

NEW NAMES FOR BRACHIOPOD HOMONYMS.

CHARLES SCHUCHERT AND CLARA M. LEVENE.

As the result of a resurvey of the generic names coined for Brachiopoda since the beginning of the binomial system in 1758, the total is now seen to have reached almost 900 (July 1928). At the time Hall and Clarke began their classic studies, in 1889, there were about 267 of these names in good standing, and when their work was completed, six years later, 58 new genera had been added, making the total then in use 325. The second edition of the Zittel-Eastman text-book (1913) listed about 450 valid brachiopod genera. Now there are about 700.

Of the generic names that are valueless, 101 are straight synonyms, 47 are homonyms, 26 are *incertae sedis* from the days before the rules of nomenclature, 4 are for hypothetic genera, 4 are nomina nuda, and 12 are useless names of other sorts. According to the rules of nomenclature, "A homonym is one and the same name for two or more different things. Synonyms are different names for one and the same thing." Of the 47 homonyms, 23 have been adjusted in the past, leaving 24 more or less unadjusted, and for 12 of these, new names are here proposed, with comments on the other 12.

The new names depart as little as possible from the ones that they replace, just enough, in fact, to hold the names under the rules of zoological nomenclature; and in every instance the genotype is the same as that of the homonym.

ACANTHOSPIRINA, n. nom., to replace *Acanthospira* Weller 1914 (Geol. Surv. Illinois, Mon. 1, p. 418), not of Reinsch 1877 Prot. Genoholotype: *Spirifera aciculifera* Rowley (as figured by Weller, op. cit., pl. 35, figs. 64-72), of the Lower Carboniferous.

Aulacorhynchus Dittmar 1872. The preoccupation of this name by *Aulacorhynchus* Gould 1834 Aves brings to life *Iso-gramma* Meek and Worthen 1873 (Geol. Surv. Illinois, vol. 5, p. 568), of the Upper Carboniferous.

AUSTRIELLINA, n. nom., to replace *Austriella* Bittner 1890 (Abh. geol. Reichs., Wien, vol. 14, p. 314), not of Tenison-Woods 1883 Moll. Genoholotype: *Rhynchonella dilatata* Suess 1855 (Brach. Hallstät. Schichten, p. 29, pl. 2, fig. 1), of the Triassic.

Brasilia Clarke 1913, not of Buckman 1898 Amm., was replaced by *Chapadella* Greger 1920 (*Nautilus*, vol. 34, p. 70).

DAVIDSONINA, n. nom., to replace *Davidsonella* Fredericks 1926 (*Bull. Acad. Sci. URSS*, p. 413), not of Munier-Chalmas 1880 Brach. Genoholotype: *Spirifera septosa* Phillips 1836 (*Geol. Yorkshire*, pt. 2, p. 216, pl. 11, fig. 7), of the Lower Carboniferous. *Davidsonella* was also used by Waagen 1885 = *Neobolus* Waagen 1885.

DENCKMANNELLA, n. nom., to replace *Denckmannia* Holzapfel 1912 (*Jahrb. preuss. geol. Landesanst.*, for 1908, vol. 29, pt. 2, pp. 115-119), not of Buckman 1898 Amm. Genoholotype: *D. circularis* (Holzapfel) (op. cit., pl. 7, figs. 1, 3, 4), of the Lower Devonian.

Elina Fredericks 1919 (*Bull. Geol. Com.*, vol. 38, no. 3, p. 321), not of Houlbert 1918 Ins. Genoholotype: *Spirifer rectangulus* Kutorga 1844, of the Russian Permian. This name will probably turn out to be a synonym for one of the many groups of *Spirifer*.

Hectoria Trechmann 1918, not of Castelnau 1873 Pisc., is a synonym for *Clavigera* Hector 1879-Thomson 1913 (*N. Zealand Geol. Surv.*, Pal. Bull. 1, p. 49, pl. 1), of the Triassic.

Maia Fredericks 1919 (*Bull. Geol. Com.*, vol. 38, no. 3, pp. 298, 300), not of Brisson 1760 Aves, nor of Lamarck 1801 Crust. Genoholotype: *Spiriferina ornata* Waagen 1882, of the Indian Permian. Will probably prove to be a synonym for one of the names in the subfamily Spiriferininae.

MICROTHYRIDINA, n. nom., to replace *Microthyris* Deslongchamps 1884 (*Études Crit.*, p. 190), not of Lederer 1863 Ins. Genoholotype: *Terebratula lagenalis* Schlotheim of the Jurassic, as interpreted by Deslongchamps 1885, Pal. Franç., Brach., pl. 127, fig. 1 (*vide* Buckman).

Munella Fredericks 1919 (*Bull. Geol. Com.*, vol. 38, no. 3, p. 314), not of Bonnier 1896 Crust. Genoholotype: *Spirifer nikitini* Tschernyschew 1902, of the Russian Permian. May be a synonym for one of the many groups of *Spirifer*.

