http://www.geology.19thcenturyscience.org/books/Bridgewater-Treatises/index.html

which must sooner or later become sensible. If the soft organs have sufficient room for their expansion, as is the case when they are external to the hard axis of the zoophyte, the growth of that axis may go on without impediment; and no change need take place in the general figure of the parts, since their relative proportions and situations may be preserved unaltered. But this cannot happen when the new materials are to be deposited on the internal surface of a membrane, or a shell, which completely encloses the soft parts: for the additions thus made to the thickness of the layer must encroach upon the space within; and, that space being limited, the soft parts contained in it will not merely cease to grow, but will be actually contracted in their dimensions: and if the process of deposition were to go on, the space occupied by the soft organs would at last be entirely filled up with solid matter, and the cavity be obliterated. Accordingly it is necessary, whenever cells, intended for the lodgement of soft organs, are to be constructed of hard materials, that the foundation of these cells should be laid, and their construction begun, upon a scale of the same size as that which they are intended to have at all future periods; because, as we have just seen, after the innermost layer has been deposited, they admit not of any future enlargement of their cavity. Thus, we find that, in the case of polypes which are lodged in cells, the walls of these cells must be completed before the soft polypous portion has attained its full expansion; for were it at first built of a smaller size, proportioned to that of the young polype, it would prevent all farther growth.

The globular shell of the Echinus, which is external to the soft parts that nourish it, and which yet grows from a very minute sphere to one of large dimensions, keeping pace with the gradual expansion of the internal organs, might appear to be an exception to the general law. Nature has, however, accomplished her purpose without deviating from her usual plan; first, by dividing the shell of the Echinus into a great number of small pieces; and secondly, by giving to each piece the polygonal form, which is best adapted to their