

a pair of limbs turned inwards over the mouth as development proceeds, in fact 'foot-jaws' as in other Arthropoda. In many points of internal anatomy *Peripatus* proves itself to be a most archaic form, and the early stages in the development of the egg have been shown by Balfour¹ and Sedgwick² to be of a most remarkable character. It is probable that we have existing in *Peripatus* a form nearly allied to the ancestral progenitors of all insects, and that the condition of the tracheæ in *Peripatus* represents an early stage in the history of the development of these organs which was passed through by the ancestors of all forms respiring by means of tracheæ. The tracheæ were probably developed in the first tracheate animals out of skin glands scattered all over the body. In the higher forms they have become restricted to certain definite positions by the action of natural selection.

"That *Peripatus* is a very ancient form is proved by its wide and peculiar geographical distribution. Species of the genus occur at the Cape of Good Hope, in Australia, New Zealand, in Chili, in British Guiana, in the Isthmus of Panama and its neighbourhood, and in the West Indies.

"The animal is provided with a pair of large glands, secreting a viscid fluid, which

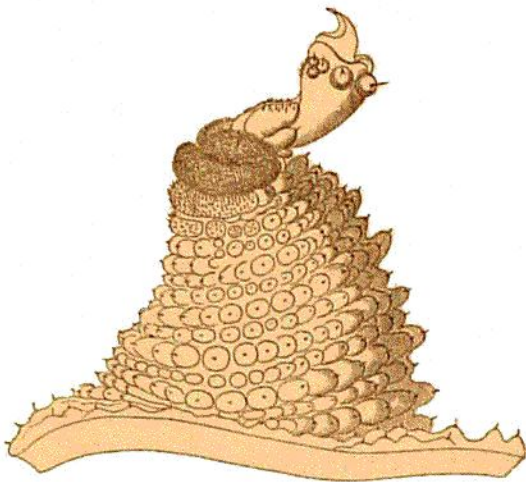


FIG. 114.—A right leg of *Peripatus capensis*; viewed from the anterior surface (after Balfour).



FIG. 115.—A left leg of *Peripatus capensis*; viewed from the inner surface (after Balfour).

it has the power of projecting from two papillæ placed one on either side of the mouth. When it is irritated it discharges this fluid with great force and rapidity in fine thread-like jets, which form a sort of network in front of the animal, resembling a spider's web with the dew upon it, and appears as if by magic, so instantaneously is it emitted.

"The viscid substance, which is not irritant when placed on the tongue, is excessively tenacious like bird lime, and the jets of it are apparently used, not only for defence, but also to procure small insects for prey.

¹ *Quart. Journ. Micr. Sci.*, N.S., vol. xix. pp. 431-433, 1879.

² *Ibid.*, vol. xxiii. pp. 213-259, 1883.