

correct and general. It becomes necessary, then, to make a list of those to which it does apply; and thus a great number of substances of all kinds become grouped together, in a class linked by this common property. If we examine the individuals of this group, we find among them the utmost variety of color, texture, weight, hardness, form and composition; so that, in these respects, we seem to have fallen upon an assemblage of contraries. But when we come to examine them closely, in all their properties, we find they have all one point of agreement, in the property of double refraction, (see page 23.) and therefore we may describe them all truly as *doubly refracting substances*. We may, therefore, state the fact in the form, "Doubly refracting substances exhibit periodical colors by exposure to polarized light;" and in this form it is found, on further examination, to be true, not only for those particular instances which we had in view when we first propounded it, but in all cases which have since occurred on further inquiry, without a single exception; so that the proposition is general, and entitled to be regarded as a law of nature.

(91.) We may therefore regard a law of nature either, 1st, as a general proposition, announcing, in abstract terms, a whole group of particular facts relating to the behavior of natural agents in proposed circumstances; or, 2dly, as a proposition announcing that a whole class of individuals agreeing in one character agree also in another. For example: in the case before us, the law arrived at includes, in its general announcement, among others, the particular facts, that rock crystal and saltpetre exhibit periodical colors; for these are both of them doubly refracting substances. Or, it may be regarded as announcing a relation between the two phenomena of double refraction, and the exhibition of periodical colors; which in the actual case is one of the most important, viz. the relation of *constant association*, inasmuch as it asserts that in whatever individual the one character is found, the other will invariably be found also.

(92.) These two lights, in which the announcement of a general law may be regarded, though at bottom they