

Though I had conceived the idea, I was for a long time deterred from making the experiment, from the dread of the difficulty which might attend it; at length, however, I determined to search after the mode of making mirrors to burn at a great distance, as from 100 to 300 feet. I knew, in general, that the power of reflecting mirrors, never extended farther than 15 or 20 feet, and with refringent, the distance was still shorter: and I perceived it was impossible in practice to form a metal, or glass mirror, with such exactness as to burn at these great distances. To have sufficient power for that, the sphere, for example, must be 800 feet diameter; therefore, we could hope for nothing of that kind in the common mode of working glasses; and I perceived also that if we could even find a new method to give to large pieces of glass, or metal, a curve sufficiently slight, there would still result but a very inconsiderable advantage.

But to proceed regularly, it was necessary first to see how much light the sun loses by reflection at different distances, and what are the matters which reflect it the strongest: I first found, that glasses when they are polished with care, reflect the light more powerfully than the best polished metals, and even better