to the tail; they are separated from each other above by the dorsal muscles, in the middle of the body by the natatory vesicle, and below by a particular septum. The small organs lie over the great ones, finishing almost at the same point;. they are pyramidal, and separated from the others by membrane. The interior of all these organs presents a great number of horizontal septa, cut at right angles by others nearly vertical. John Hunter counted thirty-four in one of the great organs, and fourteen in one of the small ones, in the same individual. The vertical septa are membranous, and so close to each other that they appear to touch. It is by this vast quadruple apparatus, which sometimes in these animals is calculated to equal one hundred and twenty-three square feet of surface, that they can give such violent shocks. Mr. Nicholson thought that the *Gymnotus* could act as a battery of 1,125 square feet. Humboldt says that its galvanic electricity produces a sensation which might be called *specifically* different from that which the conductor of an electric machine, or the Leyden phial, or the pile of Volta, cause. From placing his two feet on one of these fishes just taken out of the water, he received a shock more violent and alarming than he ever experienced from the discharge of a large Leyden jar; and for the rest of the day he felt an acute pain in his knees, and almost all his joints. Such a shock, he thinks, if the animal passed over the breast and the abdomen, might be mortal. It is stated that when the animal is touched with only one hand the shock is very slight; but when two hands are applied at a sufficient distance, a shock is sometimes given so powerful as to affect the arms with a paralysis for many years. It is said that females, under the influence of a nervous fever, are not affected.

Humboldt gives a very spirited account of the manner of taking this animal, which is done by compelling twenty or