ZOOLOGY

Animals From Africa For National Zoological Park

QUARANTINED at the National Zoological Park in Washington, D. C., are beasts and birds from an African Noah's Ark., recently landed, and with them is incarcerated one faithful keeper, Malcolm Davis, who recently returned from a penguin-catching expedition to Antarctica along with Admiral Byrd. The "sentence" will expire in a few days.

The caged creatures whose captivity Mr. Davis is sharing were brought back from Liberia by Dr. and Mrs. William M. Mann, who have been collecting new inhabitants for the Washington zoo during a several months' sojourn on the Firestone plantations in Liberia, with trips up country into the bush.

Among the creatures in the fifty-odd crates brought ashore at the Army Base at Norfolk, Va., when the Barbour Line steamer West Irmo docked, are two pigmy hippopotamuses, several chevrotain (miniature deer) and duiker (rabbit-sized antelopes), a number of monkeyeating eagles, and a considerable miscellany of small mammals, birds and reptiles.

The hoofed animals must be kept in quarantine until danger that they might introduce hoof and mouth disease is past. All birds of the parrot family have to be kept under strict observation until they are proven free of parrot fever.

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CHEMISTRY

Germany Seeks "Ersaetze" To Relieve Iodine Lack

Chile curtailed by the British blockade, drastic steps are being taken in Germany to conserve this element, and to use substitutes wherever possible, the Bureau of Foreign and Domestic Commerce of the U. S. Department of Commerce has been informed by the American Consulate General at Frankfort-on-Main. A physician's prescription, which is nonrenewable, is required to purchase tincture of iodine. Even then, unless the physician expressly stipulates, the tincture sold is more dilute than that formerly used.

To take its place a new antiseptic, in which bromine, produced in Germany, is an important constituent, has been introduced, and has been accepted as standard by the German army. However, io-

dine is still required for industrial uses, particularly in photography. Such consumption has been greatly increased by the demands of military photography.

Used fixing baths from photographic laboratories are being treated to reclaim the iodine. For some time it has been the practise to collect these baths to reclaim the silver they contain, so the recovery of iodine merely necessitates a few additional steps in the process. From 98% to 99.5% of the iodine can be salvaged, it is said. Other sources are the old swabs used in hospitals with the tincture, and kegs which have held iodine or its compounds.

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METEOROLOGY

Recent Gulf Storm Started At Sea North of Bahamas

THE DUCHESS of Windsor will have additional reason for not being too anxious to go to the Bahamas, if she takes the trouble to study the life history of the recent hurricane-like disturbance in the Gulf region. This storm was born of a peculiar atmospheric upset that started at sea somewhere north of the Bahamas, crossed Florida near the northern end of the peninsula, and first began to develop the wide whirl that marks a hurricane after it was well into the Gulf of Mexico.

In this behavior it was quite unlike "typical" hurricanes, according to C. L. Mitchell of the U. S. Weather Bureau. These severe storms are usually thought of as starting in the Caribbean and moving up through the West Indies, then either turning off into the Gulf of Mexico or working up the South Atlantic Coast. The recent "home made" storm was thus somewhat unorthodox. However, there have been others of equally freakish behavior, Mr. Mitchell added. One that struck Charleston, S. C., several years ago actually started near Nantucket and "ran backward" down the coast.

The Bahamas are great hurricane country, Mr. Mitchell continued. They have a history of more hurricane visitations than peninsular Florida. This is because the "real" hurricanes, of Caribbean origin, are more likely to make a northward turn while still some distance at sea than they are to sweep on and strike the mainland. The low-lying British-held islands offer no particular obstacles to these most violent of all gales, and they have been repeatedly swept by severe hurricanes.

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ASTRONOMY

Exploding Star Found In Distant Galaxy

DISCOVERY of a new object that is probably a supernova, a vast stellar explosion, has been made by Dr. Josef J. Johnson, of the California Institute of Technology, with the 18-inch Schmidt telescope on Mt. Palomar.

It occurred in a distant galaxy of stars, near the bowl of the Great Dipper in the northern sky. This is so faint that it is known only by its catalog number, NGC 4545, and it is so distant that its light takes millions of years to reach us, speeding 11,000,000 miles a minute. Photographs taken at the end of July showed the object to be of the fifteenth magnitude, much too faint to be seen without a powerful telescope. A plate taken about two weeks earlier showed no trace of the explosion, though it would have been recorded had it been as bright as magnitude 17.5.

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PALEONTOLOGY

Biggest Dinosaur Bones Sought in Texas Mountains

DINOSAUR bones bigger than any hitherto discovered will be dug up by an expedition from the American Museum of Natural History which recently went into the Big Bend country in Texas, under the leadership of Dr. Barnum Brown.

First bones discovered, which were turned up last summer by Dr. Erich Schlaikjer, indicate that the great reptiles were very much larger than the brontosaurs, which ranged up to nearly 70 feet in length and were 15 feet high at the shoulders. Footprints of dinosaurs in the region where the bones occur are as much as $4\frac{1}{2}$ feet in length and more than a yard wide; they are the biggest footprints ever found.

The expedition will be in the field until Oct. 1. Unusual difficulties are anticipated because of the rough and extremely arid nature of the country. Water may have to be hauled for many miles.

