *constitutional* and *local* predisposition.

"A constitutional predisposition does not necessarily impose a local predisposition. The former is a condition of the system

* A notice of the first part of Dr. Black's treatise will be found at p. 708 of the volume for 1855.