

it to break loose, and warming, such as it may receive when used to attach writing points to signal magnets, does not cause it to melt.

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A "DATA" OF RESEARCH

WITH regard to the note on the pronunciation of "research" by Dr. Kopeloff in *SCIENCE* for March 23, 1928: To an ex-philologist the use of the singular verb with "data" is even more annoying than its mispronunciation (whatever the correct pronunciation may be). The next generation will very likely have forgotten that it ever had a plural verb. There has been suggested the ethical distinction that research denotes scientific investigation proper; while *r  search* denotes work of a compiling or reclassifying nature under direction.

From the point of view of linguistics we were taught that languages with stress-accented like the American-English tended to pull the accents towards the beginnings of words. Two examples of this process occur to me. As a boy I recall frequently having heard "advertisement" accented on the third syllable. One almost never hears this now and seldom on the second syllable, the dominant position of the accent being on the first. Within more recent years the word "automobile" has become generally accented on the first syllable, although in its early days it was frequently accented on the last and occasionally on the third syllable.

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SCIENTIFIC BOOKS

Brachiopod Morphology and Genera (Recent and Tertiary). By J. ALLAN THOMSON, director of the Dominion Museum, Wellington, New Zealand. Man. No. 7, N. Z. Board Sci. and Art, 1927. Obtainable from the Government Printer, Wellington, or the High Commissioner for New Zealand, London. Price, 17s. 6d.

STUDENTS of brachiopods, recent or fossil, will welcome this well-reasoned contribution to their literature, which is the culmination of a series of papers beginning in 1915. The book falls into three major divisions—morphology, classification and description of genera and species. As might be expected from the earlier papers, the section on brachiopod morphology (pp. 1–108) is particularly valuable, bringing together, as it does, all our present knowledge of the soft parts of these animals, the stages of development through which they pass, and the various shell parts,

external and internal, with their growing terminology, treated in considerable detail and well illustrated.

In the section on classification, Dr. Thomson proposes two new major divisions, *Gastrocaulia* and *Pygocaulia*, which are practically coextensive with Huxley's *Inarticulata* and *Articulata*; in the new classification, however, the division is made on the mode of origin of the pedicle which in the *Gastrocaulia* develops "within the valves of the protogulum during the free-swimming stage from the ventral mantle-lobe and subsequently is protruded," whereas in the *Pygocaulia* it arises out of "the caudal segment of the embryo and is never enclosed within the shell." Well founded as these new divisions are, however, it will doubtless be difficult for them to displace the long-established Huxleyan terms. Within the *Gastrocaulia* he includes the orders *Atremata* and *Neotremata* of Beecher, with amended diagnoses, but within the *Pygocaulia*, in addition to Beecher's *Protremata* and *Telotremata*, he makes a new order, *Paleotremata*, to include the *Rustellacea* and *Kutorginacea*, *i.e.*, "primitive *Pygocaulia* without fully developed articulation or *delthyria*." The reviewer agrees that these two superfamilies should be removed from the *Atremata*, but would refer them to the *Protremata* rather than create a new order. Nor can he accept Thomson's reference of the *Paterinidae* (*Paterinacea*) to the *Neotremata*, since they show all the ordinal characters of the *Atremata*. The shell growth in typical *Paterina* is hemiperipheral, while in most of the *Micromitras* it is mixoperipheral; nevertheless, the pedicle issues from between the two valves instead of being restricted to the ventral valve as in *Neotremata*. The *Acrotretacea* of the *Neotremata* may, as Thomson thinks, have come out of the *Paterinidae*, but this remains to be demonstrated. His view that the most primitive *Telotremata* (*Rhynchonellacea*) arose in the *Protremata* is probably also correct, but here again we do not know the actual stock of origin.

The descriptive portion of the work (pp. 120–297) deals with sixty-nine genera, eight of which are new: *Hispanirhynchia*, *Abyssothyris*, *Japanithyris*, *Jaffaia*, *Pictothyris*, *Neobouchardia*, *Pirothyris*, *Malleia*. Each genus is classified, briefly diagnosed, its synonyms cited, and illustrated by a line drawing of (in the majority of instances) the genotype, making the book a dependable standard of reference. Two new subfamilies are proposed: *Platidiinae*, to include *Amphithyris* Thomson 1918 and *Platidia* Costa 1852; and *Laqueinae*, to include *Laqueus* Dall 1870 and *Pictothyris* n. gen.

The volume closes with a table showing the range in time and space of the Australian Tertiary brachiopods, a selected bibliography and a full index, thus rounding out an excellent little handbook, on the