the double chevron-bones, which were at first thought to be peculiar to this form, although now known to be common to the entire group), which appears to be distinguished from all its relatives by the weakness of its dentition, the teeth being reduced to a small number, of the size and form of lead pencils, confined to the front of the jaws. Another remarkable feature, which may, however, have been common to other members of the group, is the position of the nasal aperture at the top of the skull, this being not improbably indicative of partially aquatic habits, an inference confirmed by the nature of the dentition of *Diplodocus*, which can scarcely have been adapted for anything else than a diet of soft and luscious water-plants.

Diplodocus was apparently one of the largest representatives of the group, the length of the skeleton, as mounted, being about 75 feet, while if the vertebral column were placed in a straight line the length would be some 10 feet more. The height at the shoulder is about 14 feet. The only rival to such bulk at the present day is presented by the skeleton of *Sibbald's* rorqual. That such a monster should have a skull considerably smaller than that of a large crocodile is one of the most remarkable facts made apparent by this restoration; while scarcely less noteworthy are the ex-

FIG. 1.—Restored Model of the Skeleton of *Diplodocus carnegii* as originally set up in the Museum at Pittsburg. From a photograph presented by Dr. Holland to the British Museum.

treme elongation of the neck and tail (the latter for several feet of its length being comparable to a huge whip-lash), and the shortness of the trunk. With the exception of the bones regarded as the clavicles, of which only one original specimen was found, and the position of which in the skeleton may be doubtful, there is full authority for every bone in the model; so that we are now practically as well acquainted with the osteology of these monsters as we are with that of crocodiles.

Mr. Carnegie's gift, which is due to the initiation of the King, is not only of immense value and interest to the man of science, but will likewise prove a great attraction to the ordinary visitor to the Museum. It is almost an appalling thought that the skeleton of a creature which lived at least several million years ago should have come down in such marvellous preservation to our own day.

THE MASAI OF EAST AFRICA.¹

THE Masai (the word should be pronounced with a stress on the first syllable—*Másai*) were first distinguished and described as an East African people by the missionary Krapf, who, with Rebmann, was the discoverer of Mounts Kenia and Kilimanjaro. Krapf, who commenced the exploration of equatorial East Africa in 1848, had begun dimly to perceive the re-

¹ "The Masai, their Language and Folklore." By A. C. Hollis. With an introduction by Sir Charles Elliot. Pp. xxviii+356. (Oxford: Clarendon Press, 1905.) Price 14s. net.

markable oneness in language of the Bantu tribes in the southern half of Africa from the Equator to Natal and Cape Colony, and he was therefore puzzled to find in the Masai a race intruding into Bantu East Africa which spoke a language absolutely different from the Bantu type.

At this period—let us say about 1850—the Masai had forced themselves on the attention of the Arab rulers of East Africa by their raids on the cattle of the Bantu tribes, raids which brought them occasionally to within sight of the island-town of Mombasa. In the 'fifties of the last century, nevertheless, the Masai had not established that reign of terror which during the 'sixties, 'seventies, and 'eighties did so much to obstruct the exploration of eastern equatorial Africa, and so long prevented the white man from travelling direct from the Mombasa coast to the eastern shores of the

FIG. 1.—Masai girls, showing ornaments. From Hollis's "The Masai."

Victoria Nyanza. Therefore, in the 'fifties of the nineteenth century, Swahili, Arab or Baluch traders managed to reach the east and north-east coasts of the Victoria Nyanza from Mombasa or Lamu. The stories they told to Krapf and other missionaries gave to Europeans the first hint of the existence beyond the Masai of tribes allied in speech and physical characteristics and habits. During the 'seventies the Masai pushed their raids further and further south, until they were almost heard of—so to speak—in the regions immediately to the north of Lake Nyasa. In this direction they were ultimately checked by the sturdy resistance of the Bantu Hehe people, a vigorous race that long resisted German dominion in the same territory, a race made more warlike and coherent by a slight infusion of Zulu immigrants from the south. To the south-west the Masai were checked by the warlike Wagogo, to the west by the distantly allied tribes of Lumbwa and Ja-luo, and to the north by the Galas and Somalis. It is possible, however, that but for the eventual interposition of the European they might have

subdued the Bantu coast people and the Arab half-breeds to the shores of the Indian Ocean.

