texture of the wings as well as the rather slow habit of body in many kinds. The Orthopterous Nirmids or Bird-lice represent the Hemipterous Pediculi or common lice, and so nearly that they are often arranged together in one tribe. The resemblance of these Orthopters to the Hemipters is less close than that of the preceding subdivision to the Coleopters. It is to be considered, however, that the Hemipters, although amplificate, are much more restricted in size, and therefore do not run off into those extravagances which give to Orthopters their most obvious features.

(*c*) The *Saltators*, or *Typical* Orthopters, (Grasshoppers, Crickets, &c.,) differ from the preceding in being strongly *podometasthenic*, a mark of low inferiority. The species show that they are the typical Orthopters by their trim and well-made forms, their great leaping powers, and the absence of any close likeness to other groups.

III. THYSANURES, or APTERS.

The Lepismians and Podurians are the only apterous Insects here included.

The *Lepismians* are larve-shaped with the distinctions of head, thorax and abdomen imperfect; the abdomen is long and 9 or 10 jointed; the body is usually covered with scales as in Lepidopters: the extremity of the abdomen bears setæ as in some Neuropters and Orthopters. The mouth is mandibulate. They are quick in movement, having a worm-like motion, and some of them leap by means of the caudal extremity.

The *Podurians* are rather short in body, the abdomen short, 4 to 6 jointed; the body sometimes scaly; the extremity, or the under surface near the extremity, furnished with a seta for leaping except in one genus *Anura;* the mouth mandibulate except in the Anuræ, in which it is suctorial.

The Lepismians have been often said to be related to both Lepidopters and Neuropters, and some authors regard them as apterous species of the latter group. Erichson referred them to the Orthopters.

The reasons for making the Thysanures a third grand division of Insects, and for not including in the same other apterous groups, are as follow:

1. The agility of movement of these species show that they are not degraded forms pertaining to the inferior limits of another higher type, but constitute an independent type, or, are typical in the grand division to which they belong.

2. While the Lepismians may be regarded as related to Lepidopters and Neuropters, such caudal setæ are found in no Lepidopter and the scales on no Neuropter. They stand in distant relation to both.