had always heard a rocket whiz, they inferred that the meteorite did likewise. It is proverbial that a story changes wonderfully as it passes from mouth to mouth, and this has been set down as the effect of moral depravity in mankind. But it is rather the effect of mixing up inferences with sensations. The student of nature, if he is to succeed, must learn, among other things, not to allow unconscious inference to take the place of observation.

ORDER OF NATURE.

The most careless observer of Nature must notice that some events take place in a regular order, and that some causes are always followed by the same effect; he must see, in short, that there is an *order of nature*, and that all things do not happen by chance. The careful observer of nature, aided by the labors of those who have gone before him, cannot but believe that *nothing happens by chance*. It is the province of science to investigate this order of nature. Much has been done, but much more remains to be done.

A LAW OF NATURE.

When we have discovered a fact concerning the order of Nature, we call a simple statement of this fact a *law of nature*. We state a law of Nature as fully and precisely as we are acquainted with the facts of which it is a statement. Further investigation may lead us to amend it, or even to substitute another for it. Thus, long ago, "Nature abhors a vacuum" was given as a law of Nature, and was based on such observations as had been made up to that time. But further observations, of which you will learn more hereafter, led men to abandon it.

A LAW OF NATURE IS NOT A CAUSE.

It is necessary to bear in mind that *a law of nature is not a cause*. When Newton, from seeing an apple fall in his orchard, was led, from further observation and powerful reasoning,