

The Classification of Animals based on the principle of Cephalization.—No. II. Classification of Insects.¹

THE principles which have been presented in my former article on the classification of animals may be further exemplified by a discussion of the natural system of classification in a few subdivisions of the animal kingdom; and at the present time I take up for this purpose the order of Insects.

The subject may be appropriately introduced by a recapitulation, arranged so as to be convenient for reference, of those of the characteristics bearing on grade which are of most prominent importance. In connection with the mention below of these characteristics, the number of the page is added on which they are explained and illustrated in the preceding volume of this Journal. Other characteristics not here enumerated will be found on the pages referred to.

Under each head the characteristic to be looked for in a *superior* group is first mentioned; and then those of related kinds in *inferior* groups.

I. In a *superior* group, (A) a *prosthenic* condition. In an *inferior* group (B) a *metasthenic* condition of different grades or kinds; or in a still lower group (C) a *urosthenic* condition. (P. 323.)

These conditions come under the *transferent* method of cephalization, which is exhibited in a transfer of force and function towards the head (preferent) with ascending grade, or in the reverse direction (retroferent) with descending.

This transfer is similar in nature to that which results in *amplificate* forms and the reverse; in one direction, the descending, it is *outward* or

¹ For Article I, see last volume of this Journal, p. 321.