ARISTOGENESIS, THE CREATIVE PRINCIPLE IN THE ORIGIN OF SPECIES

By Professor HENRY FAIRFIELD OSBORN

COLUMBIA UNIVERSITY AND THE AMERICAN MUSEUM OF NATURAL HISTORY

As the title of his epoch-making work Darwin chose “The Origin of Species” (1859) because, as conceived by Linnaeus (1735), “species” was the ultimate unit of creation in the animal and plant world. **Nullae speciei nova** was the battle cry of the conservatives of pre-Darwin days, but what Darwin devoted his life to was the origin not of species but of adaptations, of which species are simply the by-products.

Mechanical adaptation was the oriflamme from Empedocles (496–435 B. C.), the father of the evolution idea, through Anaxagoras, Aeschylus, Aristotle and Plato, in forming what may be called the proto-Darwinian “chance hypothesis” as well as the proto-Lamarekian “inheritance of acquired adaption hypothesis.” The progressive improvement or regressive degeneration of human and animal mechanisms were the guideposts to the use and disuse inheritance speculations from the naturalists of Greece and Rome to Erasmus Darwin and Lamarek, the formulator of the “Lamarekian hypothesis.”

Osborn, too, for the past forty-three years a hunter of fossil titanothere, of fossil mastodonts and elephants, concerned with the origin of the masterful horns of the titanothere; in the elephants of the superb tusks, of the marvelous probosises, of the supreme mechanical adaptation of the great grinders which grind uninterruptedly for over a century, loves to feel that in part at least he has answered Aristotle’s question: “What then, hinders but that the parts in nature may also thus arise?” For instance, that the
Editor's Summary

This copy is for your personal, non-commercial use only.

Article Tools
Visit the online version of this article to access the personalization and article tools:
http://science.sciencemag.org/content/79/2038.citation

Permissions
Obtain information about reproducing this article:
http://www.sciencemag.org/about/permissions.dtl

Science (print ISSN 0036-8075; online ISSN 1095-9203) is published weekly, except the last week in December, by the American Association for the Advancement of Science, 1200 New York Avenue NW, Washington, DC 20005. Copyright 2016 by the American Association for the Advancement of Science; all rights reserved. The title Science is a registered trademark of AAAS.