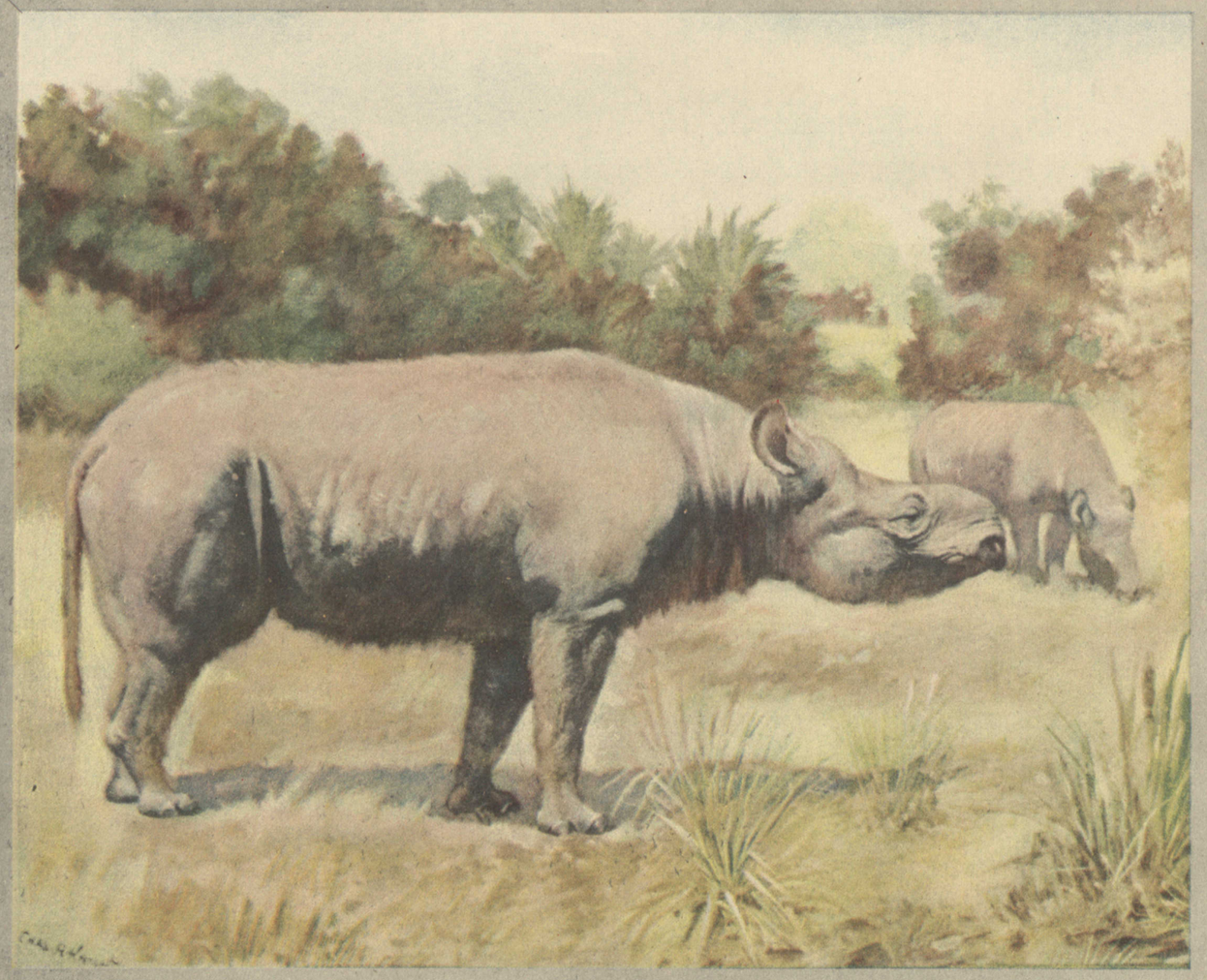

Restorations of

PREHISTORIC AMERICAN ANIMALS

in the American Museum of Natural History

By CHARLES R. KNIGHT, under the direction of Professor HENRY FAIRFIELD OSBORN. Descriptions by W. D. MATTHEW, F. R. S., F. G. S. A., Curator of the Department of Vertebrate Paleontology.