All observers of the Masai have noted their superiority in physical appearance to the pure-blooded negro. There has evidently been a good deal of intermixture, especially during the last three decades, with women of Bantu race, and the original Masai stock itself is only one of the many hybrids between the Caucasian and the negro; but still the average man or woman of Masai race is a negroid rather than a negro, with a skin of coppery-brown, not black,¹ with a more defined bridge to the nose and a better developed chin than the ordinary negro possesses. They are, however, far more negro in appearance than, for example, the Hamitic (Hima) aristocracy of the lands lying to the north, west and south of the Victoria Nyanza; yet they retain a larger infusion of Caucasian blood (due, of course, to Hamitic intermixture) than the pure type of Nilotic negro, to which in other respects they are nearest allied in origin, language, and, above all, in habits and customs.

FIG. 2.—Masai warriors of various "ages" and "districts," each with the shield of his "age" and "district." From Hollis's "The Masai."

Now that our knowledge of eastern equatorial Africa is so extensive, we realise that the Masai are no isolated phenomenon in racial distribution, but are simply a southward extension of the Nilotic peoples. They probably originated several hundred years ago in the northern part of the present Uganda Protectorate, in the mountainous country between the present abode of the Lotuka tribe (the nearest allies of the Masai in language) and the Turkana peoples to the east. In this region they were simply one of the many blends between the Hamitic (Gala) invaders of equatorial Africa and the Nile negroes. The writer of this review, in his work on the Uganda Protectorate (p. 841), has computed that the proportion of Caucasian intermixture in the case of the Masai is from one-quarter to one-eighth. Their language, which for classification

may be grouped with the Lotuka, Elgumi or Wamia, Bari (on the White Nile), Karamojo, and Turkana, is, together with the nearly allied group of the Nandi-Dorobo, distinctly, though distantly, related to the well marked Nilotic family of negro languages which includes the Dinka, Shiluk, Dyur, Acholi, &c., and links on to the negro languages stretching away to Wadai and Lake Chad. In the Masai language, as in the kindred tongues of the Masai group, there is distinct evidence of Somali or Gala influence. This may be due to the ancient intermixture of blood between the Gala and the Nilotic negro which formed the Masai, and also to the contiguity of the Masai in some of their wanderings with outlying groups of Hamitic people.

For the first time the civilised world has been presented with an authoritative work on the Masai language, customs, and folklore, by Mr. A. C. Hollis, of the British East Africa Protectorate. Nothing of the kind worth serious notice has appeared since the works of Krapf and Erhardt.

Though a Masai dictionary remains to be composed which shall give a full vocabulary of this interesting language, the book under review can scarcely be bettered in fulness or correctness as a grammatical study. Equally admirable is the collection of Masai legends. These are not given in the form of generalised "stories" with a Hans Andersen flavour; but the original is first of all presented in the Masai with an interlinear translation, and then follows a correct but more readable version in colloquial English. Of necessity, a work like this is more interesting to students than to the general public (though it is admirably illustrated with appropriate photographs). But for the students of African ethnology and languages it is a work of permanent value; it is the authoritative study of the Masai people; and it is satisfactory to record that the author confines himself mainly to facts and not to theories, and that Sir Charles Eliot in his introduction does not trace the origin of the Masai to the ten lost tribes of Israel. A

recrudescence of this irritating mania having recently appeared amongst German writers on Africa who ought to have known better, it is a relief to find that English authorities on African questions can still retain their sanity on the subject of the proper place in history and ethnology of that mixed Armenian, Dravidian, and Semitic people which we call by the racial name of Jew.

H. H. JOHNSTON.

NOTES.

THE anniversary dinner of the Royal Geographical Society on Monday was really a complimentary banquet to Sir Clements Markham, the popular and active president of the society, who has just retired from office after twelve years of zealous service. During this period Sir Clements Markham has watched over the affairs of the society, and has guarded the interests of geography, with a devotion

¹ Owing to their habit of smearing their bodies with a red clay, they strike the casual observer as being a red-skinned rather than a brown race.