

LITTLE-KNOWN AND UNDESCRIBED PERMO-CARBONIFEROUS PELECYPODA IN THE AUSTRALIAN MUSEUM.

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(Plates xxxi. — xxxiii.)

Genus STUTCHBURIA,* *gen. nov.*

In our Permo-Carboniferous formation are two bivalves that have been variously referred to *Orthonota* by Morris, *Cardinia* by Dana, and one of them to *Pleurophorus* by DeKoninck, the determination of the last named author having been at various times accepted by myself and others; possibly also one or more of the shells from the same series of rocks, termed *Cypricardia* by Dana, may be congeneric. I have, however, for some time past, from the edentulous nature of the shells in question, doubted the propriety of these references.

The species are *Orthonota? costata*, Morris (= *Pleurophorus morrisii*, DeKon.), and *O.? compressa*, Morris, which may, or may not be only the internal cast of *O. costata*. To these may perhaps be added *Pleurophorus biplex*, DeKon., and *P. randsi*, mihi. The internal structure of the two first, and particularly of *O.? costata* is known to some extent, but that of the third very little, and of the fourth not all. It is by no means certain that *P. biplex*, and *P. randsi* are congeneric with *O.? costata* and *O.? compressa*, and in consequence are left for the present in *Pleurophorus*. At the same time there is still an undescribed form in our Marine Series, that appears to be generically identical with *Pleurophorus*: this will be described later.

In form *O.? costata* and *O.? compressa* are narrow, transversely elongate, and more or less compressed Molluscs, inequilateral in the extreme, with simple pallial lines, strongly marked muscular scars, particularly the anterior, which are complex, and, so far as I can ascertain, edentulous, at any rate the examination of a very large number of internal casts has failed to reveal the presence of hinge teeth. In the place of the latter the cardinal margins were very much thickened, particularly at the extremities, and in all probability this was accompanied by an internal ligament. In the face of these combined characters the reference of the species

* Named in honour of Samuel Stutchbury, the first Government Geologist of New South Wales, as it then was.