

WHERE UNCLE SAM HOUSES WILD ANIMALS

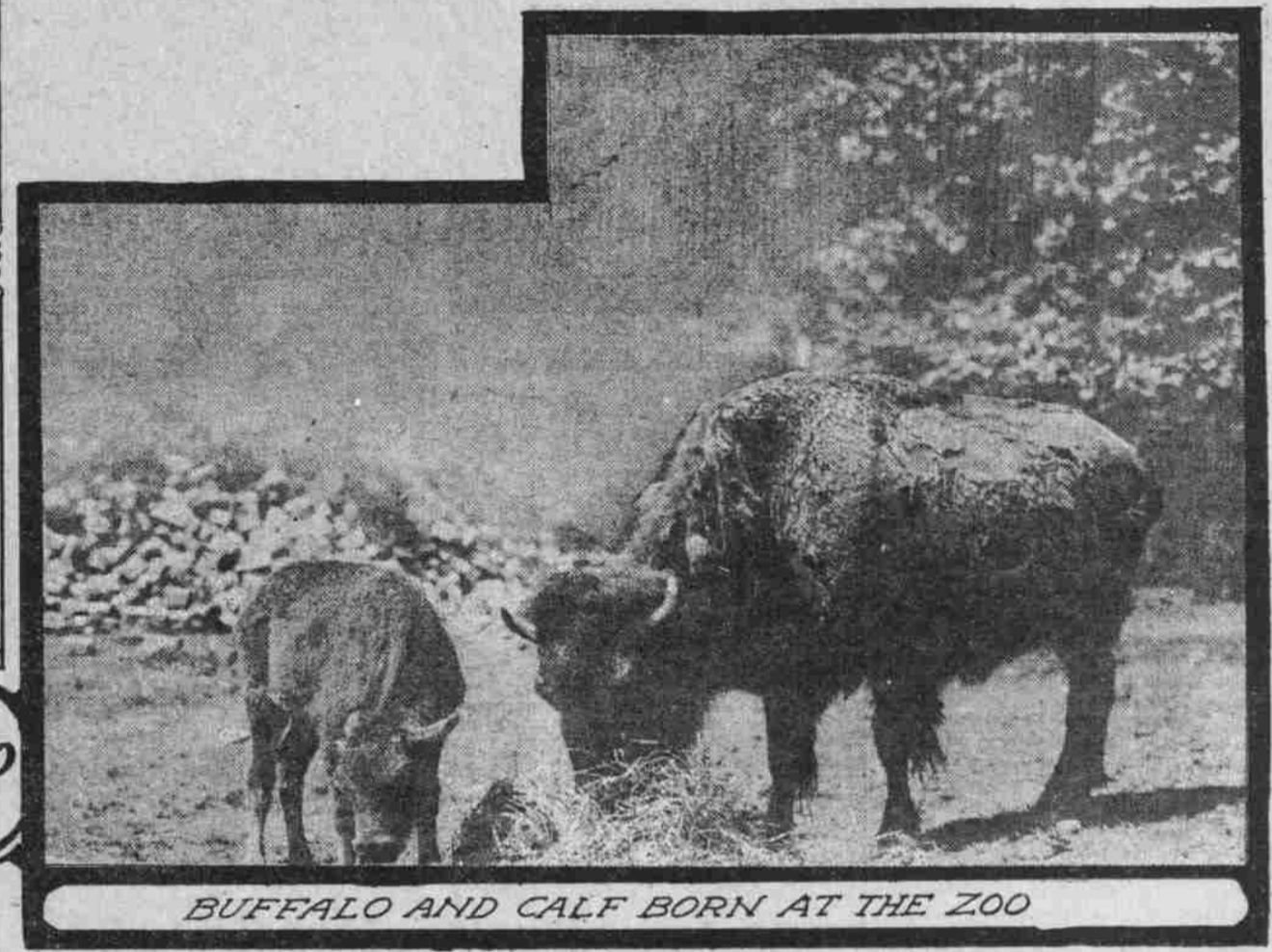
THE NATIONAL ZOO AT WASHINGTON HAS 2,000 CREATURES, MOST OF WHOM ARE IN NATURAL SURROUNDINGS.



