

By a series of lunar observations, and of the eclipses of the satellites of Jupiter, the mean result duly corrected, gives the longitude of Bombay Church $72^{\circ} 54' 43''$ E., and of the Lighthouse $72^{\circ} 53' 36''$ E. of Greenwich. The mean latitude found by 32 meridional observations of the sun and stars, duly corrected, was found to be $18^{\circ} 56' 7''$ N. for the Church, and $18^{\circ} 54' 25''$ for the Lighthouse.

Of the Difference of Longitudes found by Chronometer, and by correspondent Eclipses of the Satellites of Jupiter; with some supplementary Information relative to Madras, Bombay, and Canton; as also the Latitude and Longitude of Point de Galle and the Friar's Hood. By J. Goldingham, Esq. F.R.S. Read June 27, 1822. [Phil. Trans. 1822, p. 431.]

The longitude of Masulipatam Flagstaff by the eclipses is $81^{\circ} 12' 33''$, and by the chronometer $81^{\circ} 12' 15''$, which is so close an agreement, that the longitude of this important point of the coast may be regarded as correctly determined. Mr. Goldingham then details the observations by which he determined the latitude and longitude of Point de Galle Flagstaff, the mean of the former being $6^{\circ} 0' 50''$ N., and the latter $80^{\circ} 17' 2''$ E.; the longitude of Canton, deduced as the mean of Capt. Huddart's observations and his own, Mr. Goldingham gives as $113^{\circ} 18' 23''$ East of Greenwich.

Observations on the Genus Planaria. By J. R. Johnson, M.D. F.R.S. Read June 27, 1822. [Phil. Trans. 1822, p. 437.]

In this paper the author confines his observations to four species of the above genus, which are delineated of their natural size in an annexed drawing. They are generally clustered under leaves, stones, or pieces of wood, in slow streams; they are very rapid and changeable in their movements, in consequence of the annular muscles of which the body consists; their texture, however, is so soft, as not to admit of accurate dissection, though the author was able to ascertain that the body consisted of one common cavity, with lateral cells, like that of the medicinal leach. In the *Planaria torva*, two ventral apertures are particularly distinct. The upper one gives passage to a long flexible tube, and the lower conducts to the ovarium; this tube they frequently project, and employ it in seizing worms and aquatic insects; they also receive their food by this organ, and not exclusively by the mouth, as the author proved by presenting an earth worm to one of the *Planariæ lactea*, from which he had removed the head; it soon affixed itself, and became distended by food. When, however, the animal is injured, or loses this tube, it then takes sustenance by the mouth. Though he has repeatedly seen the young of the *Planaria torva* and *Planaria cornuta*, the author has not determined whether they are oviparous or viviparous. The *Planaria lactea* and *Planaria brunnea* are oviparous, producing eggs within a

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