

has pointed out the interesting evidence they furnish of a reptilian ancestry.¹¹⁹ In the most important and indeed unique genus, named by him *Hesperornis* (Fig. 422), the jaws were furnished with teeth implanted in a common alveolar groove, as in *Ichthyosaurus*; the wings were rudimentary or aborted, so that locomotion must have been entirely performed by the powerful hind limbs, with the aid of a broad, flat, beaver-like tail, which no doubt materially helped in steering the creature through the water. It must have been an admirable diver. Its long flexible neck and powerful toothed jaws would enable it to catch the most agile fish, while, as the lower jaws were united in front only by cartilage, as in serpents, and had on each side a joint that admitted of some motion, it had the power of swallowing almost any size of prey. *Hesperornis regalis*, the type species, must have measured about 6 feet from the point of the bill to the tip of the tail, and presented some resemblance to an ostrich. Of the other genera, *Ichthyornis* (Fig. 423) and *Apatornis* were distinguished by some types of structure pointing backward to a very lowly ancestry. They appear to have been small, tern-like birds, with powerful wings but small legs and feet. They possessed reptile-like skulls, with teeth set in sockets, but their vertebræ were biconcave, like those of fishes. There were likewise forms which have been grouped in the genera *Graculævus*, *Laornis*, *Palæstringa*, and *Telmatornis*. Altogether the earliest known birds present characters of strong affinity with the *Deinosaurs* and *Pterodactyles*.¹²⁰

Though mammalian remains had long been known to oc-

¹¹⁹ "*Odontornithes*," being vol. i. of *Memoirs of Peabody Museum of Yale College*, and also vol. vii. of *Geol. Explor. 40th Parallel*. "*Birds with Teeth*," *Rep. U. S. Geol. Surv.* 1881-82, p. 45.

¹²⁰ See Marsh, *U. S. Geol. Surv. Report*, 1881-82, p. 86.