

remaining constant, the form of these bodies depends upon the temperature. Every one knows that the same is true of sulphur, and zinc, and several other substances. Science has succeeded in changing the form of numerous bodies usually regarded as extremely refractory. Copper, gold, platinum, and the other metals may be readily fused. The same is true of many rocks and minerals. On the other hand, several gases have been liquefied, and some, like carbonic acid, have even been reduced to the solid state. It would seem that, if the appliances of science were as effective as those which we know that Nature wields, every recognized substance might be changed at pleasure into a solid, a liquid, or a gas.

What, indeed, are we to learn from the ejection of melted rocks, in the form of lava, from the throats of volcanoes? Must we not conclude that somewhere within is a reservoir in which all things are melted together?

And what is to forbid our assuming that the history of matter has proceeded, from the remotest epoch to which we can climb, by the chain of cause and effect? What hinders us from mounting *beyond* the molten to the gaseous state of the world? We will do it. We venture to gaze upon a world glowing as an immensity of flame. Matter it must be, but matter in its most attenuated condition. Its pre-eminent characteristic is *luminosity*. It is primeval light.

But the history of this terrestrial vapor involves the history of the other planets. Geology has become cosmogony. We behold the matter of the solar system—sun, planets, and satellites—but one vast ocean of ignited materials, swung by Omnipotence in mid-space, with other oceans of flaming matter gleaming on it, from every direction, across the cold intervals of infinite space.*

* A period anterior to any definite arrangement of the materials of the earth seems to be mentioned in Gen. i., 1, 2: "In the beginning God