is no assignable reason, why any other body, common salt or gunpowder, by the application of a like heat in similar conditions, should not also take on a similar motion and form. The difference of the action of one quality (heat), on two different bodies, iron and gunpowder, can only be found in the different constitutions or states of those bodies which admit, the one of a liquid, and the other of a gaseous form. So that had we any other way, but by fire, of inducing this motion in iron, we should have as a result its liquefaction, as may be partly seen by beating iron with a hammer sufficiently. And precisely for the same reason we can bring about the decomposition and explosion of certain sorts of gunpowder, by means of a liquid and cold acid.

If we analyze in the least a complex phenomenon-for instance, wood changed and destroyed by the application of fire: smoke, flame, &c. are apparent effects; and these are eliminated from, or they accompany some bodies, while their elements are in progress from one condition to another condition, or from one combination to another combination. Fire in the above case, by raising the wood to a given temperature, served to liberate its elements; and the smoke, flame, heat, &c. are effects of the formation of other combinations, as of water, carbonic oxide and acid; which have their causes of combination in their constituting elements, oxygen, hydrogen, and carbon, and which have on the whole a

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