

are simple curves, becoming foliated at their junction with the outer shell, and thus distributing their support more equally beneath all its parts, than if these simple curves had been continued to the extremity of the transverse plates. In more than two hundred known species of Ammonites, the transverse plates present some beautifully varied modifications of this foliated expansion at their edges; the effect of which, in every case, is to increase the strength of the outer shell, by multiplying the subjacent points of resistance to external pressure. We know that the pressure of the sea, at no great depth, will force a cork into a bottle filled with air, or crush a hollow cylinder or sphere of thin copper; and as the air chambers of Ammonites were subject to similar pressure, whilst at the bottom of the sea, they required some peculiar provision to preserve them from destruction,\* more especially as most zoologists

\* Captain Smyth found, on two trials, that the cylindrical copper air tube, under the vane attached to Massey's patent log, collapsed, and was crushed quite flat under a pressure of about three hundred fathoms. A claret bottle, filled with air, and well corked, was burst before it had descended four hundred fathoms. He also found that a bottle filled with fresh water, and corked, had the cork forced at about a hundred and eighty fathoms below the surface; in such cases, the fluid sent down is replaced by salt water, and the cork which had been forced in, is sometimes inverted.

Captain Beaufort also informs me, that he has frequently sunk corked bottles in the sea more than a hundred fathoms deep,