

that moment had the astonishing speed I have just mentioned. *Now observe one thing.* The distance from the sun's centre was about one 160th part of *our* distance from it. All the heat we enjoy on this earth comes from the sun. Imagine the heat we should have to endure if the sun were to approach us or we the sun to $\frac{1}{160}$ th part of its present distance. It would not be merely as if 160 suns were shining on us all at once, but 160 times 160, according to a rule which is well known to all who are conversant with such matters. Now that is 25,600. Only imagine a glare 25,600 times fiercer than that of an equatorial sunshine at noonday with the sun vertical. And again, only conceive a light 25,600 times more glaring than the glare of such a noonday! In such a heat there is no solid substance we know of which would not run like water—boil—and be converted into smoke or vapour. No wonder it gave evidence of violent excitement—coming from the cold region outside the planetary system, torpid and icebound; already when arrived even in our temperate region it began to show signs of internal activity—the head had begun to develop and the tail to elongate till the comet was for a time lost sight of. No human eye beheld the wondrous spectacle it must have offered on the 8th December. Only four days afterwards, however, it was seen: and its tail, whose direction was reversed and which (observe) could not possibly be *the same tail* it had before—(for it is not to be conceived as a stick brandished round, or a flaming sword, but fresh matter continually streaming forth),—its tail I say had already lengthened to an extent of about