Upon making a vertical section of the shell, the inner volutions are exposed, and the cavity is seen divided at regular intervals into cells, by smooth, slightly undulating, nacreous septa; these vary in number according to the age of the individual; there are about thirty-five in an adult specimen. The partitions are pierced in the *centre* by a shelly tube which traverses each cell, to within a short distance of the next partition; and this tube is rendered a continuous channel in the living animal, by the membranous siphuncle. This series of air-chambers constitutes an apparatus which renders the Nautilus nearly of the same specific gravity as the surrounding water, and enables it to rise to the surface of the sea, or sink to the bottom, simply by altering the extent of the surface exposed to the water by its soft parts.

From this very general description of the only living representative of the numerous genera of tetrabranchiate Cephalopoda, which swarmed in such prodigious numbers in the ancient seas, we may pass to the consideration of the fossil Nautili, and their related congeners. Our remarks must be limited to the genera that will serve to demonstrate the most important modifications of structure, and explain the nature of the fossil remains of this extensive class of extinct beings.

Professor Owen; 1 vol. 4to. 8 plates. 1832; or the Article CEPHALOPODA; *Cycloped. Anat.* by the same distinguished zoologist.