

science, that I attribute the wretched state of colonial museums so far as indigenous beetles are concerned. Even at Melbourne the entomological collection is beneath criticism. To preserve *Coleoptera* for an indefinite period it is only necessary to put them into a phial containing any kind of spirits. *Orthoptera* and *Hemiptera* may be kept in the same manner, and even *Hymenoptera*, *Neuroptera*, and *Diptera* will suffer but little from such treatment. A still better method for beetles, and one which, undoubtedly, preserves their colours more perfectly, is to put them into sawdust moistened with spirits, care being taken not to make the mixture too wet. It now only remains for me to express a hope, that, if not anticipated by an abler hand, I may be in a position, on some future occasion, to lay before you fuller and more exact information respecting this interesting order of insects.

ART. XXXV.—*On the Skeleton of an Aboriginal Inhabitant of the Chatham Islands.* By F. J. KNOX, L.R.C.S.E.

[Read before the Wellington Philosophical Society, 30th October, 1872.]

THE skeleton forming the subject of the following observations was that of a female, in all probability of about middle age, and was obtained in a cave on the Chatham Islands by Mr. H. Travers. The state of the bones indicates a very lengthened exposure to the action of solvents leading to the disappearance of the gelatine and chondrine, which form the original elementary basis of the skeleton. A few of the bones were wanting, but these are of slight comparative importance, so that the skeleton as now deposited in the Museum will form an object of scientific inquiry inasmuch as it may be depended upon, not only in its history but in its composition.

In contemplating the trunk and its appendages the almost universal lateral curvature of the spine towards the right shoulder, common amongst the most highly civilized European classes, is observable in this instance. This curvature is not considered pathological but perfectly natural, and arising from a *congenital* increase in the development of the entire right side of the body. An excurvation of the spine observed in some instances amongst the Maoris, and attributed by some writers on the Maori race to the awkward form of the entrance to their dwellings, is in fact the result of disease, inherited or produced, and is much more common in the large cities of England than in New Zealand. It is in fact a disease attacking in general the sixth or seventh dorsal vertebræ, leading to suppuration in the bodies of these vertebræ, loss of substance, and a consequent angular curvature of the column, terminating in

the well known hunchback or in death. The bodies of the fourth and fifth lumbar vertebræ in this skeleton exhibit the effects of excessive and long continued pressure from carrying heavy weights, such as firewood. The ribs and thorax are normal, but slightly twisted in consequence of the lateral curvature of the spine above alluded to. The sternum, strictly normal, consisting of manubrium, body and ensiform cartilage. The scapulæ and clavicles, though well formed, are unusually small. The clavicles at their sternal articulation exhibit the effect of chronic enlargement during life.

The pelvis is well formed, and appears to me not to indicate inferiority such as is said to be present in the dark Negro races. I refer to the table annexed for the measurements taken, as showing no marked deviation from the average dimensions of the pelvis in fairer races. The excessive development of the bones of the face, and more especially the upper and lower jaw, so much dwelt upon by closet naturalists and compilers as indicating a deviation from the Caucasian type towards that of the monkey, is, I think, a mere fancy—a matter of taste in short. I have repeatedly observed the jaws, more especially the lower, of ample dimensions in many of the fair races, and, if I mistake not, the robust development of the lower jaw, not only at the symphysis but at the angle, indicates firmness and obstinacy of character, whether in male or female.

The head when placed on a horizontal smooth surface rests on the mastoid processes of the temporal bone and angle of the lower jaw. The skull (without the lower jaw) when placed on a horizontal smooth surface, rests on the mastoid processes of the temporal bone and third molar tooth. When on the vertex it rests on the position of the anterior fontanella, which in this instance is not only completely obliterated, but forms a well marked elevation deserving the attention of the phrenologist. The external surface of the cranium presents a slight tendency to form crests on the parietal bones. The sutures are all perfectly normal. The condyles of the lower jaw (transverse measure $10\frac{1}{2}$ lines), show very little of any hinge-like or lateral action of the jaws. The teeth originally small, much worn down, particularly the canines, so as scarcely to be distinguished from the incisors.

The locomotive organs, both thoracic and pelvic, appear to me finely formed. The arms, including the humerus, radius and ulna, and hand (or arm, forearm, and hand) measure in length 2 ft. 2 in. 9 lines. The legs, including the thigh, leg, and foot, measure 2 ft. 7 in. 9 lines. It will be observed from an inspection of the articulated skeleton that these present a degree of beauty not surpassed by any existing people, more especially the foot which exhibits a fine arch and short calcaneum—the female foot *par excellence!*

Measurements. — Head (including lower jaw) placed on a horizontal

smooth surface, greatest height 6 in. 6 lines; antero-posterior diameter, 6 in. 10½ lines; transverse diameter, 5 in. 6 lines; breadth at zygomatic arches, 5 in. 4 lines; breadth of upper jaw over third molar tooth, 2 in. 7 lines; length of base of skull from symphysis to anterior margin of occipital foramen, 3 in. 7½ lines; length from symphysis to anterior margin of occipital crest, 6 in. 9 lines; length from symphysis to occipito-parietal suture, 8 in.

Lower jaw.—Depth at symphysis, 1 in. 3 lines; depth at coronoid process, 2 in. 6 lines; breadth between angles of jaw, 3 in. 4½ lines; breadth between condyles, 3 in.; breadth of space over the last molar tooth, 2 in. 1½ lines.

Length of skeleton articulated.—Head, greatest height, 6 in. 6 lines; body, including the entire spine, 2 ft. 5 in. 6 lines. Total length of skeleton, 5 ft. 7 in. 9 lines.

In the living body allowance must be made for the curvatures of the spine, the elongation of the sacrum beyond the hip joint, and the position of the foot, so that the height would probably be about five feet from the crown of the head to the sole of the foot.

Pelvis.—Greatest depth, 7 in.; greatest external breadth, 9 in. 6 lines; depth of symphysis, 1 in. 6 lines; brim, antero-posterior diameter, 5 in., transverse diameter, 5 in.

Thoracic locomotive organs.—Humerus, 11 in. 3 lines; radius, 8 in. 6 lines; carpus, 1 in. 3 lines; metacarpus of third finger, 2 in. 6 lines; phalanges of third finger, 3 in. 3 lines. Total, 2 ft. 2 in. 9 lines.

Pelvic locomotive organs.—Femur, 1 ft. 4 in.; tibia, 1 ft. 0 in. 9 lines; height of foot, 3 in. Total, 2 ft. 7 in. 2 lines. Length of foot, 8 in. 3 lines.

Weights.—Skull, 1 lb. 8 oz.; lower jaw, 3 oz. Total weight of head, 1 lb. 11 oz.

Body, including cervical, dorsal and lumbar vertebræ, together with the ribs and sternum, 1 lb. 8 oz.; pelvis, including sacrum and coccyx, 12 oz.; scapulæ, 3 oz.; clavicles, 410 grs.; thoracic locomotive organs (arms), 12 oz.; pelvic locomotive organs (legs), 2 lbs. Total weight, 6 lbs. 14 oz. 410 grs.

The usual weight of an adult human skeleton varies from 10 lbs. to 12 lbs. 8 oz., but, as I have already alluded to the greatly altered condition of the bones in the case of this skeleton, little importance can be attached to the weight as compared with others in which the bones still retain the original osseous tissue.