sinuated; aperture symmetrical, border or lip thickened, often notched and auriculated. Siphon dorsal.

The student will be able readily to distinguish Ammonites from Nautili by attention to the above definition. The situation of the siphon, the foliated or wrinkled edges of the septa, as shown in the cast, *Lign.* 107, fig. 2; and when these characters are wanting, the arched ribs and elevations, as in figs. 1 and 3, will serve as discriminating features. Like the fossil Nautili, the Ammonites most commonly occur as casts, the shell having been dissolved. Sometimes these consist of semi-transparent calcareous spar, the cast of each cell being distinct, but held together by the interlocking of the foliations of the septa; such examples are of great beauty and interest (see *Bd.* pl. 42, figs. 2, 3.); they most frequently occur in the limestones of the Oolite. The siphuncle is often preserved, even in the chalk specimens, in which all traces of the shell are lost. In a large Ammonite from near Lewes, not only the shelly siphuncle remains, but even the internal membranous tube, converted into dark molluskite. Separate portions of similar fossil siphuncles occur in the chalk, and have been mistaken for tubular shells.

The outer lip, or margin of the aperture, is occasionally found entire. In some species there is a dorsal process, as in a very common Chalk Ammonite (*A. varians*, *Lign.* 107, fig. 1.), which extends