

Priestley says,⁶ "makes a principal part of the diversion of gentlemen and ladies who come to see experiments in electricity," was first observed by Dufay and the Abbé Nollet. Nollet says⁷ he "shall never forget the surprise which the first electric spark ever drawn from the human body excited, both in M. Dufay and in himself." The drawing of a spark from the human body was practised in various forms, one of which was familiarly known as the "electrical kiss." Other exhibitions of electrical light were the electrical star, electrical rain, and the like.

As electricians determined more exactly the conditions of electrical action, they succeeded in rendering more intense those sudden actions which the spark accompanies, and thus produced the electric *shock*. This was especially done in the *Leyden phial*. This apparatus received its name, while the discovery of its property was attributed to Cunæus, a native of Leyden, who, in 1746, handling a vessel containing water in communication with the electrical machine, and happening thus to bring the inside and the outside into connexion, received a sudden shock in his arms and breast. It appears, however,⁸ that a shock had been received under nearly the same circumstances in 1745, by Von Kleist, a German prelate, at Camin, in Pomerania. The strangeness of this occurrence, and the suddenness of the blow, much exaggerated the estimate which men formed of its force. Muschenbroek, after taking one shock, declared he would not take a second for the kingdom of France; though Boze, with a more magnanimous spirit, wished⁹ that he might die by such a stroke, and have the circumstances of the experiment recorded in the Memoirs of the Academy. But we may easily imagine what a new fame and interest this discovery gave to the subject of electricity. It was repeated in all parts of the world, with various modifications: and the shock was passed through a line of several persons holding hands; Nollet, in the presence of the king of France, sent it through a circle of 180 men of the guards, and along a line of men and wires of 900 toises;¹⁰ and experiments of the same kind were made in England, principally under the direction of Watson, on a scale so large as to excite the admiration of Muschenbroek; who says, in a letter to Watson, "Magnificentissimis tuis experimentis superasti conatus omnium." The result was, that the transmission of electricity through a length of 12,000 feet was, to sense, instantaneous.

⁶ P. p. 47. ⁷ Priestley, p. 47. Nollet, *Leçons de Physique*, vol. vi. p. 408.

⁸ Fischer, v. 490.

⁹ Fischer, p. 84.

¹⁰ *Ibid.* v. 512.