

by calcining and volatilizing the matter of this surface, drives it outwardly in vapours and dust from the opposite side to the sun; and what is called the tail of the comet, is nothing else than the light of the sun rendered visible, as in a dark room, by those atoms which the heat lengthens as it is more violent.

But another consideration very different and infinitely more important, is, that to apply the result of our experiments and calculation to the comet and earth, we must suppose them composed of matters which would demand as much time as iron to cool: whereas, in reality, the principal matters of which the terrestrial globe is composed, such as clay, stones, &c. cannot possibly take so long.

To satisfy myself on this point, I caused globes of clay and marl to be made, and having heated them at the same forge until white, I found that the clay balls of two inches, cooled in 38 minutes so as to be held in the hand; those of two inches and an half, in 48 minutes; and those of three inches, in 60 minutes; which being compared with the time of the refrigeration of iron bullets of the same diameters, give 38 to 80 for two inches, 48 to 102 for two inches and a half, and 60 to 127 for three

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