THE ALLIGATOR



YOUNG ROCKY MOUNTAIN SHEEP



BUFFALO AND CALF BORN AT THE ZOO

NOT long ago Ras Makonnen, Governor of Harrar Province, Abyssinia, after the manner of old-world potentates presented to the United States a rare species of zebra. With the zebra came a lion, and later a pair of ostriches was shipped from the same source. From Sir Reginald Wingate, the successor to Lord Kitchener as Governor-General of Sudan, there has come another lion, and from the Governors of states in Brazil such as the Governor of Para and the Governor of Amazonas, the United States has accepted a number of South American animals. Within a fortnight Mr. Nelson, of the Department of Agriculture, shipped to Washington two Mexican tiger-cats and a number of rare forest birds, the gift of Mr. Carlos H. Jones, of Campeche, Mexico.

The international courtesies exchanged, it is not generally known what becomes of these animals. The future of many other beasts and birds which in one way or another, through consuls or department agents come into the possession of the United States Government is not usually followed up. To whose charge are they given and how do they pass the rest of their lives?

Twenty years ago they would have been turned over to some private menagerie, or housed in crude wooden structures back of the Smithsonian Institution at Washington where zoologists and biologists could study them at close range. Perhaps the daily sight of these temporary structures had something to do with the purpose the late Dr. S. P. Langley, secretary of the institution, took steps to carry out at that time to found on the outskirts of Washington a National Zoological Park.

It was not an easy task to convince Legislators why they should pay to "have the Nebraska elk and Florida alligators cooped up." In 1890, however, a bill was finally passed through Congress to establish a zoological park for the "advancement of science and the instruction and recreation of the people," and also as a haven of refuge where those "native animals" that were threatened with extinction might live and perpetuate their species in peace.

