

and atlas—as the two uppermost vertebrae of the spinal column are called—are good examples of the other forms of joints.

It will assist us to understand the matter more easily if we remember that where great range of movement is required, the surfaces of the joints are shallow, or, so to say, *saucer-shaped*. Place, for example, a marble in a saucer and you can understand the extreme range of motion which it possesses. So with the upper arm, the saucer-shaped cavity of the shoulder permits the humerus to swing backwards or forwards, outwards or inwards, or to rotate round, with a large range of mobility. But where great strength is required, we find that the joints are *cup-shaped*, giving certainly a greater strength to the opposed bones, but just as much reduced a power of movement as the marble would have, compared with its movements in the saucer, if we now transfer it to an egg cup. A good example of the cup-shaped joint is presented, therefore, in the hip joint, which practically has to bear the weight of the whole trunk. The practical importance of this point to surgeons and nurses is that we find, as we might expect, that dislocations or displacements of a joint much more commonly occur in the freely moving bones, that is to say, in the saucer-shaped joints, than in those that are provided with deeper and stronger surroundings.

With reference to the injuries to which joints are liable, the most common is that which is known as a *Sprain*. The history of such an accident is simple—a sudden forcible strain takes place, as, for example, in the case of a man jumping off a step and twisting his foot underneath him; the bones of the ankle are forcibly jerked apart, the ligaments surrounding them are stretched violently, and, perhaps, even partly torn, the blood vessels running through the ligaments and muscles are broken; and, consequently, we have first of all severe *shock*, amounting in a bad case almost to the production of vomiting; then great pain on movement, and rapid swelling all round the joint, which is generally followed by discolouration of the surface of the skin, due to the effusion of blood from the ruptured vessels beneath it. For treatment, the first essential is to rest the wounded joint and to raise it above the level of the body, so as to relieve the tension of the swollen tissues. For the swelling, evaporating lotions are usually employed; for example, equal parts of spirit and water or one of spirit to five of lead lotion, or a teaspoonful of sal-volatile to half a wineglassful of water, is applied upon rags or lint to the affected part. As the pain goes and the swelling disappears,

we are, however, faced, as a general rule, with a fresh difficulty, because the joint suffers—as all joints quickly do—from want of movement, and becomes, in consequence, more or less stiff. It is, therefore, important as soon as possible to move the joint, and the best nursing for the case is to rub in some olive oil round the joint, until the skin gets warm and red, and then gently shampoo the joint with the hand and move it to and fro. If, however, this treatment has been neglected and the stiffness has become extreme—even amounting in some cases almost to fixation of the joint—more active measures must be adopted, and then some stimulating liniment requires to be applied, and more energetic manipulations are necessary. In extreme cases, it may even be necessary to place the patient under chloroform and forcibly move the joint in order to break down the bands of adhesion which have formed around it. This also requires to be done in some cases of fracture near the end of a bone, in which the joint has been enveloped in splints for a prolonged period. It is interesting to remember that it was in these cases that the so-called “bone-setters” formerly derived so much of their reputation; because it was with patients who were crippled from fixation of their joints, and upon whom the “bone-setters,” with more shrewdness than actual skill, and blissfully ignorant of the dangers which might attend their efforts, sometimes dared what doctors with greater knowledge would not venture to do. In some cases, these gentlemen succeeded, by good luck rather than by good management, in effecting a cure by forcible movements—breaking down the thickened adhesions, and thus restoring mobility to the injured limb.

(To be continued.)

### Our Five Guinea Prize.

We have pleasure in announcing that our Five Guinea Prize for the best illustrated article on a practical nursing subject has been won by Miss Madge Sutton (Sister Nora), Dr. Barnardo's Incurable Homes, Birkdale, for the article which we publish this week on “Baths.”

Other papers deserving honourable mention are those on “The Intelligent Observation of Temperatures,” by R. C., “The Application of Cold Externally,” by Zero, and “Nursing Duties with Regard to the Removal of Tonsils and Adenoids,” by E. S. F., which we hope to publish in due course. Miss Sutton's article gained the prize because both article and illustrations were good. The weak point of the majority of the articles sent in was the illustrations.

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