

with the heat only in one part. Some time would pass before the heat penetrated its thickness; during this time, a great part of the heat would be lost, and which would issue from this piece of matter after it had entered it. I fear, therefore, much that the stone not being touched by the heat on every side at once, the calcination would be slower, and the produce less. Experience alone can decide this, but it would be at least necessary to attempt it on gypsous matters, whose calcination is as quick again as calcareous stone.

By concentrating this heat of the sun in a kiln, which has no other opening than what admits the light, a great part of the heat would be prevented from flying off, and by mixing with calcareous stone a small quantity of coal dust, which is the cheapest of all combustible matters, this slight supply of food would suffice to feed and augment the quantity of heat, which would produce a more ample and quick calcination, and at very little expense.

3. These mirrors of Archimedes might be, in fact, used to set fire to the sails of vessels, and even to pitched wood at more than 150 feet distance; they might also be used against the enemy, by burning the grain and other productions of the earth; this effect would be