

## Further Investigations on the Function of the Electrical Organ of the Skate.

By

**Prof. Burdon Sanderson, M.D., F.R.S., and F. Gotch, M.A.**

DURING the month of September, 1888, we availed ourselves of the facilities afforded by the Laboratory for the purpose of continuing the investigations began by us the year before, of the function of the electrical organ of the skate. In the record of the work done by us in 1887 at St. Andrews, published in the *Journal of Physiology*, vol. ix, p. 137, we indicated several new lines of investigation which we hoped to pursue if the opportunity offered. Two of these indications we have now been able to fulfil satisfactorily, namely, those relating to the electromotive force of the shock, and to the way in which the function of the electric organ is controlled and influenced by the central nervous system. In the first of these inquiries, we used apparatus which was brought from the Oxford Physiological Laboratory, and temporarily fitted up in the room at Plymouth, which is set apart for physiological researches, and which we found well adapted for this purpose. For the second, a large number of experiments and consequently a considerable number of fish were requisite. Forty skates of various species (*Raja Batis*, *R. clavata*, *R. microcellata*, and *R. maculata*) were supplied to us and used in our researches, of which the result will shortly be ready for publication.

We desire to express in the strongest terms our appreciation of the advantages afforded by the Laboratory for physiological researches. We would also record our personal obligation to the Director for his uniform courtesy and untiring zeal in obtaining for us, in spite of considerable difficulties, the material required for our work.