
and I have cooked a beef-steak and boiled eggs hard by simple exposure to the sun in a box covered with a pane of window-glass, and placed in another box so covered.

(23.) From a series of experiments I made there, I ascertained that the direct heat of the sun, received on a surface capable of absorbing and retaining it, is competent to melt an inch in thickness of ice in $2 \frac{1}{3}^m$, and from this I was enabled to calculate how much ice would be melted per hour by the heat actually thrown on a square mile exposed at noon under the equator, and the result is 58,360,000 lb., or in round numbers, 26,000 tons, and this vast mass, has to be multiplied 50 million-fold to give the effect produced on a diametral section of our globe.

(24.) And, now, let us endeavour to form some kind of estimate of the *temperature*; that is to say, the degree or intensity of the heat at the actual surface of the sun. By a calculation, with which I will not trouble you, it turns out to be more than 90,000 times greater than the intensity of sunshine here on our globe at noon and under the equator—a far greater heat than can be produced in the focus of any burning-glass; though some have been made powerful enough to melt, not only silver and gold, but even platina, and, indeed, all metals which resist the greatest heats that can be raised in furnaces.

(25.) Perhaps the best way to convey some sort of conception of it, will be to state the result of certain experiments and calculations recently published; which is this—that the heat thrown out FROM EVERY SQUARE YARD