about it, that there is yet another irregularity in the Tides, which never fails, and is no less extraordinary, than what I have been mentioning: which is, I hat, whereas between the Vernal and Autumnal Equinoxes, that is, for six Moneths toges ther, the Course of irregular Tides about the Quartermoons, is, to run all day, that is, twelve hours, as from about \$\frac{1}{2}\$ to \$9\frac{1}{2}\$, \$10\frac{1}{2}\$ to \$10\frac{1}{2}\$ & Eastward, and all night, that is, twelve hours more, Westward: during the other six Moneths, from the Autumnal to the Vernal Equinox, the Current runs all day Westward, and all Night Eastward.

Of this, though I had not the opportunity to be an Eye-witness, as of the other, yet I do not at all doubt, having received

so credible Information of it.

To penetrate into the Causes of these strange Reciprocations of the Tides, would require exact descriptions of the Situation, Shape, and Extent of every piece of the adjacent Coasts of Eustand Herris: the Rocks, Sands, Shelves, Promontorys, Bays, Lakes, Depths, and other Circumstances, which I cannot now set down with any certainty, or accurateness; seeing, they are to be found in no Map, neither had I any opportunity to survey them; nor do they now occur to my Memory, as they did some years ago, when upon occasion I ventured to make a Map of this whole Frith of Berneray, which not having copied. I cannot adventure to beat it out again.

Monsieur Auzout's Judgment touching the Apertures of Object-Glasses, and their Proportions, in respect of the several Lengths of Telescopes.

This Author, observing in a small F ench Trast lately written by him to a Countryman of his, Mousieur L' Abbe Charles; That great Optick Glasses have almost never as great an Aperture as the small ones, in proportion to what they Magnisse, and that therefore they must be more dim; takes occasion to inform H 2

the Reader, that he hath found, that the Apertures, which Optick-Glasses can bear with distinctness, are in about a subduplicate proportion to their Lengths; whereof he tells us he intends to give the reason and demonstration in his Diopticks, which he is now writing, and intends to finish, as soon as his Health will permir. In the mean time, he presents the Reader with a Table of such Apertures; which is here exhibited to the Consideration of the Ingenious, there being of this French Book but one Copy, that is known, in England.

A TABLE of the Apertures of Object Glasses.

The Points put to some of these Numbers denote Fractions.

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