

of resemblance to the latter tribes, independently of any sthenic value attached to this character.

b. The distinctions of (1) *prosthentic*, (2) *less prosthentic* or *metasthenic*, and (3) *degradational* correspond with the higher grand divisions in several orders and classes of animals. This fact, in connection with the comprehensiveness of the characteristics prosthentic and metasthenic among Insects, favors the conclusion that they are here of like importance.

c. It is common for a natural group to have affiliations in two or three directions; so that, if arranged in one division, it will have its representatives, or what might be almost regarded as its branchings, in another; and many of the fundamental relations of species can be exhibited only by systems of parallelisms with cross connections. I have observed that the Hemipters, among Metasthenic Insects, and the Homopters, among the Prosthentic, afford an example of this kind, and thus have recognized their intimate relations. Viewing the subdivisions of the classification in the lineal order in which they are presented on the printed page, the tribes of Hemipters and Homopters stand far apart, as if remote in the system of Insects. But making the Metasthenics and Prosthentics parallel divisions these two tribes stand side by side. And if the two tribes overlap through some species, it is not a solitary case of this kind in the system of animal life.

I would add here, with regard to the Trichopters, that their addition to the Lepidopteroid group, or the Amplipens, is not made as a direct inference from facts under the principle of cephalization, but on other considerations, and especially their relations to the Lepidoptera in structure. If the group were restored to the Neuropters, this would not affect at all the principles I advocate.

Passing by some other statements equally exceptionable with those which have been considered, we touch on one single point more.

9. Our objector enters his "protest, in the name of science," against "the arithmetical monomania, which is perpetually seeking to fetter the limbs of Nature in mathematical formula," alluding here to the approximate uniformity in the number of subdivisions through the system of classification proposed by me.

But Nature is throughout in a strait-jacket of mathematics. Chemical combinations, crystals, light, heat, electricity, all prove that there are simple numerical relations in the very constitution, and in all the movements, of matter; and even the multitudinous leaves of the forests are in mathematical order. It is not therefore *a priori* absurd that regular numbers should preside to some extent throughout the wide system of Nature's