been said that the most difficult task in the preparation of an elementary text-book is to make a judicious selection of the things to be included from the vast multitude of things which present themselves. To know what he may safely exclude, and yet make a connected story, which shall be brief enough to be mastered in the time at the student's disposal, is, we admit, not easy to accomplish. To 'touch the high points' and yet to keep up the connection between them is the difficult task of the writer of an elementary text-book. In some portions of the book before us this has been accomplished, while in others a good deal of matter has been admitted which might well have been left out.

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SCIENTIFIC JOURNALS AND ARTICLES

The Journal of Comparative Neurology and Psychology for January includes a paper 'On the Place of Origin and Method of Distribution of Taste Buds in *Ameiurus melas*,' by F. L. Landacre, a study of the embryology of the taste buds of the catfish. He shows that taste buds appear simultaneously in the entoderm of the gill arches and in the ectoderm of the lips. From both of these centers the buds spread backward, from the first into pharynx and œsophagus and from the second into the mucous membrane of the mouth and also into the outer skin, finally reaching the extreme dimensions of the outer surface of the body. No buds migrate from entoderm to the skin. The series of papers on the nervous mechanisms of touch and taste in fishes by C. J. Herrick is continued by 'A Study of the Vagal Lobes and Funicular Nuclei of the Brain of the Codfish.' Instructive comparisons are drawn between the central mechanism of this fish and Ameiurus and an attempt made to explain their difference on the basis of the mode of life of the fishes. There is also given a translation of the recent researches by Minkiewicz on 'Chromotropism and Phototropism.'

SOCIETIES AND ACADEMIES

THE AMERICAN PHILOSOPHICAL SOCIETY.

A STATED meeting was held on January 4, at 8 o'clock. Professor J. C. Branner communicated a paper on 'The Geology of the San Francisco Peninsula,' by Roderic Crandall.

DISCUSSION AND CORRESPONDENCE

THE 'FIRST SPECIES RULE' VS. THE 'LAW OF PRIORITY' IN DETERMINING TYPES OF GENERA

IN connection with the discussion on 'elimination' vs. 'first species,' in determining type species, may I be permitted to bring forward certain points which seem to me to be worthy of consideration?

That some authors are decidedly opposed to 'elimination,' while others are equally opposed to 'first species,' indicates rather strongly that there are valid objections to both methods, or at least that neither method is perfect. Whatever our views in the case may be, it is a matter of record that some authors have adopted the one method, while other authors have adopted the other.

If a given rule of nomenclature is to command the general respect of biologists and not to be subject to change from generation to generation, it should be sufficiently just, objectively, to appeal to all persons who are called upon to apply it and who may be temporarily inconvenienced by its application. The question, therefore, arises whether the 'first species' rule is so inherently just in principle that it will appeal to systematists to sufficiently convince them of the justice of overturning hundreds or possibly thousands of cases of type determination which have been made since 1758, and especially since 1842.

Personally, I view the first species rule as one of enormous convenience, and as one which can be applied, in the vast majority of cases, uniformly by all workers.

That it is necessary (however desirable it may be) to have a rule which will apply uniformly to all genera, is a point which I very seriously doubt. On the contrary, it seems to me that there is a certain amount of advantage in allowing a margin for the exercise of some discretion in certain cases. That two authors may arrive at different conclusions on the basis of elimination does not, therefore, seem to me to condemn it.