

That the heat was internal is evinced by many proofs of the continued existence of internal heat. You will recall the facts cited in Talk XVII. You will recall the phenomena of geysers and hot springs (Talk XIV). You will remember that lavas from volcanoes come up from some heated interior (Talk XV). Your thoughts will again glance over the thousands of square miles of surface covered by lavas which issued through fissures in the Age preceding the present (Talk XVI). You will be vividly impressed with the conviction that intense, fusing heat exists within the earth; and since all heat tends to waste away, you will conclude that the earth's surface temperature was much higher some millions of years ago than it is at present. The wastage of the earth's heat is proved by actual observation. Science has measured the amount of heat which comes to the earth annually—that is, the amount on each square yard—and has also measured the amount which escapes annually; and it is thus shown that the wastage exceeds the receipts. The earth is growing cold. This great fact is established by experiment, by observation on the escape of heat from within, and by the records of an ancient higher temperature than now exists at the surface.

Cooling off! That disclosure puts our minds in a new attitude toward the world's history. We have to contemplate the earth as a *cooling globe*. That points our thoughts backward, along a *progress of cooling*. That summons us to consider what conditions of the world must have been passed in the progress of cooling. By all the evidence that progressive cooling has been a fact, we are authorized to reason out the events of the cooling history.

Not the slightest evidence exists that the laws of heat are different under our observation, from the laws which controlled the cooling of the ancient world. We know what they are, and what they were. It is as safe to base backward calculations on them as to base forward calculations on the planetary movements which bring conjunctions and eclipses. We are on the safe ground of reason and science; we are not soaring on the wing of imagination. We are not calculating events