

multate too many instances, he may delight himself for the thousandth time by igniting a fine wire of steel, in passing the electric current along it by means of the Voltaic apparatus §.

There are few individuals however who have commonly such magic instruments at hand : and, even if they had, it is probable that they would want both the leisure and inclination to preserve them in a state fitted to produce at any moment the intended effect ; for, though each successive year

§ It will not perhaps be deemed impertinent, to relate an instance of the sagacity of the late Dr. Wollaston, in connexion with the present subject. It happened to the author of this Treatise, at a comparatively early period of his life, to deliver a letter of introduction to Dr. Wollaston at a moment when that philosopher was engaged in conducting an electric current, by means of the Voltaic apparatus, through three portions of fine steel wire, differing from each other in diameter. With that vivacity of manner, which in him resulted rather from the simple consciousness of the acquisition of truth, than from the ignoble triumph of individual superiority, he asked which of those wires would first become of a red heat ; and being answered, at a hazard rather than from any reasonable ground of conjecture, that a red heat would perhaps first take place in the thickest of the three—" I expect it will," he said, " and that the finest wire " will never reach a red heat ; for I conclude that, from its extreme fineness, the heat excited in it will be dissipated by radiation so rapidly, as to prevent the accumulation of a quantity sufficient for its ignition." It need hardly be added that the conjecture was verified.

As an instance of the minute scale on which Dr. Wollaston was in the habit of carrying on his philosophical investigations, it may be mentioned that the preceding experiment was conducted in a single cell of a single and moderately sized Voltaic trough.