

PART III.

BRAIN OF ELEPHANT SEAL AND OF WALRUS.

The Brain has been examined and described in only a few species of the Pinnipedia. As might naturally be expected, the brain of the Common Harbour Seal, *Phoca vitulina*, is the one which has most frequently attracted attention, and descriptions, often undoubtedly very brief, but in many cases illustrated by figures, have been given by Tiedemann, Vrolik, Daubenton, Cuvier, Leuret, Bellingeri, Owen, Broca, Krueg, Mivart, and Theodor. Rosenthal has written a short description of the brain of *Halichærus grypus*. Mivart has made a few observations on some of the convolutions of the brain of *Cystophora cristata*. Murie has written an elaborate description and figured the brain of *Otaria jubata*, and Mivart has figured and described some of the convolutions of *Otaria (Eumetopias) gillespii*. The only observation on the brain of the Walrus to which I can find a reference is by Sir Richard Owen, who states, in the course of an account of the dissection of a female Walrus which died in the Zoological Gardens, "the brain weighed 1 lb. 9 oz. avoirdupois; its convolutions and structure were described," but no further statement is made regarding them.

Numerous anatomists have, however, described in more or less detail the brains of various Carnivora, more especially the Dogs, Cats, and Bears; and through their researches the plan of construction of the Carnivorous brain and the arrangement of the convolutions have been worked out with considerable detail. The convolutions and sulci have also received names, though not unfrequently confusion has arisen, both through different parts being similarly named and through the same part being differently named by investigators. The affinity between the Pinnipedia and the proper Carnivora is shown by certain resemblances in brain-structure and arrangement, and as in the study of the brain in the Seals and Walrus the anatomist finds it necessary to refer frequently to the brain of the Dog, Cat, &c., it may be useful to give in this place references to the principal sources of information on the brain of this order of mammals.