contrary, in the mammals, the chorion, which corresponds to the vitelline membrane, is vivified, and finally becomes attached to the maternal body, thus establishing a direct connection between the young and the mother; a connection which is again renewed in another mode, after birth, by the process of nursing.

---

similar to those described in birds: its body and its organs are formed in the same way; an amnios encloses it, and an allantois grows out of the lower extremity of the little animal. As soon as the allantois has surrounded the embryo, its blood vessels become more and more numerous, so as to extend into the fringes of the chorion, (Fig. 131, *p e*;) while, on the other hand, similar vessels from the mother extend into the corresponding fringes of the matrix, (*p m*,) but without directly communicating with those of the chorion. These two sorts of fringes soon become interwoven, so as to form an intricate organ filled with blood, called the *placenta*, to which the embryo remains suspended until birth.

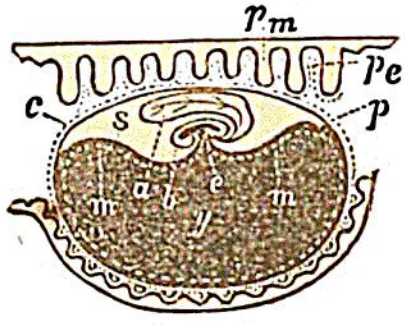

Fig. 131.

315 *f*. From the fact above stated, it is clear that there are three modifications of embryonic development among vertebrated animals, namely, that of fishes and naked reptiles, that of scaly reptiles and birds, and that of the mammals, which display a gradation of more and more complicated adaptation. In fishes and the naked reptiles, the germ simply encloses the yolk, and the embryo rises and grows from its upper part. In the scaly reptiles and birds there is, besides, an amnios arising from the peripheric part of the embryo and an allantois growing out of the lower cavity, both enclosing and protecting the germ.