

will at least have this length of ten inches; and to unite it wholly, it will require an ocular glass of this breadth, to which only twenty inches of focus should be given to render it as strong as possible. It is necessary that the objective, as well as the ocular glass, should be ten inches in diameter, in order that the image of the sun, and the image of the bore of the telescope, be of an equal size with the focus.

If this telescope, which I propose, should only serve to observe the sun exactly, it would be of great service; for example, it would be very curious to be able to discover whether there be any luminous parts larger than others in the sun; if there be inequalities on its surface; and of what kind; if the spots float on its surface; or whether they be fixed there, &c. The brightness of its light prevents us from observing this luminary with the naked eye, and the different refrangibility of its rays, renders its image confused when received in the focus of an objective glass, or on pasteboard, so that the surface of the sun is less known to us than that of any of the planets. The different refrangibility of its rays would be but little corrected in this long telescope filled with water; but if the liquor could, by the addition of salts, be