

ed within an inappreciable instant, could be developed in detail and studied at leisure, and those forces which had previously exhibited themselves only in a state of uncontrollable intensity were tamed down, as it were, and made to distribute their efficacy over an indefinite time, and to regulate their action at the will of the operator. It was then soon ascertained, that electricity in the act of its passage along conductors, produces a variety of wonderful effects, which had never been previously suspected; and these of such a nature, as to afford points of contact with several other branches of physical inquiry, and to throw new and unexpected lights on some of the most obscure operations of nature.

(373.) The history of this grand discovery affords a fine illustration of the advantage to be derived in physical inquiry from a close and careful attention to any phenomenon, however apparently trifling, which may at the moment of observation appear inexplicable on received principles. The convulsive motions of a dead frog, in the neighbourhood of an electric discharge, which originally drew Galvani's attention to the subject, had been noticed by others nearly a century before his time, but attracted no further remark than as indicating a peculiar sensibility to electrical excitement depending on that remnant of vitality which is not extinguished in the organic frame of an animal by the deprivation of actual life. Galvani was not so satisfied. He analyzed the phenomenon; and in investigating all the circumstances connected with it, was led to the observation of a peculiar electrical excitement which took place when a circuit was formed of three distinct parts,—a muscle, a nerve, and a metallic conductor, each placed in contact with the other two, and which was manifested by a convulsive motion produced in the muscle. To this phenomenon he gave the name of animal electricity, an unfortunate epithet, since it tended to restrict inquiry into its nature to the class of phenomena in which it first became apparent. But this circumstance, which in a less inquiring age of science might have exercised a fatal influence on the progress of knowledge, proved happily no