

former being a side, and the latter an upper view of that animal.

Yet, with all this apparent conformity to the structure of a strictly aquatic animal, the tadpole contains within its organization the germs of a higher development. Preparations are silently making for a change of habitation, for the animal's emerging from the waters, for the reception of atmospheric air into new cavities, for the acquisition of limbs suited to new modes of progression; in a word, for a terrestrial life, and for all the attributes and powers which belong to quadrupeds. The succession of forms, which these metamorphoses present, are in themselves exceedingly curious, and bear a remarkable analogy to the progress of the transformations of those insects, which in the first stages of their existence are aquatic. To the philosophic inquirer into the marvellous plans of creation, the series of changes which mark these singular transitions cannot fail to be deeply interesting; and occurring, as we here find them, among a tribe of animals allied to the more perfect forms of organization, they afford us a better opportunity of exploring the secrets of their development by tracing them from the earlier stages of this complicated process, so full of mystery and of wonder.

The egg of the frog (Fig. 196) is a round mass of transparent nutritive jelly, in the centre of which appears a small black globule. By degrees this shapeless globule exhibits the appearance of a head and tail, and in this form it emerges from its prison, and moves briskly in the water. From the sides of the neck there grow out feathery tufts, (Fig. 198, B, B,) which float loosely, and without protection, in the surrounding fluid. These, however, are mere temporary organs, for they serve the purposes of respiration only until the proper gills are formed, and they then shrink and become obliterated. The true gills, or *branchiae* are contained within the body, and are four in number on each side, constructed on a plan very similar to those of fishes. Retaining this aquatic constitution, the tadpole rapidly in-