



**HOKKAIDO BEAR**—Gift of a high school student, just returned from a visit to Japan, to the National Zoological Park in Washington is the Hokkaido bear shown in the photograph, an animal very rare in captivity.

## AERONAUTICS

## Many Skills for Rocketry

► TO THE nation's space-minded youth, the National Advisory Committee for Aeronautics has this to say:

It takes all kinds of skills and professions to fill the ranks in rocketry. Any basic type of engineering degree can qualify its holder for a profession in some aspect of rocket research.

No college today offers a degree in rocket engineering. This partly is due to the swift pace at which the field is progressing, states Robert J. Lacklen, NACA personnel officer.

Young men and women who want to work in aviation research do not need to have aeronautical engineering degrees necessarily, he said. This is because much research work now lies between academic fields.

It takes the aeronautical engineer, the mechanical and the metallurgical engineer working as a team to produce some of today's craft. This is because of the great interrelation of the various fields in modern airplanes.

Persons with degrees in any of these fields are qualified to enter some aspect of NACA research in rocketry: mechanical, aeronautical, electrical, chemical, metallurgical and ceramic engineering; physics; engineering physics; metallurgy and chemistry.

Many young men are being placed in NACA research units while still in school. Cooperative curriculums springing up in

colleges throughout the country now are helping the organization fill its many vacancies. Sophomores are hired on a half-time basis at \$2,750 a year.

These cooperative programs, Mr. Lacklen said, are helping to relieve the critical shortage of technically trained personnel. He revealed that the NACA, which conducts investigations into 23 areas of aeronautical research, was able to fill only one-fourth of its existing vacancies last year.

Mr. Lacklen urged young men of draft age to take advantage of their military service by applying for training in technical specialties. Enlisted men often can work in such areas as communications, electronics, engine and aircraft mechanics, all of which can help the man professionally later on. Officers also can apply for training in specialized fields allied with aeronautics.

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A U. S. bituminous coal miner produces as much coal in two days as a Japanese miner does in 30.

In air, a bullet dropped from the hand will strike the earth a fraction of a second sooner than if fired from a rifle parallel to the earth and at the same height; in a vacuum, a dropped bullet and a fired bullet will land at the same instant under these conditions.

## ZOOLOGY

## High School Junior Gives Zoo Rare Bear

► A 16-YEAR-OLD high school junior has given the National Zoological Park in Washington, which is his home town, a rare Hokkaido bear cub he found in a Japanese vegetable market.

John Pielmeier was in Japan visiting his father, a civilian government employee, when he found the cub, then a few weeks old, in a market.

Hokkaido bears are "very rare" in captivity, Dr. William Mann, director of the zoo, said in accepting the gift. The bear is related to the European brown bear and is found on Hokkaido Island, home of the primitive Ainu people. The bear is worshipped by these people, Dr. Mann said.

Interested in animals of all kinds, young Pielmeier is planning to go into the cattle business when his education is completed. The bear was flown to this country and is now on exhibition at the zoo.

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## GENERAL SCIENCE

## Political Ax Hitting Mental Hospitals

► THE POLITICAL ax which has hit men and women in government service since the elections in 1952 has lately been striking state mental hospital systems in about one-fourth of our states.

The story is being told in letters from mental hospital superintendents to the American Psychiatric Association in Washington. Sometimes bitter, sometimes courageous, always disheartening, these letters tell of key personnel being chopped from the staff and replaced by political appointees who may or may not have the necessary qualifications. The ax has fallen on doctors, nurses, engineers and farm managers among others.

Gains made in recent years in care of the mentally sick are now seriously threatened, the American Psychiatric Association fears. Its president, Dr. Kenneth E. Appel of Philadelphia, describes the situation this way:

"In several states newly elected administrations have yielded to the temptation to embroil the state mental hospitals in party politics. Under one pretext or another they have removed physicians and other professional personnel hired by a previous administration. They have cut already entirely inadequate hospital budgets under the guise of 'economy.'

"The mental patients and their families are, of course, the ones who suffer most."

The situation fortunately does not exist in all states. In some, the ones that have the best public mental hospitals, Dr. Appel pointed out, professional hospital personnel has long since been given status and tenure and has been protected from "the ebb and flow of political changes and interference."

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