

ZOOLOGICAL NOTES.

A SHORT time ago two tusks of an African elephant were noted in SCIENCE, weighing respectively 224 and 239 pounds. Messrs. Tiffany & Co., in whose rooms these tusks are now on exhibition, have kindly given the following measurements of these huge tusks: Length 10 feet and $\frac{3}{4}$ inches and 10 feet $3\frac{1}{2}$ inches; circumference 23 inches and $24\frac{1}{2}$ inches. Sir Samuel Baker gives the weights of the two largest tusks that came under his observation as 188 and 172 pounds, but says that the average weight of a pair of tusks of the African elephant is 140, one being usually about ten pounds heavier than the other.

The weight of the tusks of the extinct *Elephas ganesa* is unknown, but so far as the dimensions can be taken from a cast the measurements are as follows: Length 12 feet 4 inches, circumference 2 feet 3 inches.

One of the largest, if not the largest, of Mammoth tusks is one brought from Alaska by Mr. Jay Beach of Oakland, Cal. This is 12 feet 10 inches long and $22\frac{1}{2}$ inches in circumference and weighs about 200 pounds. The average Mammoth tusk is from 7 to 9 feet long and 60 to 80 pounds in weight.

The tusks of the Mastodon seem as a rule to be a little more robust than those of the Mammoth and to taper more rapidly, a large tusk is 9 feet 4 inches long and 23 inches in circumference.

A large deposit of fossil bones has been found near Kimmswick, Mo., and excavations are being made by a company formed for that purpose. Many bones of the Mastodon have been exhumed as well as those of Bison and other animals. The locality is thought to have been an ancient salt lick about which the animals became mired as at Big Bone Lick, Kentucky.

A miner has filed a claim in Death Valley, California, for the purpose of excavating the bones of three Mastodons which were discovered in the spring of this year and another claim has been taken out for mining a Pliocene whale in southern California.

DR. J. L. WORTMAN recently called my attention to the fact that text-books of comparative anatomy state that the lachrymal bone is

wanting in pinnipeds, at the same time saying that his own belief was that examination of good specimens would show that this bone was present in young animals. Material in the U. S. National Museum enabled me to completely verify Dr. Wortman's prediction, for the lachrymal is present in foetal or very young fur seals, *Callorhinus*, although at an early date it fuses so completely with the maxillary that, as a rule, all traces of it are lost within a month or six weeks after birth.

The lachrymal is a thin, scale-like bone, applied to the posterior face of the orbital portion of the maxillary and in a small foetus there is a distinct lachrymal process and lachrymal foramen, the bone projecting slightly beyond the maxillary. At this stage the growth of the lachrymal is arrested and the maxillary soon comes to project beyond it, while later on the two bones fuse and all trace of the lachrymal is lost. The same thing evidently occurs in *Otaria* and *Eumetopias*, as in skulls of the young of these two genera the lachrymal is indicated by a suture which is completely obliterated in adult animals.

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BOTANICAL NOTES.

GENERA OF AMERICAN GRASSES.

PROFESSOR LAMSON-Scribner, Agrostologist of the United States Department of Agriculture, has issued as Bulletin No. 20, a useful little book of about two hundred pages, bearing the title of 'American Grasses, III,' containing descriptions of the tribes and genera of the grasses of North America. Each one of the 137 genera is illustrated by drawings of the plant with enlarged details of spikelets, flowers, grains, etc. These genera are distributed among the thirteen commonly recognized tribes as follows: Maydeae, 4; Andropogoneae, 9; Osterdamiae, 4; Tristegineae, none; Paniceae, 11; Oryzeae, 7; Phalarideae, 3; Agrostideae, 26; Aveneae, 8; Chlorideae, 13; Festuceae, 40; Hordeae, 11; Bambuseae, 1. Ample keys make it easy to distinguish the tribes and genera, and the descriptions of both are full and apparently well drawn. This volume closes with a bibliography of works cited on its pages, and an index of Latin and English names.