

Again, there are instances of two circumstances preceding another circumstance. Now, is it to be concluded that these two circumstances together produce the effect, or just one of them ; and if one, which one? As an example, there are two drugs, each of which, administered separately, is capable of curing a disease. In administering, each drug is mixed with a third inert substance. This third substance, being the constant factor in each case, might be supposed to cause the cure. From this, it is learned that an effect may be produced by more than one cause, and that the way to ascertain the truth is by multiplying the number of cases and varying the drugs.

If a particular kind of food, taken by an individual in different states of health, in different climates and seasons and varied surroundings, always is followed by sickness, then with moral certainty it may be concluded that the food in question is the cause of the illness. But this conclusion could be arrived at only by watching the effects of the food under varied circumstances ; for if the circumstances were not varied it would be a question whether the indisposition was not caused by some other viand partaken of at the same time, or by adverse physical conditions.

Every cause produces its full effect ; but it must be borne in mind that the manifestation of this effect is subject to the proviso that there is no other circumstance which prevents its manifestation. It has been advocated that arsenic, applied to the pulp of a tooth, causes the death of the pulp by strangulation, owing to the inflammation which it sets up. Suppose arsenic in all cases produces inflammation of the pulp, then after its application we may always expect a devitalized pulp by strangulation, with the proviso above stated, namely, if no other circumstance prevents its manifestation. But in the case of an abnormally large apical foramen the inflammation will be present, but its manifestation, in the death of the pulp by strangulation, will be counteracted. So in all researches and observations it will be well to remember that every cause produces its full effect, and also that the manifestation of the cause may be absent owing to some counteracting influence.

There is an amusing example of non-observation—that is, omitting to observe some material circumstance—given in Dr. Paris' "Pharmacologia." He goes on to state: "Many of the absurd practices which have been deemed to possess medicinal efficacy have been indebted for their reputation to non-observance of some accompanying circumstance, which was the real agent in the cures ascribed to them. Thus, of the sympathetic powder of Sir Kenelm Digby: 'Whenever any wound has been inflicted, this powder was applied to the weapon that had inflicted it, which was, moreover, covered with ointment, and dressed two or three times a day. The wound itself, in the meantime, was directed to be brought together,