

perceived that glass mirrors reflected the light more powerfully than the most polished mirrors, I thought to construct a machine to coincide in the same point the reflected images by a great number of these plane glasses, being well convinced that this was the sole mode of succeeding.

Nevertheless, I had still some doubts remaining, which appeared to me well founded, for thus I reasoned. Supposing the burning distance to be 240 feet, I perceived clearly that the focus of my mirror could not have a less than two feet diameter; in which case what would be the extent I should be obliged to give to my assemblage of plane mirrors to produce a fire in so great a focus? It might be so great that the thing would be impracticable in the execution, for, by comparing the diameter of the focus to the diameter of the mirror, in the best reflecting mirrors, I observed that the diameter of the Academy's mirror, which is three feet, was 108 times bigger than its focus, which was no more than four lines; and I concluded, that to burn as strong at 240 feet it was necessary that my assemblage of mirrors should be 216 feet diameter to have a focus of two feet; now a mirror of 216 feet diameter was certainly an impossible thing.

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