THE American Museum restorations are made by an able and well known animal artist. They are based on complete skeletons which have been very carefully set up, and from which the anatomy, relationships and habits have been deduced and thoroughly studied by Professor Osborn and his staff. The color of the hair and of the skin is judged by the nearest present day relative of the animal. No pains have been spared to make the restorations as nearly true as modern science and artistic skill can combine to make them.

The three selected for this page represent some of the characteristic animals of the Oligocene or middle period of the Age of Mammals in North America, as they appeared on the Great Plains and rivers of the West, in Wyoming, Nebraska and the Dakotas. They were quadrupeds quite different from any now extant. Some belong to extinct races, others are distant ancestors of animals of to-day. As nearly as can be estimated, they lived from two to four millions of years ago. At all events, their existence dates to the time when man's remote ancestors were just emerging from the ape stage of evolution—long before the time of man.

Hornless Rhinoceros

(Cænopus)

THIS was a true rhinoceros, but much smaller than any of the living species (being about the size of a deer), and without horns. It was one of the many now extinct species of rhinoceroses that inhabited the United States during the Age of the Titanothere. It was an extremely swift and graceful animal, totally unlike the existing bulky rhinoceroses. Yet that it was a rhinoceros is easily recognized by the peculiar pattern of the grinding surface of its teeth, different from that of any other animal. The ancient rhinos were a very large and varied family, great and small, most of them hornless, inhabiting all the northern continents. They disappeared from North America before primitive man invaded this continent, but in Europe and Northern Asia they survived longer and were contemporary with prehistoric man. To-day they are limited to India and the East Indies in Asia, and to Central Africa, and all of them now live in a tropical climate. But some, at least, of the extinct rhinoceroses lived in a cold or even arctic climate, and were clad in a heavy coat of hair. Carcasses of these arctic rhinoceroses have been found in the frozen tundra of Northern Siberia, preserved like the fossil mammoths in the permanently frozen soil of that region. Only a few traces of this hairy covering are left in the modern species, but it seems probable that the primitive rhinoceroses were at least partly hairy, and the artist has so represented this one.

Giant Titanothere

THE Titanothere (Titan-beast) was a huge animal, nearly as large as an elephant, fourteen feet long and eight feet in height. He is depicted on the plains, with the ancient Black Hills of Wyoming in the distance. He looks in the restoration much like a big Indian rhinoceros, save that he carries a pair of horns instead of a single one on top of his nose; he has four toes, instead of three, on the front feet, and the teeth—especially the grinding teeth—are quite different from those of the rhinoceros. In fact, the animal was more related to the horse or the tapir, and the resemblances to the rhinoceros are due to similar habits of life. He was the grandest product of the North American plains, and it will be recognized that in bulk he does credit to their generous nurture. Unfortunately, he was the last of his race, and died out about the middle of the Oligocene period, from two to four millions of years ago.

Entelodon

The "GIANT PIG"

ANOTHER contemporary of the Titanotheres, belonging to the river borders and forests, was the "Giant Pig," which stood six feet in height and measured from twelve to fourteen feet in length. It is difficult to find a suitable name for this nondescript creature. As may be seen from the restoration, only his head was piglike, his legs and general proportions being much more like those of a bison. It is only in the skull and teeth that there is a vague general resemblance to the pig. Nor was he related to the pig family, although his food and habits were probably more or less similar. That is to say, he was omnivorous, but lived principally on fruits, nuts and succulent roots and tubers. His long snout and powerful front teeth would be chiefly used in securing such food, but probably, like the pig, he was by no means averse to animal food when he could get it. The front teeth are so much like those of carnivorous animals that it is not unlikely that to some extent he attacked and devoured other beasts, although his limbs and feet are like those of cattle, camels or other large herbivora—quite different from those of any beast of prey.

THE Three Toed Horse and the Sabre Tooth Tiger, the two prehistoric monsters remaining of the five to be presented in this series, will appear in The Tribune Colorgraphic Section next Sunday.