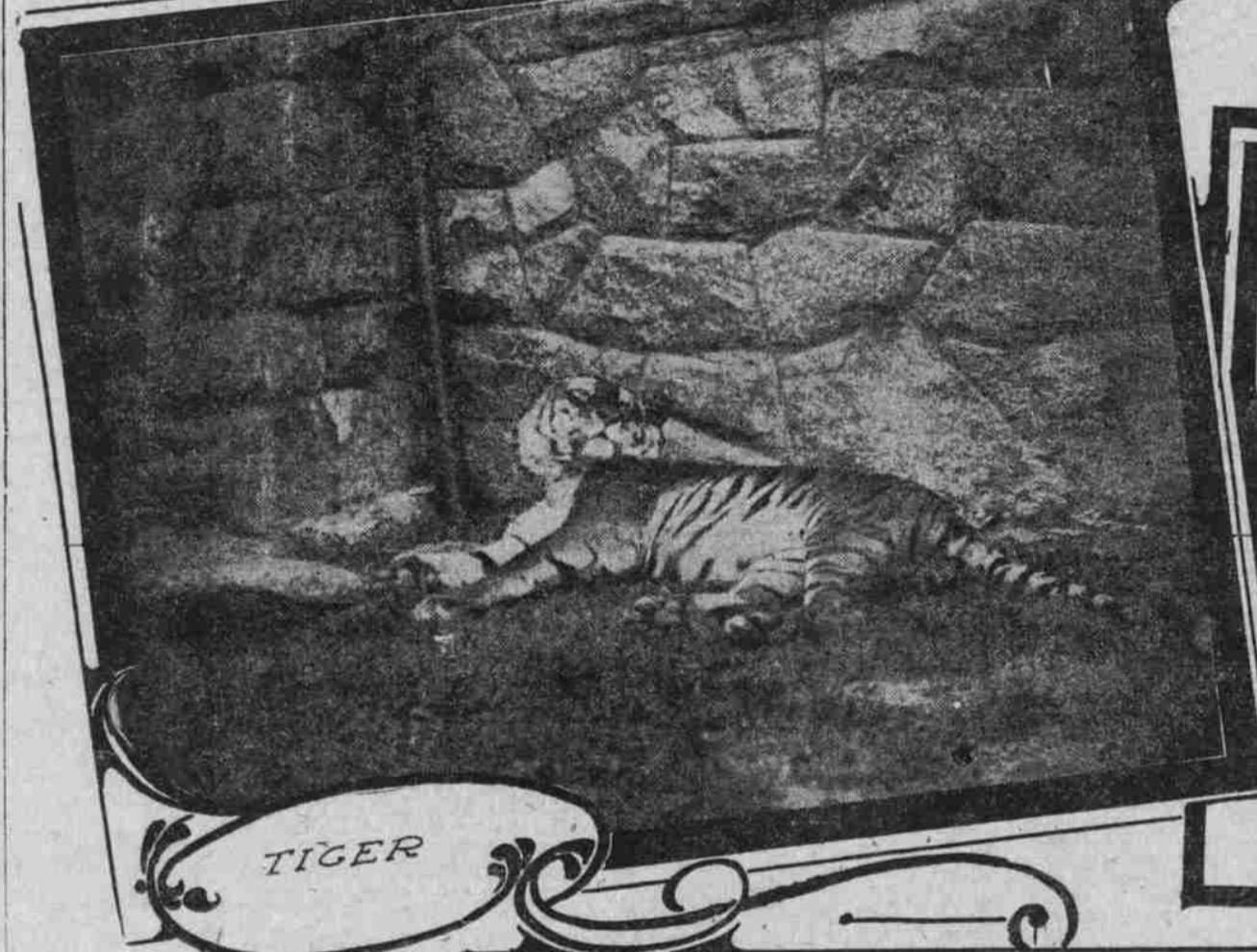
The bill allotted \$200,000 for the purchase of land and building. The few animals caged back of the Smithsonian Institution were turned over to new quarters and the administration of the National Zoo became a branch of the Institution's work.

Animals in Natural Surroundings.
Now a hundred and sixty-seven acres of hilly, woody land two miles from the center of Washington is the final home of nearly every beast that comes into the possession of the United States Government. There is no law making it the only depository for such gifts, but as a matter of fact, very few are sent elsewhere.

An idea of Secretary Langley, when he founded the Zoo, was to furnish for the animals surroundings as nearly like their natural homes as possible. The idea was a new one at the time. The few menageries in the country had not the facilities to execute any such plan. He opposed any too evident artificiality in the architecture of the grounds. He wished the National Zoo to be a natural park in every mode practicable. The large acreage helped him in this course, for our Zoological Gardens are 3 1/2 times as large as the celebrated Tiergarten at Berlin and four times as large as the Zoo at London.

Since the National Zoo was founded over 200 animals have been housed here, and during the last few years the collection has averaged about 100 birds and beasts at a time. The animals thus gotten together have come, necessarily, from very varied sources. Bison sent by "Buffalo Bill," polar bears brought down by adventurers from the far arctic regions, lions from Sudan, snakes from Manila and Cuba, peculiar birds from China, gifts from foreigners through Consuls, and other Government agents, besides any rare species for scientific study purchased or exchanged by the Zoo officials, make up the great animal family.