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CE FIELDS

MEDICINE

Sulfanilamide Adds Two To List of Conquests

CONQUEST of two more diseases by sulfanilamide is reported to the American Medical Association (*Journal*, Aug. 10).

An acute form of meningitis, known as recurrent lymphocytic choriomeningitis, was successfully treated in a case reported by Dr. Harry Leichenger, Albert Milzer and Dr. Herbert Lack of Chicago. Four recurrences at intervals of about a month were brought under control successfully with sulfanilamide. The virus of the disease was also isolated.

A severe infection of the eye of seven years' duration, caused by the virus of venereal lymphogranuloma, was cleared up by sulfanilamide treatment administered by Dr. William Curth, Dr. Helen Ollendorff Curth, and Dr. Murray Sanders of New York. Vision of the eye had already been destroyed several years before and was not restored.

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PHYSICS

Cosmic Rays Studied on Colorado Mountain Top

WORKING for two months at a high altitude laboratory on Mt. Evans, Colorado, a group of University of Chicago physicists expect to learn more concerning three important problems of cosmic ray study. The group is headed by Dr. Bruno Rossi, formerly of the University of Padua, Italy, and more recently research associate of the University of Chicago, whose appointment to the Department of Physics of Cornell University was recently announced.

One of the problems is the life span of the mesotrons, which are rays produced when a cosmic ray from outer space strikes an atom in the atmosphere. In these measurements, Dr. Rossi hopes to substantiate Dr. Albert Einstein's hypothesis that time is slowed for a fastmoving object. If this is so, the mesotron of high energy, which reaches sea level, would go through its life cycle more slowly than one of lower energy. The

latter can only be observed from points of great altitude. Further study of cosmic ray showers, which occur about once an hour, when the rays spray out over an area of as much as a fourth of a mile in diameter, is also planned.

The Mt. Evans laboratory, 14,259 feet above sea level, was established jointly by the University of Denver, Massachusetts Institute of Technology and the University of Chicago.

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PUBLIC HEALTH

Puerto Rican Influenza Now Believed Subsiding

WIDESPREAD but not very deadly influenza outbreak is subsiding in Puerto Rico. Health officials in continental United States are anxiously awaiting further developments and they are apprehensive that the disease will spread to the mainland. While no quarantine regulations are known to be in effect in Puerto Rico, it is understood that precautions are being taken to prevent the spread of the outbreak to other localities.

The appearance of influenza in Puerto Rico comes at an unusual time. Past major epidemics have usually begun in the fall, the great one of 1918 having started in September. This one in our key Caribbean island got under way about the middle of June.

Health experts specializing in influenza were dispatched to Puerto Rico early in the epidemic by both the U. S. Public Health and Rockefeller Foundation's International Health Division. Dr. John W. Oliphant is the federal expert and Dr. Edwin H. Lennette is the Rockefeller representative. Both of these investigators are charged with identifying the type of influenza virus causing the trouble. In fighting the disease it is important to know whether the kind of 'flu is different from what it has been in past years.

A little more hope exists that some defensive methods may be perfected against the 'flu if it attacks this fall. Dr. Thomas Francis, Jr., long a Rockefeller researcher upon the disease, has developed a vaccine against influenza that may be called upon if the epidemic spreads to the United States. This is relatively easily made by tissue culture of the virus. Recent research by Dr. Francis showed the possibility of vaccinating against influenza by treating the nose.

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MEDICINE

Many Spinal Fractures In Shock Treatments

VIOLENT convulsive shocks that often restore to sanity the "living dead" afflicted by the dementia praecox form of mental illness crack the vertebrae of about one out of five of the patients so treated.

This was shown in an X-ray study of patients who received both insulin and metrazol shock treatments (Journal, American Medical Association, Aug. 10). Of 34 patients who received only insulin shock therapy, 20.5% revealed compression fractures of the vertebrae, with the incidence higher in male than in female patients. Of 12 patients who received both insulin and metrazol, 25% showed fractures. An attempt is being made to reduce the spine damage by holding the patients so that there will not be sudden bending of the back during the convulsions.

The medical team that did the research consisted of Dr. Phillip Polatin, Dr. Murray M. Friedman, Dr. Meyer M. Harris and Dr. William A. Horwitz, all of New York.

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ANTHROPOLOGY

Famous Pipe and Pouch Acquired by Smithsonian

SITTING BULL was like Old King Cole in one respect at least: he loved his pipe. The tobacco pouch and pipe of the famous and feared Indian leader of the last century have just been acquired by the Smithsonian Institution.

The pouch is an especially formidable affair, 17 inches deep. It is decorated, of course, with beadwork. The pipe is of red clay, with a long, rectangular wooden stem. The bowl is slightly cracked.

These relics were presented by the noted old redskin to the late Maj. Gen. James W. McArthur, who was a lieutenant in the Seventh Infantry when Sitting Bull surrendered. They were presented to the Smithsonian Institution by Mrs. McArthur.

The only other Sitting Bull relic known to be authentic is a sawed-off flintlock, which he gave up at his surrender. The dozen or so pairs of moccasins supposed to have been worn by him are declared to be of dubious origin—"among the most common pseudohistorical relics offered for sale."

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