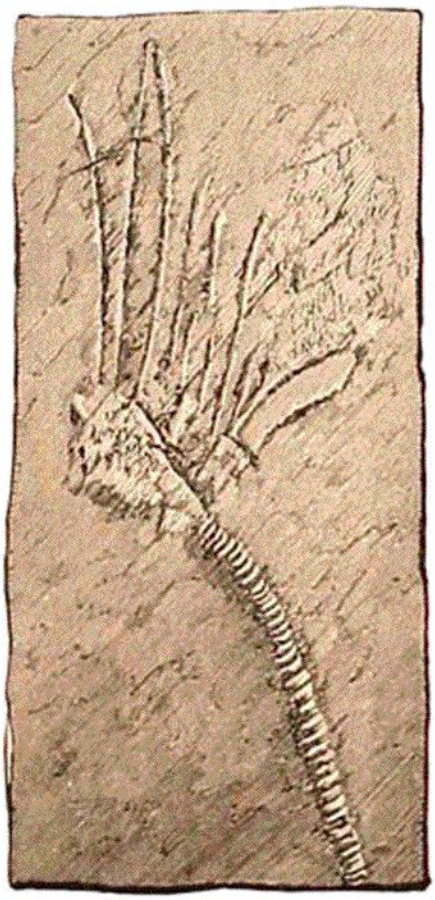
Virginia has been sustained by the discovery, in 1892, of Crinoids, by N. H. Darton, in the slate quarries of Arvon, Buckingham County, Va. A figure of one of the species is here given from Darton's paper. Walcott states that the species are allied to those of the genera *Schizocrinus*, *Heterocrinus*, and *Poteriocrinus*, and are of either Trenton or Hudson age. It will be seen on a map that the Westchester belt and the Buckingham County locality are so related in position that the latter may have been a part of a long Westchester Taconic Range, which passed just west of Philadelphia and Baltimore, and may have included South Mountain, Pa., and other ridges beyond, to the *east* of the protaxis, — the Appalachian Range being to the *west* of the same. This would make the Taconic Range of western New England one in a great Taconic *system* of mountain ranges.

736.



Crinoid from the crystalline slates of Buckingham County, Va. Darton, '92.

Eruptive rocks. — Rocks that came up melted, probably at the time of the Taconic disturbance, exist south of Peekskill, N.Y., spread widely over much of Cortland County, and also occur on Stony Point on the opposite (west) side of the Hudson River. The rocks cut through Lower Silurian limestones, and hence are not of earlier ejection; but they may be of much later origin. They are rocks of unusual kinds, being noryte, chrysolitic hornblendyte and pyroxenyte, coarse dioryte, and a granite-like rock in which the feldspar is oligoclase. The rocks were described by the author in 1880, 1881, and by G. H. Williams in 1886. The long strips of schist and limestone in the igneous rocks appear to prove, as the author stated in his paper, that these eruptive rocks are partly or wholly metamorphic-igneous, produced by the fusion of Cambrian or Lower Silurian rocks during the period of upturning and metamorphism. A dike cutting through the Hudson beds of the Blue Mountains, of west New Jersey, near Beemerville, is probably of the same age. The Beemerville rock also is a rare kind — an Elæolite-syenyte (B. K. Emerson, 1882). Many "trap dikes" cut through the Taconic formation in the vicinity of Lake Champlain which may be of cotemporaneous origin (Kemp and Masters, 1893).

The Cincinnati geanticline. — Cotemporaneously with the disturbances above described the low geanticline was formed, called the *Cincinnati uplift* (page 537), making two islands, one over part of Ohio, eastern Indiana and Kentucky, and the other over Tennessee, as reported by Safford, Newberry, and Orton. The general course of the upward bend of the crust was north-