Not a Faked Story.
If the lives of some of these beasts could be put into story an interesting volume would result. As it is, Head-keeper Blackburn has many a little yarn about their doings. He will invariably point out two healthy, rolling bear cubs from Canada which weighed when they arrived, not more than two pounds each. These, he insists, he has brought up entirely on the bottle. Near them sit a big, passive grizzly from Yellowstone Park who, when the



TIGER

keeper calls "Dooley," looks up and slouches lazily forward to the bars. Dooley had been a pet, when a cub, of the owner of a large hotel in the Yellowstone. He was captured in the Spring, and chained at a safe distance from the kitchen where he could get the dainty morsels left by the guests at dinner. Dooley lived contentedly all Summer, receiving in a philosophical way the attention of visitors, but the day before the hotel closed in the Fall, he heeded the call of the wild, slipped his collar, and went roaming the mountains. Curiously enough, when the Spring again arrived preparations were being made to open for the Summer, to the terror of the servants Dooley ambled up with the air of a previous owner. He had grown considerably during the Winter; therefore it was thought, safest to trap him and send him to Washington.

The animals are not always peaceful at the Zoo. A buffalo battle between a young and an old bull several years ago is a classic in the annals of the park. More recently the usually sleepy crocodiles have had differences which must be settled by physical combat. A vicious contest resulted in the complete severance of a leg of one of them before the keepers could interfere. With much trouble the big beast was placed on a thick plank and wrapped round and round with rope. Only when the beast was thus helpless did the keeper dare pick up the foot and sew it back into place. A plaster of paris cast the keeper thought would hold it. So it would, if several weeks afterwards the rivals had not again found a difference which ended in the injured foot, plaster of Paris cast, sewing and all being again snapped through. Minor surgical operations, often necessary among so many animals, usually result successfully.

One Monkey's Antics.
The antics of the monkeys are not less popularly amusing than they are interesting from a scientific point of view. The keeper tells of a young South American monkey which was placed near several old-world cousins with large mouth pouches. The youngster, trying to imitate his elders of another tribe, forced a big Brazilian nut into his cheek in such a way that it could be got out only by cutting from the outside. The operation was performed and the nut sewed up, but the stitches bothered the little fellow. He pulled them out and was surprised to find that he could now feed through another mouth. Just like a magician, the keeper says, he formed an audience of his companions and, to their great amazement, kept passing a piece of hay

and a small nut through the newly-made opening. It was necessary to lock the little fellow by himself where he could not perform, and even to tie his hands before he would let the wound heal. It is by such incidents as these that some of the animals relieve the monotony of their lives of captivity. For in every case it has not been found compatible with safety to carry into accomplishment the plan for constructing natural surroundings. Some of the animals, to be sure, can be held in a setting somewhat similar to that of their wild life. The buffalo has his rolling plain, the deer his clump of shrubbery, his stream and hillside, the bear has his cave and swimming pool, the seal his tank and sunning spot, the peacock is allowed the freedom of the whole park where he can display his plumage and select his nesting place, the raccoon has his tall dead tree, the colony of beavers has its stream and fallen timber, and half a hundred varieties of birds fly about, as if in freedom, in a "flying cage," the

size of three or four dwellings. But the lions and the tigers, the leopards and the pumas and other carnivorous beasts, must be carefully penned in a house by themselves, with outdoor cages attached for fresh air in the Summer. The snakes and monkeys must be confined, and there is no jungle for "Dunk," the big elephant, to roam in. Opportunities for providing more roomy quarters for a number of the beasts are still many. These opportunities will be grasped as soon as Government appropriations, to the minds of those in charge, justify the expenditure. Built from the current funds of the park, there has recently been opened a "mammal house," which embodies the latest ideas in the housing of animals.

Where Animals May Be Studied.
The execution as far as possible, however, of the original idea is invaluable from a scientific point of view. For the Zoo is designed not alone to afford amusement and recreation to Washington and its thousands of annual visitors. To the student of biology, of zoology, of ichthyology, and many allied subjects, the park affords material for original research in a form probably more available than any other collection in the world. The animals, even those born in the grounds, retain to a remarkable degree the habits of the wild. They learn that protected from men, they may live to a certain extent their own lives among men. An investigator may here study the danger signals of the startled Virginia deer, the burrowing instincts of the prairie dogs, or the habits of the diving cranes and pelicans.

