

MEDICINE

Potassium Aids Paralysis

Young woman unable to walk because of spastic spinal paralysis, was able to run and jump after three days of treatment with potassium.

► **TREATMENT** with the chemical, potassium, has enabled a paralyzed patient to run and jump. The case, that of a 29-year-old mother of two children, is reported by Dr. Eric Barrett of Beverly Hills, Calif., (JOURNAL, AMERICAN MEDICAL ASSOCIATION, Jan. 20).

The young mother has spastic spinal paralysis. She is believed to be the first patient with this condition who was helped by the potassium treatment, though it has been used successfully in other types of paralysis and muscular weakness.

Her illness started about 11 years ago with clumsiness in the knee and stiff gait. Shoulder and arm weakness, swellings and pains came later. Last summer when Dr. Barrett first saw her she had a characteris-

tic shuffling, spastic gait. She was hardly able to lift her feet from the floor and almost unable to walk alone.

Daily doses of potassium brought a dramatic response. On one occasion, she was able to run and jump three days after starting the treatment. Every time the potassium was stopped, the spastic symptoms returned.

Apparently this patient's condition was due to too little potassium in her body. Whether potassium deficiency plays a part in other similar cases and whether this is related to the adrenal and pituitary glands which control potassium utilization are questions raised by this case. Dr. Barrett is investigating the problem further.

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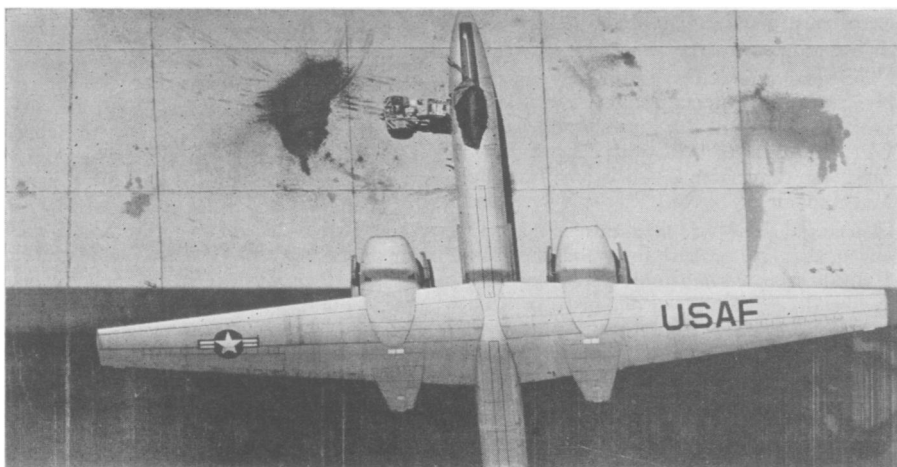
AERONAUTICS

Plan Aeronautics Center

Princeton will dedicate new research center to the late James Forrestal. Much of research will be sponsored by federal government.

► **RESEARCH** in aviation will be coordinated and greatly increased at Princeton University with the purchase of an 800-

acre tract of land with its present laboratory buildings and the creation of the James Forrestal Center within the university.



HIGH SPEED PICTURE—Taken from a plane traveling 500 miles per hour at an altitude of 100 feet, this strip-camera picture shows a four-jet airplane on the ground in great clarity and detail. The strip camera photographs without a shutter, the film moving over a small opening with the same speed as the plane.

The university already has a department of aeronautical engineering and a project in its chemistry department devoted to combustion research. It also has the Daniel and Florence Guggenheim Jet Propulsion Center which shares with a similar center at the California Institute of Technology the distinction of being one of the two existing programs specifically designed for advanced training in this vital subject.

The property purchased was formerly occupied by the Rockefeller Institute for Medical Research. Work of this organization is now consolidated in New York. The new aeronautics center will be dedicated as a memorial to the late James Forrestal, graduate of the university and the nation's first Secretary of Defense.

Much of the research to be undertaken at this new center will be sponsored by the federal government. Programs already planned include helicopter research, flight control, supersonics and rocket development, chemical kinetics, metallurgy and other sciences. The center will bring together representatives of the university departments of aeronautical engineering, chemistry, chemical engineering, physics, mathematics and mechanical engineering.

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METALLURGY

Ductile Cast Iron Produced with Zirconium

► **DUCTILE** cast iron, which can replace steel in certain applications, is produced as an improved product by a new method employing zirconium on which a patent was awarded by the government recently.

Ordinary cast iron, the simplest iron product of pig iron, is easily cast in molds but can not be tempered, forged or rolled. Ductile cast iron, made by adding a small amount of another metal, is malleable to a degree and may be employed in some uses otherwise limited to steel. Older processes for making the ductile variety have limitations which the new process is said to overcome.

In this now patented process, a mechanical mixture of finely divided zirconium-bearing material and finely divided elemental magnesium is added to the molten cast iron. Amounts used leave a residual zirconium content of 0.5% or less, and a magnesium content of 0.2% or less.

Inventor is Charles M. Offenauer, Lewiston, N. Y. Patent awarded is number 2,538,263. Rights are assigned to Union Carbide and Carbon Corporation, New York City.

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Although American railroads now make use of some 200,000 miles of telegraph and telephone lines, radio is rapidly coming into use, particularly to communicate with moving trains.