

a lack of this salt in bone tissue. But there is not sufficient proof that this has any effect upon the disease. It was only the theoretical exhibition of a particular drug to satisfy a fanciful crotchety. It is conclusively proved that the adoption of measures which will improve the general health, and nutrition, is the only rational treatment, and the only one which will avail. All children should live in a healthy situation, warm but well-ventilated rooms, be fed on a carefully regulated diet, and wear suitable clothing. This is the ounce of prevention. But if they are already subjects of the disease, every means should be employed to strengthen the general health by gentle out-door exercise, tonics consisting of iron and cod-liver-oil, plenty of milk, etc. In addition, the whole body should be sponged daily with salt or tepid water. The duty of a teacher, when a child is found to have the disease, is to see that it is taken out of school at once.

The bones of the leg are usually misshapen, and the knees are widely separated, and every teacher will notice such a deformity. In very young children the disease is insidious, for the infant is often plump and fat. In London, recently, at a baby show, the prize baby, so considered by the doting mammas, was a rickety infant. There is another disease of bone very prevalent among children, improperly cared for, viz., spinal disease, shown by curvature at different points in the spinal column sometimes in the neck or cervical portion, sometimes lower down. In some cases, the substance of one or more vertebrae, or bones of the spine, is utterly destroyed by inflammation, and the child is crippled for life. This disease is often brought on by unnatural and strained postures in sitting and standing, and there is no place where there is so much need of watchful care over the young in this particular as in the school-room. There is still one other malady, to which boys are sometimes subject, who remain in the water too long while bathing during the summer season. They are chilled, and an inflammation of the bone of the leg results, which ends in death of more or less of its substance. This commonly exhibits itself in a superficial sore, which finally breaks and discharges, accompanied with great pain, and if allowed to run its course, the usefulness of the limb may be entirely lost. In ten minutes all the good effects of an open-air bath are experienced, whether the water is salt or fresh. Hence the importance of cautioning school children not to bathe too long. The various bones of which the skeleton consists are connected together at different parts of their surfaces, and their connections are called joints or articulations. These are divided into three classes, the immovable, of which the sutures or joints uniting the bones of the skull are examples; 2d, the mixed, as the joints between the bodies of the movable vertebrae; 3d, the movable, so called, because the separation of the surfaces is complete, as the knee joint. A very good idea of the joints and bones may be had from those of the lower animals, as they resemble in many respects those of man. It is very easy to procure the joints and bones of a sheep or calf from any butcher, and demonstrate them to a class. The joints permit the various motions of the animal frame. They also deaden the internal concussion or shock produced by the sudden contact of the body with external objects, and they add to the strength of the skeleton, for it is well known that a number of short pillars placed one above another withstand a greater vertical pressure, than a single column of equal dimensions. The ends of the bones forming the joints are variously shaped, according to the character of the joint, and are moreover covered by a membrane or cartilage, serving to deaden the shock and facilitate the movements of one bone upon another.

Surrounding the joint closely on all sides is a membra-

nous sac filled with an oil which lubricates the end of the articular surfaces, and so diminishes friction and prevents any perception of grating, or noise by the individual. I have spoken of the joints in general, because their structure and operation is very interesting, and well worth careful study by any one wishing to have a general knowledge of important facts in the human economy. Again, wounds and injuries of joints are often very serious, resulting in permanent stiffness and loss of the use of the limb. If a child complains of pain in the knee or hip, or any joint, it is the teacher's duty to investigate at once and see that proper attention is given, and not treat the child as if the pain is of no moment. There is one disease, viz., hip joint disease, characterized by intense pain upon walking, and a habit of dragging one foot after the other. When attending the clinics at the Children's Hospital in London, many cases of this malady came under my notice, and the diagnosis was made in most cases as soon as the child entered the room, from this latter characteristic. This disease is very sad in its results, generally rendering the subject a cripple for life. It is particularly desirable that it should be recognized only in its course, and children who are seen dragging one foot after the other, or who complain of pain in the hip, should receive proper medical inspection at once. This is eminently a disease of childhood, and is often brought on by standing upon one foot, with the other across the first, or while standing on both, resting the whole weight on one. This is a habit which girls particularly indulge in, as well as that of sitting and standing in strained and unnatural positions. In regard to this whole subject of postures, two things should be remembered. There is danger in making children sit bolt upright for hours at a time, as is the practice in some schools, and there is danger in the other extreme as well. A child should not be fatigued by remaining in one position too long, but should frequently change to some other posture, which is natural and healthful. Positions should be equalized. If the scholar leans one elbow on the desk and rests on that, the other also should perform a similar duty in turn. Nothing should be done to strain any joint or bone. When walking, invariably the shoulders should be thrown back, head up, and body erect. I might mention here the effect of improper carriage on the respiratory organs, but I will speak of that at another time.

The necessity of pure air to the healthy development of bone, cannot be over-estimated, inasmuch as "the blood is the life" of the bones, not less than of every other portion of the animal system, and it is impossible to have healthy blood while breathing an impure atmosphere. The essential requisites for the proper development and healthy condition of the framework of the house we live in, should be well understood by every teacher and impressed upon the mind of every child. They are, in a word, an abundance of pure air and exercise, wholesome food, frequent bathing, erect carriage in walking, running, and natural and healthful postures in sitting, with frequent changes.—*Ibid.*

Education in the United States.

We learn, says *Appleton's Journal*, from the report of the Commissioner of Education that the people of this country have given, during the year 1872, more than ten million dollars toward the higher institutions of learning, and voluntarily taxed themselves to the amount of nearly seventy millions more for common schools. When the