

The reason that determined me to prefer glasses of six inches broad by eight inches high to square glasses of six or eight inches, was, that it is much more commodious to make experiments upon a horizontal and level ground than otherwise, and that with this figure, the height of which exceeded the breadth, the images were rounder ; whereas with square glasses they would be shortened, especially at small distances, in a horizontal situation.

This discovery furnishes us with many useful hints for physic, and perhaps for the arts. We know that what renders common reflecting mirrors most useless for experiments is, that they burn almost always upwards, and that we are greatly embarrassed to find means to suspend or support to their focus matters to be melted or calcined. By means of my mirror we burn concave mirrors downwards, and with so great an advantage that we have what degree of heat we please ; for example, by opposing to my mirror a concave one of a foot square in the surface, the heat produced to this last mirror, by using 154 glasses only, will be upwards of 12 times greater than that generally produced, and the effect will be the same as if 12 suns existed instead of one, or rather as if the sun had 12 times more heat.

Secondly,