

BIOLOGY

Man Walks Upright Because of Snow, Ice

► MAN WALKS upright because of snow and ice. And his adrenal glands, best known popularly because they produce anti-arthritis cortisone, help him do so.

This theory was presented at the meeting of the Federation of American Societies for Experimental Biology in San Francisco by Dr. Sydney W. Britton of the University of Virginia, Charlottesville, Va.

Chimpanzees gave Dr. Britton evidence for his theory. He has been studying three of them in Africa, England and at his home in Virginia.

Although they preferred the woods, they learned to live freely with Dr. Britton and his family in their home. They were tamed to submit to blood pressure measurements, injections, and other necessary procedures.

"On the ground they normally traveled on all fours," Dr. Britton reports. "They stood upright when they were excited or wanted to look around, and they walked on their hind feet over rough, wet, icy and especially over snowy ground."

Dr. Britton discovered that when held loosely on a tilt-table they could remain upright about eight hours. Toward the end of the period he observed losses of reflex action, decreases in blood pressure, signs of a lowering output of the cortex of the adrenals, and finally unconsciousness.

One chimpanzee, from which the adrenals were removed, could remain upright only two hours within a week of the operation, and after that only 30 minutes, although the animal generally appeared in good condition. But heavy dosage of extract from the adrenal cortex at first lengthened and in time completely restored the animal's ability to stand.

Science News Letter, April 23, 1955

MEDICINE

Male Hormone Called Possible Cancer Cause

► THE MALE sex hormone was today implicated as a possible cause of cancer.

Heretofore scientists have generally agreed that the female sex hormone probably has cancer-causing properties and have suspected the male sex hormone of the same.

The suspicion grew stronger on the basis of a Syrian hamster found to have a transplantable liver cancer. The animal was the only one of more than 2,000 showing the cancer. It was one of 14 females whose ovaries had been removed and which had had male sex hormone treatment.

The finding was reported by Dr. Hadley Kirkman and Miss Marilyn Robbins of Stanford University at the meeting of the American Association for Cancer Research in San Francisco.

Science News Letter, April 23, 1955



ONE-MAN FLYING PLATFORM—Test pilot Phil Johnston controls horizontal flight of this revolutionary flying machine by merely shifting his weight. Developed by Hiller Helicopters, Palo Alto, Calif., the platform is held in the air by counter-rotating propellers inside the casing.

AERONAUTICS

Circular Platform Flies

► MAN'S DREAM of a personal flying carpet has been partially fulfilled with the Navy's announcement that a one-man wingless platform has made short successful flights.

The circular platform, about as wide as a man, is held in the air by a set of counter-rotating propellers hidden under the device, which suck air through holes in the platform.

Designed and built by Hiller Helicopters, Palo Alto, Calif., it has not flown more than a few feet from the ground. The revolutionary platform is stabilized and controlled by the same instinctive reactions a person uses to stand upright. The pilot just leans in the direction he wants to go. This new system for lift and propulsion is called the ducted fan.

Further research and development will be necessary before these principles can be applied in the production of military aircraft.

The device is covered at the side with a circular casing which protects the pilot from the propeller blades. Four short legs support the device on the ground.

The pilot stands inside a ring of metal about as high as his waist supported by four poles on the platform. Controls are connected to this stand.

Two separate engines, which together

develop less than 100 horsepower, turn the propellers.

Parts of the engines can be seen at the surface of the platform.

Science News Letter, April 23, 1955

MEDICINE

Radioactive Yttrium Checks Fluid in Cancer

► A NEW, safer atomic medicine has helped 15 cancer patients with fluid accumulation, Drs. Elsie Siegel, Hiram Hart, Milton Brothers, Herta Spencer and Daniel Laszlo of Montefiore Hospital, New York, reported at the meeting of the American Association for Cancer Research in San Francisco.

The medicine is radioactive yttrium 90. The New York doctors tried it for cancers of the lining of the chest or abdominal cavities. Promising results with apparent check to the fluid accumulation were obtained.

This radioactive chemical expends half its energy in 60 hours. It is non-toxic and safe for both patients and personnel handling it. An additional safety measure for the patient is the existence of chelating chemicals which can rapidly remove the isotope from the body.

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