the juices drawn from the soil become less abundant or cease altogether.

The experiments which I described in a memoir read to the Academy on the 25th of July 1853, prove in the most evident manner the course of the descending sap; for when obstacles are opposed to the progress of this sap, by means of ligatures, or of spiral, annular, or semicircular decortications, the course of the sap may be changed at pleasure. It then gives origin to very sinuous vessels, presenting vertical parts and others oblique or horizontal, which are always formed of cells elongated vertically, that is to say, parallel to the axis of the stem, and of which the form, which is not generally changed, is similar to that of the surrounding cells. The sinuosities of these vessels show the currents of the sap progressing through the cells of the generative layer, turning in all directions to find an issue, perforating the cells from above downwards or horizontally, according as the current is vertical, oblique or horizontal.

All these facts prove evidently that it is the circulation that produces the vessels,—that is to say, that it is the function that creates the organ.

Since the circulation exists before the vessels, when there are only simple cells through the walls of which the sap filters, the objection made by some anatomists to the existence of the circulation in the laticiferous vessels, an objection founded on the cellular structure of these vessels in certain plants, does not possess the importance which they assign to it, as we see the dotted and striped vessels, &c., formed by a current of sap pre-existing through imperforate cells; and moreover these anatomists should consider that there is not a living cell which is not traversed by juices, although the great majority of these cells do not present any perforation visible by means of our most powerful microscopes. And then there are laticiferous vessels which are evidently composed of superposed cells, the transverse partitions of which present very wide apertures (the laticiferous vessels of *Musa*, formed of large cells with very thin walls, are fine examples of this).—*Comptes Rendus*, Oct. 5, 1857, p. 466.

Sepia officinalis.

To the Editors of the Annals of Natural History.

Weymouth, December 14, 1857.

Gentlemen,—The beach at Weymouth was this morning strewed with the Cuttle-bone (*Sepia officinalis*). Within the space of half a mile I believe I might have gathered a thousand. In no instance could I find a portion of the animal. Apparently there has been no weather to account for such an unusual occurrence, it having been moderate for many days, with a slight southerly wind.

This mollusk is but rarely found here, though after a storm a few stray specimens of the so-called bones are thrown up.

I am, Gentlemen, your most obedient Servant,

Robert Damon.