

their composition as the most recent salt formed in the laboratory. And the same is true of the silicates, the carbonates, the sulphates, the oxides, chlorides, fluorides, and other compounds which constitute the rocks of different ages. We never find any produced under the operation of different laws.

Now, the almost invariable opinion among chemists is, that the reason why the elements unite thus definitely is, that they are in different electrical states, and therefore attract one another. Hence the most important laws of electricity have been coeval with those of chemistry; indeed, they are identical; nor can we doubt, if such be the fact, that every other electrical law has remained unchanged from the beginning. And from the intimate connection, if not complete identity, between electricity and magnetism, it is impossible to doubt that the laws which regulate the latter are of equal antiquity with those of the former. Indeed, we find evidence in all the rocks, especially those which are prismatic and concretionary, of the active influence of galvanism and electro-magnetism in their production.

The reasoning is equally decisive to prove the unchanging character of the laws which regulate the formation of crystals. The chemist finds that the same substance, when it crystallizes, invariably takes the same geometrical forms. The nucleus or primary form, with a few exceptions, of no importance in the present argument, to which all these secondary forms may be reduced by change, is one particular solid, with unvarying angles; and all the secondary forms, built upon the primary, correspond in their angles. In short, in crystallography we have another example of perfect practical mathematics, as perfect as the theory.

Now, the oldest rocks in the globe contain crystals, and so do the rocks of all ages, sometimes of the same kind as those produced in the chemist's laboratory. And they are found to correspond precisely. It matters not whether they were the produce of nature's laboratory countless ages ago, or of the skill of the nineteenth century; the same mathematics ruled in their formation with a precision which infinite wisdom alone could secure.

*In the second place, the laws of meteorology have ever been the same as at present.*

Under meteorological laws I include all atmospheric phenomena. And although we have no direct proof from geology