

terminate fatally with more or less rapidity, according to the size of the animal.

"Della Velocità del Vento. Memoria diretta alla Regali Società di Londra per essere inscritta nelle Transazioni filosofiche, et pel concorso del premio annuale di fisica: di Luigi Dau, Dottore in Matematica e Fisica." Communicated by Charles Konig, Esq. For. Sec. R.S.

The author endeavours to investigate the relation which he believes exists between the velocity of the wind and the oscillations of the barometer, and thence to derive rules for calculating the former from observations of the latter.

"Considérations physiques sur le passage Nord-ouest;" by the same. Communicated by the Right Hon. the Earl of Minto, G.C.B. F.R.S.

The author of this memoir, considering that the practicability of a North-west Arctic passage must depend on the mean summer atmospheric temperature of the most northern point of the continent of America being above that at which the congelation of sea water takes place, applies himself to the determination of these temperatures. The results of his calculations are given in a table, exhibiting the extreme and the mean temperatures of the atmosphere for each of the summer months, from May to September, at all degrees of latitude, from  $60^{\circ}$  to  $80^{\circ}$  inclusive. According to this table, the temperature of zero, which is about the freezing point of sea water, prevails, at  $60^{\circ}$  of latitude, on the 10th of May; at  $61^{\circ}$  lat. on the 20th of May; at  $63^{\circ}$ , on the 1st of June; at  $65^{\circ}$ , on the 10th of June; at  $67^{\circ}$ , on the 20th of June; and at  $71^{\circ}$ , during the whole of the months of July and August. The author concludes that navigators can reach, without danger of being obstructed by ice, the latitude of  $71^{\circ}$  during these latter months: and that since the American continent does not probably extend beyond  $70^{\circ}$  north latitude a passage to the North-west is then open. He recommends, however, that instead of attempting it by the dangerous navigation of the polar sea, a coasting voyage between the continent and the numerous islands which exist in that ocean should be undertaken; or, what he thinks still more promising of success, an expedition by land for exploring the country intervening between the Coppermine River and Hudson's Bay.

"Causes de la Variation diurne de l'Aiguille aimantée, de la Lumière zodiacale, des Aurores Boreales, et Méthode simplifiée pour le relevement des Longitudes, Mémoire soumis à la Société Royale de Londres, pour le concours du prix d'Astronomie. Par Demonville."

The author's speculations proceed on the hypothesis he has adopted, that the Sun, Moon, Jupiter and Mars perform a diurnal and perfectly circular revolution round the earth.

"On the elementary structure of the Muscular Fibre of Animal and Organic Life;" by Frederic C. Skey, Esq., Assistant Surgeon to St. Bartholomew's Hospital, F.R.S.

The author having withdrawn the paper bearing the same title