

Genus.—CORDAITES, Unger, 1850.

(Gen. et Spec. Plant., 2nd ed., p. 50.)

*Cordaites australis*, M'Coy.

(Pl. XI, Fig. 8.)

*Cordaites australis*, M'Coy, Smyth's Progress Rept. Geol. Survey Vict., 1875, II, p. 73.

- „ „ Couchman's Ibid., 1877, IV, pp. 155, 156.  
 „ „ Prod. Pal. Vict., 1876, Dec. 4, p. 22, t. 36, f. 6, 7.  
 „ „ Etheridge, R., junr., Cat. Austr. Fossils, 1878, p. 80.  
 „ „ Feistmantel, Palæontographica, 1879, Suppl. Bd., III, Lief. 3, Heft 2, p. 142.  
 „ „ Feistmantel, Mem. Geol. Survey New South Wales, 1890, Pal. 3, p. 151.  
 „ „ Tenison Woods, Procs. Linn. Soc. New South Wales, 1883, VIII, Pt. 1, p. 155.  
 „ „ R. Etheridge, junr., Geol. and Pal. Queensland, 1892, p. 198.  
 „ „ Feistmantel, Sitz. K. Bohm. Gesell. Wissen., Math.-Naturw. Cl., 1888, p. 638.

To M'Coy's species *Cordaites australis*, the specimen figured in Pl. XI, Fig. 8, may be referred. Nothing more can be said of it than that it agrees with the original description, the clasping base is shown and the longitudinal markings are clearly shown, but the breadth is greater than in the original figures of *C. australis*. Sir Frederick says that it is common in the Devonian Beds of Iguana Creek, and the late Rev. Tenison Woods is of opinion that it occurred in Queensland, at Gympie and Drummond Ranges. Mr. R. Etheridge states in the above-mentioned work that he did not see specimens of it in the collections of Queensland fossils he worked over.

XIX.—Mineralogical and Petrological Notes, No. 6: by GEORGE W. CARD, A.R.S.M., F.G.S., Curator and Mineralogist.

1. The Mungindi Meteorite.
2. Cupro-scheelite from Yeoval.
3. Stolzite from Broken Hill.
4. Andesite from Myall, Tomingley.
5. Igneous Rocks met with at a depth in Artesian Bores.
6. Volcanic Glass from near Copeland.
7. Volcanic Ash from near Eden.

1. *The Mungindi Meteorite*.—This is an iron meteorite comprising two pieces weighing sixty-two and fifty-one pounds respectively. They are described as having been found, early in this year (1897), by a half-breed. They were lying

together, covered by the red soil, three miles north-north-east from the Mungindi Post Office, New South Wales, and therefore belong to Queensland territory. Several small pieces were detached, and two of these were sent to the Mines Department for identification. The meteorites were subsequently secured for the Mining and Geological Museum by Mr. E. C. Whittell, Field Assistant. The meteorite would appear to have lain for some time, as it is considerably weathered, so much so as to give rise in places to naturally-etched Widmanstätten Figures.

2. *Cupro-scheelite from Yeoval*:—This mineral has recently been detected at Taylor's copper mine, Upper Timby, close to Yeoval. The ore consists of bornite with copper carbonates, and the cupro-scheelite is closely associated with it. It is waxy in appearance and, while sometimes white, is generally of a greenish tint. In places rectangular outlines can be seen. Cupro-scheelite is known to occur at Peelwood, where it is intimately associated with scheelite and stolzite. An analysis of a sample picked from the material most nearly free from colour gave results as follows:—

Moisture and combined water .....	2.55
Tungstic trioxide .....	57.73 (66.7)
Lime .....	14.40
Magnesia .....	0.22
Ferric oxide .....	2.98
Alumina .....	trace
Copper oxide .....	7.08 (8.18)
Molybdic oxide .....	trace
Carbonic oxide .....	1.56
Gangue .....	13.04
	99.56

Neglecting the gangue, and recalculating the percentages of copper and tungstic trioxide become respectively 8.18 and 66.7. The percentage of tungstic trioxide is rather low, but there is not enough carbonic acid to account for the copper; moreover reactions for copper were invariably obtained with colourless fragments.

3. *Stolzite from Broken Hill*:—This mineral has been obtained in several different forms from the open cut at the Proprietary Mine.

- (a) Flattened, leaden-gray, tetragonal pyramids with little or no prism.
- (b) Leaden-gray tetragonal prisms with low pyramids.
- (c) Claret-coloured pyramidal forms—perhaps hemihedral.

In all these the crystals are very small.

- (d) Colourless or white crystals with adamantine lustre; very tabular in habit. These are of considerable size, the specimen in the Mining Museum having a length of side of more than a centimetre.