

ing Mountains, as the vast quantity of Sulphur thence sublimed doth seem reasonably to imply: Also, if we compare our Earthquakes, and our Thunder and Lightning with theirs; There it lightens almost daily, especially in Summer time, here seldome; there Thunder and Lightning is of long duration, here soon over; there the Earthquakes are frequent, long, and terrible, with many Paroxisms in a day, and that for many days; here very short, a few minutes, and Scarce perceptible. To this purpose, the Subterraneous Cavities in England are small, and few compared to the vast Vaults in those parts of the World; which is evident, from the suddain appearance of whole mountains and Islands.

If yet it shall be insisted on, that there are other inflammable Minerals besides the Pyrites; we grant there are so, but by the providence of God not to be found in England, that I know of, and not in any quantity in any place of the World, that I can learn: which is well for Mankind, because they are very Poysons, as the Orpiments; but they are all specifically distinct from Brimstone; which as we have shewn, no Ore yeilds but *Iron*; So the Orpiments are all *Gold Ore*; and for such the Emperor *Nero* (as *Pliny* testifies who who was of his time and his Court) caused them to be wrought in quantity, but they would not turn to account. And, by the by, some Authors have assigned this as a good reason, against any Medicine, that shall be made out of Gold (as fond as we are of an *Aurum potable*) as having naturally a deleterious quality. But this is besides my purpose.

The second Paper of the same person concerning the Spontaneous firing of the Pyrites.

IF it shall be objected, that no Body is kindled by it self: I answer, that it seems to me apparently otherwise,

wife; for that Vegetables will heat and take fire of themselves, as in the frequent instance of Wett Hay : and Animals are naturally on fire, and man doth then sufficiently demonstrate it, when in a Feavour : But amongst Minerals, the Pyrites, both in Gros and in Vapour, is actually of its own accord fired. Dr. *Power* has recorded at large in his *Micrographia* ^a a famous instance of it ; and the like not very rarely happens. And that damps naturally fire of themselves, we have the general Testimony of Miners, and the same Author. ^b

Again the Vulcano's all the World over, argue as much; for we, with great probability beleive them to be Mountains made up in great part of Pyrites, by the quantities of Sulphur thence sublimed, and the Application of the Load-stone to the ejected Cinder. I go further.

That these Vulcano's were naturally kindled of themselves, at or near the Creation is probable, because there is but a certain known number of them, which have all continued burning beyond the Memoirs of any Historie, few or none of them that I know of, have ever totally decay'd or been extinct, unless possibly by the submerfion of the whole, being absorpt in the Sea. Though they indeed, do burn more fiercely sometimes then at others for other reasons. So that it seems to me as natural to have actual fire in the Terrestrial World from the Creation, as to have Sea and Water.

Again if these Vulcano's did not kindle of themselves, what cause can we imagine to have done it ; If the Sun; we answer, *Hecla* placed in so extream cold a Climate was kindled for ought I can see by the Natural History of both, as soon as *Aetna*, or *Fuegos*, or the most Southerlie. Not the Accidents hapning from man ; for, if man was (as we must believe) created Solitary and Topical, they were none of his kindling, because they seem to be fired

^a Power Microg. p. 61. ^b Id. p. 181.

before the World could be all over Peopled; besides they are mostly the very Tops of vast high Mountains, and therefore the most unfit for the habitation of man.

If we say Lightning and Thunder or Earthquakes; we beg the question; for the Cause of the one is the Cause of the other, and they are one and the same.

It remains therefore (very probably) that they were kindled of themselves.

I for my part know no Subject in the whole Mineral kingdom so generall and lasting for the fuel of these Mountains, as the Pyrites; which I have said alone to yeild Sulphur, and naturally resolves it self into it, by a kind of Vegetation.

About the durable burning of the Pyrites these are instances. *Scotch-coal* hath less of the Pyrites in it, being mostly made up of Coal Bitumen, and therefore it burns and consumes quickly, and leaves a white Cinder. *Sea Coal*, or that Coal which comes from Newcastle by Sea to us, and for that reason so called, burns slowly; and the *Sunderland Sea Coal* so slowly, that it is said by Proverb, to make three fires; this hath much Pyrites mixt with it, and burns to a heavy redish Cinder, which is Iron, by the magnet. But I have seen, and have a specimen by me of a Coal from Ireland, the Proprietour of the Pits is Sir Christopher Wandsford, which is said to be so lasting, that it will continue twenty four hours red hot, and almost keep its figure: This seems to be in great part Pyrites by the weight and Colour.

The third Paper of the same person, concerning Thunder and Lightning being from the Pyrites.

There are two sorts of Instances (besides the Arguments I formerly urged, which to me are alone sufficiently