As in the Lower Oolite, so also in the Upper, Insects similar to those by which we are surrounded, pursued their flight in the meadows and hovered over the surface of the water. Of these, however, too little is known for us to give any very precise indication on the subject of their special organisation.

The most remarkable fact relating to this period is the appearance of the first bird. Hitherto the Mammals, and of these only imperfectly-organised species, namely, the Marsupials, have alone appeared. It is interesting to witness birds appearing immediately after. In the quarries of lithographic stone at Solenhofen, the remains of a bird, with feet and feathers, have been found, but without the head. These curious remains are represented in Fig. 122, in the position in which they were discovered. The bird is usually designated the Bird of Solenhofen.

The Oolitic seas of this series contained Fishes belonging to the genera *Asteracanthus*, *Strephodes*, *Lepidotus*, and *Microdon*. The Cephalopodous Mollusca were not numerous, the predominating genera belonging to the Lamellibranchs and to the Gasteropods, which lived on the shore. The reef-making Madrepores or Corals were more numerous. A few Zoophytes in the fossil state testify to the existence of these extraordinary animals. The fossils characteristic of the fauna of the period include *Ammonites decipiens* and *A. giganteus*, *Natica elegans* and *hemispherica*, *Ostrea deltoidea* and *O. virgula*, *Trigonia gibbosa*, *Pholadomya multicostata* and *P. acuticostata*, *Terebratula subsella*, and *Hemicidaris Purbeckensis*. Some *Fishes*, *Turtles*, *Paludina*, *Physa* (Fig. 123), *Unio*, *Planorbis* (Fig. 201), and the little crustacean bivalves, the Cypris, constituted the fresh-water fauna of the period.

Fig. 123.
Shell of Physa fontinalis.

The terrestrial flora of the period consisted of Ferns, Cycadeaceæ, and Conifers; in the ponds and swamps some Zosteræ. The *Zosteræ* are monocotyledonous plants of the family of the Naïdaceæ, which grow in the sandy mud of maritime regions, forming there, with their long, narrow, and ribbon-like leaves, vast prairies of the most beautiful green. At low tides these masses of verdure appear somewhat exposed. They would form a retreat for a great number of marine animals, and afford nourishment to others.

On the opposite page an ideal landscape of the period (PLATE XX.) represents some of the features of the Upper Oolite, especially the