

however, easy to comprehend either the philosophy of, or the necessity for, these theories, as there can be no reason why the Almighty fiat should not have called the earth into existence as an independent solid body, without the cumbersome machinery with which some philosophers seem to be so much delighted. But with such speculations we do not at present concern ourselves, as they cannot guide to an acquaintance with the cause of the phenomena already explained. It is sufficient to know that the interior heat does increase with the depth, a fact proved by a variety of experiments, and doubted only by those who wish to disbelieve it.

The earth is a reservoir of heat ; and this agent exists with an intensity sufficient to produce the phenomena ever attending volcanoes, earthquakes, and thermal springs. From the known effects of condensation, an increasing internal heat may be deduced, so that theory in this instance is confirmed by facts. There may be a modification beyond a certain depth in the ratio of increased temperature ; but should future experiments establish the authenticity of this supposition, many objections now made to the theory, with what show of truth and honesty we do not say, will be effectually answered.

Those who differ in theoretical opinions too often imagine their theories to be diametrically opposed ; but, when truth shall be discovered, it may be found that none of the causes zealously advocated by parties could of themselves produce the effects they are now supposed to explain. It is more than possible that neither internal heat, chymical action, nor electrical currents, could alone produce the volcanic phenomena ; but, acting together, and they are known to be in some degree dependant on each other, they may give birth to all the violent disturbances that agitate the surface of the earth.

We have now attempted to explain the most important facts and theories in relation to the interior of the earth. It is not to be denied that there is much uncertainty and error in many of the speculations indulged and defended by the geologists of the present day, or that more extensive investigations will disabuse their minds of the fallacies resulting from an imperfect view of nature. The human mind may be admirably adapted to deduce principles from the information communicated by the senses, but if that information be inaccurate or partial, it will produce erroneous principles. A