limits of the solar system be rained down upon the sun without complete exhaustion? The space inclosed by the orbit of Neptune is not infinite. The supply of cosmical matter is but a finite quantity. Time enough will drain the bounds of the solar system of all its wandering particles of planetary dust. What then will be the fate of the sun?

The conviction can not be resisted that the processes going forward before our eyes aim directly at the final extinction of the solar fire. Helmholtz says: "The inexorable laws of mechanics show that the store of heat in the sun must be finally exhausted." What a conception overshadows and overpowers the mind! We are forced to contemplate the slow waning of that beneficent orb whose vivid light and cheering warmth animate and vivify the circuit of the solar system. For ages past unbounded gifts have been wasted through all the expanding fields of space—wasted, I say, since less than half a billionth of his rays have fallen upon our planet. The treasury of life and motion from age to age is running lower and lower. The great sun which, stricken with the pangs of dissolution, has bravely looked down with steady and undimmed eye upon our earth ever since organization first bloomed upon it, is nevertheless a dying existence. The pelting rain of cosmical matter descending upon his surface can only retard, for a limited time, the encroachments of the mortal rigors, as friction may perpetuate, for a few brief moments, the vital warmth of a dying man. The time is coming when the July sun will shine with a paler light than he now gives us at the winter solstice. The nations of men, if they still exist, will have emigrated from the temperate to the equatorial regions. New diseases will have diminished their numbers. Polar frost will have crept stealthily and steadily from Behring's Straits to the