

and regular relation with the motions of the moon. When the moon is new, or at the full, this motion from east to west is more sensible, as well as that of the tides, which upon most shores ebb and flow every six hours and a half: that it is always high tide whenever the moon is at the meridian, whether above or below the horizon of the place; and low tide when the moon rises or sets. The motion of the sea from east to west is constant and invariable, because the ocean in its flux moves from east to west, and impels towards the west a great quantity of water, and the reflux seems to be made in a contrary direction, by reason of the small quantity of water then driven towards the west; the flux, therefore, must rather be regarded as a swelling, and the reflux as a subsiding of the water, which instead of its disturbing the motion from east to west, produces and continually restores it, although in fact it is stronger during the rise, and weaker during the fall, from the above reason.

The principal circumstances of this motion are, 1. That it is more sensible when the moon is new, or at the full, than in the quadratures: in spring and in autumn it is also more violent than at any other time of the