

and a moral end is hardly attainable in an uncivilized state of society.

SECT. II.

The general Constitution of external Nature.

THE more familiar objects of that external world by which man is surrounded are usually distributed into three kingdoms, as they are called; the *animal*, *vegetable*, and *mineral*: but for the purpose of this treatise it will be necessary to take into our account the phenomena of the *atmosphere* also.

The *atmosphere* principally consists of the *air* which we respire; (a form of matter so subtle, in all its states, as to be invisible;) together with a variable proportion of *water*, of which a part is always retained in close combination with the air; and, like the air itself, exists always in an invisible state. There are also diffused through the atmosphere those still more subtle agents, *heat* and *electricity*. But all these, though of so subtle a substance, are in their occasional effects the most powerful agents of nature. For, omitting the consideration of their silent but wonderful operation, as exhibited in the process of vegetation, and in many other processes less open to observation, let us consider the occasional effects of air in the violence of a tornado; or of water, in the inundation of a rapid river: or let us contemplate the effect of either an indefinite dimi-