

never to have acquired much general knowledge of electricity: Volta, on the other hand, had labored at this branch of knowledge from the age of eighteen, through a period of nearly thirty years; and had invented an *electrophorus* and an *electrical condenser*, which showed great experimental skill. When he turned his attention to the experiments made by Galvani, he observed that the author of them had been far more surprised than he needed to be, at those results in which an electrical spark was produced; and that it was only in the cases in which no such apparatus was employed, that the observations could justly be considered as indicating a new law, or a new kind of electricity.² He soon satisfied himself (about 1794) that the essential conditions of this kind of action depended on the metals; that it is brought into play most decidedly when two different metals touch each other, and are connected by any moist body;—and that the parts of animals which had been used discharged the office both of such moist bodies, and of very sensitive electrometers. The *animal* electricity of Galvani might, he observed, be with more propriety called *metallic* electricity.

The recognition of this agency as a peculiar kind of *electricity*, arose in part perhaps, at first, from the confusion made by Galvani between the cases in which his electrical machine was, and those in which it was not employed. But the identity was confirmed by its being found that the known difference of electrical conductors and non-conductors regulated the conduction of the new influence. The more exact determination of the new facts to those of electricity was a succeeding step of the progress of the subject.

The term “animal electricity” has been superseded by others, of which *galvanism* is perhaps the most familiar. I think it will appear from what has been said, that Volta’s office in this discovery is of a much higher and more philosophical kind than that of Galvani; and it would, on this account, be more fitting to employ the term *voltaic electricity*; which, indeed, is very commonly used, especially by our most recent and comprehensive writers.

Volta more fully still established his claim as the main originator of this science by his next step. When some of those who repeated the experiments of Galvani had expressed a wish that there was some method of multiplying the effect of *this* electricity, such as the Leyden phial supplies for common electricity, they probably thought their wishes far from a realization. But the *voltaic pile*, which Volta

² *Phil. Trans.* 1798, p. 21.

³ See Fischer, viii. 625.