

nel, so as to become adequate to the discharge of the water. The peculiarities of the rise and fall of the tides at adjacent places, is referred by the author principally to the accumulation that takes place in these basins. That the tides do not meet at Dungeness in a line across the Channel, is further proved by the absence of that violent concussion of water which in such a case would ensue; the fact being, that the formation of the coast by gradually altering the course of the tide between the South Foreland and buoy of the Nore, from E.N.E. to W.N.W. within the stream of the Goodwin Sands, occasions a gentle blending of the waters, so that there is only a strong eddy about the Kentish Knock, and a foamy rippling where they meet and proceed onwards together.

On the Ova of the different Tribes of Opossum and Ornithorhynchus.
By Sir Everard Home, Bart. V.P.R.S. Read March 25, 1819.
[*Phil. Trans.* 1819, p. 234.]

With his previously acquired knowledge respecting the formation of the ova of quadrupeds in Corpora lutea, Sir Everard proceeds to inquire into that of the Opossum tribe, the ova of which are not formed in the same manner, but make two distinct gradations between the quadruped and *Ornithorhynchus paradoxus*, which last approaches so near to the bird, as to complete the link of gradation between the quadruped and bird in their mode of generation. Sir Everard first describes the formation of the ova in the Kangaroo, which, when expelled from the Corpus luteum, receive a yolk in the Fallopian tube, and afterwards the albumen in the uterus. The foetus, when expelled from the uterus into the marsupium, attaches itself to the nipple, as described in the 85th and 100th volume of the Philosophical Transactions. In the Kola and Wombat, and great and small Opossum, instead of Corpora lutea there are yolk bags imbedded in the substance of the ovarium; and there are two uteri, with a Fallopian tube to each, the ovum in each uterus being separately impregnated in its own cavity.

The mode of formation of the ova in the Ornithorhynchi, forms the intermediate link between the Opossum and bird. The yolk bags are imbedded in the ovaria; and instead of a regular uterus, each Fallopian tube swells out into a cavity, in which the ova are impregnated.

The Results of Observations made at the Observatory of Trinity College, Dublin, for determining the Obliquity of the Ecliptic, and the Maximum of the Aberration of Light. By the Rev. J. Brinkley, D.D. F.R.S. and M.R.I.A. and Andrews Professor of Astronomy in the University of Dublin. Read April 1, 1819. [*Phil. Trans.* 1819, p. 241.]

The obliquity of the ecliptic, as deduced from the early observations by the Greenwich quadrant, compared with the present ob-