

the Salt Range of the Punjab; in northern Kashmir, and along the mountain region as far as Spiti in western Tibet, resting on Carboniferous rocks, where the succession of beds from the Lower to the Upper is closely like that of the Alps. They are concealed by Cretaceous if they exist in Sind. In South Africa, the Karoo beds include, above the Ecca beds (which are referred to the Permian, and are equivalents of the Lower Gondwana of India): (1) the Kimberley shale; (2) the Beaufort beds; and (3) the Stormberg beds or Upper Karoo; and the last have afforded *Palwoniscus Bainei*, *P. sculptus*, *Ceratodus Capensis*, etc. None of the fossils are marine.

In Australia, in New South Wales, the widespread Hawkesbury sandstone, mostly unfossiliferous, is probably Jurassic or Jura-Trias. In New Zealand, Dr. Hector has described as Triassic an Oreti series, including great boulder deposits, in northern and southern New Zealand, containing stones up to 5' in diameter; and the overlying Wairoa series, in which are some Upper Triassic fossils.

For further details as to subdivisions, see page 773.

### LIFE OF THE FOREIGN TRIASSIC.

**PLANTS.**—The range of Triassic plants corresponds with that of North America. Among Conifers occur the Cypress, Figs. 1250, 1251, *Voltzia heterophylla*, from the Lower Trias, and Spruces of the genus *Albertia*. Of Cycads,



Fig. 1250, *Voltzia heterophylla*; 1251, one of its fruit-bearing branches; 1252, *Pterophyllum Jaegeri*. Figs. 1250, 1251, from Vogt; 1252, Bronn.

*Pterophyllum Jaegeri*, Fig. 1252, is a species from the Upper Trias. Ferns and Equiseta were common.

**ANIMALS.**—1. **Radiates**, though not abundant, are represented by Crinoids, Starfishes, and a few Corals. Among Crinoids, the Middle Trias (Muschelkalk) affords abundantly the Lily Eocrinite, *Encrinurus liliiformis*, Fig. 1253. The Lamellibranch, *Gervillia socialis*, Fig. 1254, is from the same limestone; the *Myophoria*, Fig. 1255, of the Trigonina family, is from the Upper Trias. The *Avicula contorta* Portl., characteristic of the Rhaetic beds, is represented in Fig. 1256. The Cephalopods were represented by *Ceratites*, one of which, from the Muschelkalk, *C. nodosus* Schloth., is shown in Figs.