

and covered with sulphur in some places : the inflammation was made very suddenly ; it began by the parts of the wood which were uncovered, and the fire was so violent, that the plank was obliged to be dipt in water to extinguish it : there were 148 glasses at 150 feet distance.

The eleventh of April, the focus being only 20 feet distant from the mirror, it only required 12 glasses to inflame small combustible matters ; with 21 glasses we set fire to another plank which had already been partly burnt ; with 45 glasses we melted a block of tin of 6lb. weight ; and with 117 glasses we melted thin pieces of silver, and reddened an iron plate ; and I am also persuaded, that by using all the glasses of the mirror we should have been enabled to have melted metals at 50 feet distance ; and as the focus at this distance was six or seven inches broad, we should be able to make trials on all metals, which it was not possible to do with common mirrors, whose focus is either very weak or 100 times smaller than that of mine. I have remarked, that metals, and especially silver, smoke much before they melt ; the smoke was so striking that it shaded the ground, and it was there I looked on it attentively, for it is not possible to look a moment on the focus when it falls on the metal,