duce the temperature of the sun two and one fifth degrees annually. During the human period of 6000 years, the temperature would have been reduced more than 19,000 degrees. At such a rate of cooling it is obvious that the sun must speedily cease to warm our planet sufficiently to sustain vegetable and animal life. But it is certain that the sun's high temperature has been maintained during almost countless ages anterior to the commencement of the human era. Those Titanic reptiles which could luxuriate only under tropical warmth flourished a hundred thousand years before the world was prepared for man; and those rank, umbrageous ferns, whose forms we trace upon the roof-shales of a coal mine, existed before the reptile horde, and purified the air for their respiration.

What unseen cause has perpetuated, for a million of years, those solar fires? Kepler asserted that the firmament is as full of comets as the sea is of fishes, and Newton conjectured that these comets are the fuel-carriers of the Alas! we only know that the wandering comet, sun. though flying in tantalizing proximity to the sun, but accelerates its speed and hurries onward, as virtue hastens past the vortex of ruin. Is it a chemical action which maintains the solar heat? The most efficient chemical action for this purpose is combustion. Now, if the sun were a solid mass of coal, its combustion would only suffice for the brief space of forty-six centuries to replenish the solar system with its vivifying influence. Is it the effect of the sun's rotation on his axis? Such rotation could generate no heat without the resistance of another body. Even if that other body were present, a calculation based upon the sun's mass and his rate of rotation shows that the heat generated could only supply the expenditure for the space of one hundred and eighty-three years.

There exists, nevertheless, a means of recuperation to the

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