

the post-larval stages of the fish have the size and colour of fragments of weed, which often are found in the waters which these young fish frequent. When alarmed, the fish become rigid and float about in an apparently inanimate condition. When this occurs, it is difficult to distinguish them from the pieces of weed floating around. In klipfish (*Clinus* spp.) the young are born alive, and they are of a clear, glassy transparency difficult to detect in the water. The contour of the body is probably disguised by a number of minute dark dots. The colour pattern in other young fish is shown to be more marked and considerably different from that of the adult. Some details of this difference are enumerated in the cases of the leerfish and the stockfish and a species of dogfish. It is indicated how this colour pattern of the young fish may be a form of protective resemblance.—H. H. W. Pearson: Morphology of the female flower of *Gnetum*. Much work has been done in recent years on the morphology of the flower of the Gnetales, and very diverse views have been put forward. These are discussed, summarised, and compared in this paper, with special reference to recent investigations by the author and to the conclusions of MM. Lignier and Tison, both as published and as discussed in correspondence with the author. Investigations have tended of late to emphasise the Angiosperm characters of the Gnetales, and MM. Lignier and Tison even reach the conclusion that the innermost envelope of the female flower in *Gnetum* and *Ephedra*, and of both flowers in *Welwitschia*, is a plurilocular ovary containing a single naked ovule. They derive their evidence partly from the anatomical structure of the envelope, partly from its form, terminating as it does in "a long style and a stigma." The anatomical evidence they adduce is discussed in detail, and it is shown that the apparent traces of a vascular system do not necessarily prove the envelope to be an ovary, as well-developed vascular systems are present in the ovular integuments of Cycads and a number of the lower Angiosperms. Regarding the resemblance of the envelope to a carpel with style and stigma, it is pointed out that, external appearances to the contrary, there is no evidence that it is a reduced form of a functional stigma. Its present function is to facilitate the dispersal of pollen by attracting insects, and there is no sufficient reason for supposing that it has ever been concerned in the collection of pollen. The question of the cauline or foliar nature of the Gnetalean ovule arises in this connection; this is discussed in detail, and it is shown that recent investigations tend to confirm the opinion that it is cauline. Finally, the new knowledge furnished by MM. Lignier and Tison for *Gnetum* is summarised, and their comparisons of the Gnetalean and Angiosperm flowers are reduced to tabular form and correlated with those of other investigators, figures being given to render the comparison and correlation clear.—P. A. v. d. Bijl: Heart rot of *Ptaeroxylon utile* (sneezewood) caused by *Fomes rimosus*, Berk.

#### BOOKS RECEIVED.

The Bearings of Modern Psychology on Educational Theory and Practice. By C. M. Meredith. Pp. 140. (London: Constable and Co., Ltd.) 1s. 6d. net.

Color and its Applications. By M. Luckiesh. Pp. xii+357. (London: Constable and Co., Ltd.) 16s. net.

An Introduction to the Use of Generalized Coordinates in Mechanics and Physics. By Prof. Byerly. Pp. vii+118. (London: Ginn and Co.) 5s. 6d.

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Organic Agricultural Chemistry. By Prof. J. S. Chamberlain. Pp. xvii+319. (New York: The Macmillan Company; London: Macmillan and Co., Ltd.) 7s. net.

Practical Mathematics for Technical Students. By T. S. Usherwood and C. J. A. Trimble. Part ii. Pp. x+565. (London: Macmillan and Co., Ltd.) 7s. 6d.

Historical Synopsis of the Royal Cornwall Polytechnic Society for the Years 1833-1913. By W. L. Fox. Pp. 80. (Falmouth: J. H. Lake and Co.)

Journal of the Institute of Metals. Vol. xv. No. 1. Pp. viii+392. (London: The Institute of Metals.) 21s. net.

The Investigation of Rivers. Final Report. Special. (London: Royal Geographical Society.) 3s. 6d. net.

Preservatives and other Chemicals in Foods: Their Use and Abuse. By Prof. O. Folin. Pp. 60. (Cambridge, Mass.: Harvard University Press; London: Oxford University Press.) 2s. 6d. net.

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