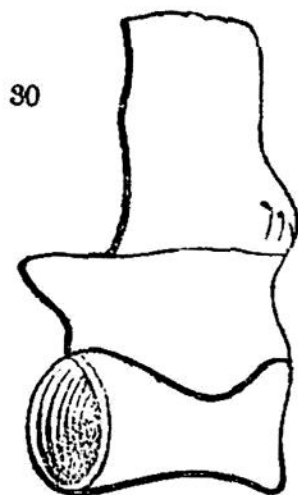


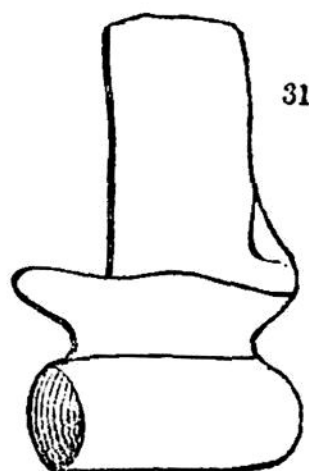
recent crocodiles are really the offspring of the older forms; the differences between them being merely the effect of different physical conditions operating during long geological periods upon one original race.

If instead of this somewhat poetical conjecture which cannot be proved, we substitute what is really known of the successive stages of reptile organisation from the era of magnesian conglomerates to the present time, the results are very remarkable.

The vertebræ of palæosaurus and thecodontosaurus agree with those of ichthyosaurus and common fishes, in being deeply concave at each end—a structure evidently adapted for free motion in water. In plesiosaurus, the vertebræ are slightly concave on each face; but in teleosaurus, steneosaurus, and the recent crocodiles, they are anteriorly convex. The former are really of ichthyoid, as distinguished from the latter, or truly crocodilian type; and, in a paper read to the Bristol meeting of the British Association, the discoverers of palæosaurus and thecodontosaurus, proposed the speculation that the system of doubly concave vertebræ (*fig. 30.*) is more ancient than that of the concavo-convex (*fig. 31.*), and



Thecodontosaurus.



Crocodile.

that the change from one to the other may be found related to geological time. In the monitor of Thuringia, which, according to this view, should have doubly concave vertebræ, their front and hind faces are rectangled to the axis.\*

\* Von Meyer, Palæologica, p. 209.