

to the right and then to the left. More shot is then poured through the funnel until it reaches the foramen, when the thumb is placed on the shot and pressed into the cavity downwards and backwards; the measure of resistance offered to the thumb expresses whether in the previous operation the cranial cavity has been properly filled. Shot is again poured through the funnel until the skull is filled to the foramen magnum. It will be observed that I do not ram the shot in the process of gauging, and do not therefore overfill the cavity.

In cubing the contents the shot is not poured into a litre and a demi-litre measure, as was the practice of M. Broca, but through the same funnel as that used in filling the skull into the large 2 litre glass cylinder graduated in intervals of ten centimetres, devised by Prof. Ranke of Munich, and for a gift of which I am greatly indebted to that eminent anthropologist.<sup>1</sup> Each skull was gauged and cubed at least twice, once by myself, and once by my museum assistant Mr. James Simpson. The figures stated in the tables are the mean of the two measurements, and in no case was a measurement accepted where a difference occurred of more than 10 cubic centimetres. When such a difference arose, as occasionally took place from inadvertence in not attending to some of the necessary precautions, the skull was at once remeasured. I have arranged the skulls according to their capacities into three divisions, and have employed the same numerical classification as Prof. Flower; viz.: Microcephalic below 1350; Mesocephalic between 1350 and 1450; Megacephalic above 1450 cubic centimetres.

### BUSH RACE, SOUTH AFRICA.

Plates I., VI. Tables I., XVIII., XIX.

Two crania, both apparently males, were collected by the Challenger Expedition. In the same box were the pelvic bones and long bones of the limbs of one skeleton, but these were unfortunately so much injured that exact measurements could not be taken. No memorandum of the donor of these skulls has been preserved, but Mr. Murray thinks that they were presented by the late Dr. Bleek. Along with them were several stone implements shaped into lance heads, a large perforated stone ball, some fragments of pottery and two Ostrich eggs. I have examined along with these specimens five other Bush crania,<sup>2</sup> one of which was a child of about nine years, and the remarks which follow

<sup>1</sup> Prof. Ranke has since devised a reproduction of a skull in bronze, in which all the inequalities of the cranial cavity are reproduced, and which, from the imperviousness of its walls, both to water and mercury, enables either of these agents to be employed so as to obtain a definite standard of comparison. Prof. Ranke brought this bronze skull under the notice of the Deutsche Gesellschaft für Anthropologie, October 1882. See the *Correspondenz Blatt*, p. 137, in *Archiv für Anthropologie*, Bd. xv., 1884.

<sup>2</sup> One specimen was purchased for the University Anatomical Museum many years ago; a second, being the one figured in Plate I., was presented along with the skeleton by Dr. P. C. Sutherland and W. Proudfoot, Esq., of Natal. This man came from the mountains at the source of the Umzimkulu and St. John's river. He had been about twelve years