Particulars respecting the Anatomy of the Dugong, intended as a Supplement to Sir T. S. Raffles's *Account of that Animal. By Sir* Everard Home, *Bart. F.R.S.* Read June 29, 1820. [*Phil. Trans.* 1820, *p.* 315.]

The object of this communication is to complete the anatomical description of the Dugong, already presented to the Society by Sir Thomas Stamford Raffles, who has sent the author a young female animal entire, together with the viscera and skeleton of a male. Drawings representing the external form of the animal, and of its several parts, are annexed. Sir Everard particularly describes the peculiar structure of the stomach of this animal, which differs from all others, and is so complex that description is scarcely intelligible without the aid of a drawing. In some respects it resembles that of the whale, the peccari, hippopotamus, and beaver; at least it contains parts met with in the stomach of those tribes, but the parts are differently situated.

On the Compressibility of Water. By Jacob Perkins, *Esq. Communicated by the late Right Hon. Sir* Joseph Banks, *Bart. G.C.B. P.R.S.* Read June 29, 1820. [*Phil. Trans.* 1820, *p.* 324.]

A hollow and water-tight cylinder, 3 inches in diameter and 18 inches long, with a rod five sixteenths of an inch diameter, sliding through a stuffing box at one of its extremities, and having upon it a flexible ring, placed just above the stuffing box, was filled with water, and put into a cannon of sufficient dimensions, fixed vertically in the earth, with its touch-hole plugged, and its muzzle about 18 inches above ground. A strong cap was firmly secured upon the mouth of the cannon, with a small forcing pump tightly screwed into its centre. There was an aperture secured by a valve, one pound pressure upon which indicated an atmosphere. Upon forcing water into the cannon, it was found that when the instrument contained within it, called by the author a Piezometer, had suffered a pressure equal to a hundred atmospheres, the position of the ring upon the piston indicated that it had been forced into the cylinder to a depth of eight inches, showing that the water had suffered a compression of about 1 per cent.; the same effect was produced by sinking the piezometer to a depth of 500 fathoms in the ocean. Upon sinking a strong empty bottle, well corked and tied down, to a depth of 300 fathoms, the neck only was found remaining upon the line; from the appearance of which it was evident, that a quantity of water, sufficient to fill the bottle, had at that depth been forced through the cork and its coverings, and that the water expanding during the drawing up of the bottle had broken it.

It appearing to the author that the original indication of the piezometer was rendered erroneous by the collapsing of the leather upon the rod under such great pressure, he employed a modification of the instrument, in which a valve was used as a substitute for the piston,