

from the candle. Afterwards, having placed a piece of glass, about a line thick, before it, at two inches distance, I found that I still read very plainly at 22 feet nine inches; and substituting to this glass another piece of two lines in thickness and of the same glass, I read at 21 feet distance from the candle. Two of the same glasses joined one to the other, and placed before the candle diminished the light so much that I could only read at $17\frac{1}{2}$ feet distance; and at length, with three glasses, I could only read at 15 feet. Now the light of a candle diminishing as the square of the distance augments, its diminution should have been in the following progression, if glasses had not been interposed: 2—24 $\frac{1}{3}$. 2—22 $\frac{3}{4}$. 2—21. 2—17 $\frac{1}{2}$. 2—15, or 592 $\frac{1}{9}$. 517 $\frac{9}{16}$ 441. 306 $\frac{1}{4}$. 225. Therefore the loss of the light, by the interposition of the glasses, is in the following progression: 84 $\frac{7}{44}$. 151. 255 $\frac{7}{9}$. 367 $\frac{1}{4}$.

From hence it may be concluded, that the thickness of a line of this glass diminishes only $\frac{84}{592}$ of light, or about $\frac{1}{7}$; that two lines diminishes $\frac{157}{592}$, not quite $\frac{1}{4}$ and three glasses of two lines $\frac{307}{592}$, i. e. less than $\frac{2}{3}$.

As this result is very different from that of M. Bouguer, and as I was cautious of suspecting

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