

The "conservation of force" is now generally recognized as one of the grand universal laws. For thousands of years our earth has evidently been storing up the enormous force of light and heat which it has so constantly received from the sun. When straw, wood, or coal is burnt, we perceive at once how much light and heat was certainly stored up in those materials, when they were growing plants or trees; but the prodigious force stored up in rock, such as limestone, chalk, &c., does not appear to be so generally appreciated. The well-known oxy-hydric or lime-light affords us some idea of the amount of light stored up in a small piece of lime or chalk, which, when subjected to the intense heat of the oxy-hydric flame, gives forth an exceedingly brilliant light for hours, with scarcely any perceptible diminution of the substance of the lime or chalk. When a small pencil of lime or chalk, subjected to the intense heat of the oxy-hydric flame, produces so brilliant and continuous a light, a basis is afforded us by which we may begin to estimate how very brilliant and continuous a light would be the *natural* result of subjecting all the millions of square miles of limestone, chalk, &c., about the surface of our world to the intense heat of a quantity of burning hydrogen and oxygen equal to that well-known to be contained in the vast ocean of water which covers the greater portion of the earth's surface generally for miles in depth. Evidently under such circumstances our earth would certainly be converted into a miniature sun, and would doubtless continue so until the great force of light, heat, &c., now stored up in the various strata of rock about its surface, should be at last exhausted, and probably utilized in some other direction.

The question naturally arises here. What possible, or probable, use can there be eventually, for all the enormous force, which is now certainly stored up in the many thousands of square miles of chalk, limestone, &c. about the surface of our earth? We already see clearly enough the use of the thousands of millions of tons of coal; but what are the few thin seams of coal compared with the vast masses of chalk, limestone, &c., &c. In comparison with such vast masses; all the coalfields in the world are evidently but as a few thin shavings, or