

the publication of his *principles*. We see in that excellent Memoir, which includes the germ of all the ideas on which thermometers have since been constructed; that Newton, after very exact experiments, makes the heat of boiling water to be three times greater than that of the sun in the height of summer; that of melted tin, six times greater; that of melted lead, eight times; that of melted regulus, twelve times; and that of a common culinary fire, sixteen or seventeen times; hence we may conclude, that the heat of iron, when heated so as to become white, is still greater, since it requires a fire continually animated by the bellows to heat it to that degree. Newton seems to be sensible of this, for he says, that the heat of iron in that state seems to be seven or eight times greater than that of boiling water. This diminishes half the heat of this comet, compared to that of hot iron.

But this diminution, which is only relative, is nothing in itself, nor nothing in comparison with that real and very great diminution which results from our first consideration. For the comet to have received this heat a thousand times greater than that of red-hot iron, it must have remained a very long time in the vicinity of the sun, whereas it only passed very rapidly at