This mirror of three feet diameter burnt strong enough to melt gold, and I was desirou to see how much I should gain by reducing its action to the burning of wood. For this purpose I used circular zones of paper on the mirrors to diminish the diameter, and I found that there was no longer power enough to inflame dry wood when its diameter was reduced to little more than four inches; therefore, taking five inches, or sixty lines, for the diameter necessary to burn with a focus of four lines, it appeared, that to burn equally at 210 feet, where the focus should necessarily have two feet diameter, I should require a mirror of 30 feet diameter, which appeared still as impossible, or at least impracticable.

To such positive conclusions, and which others would have regarded as demonstrations of the impossibility of the mirror, I had only a supposition to oppose; but an old supposition, on which the more I reflected the more I was persuaded that it was not without foundation; namely, that the effects of heat might possibly not be in proportion to the quantity of light, or, what amounts to the same, that at an equal intensity of light large focuses must burn brisker than the small.

By estimating heat mathematically, it is not

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