Munia Fredericks 1918 (*Annual, Russian Pal. Soc.*, vol. 2, p. 88), not of Hodgson 1836 Aves. Genoholotype: *Spiriferina (Mentzelia) simensis* Tschernyschew 1902, of the Permian. Will probably prove to be a synonym for one of the members of the subfamily Spiriferininae.

MUSCULINA, n. nom., to replace *Musculus* Quenstedt 1868-1869 (*Petref. Deutschl.*, vol. 2, pp. 4, 384), not of Rafinesque 1818 Mam. Genoholotype: *Terebratula acuta* Quenstedt (op. cit., atlas, pl. 48, fig. 70), of the Cretaceous.

PARASTROPHINA, n. nom., to replace *Parastrophia* Hall and Clarke 1893 (Pal. N. Y., vol. 8, pt. 2, p. 221), not of Folin 1875 Moll. Genoholotype: *Atrypa hemiplicata* Hall (as figured by Hall and Clarke, op. cit., pl. 63, figs. 1-3), of the middle Ordovician.

PARATHYRIDINA, n. nom., to replace *Parathyris* Douvillé 1916 (Mém. Acad. Sci., Paris, vol. 54, p. 35), not of Hübner 1816 Ins. Genoholotype: *P. plicatoides* (Douvillé) (op. cit., text fig. 11 and pl. 1, figs. 15a, b), of the Jurassic (lower Bajocian).

RHYNCHOSPIRINA, n. nom., to replace *Rhynchospira* Hall 1859 (12th Rept. N. Y. State Cab., pp. 29, 30), not of Ehrenberg 1845 Prot. Genoholotype: *R. formosa* (Hall), as figured by Hall and Clarke 1893 (Pal. N. Y., vol. 8, pt. 2, p. 108, pl. 50, figs. 21-25, text fig. 101), of the Lower Devonian.

SCHMIDTITES, n. nom., to replace *Schmidtia* Volborth 1869 (Verh. min. Gesell. St. Petersburg., 2d ser., vol. 4, p. 208), not of Balsamo-Crivelli 1863 Sponges. Genoholotype: *S. celata* (Volborth) (op. cit., pl. 17, figs. 1-6), of the lower Ordovician.

TEGULIFERINA, n. nom., to replace *Tegulifera* Schellwien 1898 (Verh. geol. Reichs., Wien, pp. 362, 363), not of Saal-müller 1880 Ins. Genoholotype: *T. deformis* (Schellwien) (op. cit., figs. 1-4), of the Upper Carboniferous.

Thomasia Fredericks 1928 (Bull. Geol. Com., vol. 46, no. 7, pp. 783, 790), not of Poche 1908 Mam. Genoholotype: *Productus margaritaceus* Phillips 1836, of the Lower Carboniferous. Will probably turn out to be a synonym for one of the members of the *P. cora* group.

Thomsonia Jackson 1916 (Geol. Mag., dec. 6, vol. 3, p. 22), not of Signoret 1879 Ins.; also *Pereudesia* Dall 1920 (Proc. U. S. Nat. Mus., vol. 57, p. 360). Both equal *Coptothyris* Jackson 1918 (Geol. Mag., dec. 6, vol. 5, pp. 479-480). Genoholotype of all three: the living *Terebratulula grayi* Davidson 1852.

Trigonella Quenstedt 1868 (Petref. Deutschl., vol. 2, pp. 25, 27, 280, pl. 45, figs. 1-12), not of Humphreys 1797 Moll. nor of Conrad 1837 Moll., equals *Neotrigonella* Cossmann 1910 (Rev. Crit. Paléozool., p. 74). Genoholotype: *Terebratulula trigonella* Schlotheim 1820, as used by Quenstedt 1868 for a Jurassic species.

Uncinulina Bayle 1878 (Explic. Carte Géol. France, 4, atlas, pl. 13, figs. 13-16), not of Terquem 1862 Prot. Genoholotype: *U. fallaciosa* Bayle 1878, of the Lower Devonian. *Uncinulina* may equal *Wilsonia* Kayser 1871 (not of Bona-

parte 1823 Aves), which is the same as *Uncinulus* Bayle 1878, but it is not advisable to replace these names until the whole group of *Wilsonias* is restudied.

URALINA, n. nom., to replace *Uralia* Licharev 1925 (Compt. Rend., Acad. Sci., Russia, p. 4), not of Mulsant and Verreaux 1866 Aves. Genoholotype: *U. tastubaensis* (Licharev) (op. cit., figs. a, b), of the lowest Permian.

Wilsonia Kayser 1871 (Zeits. deut. geol. Gesell., vol. 23, p. 502), not of Bonaparte 1823 Aves, appears to be the same as *Uncinulus* Bayle 1878 (Explic. Carte Géol. France, 4, atlas, pl. 11, figs. 17-20). Genotypes of *Uncinulus* per Oehlert 1884 are *U. subwilsoni* D'Orbigny and *U. oehlerti* Bayle (Bull. Soc. Géol. France, 3d ser., vol. 12, 1884, p. 422, pl. 21, and pl. 22, fig. 2), of the Lower Devonian.

YALE UNIVERSITY,
NEW HAVEN, CONN.