

CHAUTAUQUA EDITION

POPULAR ZOOLOGY

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*"And Nature, the old nurse, took
The child upon her knee,
Saying, 'Here is a story-book
Thy Father hath written for thee.'"*
Longfellow's "Tribute to Agassiz."

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has a concave forehead, small ears, and the enamel of the teeth arranged in transverse bands. The *African* species has a convex forehead, enormous ears, and the enamel of the teeth lozenge-shaped. Both sexes have tusks, the male sometimes being six feet long and weighing a hundred pounds.

ORDER UNGULATA (ŭng gŭ lă'tá).

The distinguishing feature of this extensive order is, that the toe-nails form hoofs. Those having the number of toes even are styled *Artiodactyls*, and odd, *Perissodactyls*. The *Artiodactyls* (ăř shĭ ō dăk'ŭlŭ) that chew the cud are termed *Ruminants* (rŭd'mĭ năntz). The digestive apparatus is complicated, since vegetable matter is ordinarily taken as food, and must be considerably changed before it can be assimilated by the animal tissues.

The several genera offer a great range of variety in structure as well as in habit; each characteristic, however, being dependent largely upon some peculiarity in a particular locality.

being narrow, it was forced to bend its head so as to let the beam pass endways. The exertion and inconvenience led it to cry Urmph! Urmph! in a dissatisfied tone, and it was this sound which had alarmed my horse. The elephant, on seeing us halt, stopped, reconnoitered us for a moment, flung down the timber, and forced itself back into the brushwood to let us pass. As my horse still hesitated, the sagacious creature pressed still farther one side, repeating its cry of Urmph! in an encouraging tone, as if bidding us to come on. Finally my horse did so tremblingly, and when we were by, the elephant came out, lifted the timber, balanced it on its tusks, and resumed its march, snorting discontentedly as before."

Mr. Hornaday says: "The elephant swims better than any other terrestrial quadruped," and in confirmation quotes from "Thirteen Years Among the Wild Beasts of India," by G. P. Sanderson, as follows: "A batch of seventy-nine" (elephants) "that I dispatched from Dacca to Barrackpur, near Calcutta, had the Ganges and several of its large tidal branches to cross. In the longest swim they were six hours without touching the bottom. After a rest on a sand-bank, they completed the swim in three more. Not one was lost. I have heard of even more remarkable swims than this."—"Two Years in the Jungle," CHARLES SCHIMMER'S SONS, 1886.

The order can be tabulated by a comparison of the hoofs and horns:

UNGULATA.	Pe ris so dac'tyl.	THREE TOES.....	<i>Tă' pîr,</i> <i>Rhî nêc' ă ros.</i>	
		ONE TOE.....	<i>Horse.</i>	
	Artiodactyl.....	FOUR TOES.....	<i>Pêc' cã rî.</i> <i>Hog.</i> <i>Hîp pô pôt' ă mas.</i>	
		TWO TOES. RUMINANTS.	Without horns.....	<i>Camel.</i>
			Horns of solid bones, naked.....	<i>Deer.</i>
			Horns of solid bones, covered with skin.	<i>Gă răf'c'.</i>
			Horn core only of bone, shell persistent.	<i>Ox.</i>
			Horn core only of bone, shell deciduous.	<i>Prong-horn.</i>

The *Tapir* (tă'pîr) links the artiodactyls and perisso-

FIG. 302.



Tă' pîr us a mer' ă cî' nus. (f.)

dactyls, its fore feet having four toes and its hind feet three. Flight being its only means of defense, the head, covered with hard skin and shaped like a conical wedge, is adapted for clearing a way through tangled brush-wood. The

uniform black color of the South American Tapir is in striking contrast to the white back of the Indian.

The *Rhinoceros* has a hard, naked, rough skin, laid in large folds, and so elastic that a bullet or spear-hole im-

FIG. 303.



Tă' pîr us bi cî' or. Indian Archipelago. (f.)

FIG. 364.

*Rhâ nêc' ros u ni côm' is.* One-horned Rhinoceros. India ($\frac{1}{3}$.)

mediately closes, thus stanching the flow of blood. The horn is composed of agglutinated hairs, and being attached only to the skin, is movable; when, however, the

FIG. 365.

*Rhâ nêc' ros bi côm' is.* Two-horned Rhinoceros Africa. ($\frac{1}{3}$.)

animal is enraged, it becomes fixed, as though part of the bone itself. Individuals attain the weight of 6,000 pounds.

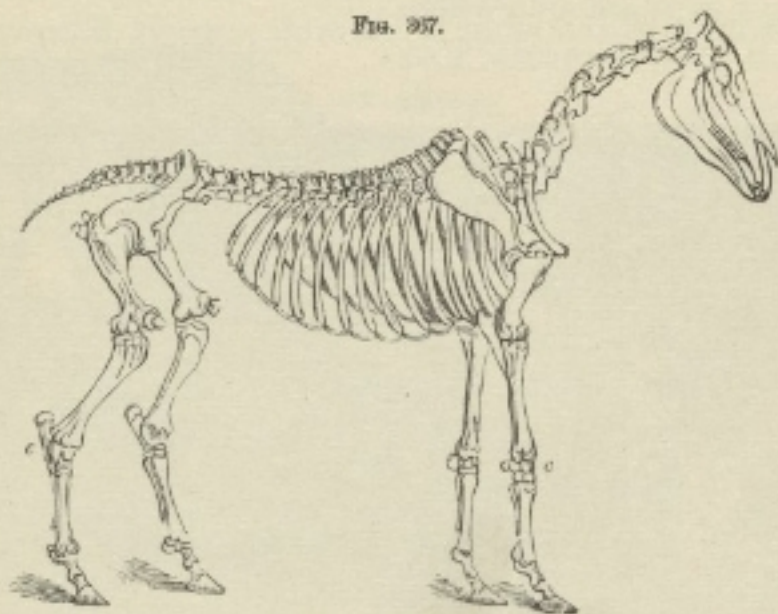
FIG. 396.

*Hyrax syriacus*. Daman. (1.)

Closely allied to the Rhinoceros in structure is the *Hyrax* (hī'rāks), the only genus of the order *Hyracoidea* (hī-rā koid'é ā). The *Daman* (dām'ān), in its various species, is a rabbit-like animal, found

in Syria, Mozambique, and Southern Africa. A timid creature, it hides in the clefts of the rocks, and is, doubtless, the Coney (kō'nī) of Scripture (Proverbs xxx. 26).

FIG. 397.



Skeleton of Horse.

Animals allied in structure to the Horse have a single hoof* to each foot, the leg being so constructed

* This specialization not being often considered, what are more properly the wrists and ankles (c) are generally spoken of as the "knees."