

as shown by the attached marine organisms and by a slight coating of manganese oxide on the exposed parts. In Fig. 148, which represents a specimen composed of carboniferous limestone and chert, the arrow

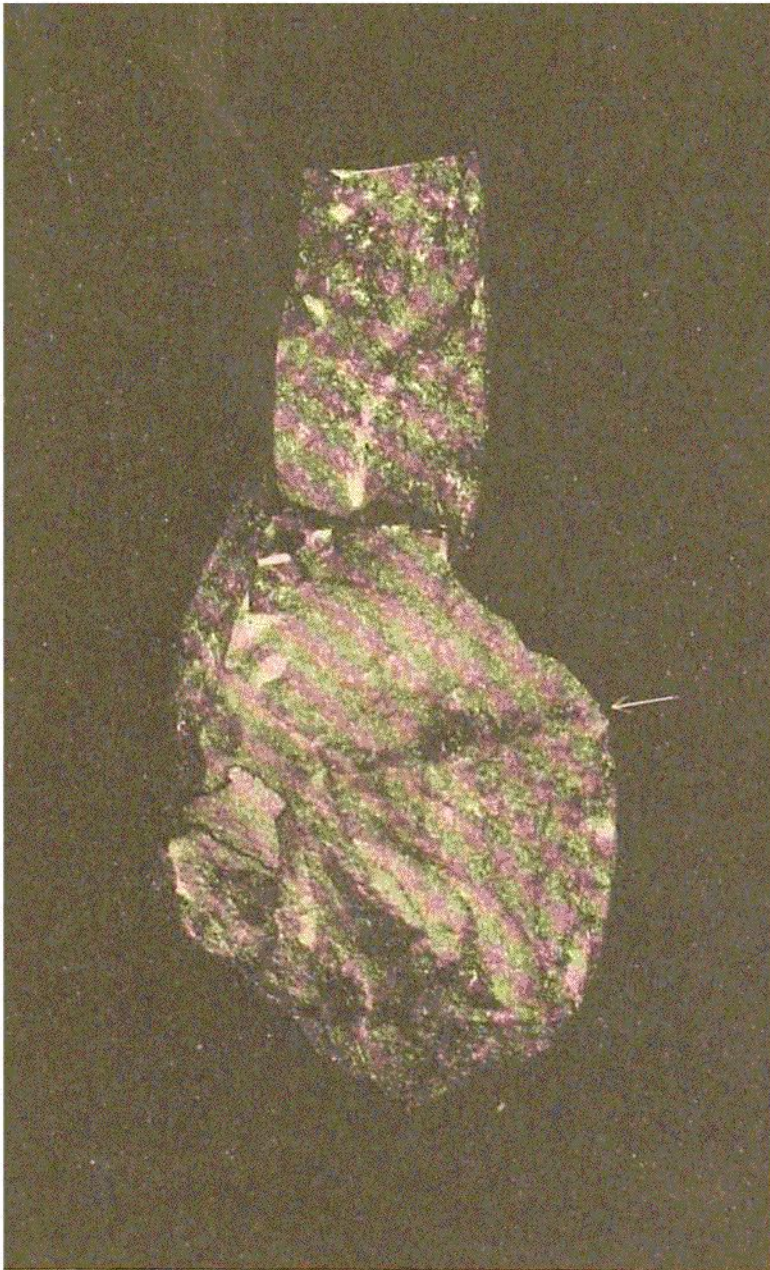


FIG. 148.—STONE WITH STAINING OF MANGANESE, THE ARROW SHOWING THE POSITION OF THE SURFACE OF THE DEPOSIT IN WHICH THE SPECIMEN HAD BEEN EMBEDDED.

points to the manganese staining where the exposed and unexposed parts meet.

The average size of the stones is about three inches; only a very few reach six inches in length. As the sounding-tube brought up from the sea-floor at this station a core of ooze nine inches long, we may infer that the tube pierced the deposit to a greater depth than that reached by any of the stones. It is therefore clear that none of the stones can be *in situ*. They must have been dropped from above into the ooze.

Many of the specimens, as represented in Fig. 149, must have stood on end in the ooze, which is not the natural position they would have assumed if dropped on the present surface of that deposit. The inference seems obvious that originally they fell into a soft ooze

in which they were completely buried. The stones would naturally be arranged along the lines of least resistance to friction, so that many would be entombed end on or edge on, like those illustrated in Figs. 149 and 150. Subsequent current action has removed part of the material in which they were embedded, and has been powerful enough to prevent further accumulation of ooze at the spot where they were dredged. Since the ooze contains 37 per cent of insoluble material, the theory of the removal of the deposit by solution is improbable.

Among the materials distributed by human agency dredged from