The object of furnishing here a haven of refuge where the native animals threatened with extinction might live and perpetuate their species in peace, has, it must be confessed, not met with as great success as was at first hoped for. It has been physically impossible to provide for the buffalo a range as large as his natural one, and the excitement of the hunt for food cannot be furnished. The surroundings are, of course, in many ways different, more perceptibly so to the animals than to the men who have studied them. And it is a known fact among zoologists that, in order to perpetuate their species successfully, some beasts must be allowed



PELICANS AND CRANES

to a great degree their natural freedom. Not only in their living state are the animals valuable for scientific study. But when, in the course of Nature or by accident, any of them die, their remains are turned over to the experts at the National Museum, who may investigate the structure of their bones or the symptoms of any disease they may have contracted, or use their skeletons and skins for exhibition purposes.

The opportunities afforded at the Zoo for experimental breeding for industrial

purposes have not as yet been utilized extensively. The energies of Superintendent Frank Baker and other officials have been devoted to housing the animals, properly caring for them, and beautifying the grounds, leaving industrial experiments to the Department of Agriculture. The field opened for the future, of developing perhaps stronger beasts of burden or industrial animals better capable of resisting disease is a large one in which a single success would offset very many failures.

Eggs Were Put Up for Years

Only Small Per Cent of Them Turned Out Bad.

THE egg which appears so innocently upon the breakfast table may by reason of commercial ingenuity be anywhere from several months to several years old. This knowledge led to an investigation by the Department of Agriculture, and the result is favorable to the use of egg preservatives. Said one of the department experts: "I have examined a very large number of eggs preserved in water glass. In general I found the eggs to be of good quality, and they had not been preserved under the best conditions, either, as they were not placed in the water glass solution on the day on which they were laid, but were collected in the country and sent into town in large lots, and were two or three days old before preservation. "As might have been expected, some of these eggs were bad, but the proportion was not large. In one instance out of 34 dozen eggs preserved between April and June and sold between October and December only five dozen, or 15 per cent, were bad, and the majority of these were broken or cracked. "These preserved eggs are attractive in appearance, as the shells are very clean and fresh looking after the water glass is wiped off. Even those which have been several years in water glass have a fine, fresh appearance. "Another advantage of preservation in water glass over certain other methods is that the contents of the egg do not shrink through evaporation. The eggs therefore do not rattle when shaken, no matter how old they are. The cost of preservation is very small. "It was found that eggs which had been kept in water glass for a few months could hardly be distinguished in appearance, flavor and smell, either raw or cooked, from what are called fresh eggs,

that is, fresh eggs of the commercial sense, which are eggs free from decomposition or taint, but several days old. A really fresh egg only a few hours laid is easily distinguished in flavor and appearance when cooked from the fresh egg or preserved egg and is known as the new laid egg. The eggs which had been preserved in water glass for about six months tasted and smelted like well-kept eggs a few days old. "I found that as eggs get older a distinct change occurs which can be appreciated both by the eye and the palate. Eggs which have been three or four years in water glass are easily recognized. "The white becomes pink in color and very liquid. The egg acquires a slightly peculiar taste which suggests soda. At the same time, even when 4 years old, the eggs had no pleasant taste or smell, and the white coagulated in cooking. "Though there was a slight characteristic odor when the eggs were cooked, it was not a stale or bad odor by any means, and did not at all suggest sulphurated hydrogen. The changes in the preserved eggs take place very gradually. At one year old they are hardly noticeable; at two years they are distinct, but not so distinct as at three or four years old. "Water glass is a sodium silicate. Though its use was introduced only comparatively recently, it has largely superseded older methods and also appears to have led to much more frequent preservation of eggs on the small scale in households and by small traders. "It will be recommended, however, that eggs preserved in water glass be required to be so labeled when offered for sale."