all their great masses have been united by its action; but all their crystallizations, vegetations, granulations, &c. are due to the secondary causes, in which water is the primary agent.

## EXPERIMENTS ON THE PROGRESS OF HEAT IN MINERAL SUBSTANCES.

and beaten iron; the first, of half-inch diameter; the second, of an inch; and so on progressively to five inches: and as all the bullets were made of iron of the same forge, their weights were found nearly proportionable to their volumes.

The bullet of half an inch weighed 190 grains, Paris weight; that of an inch, 1522 grains; that of an inch and a half, 5136 grains; that of two inches, 12173 grains; that of two inches and an half, 23781 grains; that of three inches and a half, 65254 grains; that of four inches, 97388 grains; that of four inches