

still more remarkable. In the Jurassic slates of Solenhofen in Bavaria, which have yielded specimens of Pterodactyls retaining the impression of the leathery wing, have been found, also, remains of a bird which had a long vertebrated tail, like a lizard, with a pair of quills standing out from each vertebra. It had also, saurian teeth inserted in sockets. It had a true bird-foot, except that the metacarpals were separate. This wonderful compound of bird and reptile, after causing much discussion, was finally assigned a place among birds and named *Archæ-op'-ter-yx* or "old-flyer." Very recently, however, other specimens have been found, and Carl Vogt of Geneva, after careful examination, declares that the creature was a *feathered lizard*, and not a bird. There are two conical teeth in the upper jaw; eight neck-vertebræ, with five pairs of ribs directed backwards; ten dorsal vertebræ without spinous processes, and supporting ribs without uncinatè processes; five sternal ribs and very minute sternum. The fore-limb, he maintains, is *not* a proper wing, and there are three digits resembling those of a clawed lizard; the feathers are attached to the side of the arm, hand, body, legs, and tail. If the feathers had not been preserved, no one would have thought this Old-flyer a bird, or capable of flight. Now what can we say of a creature having the bird and reptile so mixed that the best judges are unable to decide whether it is one or the other? We can pronounce it, at least, a comprehensive type, and receive it as throwing some light on the method of organic history.

The Cretaceous Age in America produced still other mongrel forms, which have been published to the world by Professor Marsh. These seem to lean unmistakably toward the side of birds; but they possessed saurian teeth, and are known as *O-dont-or'-ni-thes* or "Toothed-birds." There are two genera. *Ich-thy-or'-nis* or "Fish-bird," had strong wings, bi-concave (fish-like) vertebræ, and teeth inserted in sockets. *Hes-per-or'-nis* or "Western-bird" had feeble wings, and teeth inserted in grooves along the crests of the jaws.

From such examples as have been cited, it will be understood that the principle of comprehensive types results in