

times as the outer margin of the humeral cell, fusing above with subcostal. The movement here is longitudinal, from base of wing outwardly to external margin. On the primaries some of the most specialized forms of Pierids and Lycænidæ have only three branches remaining. On the hind wings the radius is already two- or one-branched; the remainder of the five primitive branches have been lost in the higher lepidoptera, but retained in *Hepialus* and the Micropterygides. The details of the process by which the radial branches of the fore wings have been reduced in number become apparent through a comparison of their present position in the various genera.

*The branches of the media,*

which, as a rule three in number, alone survive of the system, are situated between cross-vein and outer margin of the wing. The base of the median system, as shown by Comstock, has disappeared and is again only exhibited in the Tineidæ. This base consisted of two, at least, longitudinal veins, which traversed the discal cell, and the traces of which are now to be found in certain backward spurs which remain attached to the cross-vein on its inner side. The reduction has taken place from the base outwardly. The branches themselves move upwardly or downwardly, attaching themselves to the system of the radius or that of the cubitus; the cross-vein degenerating as a further stage in the disappearance of the median system. For this is doomed. The wing tends to divide into two halves—the radius and its system, the cubitus and its system. To the first belongs naturally, by position, the subcostal vein; to the latter, the anal veins. The most perfect examples of this reduction are found in the Attacinæ. Take our common *Samia cecropia* or *Philosomia cynthia*. Here the cell has opened, the discal cross-vein has vanished, the branches of the media have attached themselves to the radial and cubital systems, deriving their nutrition from these, and the wing is centrally opened, from external margin to base, and free from veins. It presents now a certain coincidence with the embryonal or pupal wing, which is in itself curious, but need not detain us. We must finally notice the fact, that sometimes the branches refuse to follow the attraction of the upper and underlying systems. It is the middle or second median branchlet which is decisive. When this becomes radial, it follows the first median branch and attaches itself to the radial system. When it becomes cubital, it follows the third median branch and attaches itself to the cubital system. But sometimes it remains neutral. It will