

PSYCHOLOGY

70-Year-Old President

► EVEN IF President Eisenhower should decide not to run again, the chances are that within the next 25 years we will have at least one President beyond the age of 70.

This is the prediction of Dr. Harvey C. Lehman, psychologist of Ohio University, Athens, Ohio, who has spent many years studying the ages of leaders in various fields, and the ages at which creative thinkers have performed their most notable work.

Leaders, like the people they lead or represent, are older today than they were in the days gone by, Dr. Lehman told SCIENCE SERVICE.

Creative thinking in science, mathematics, art, music and literature occurs most frequently during the thirties, Dr. Lehman has found.

People holding elective office depend for their eminence, not alone on their own intelligence or creative competence, but on what people think of them. To be elected President of the United States, a person

must not only be able, but be known and liked by many voters.

Unless the United States experiences excessive political and social unrest during the years to come, Dr. Lehman said, the recent tendency to choose elderly leaders is likely to continue.

"Apparently," he said, "those who are satisfied with the status quo wish to play safe by choosing a leader with a long record and one whose future behavior they will be able to predict."

Even in the Army, where promotion depends not on votes but on the judgment of superiors, the highest ranking officers in time of war are becoming older. In the American Revolution and the War of 1812, top-ranking generals averaged under 40. Lafayette was a general at 20 and Kosciuszko at 30.

In the Civil War, highest ranking generals on both sides averaged just under 49. In World War II, top brass averaged just under 59.

Representatives in Congress averaged 20

years older in 1925 than they did in 1825, Dr. Lehman found. Senators in the same 100 years shifted upward 15 years.

Before 1875, only one man beyond the age of 65 was elected Speaker of the House. More than half were younger than 40 when elected.

However, between 1900 and 1940, the average age of Speakers was 67. This is 24 years older than the average age of those who held the office from 1789 to 1874.

The age of members of the President's cabinet has increased 14 years. From 1925 to 1945 the secretaries of state averaged 68.50 years of age.

If President Eisenhower should be re-elected in 1956, he would be 66 years old at the time of his inauguration. Only a little more than three months of his second term would be served after he passed his 70th birthday.

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PALEOBOTANY

"Fossil Chlorophyll" In Ancient Mud Deposits

► "FOSSIL CHLOROPHYLL," buried in lake mud for thousands of years, can be recovered and measured to give clues to the past's plant life, Dr. J. R. Valleryne of Queen's University, Kingston, Ontario, has found.

Analyzing lake bottom sediment, Dr. Valleryne discovered that degradation products of chlorophyll buried countless years ago are preserved in the cold, dark, oxygen-free mud. They can be isolated and measured to give a quick index of chlorophyll-bearing tissues in ancient mud.

Fossil chlorophyll was recovered from sediment that had been dated as 8,323 (plus or minus 400) years old by the radiocarbon method. In another pond, it was obtained from mud deposited about 11,000 years ago, Dr. Valleryne reported in the *Canadian Journal of Botany* (July).

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PHYSIOLOGY

Psychologist to Solve Why Setting Hen Sets

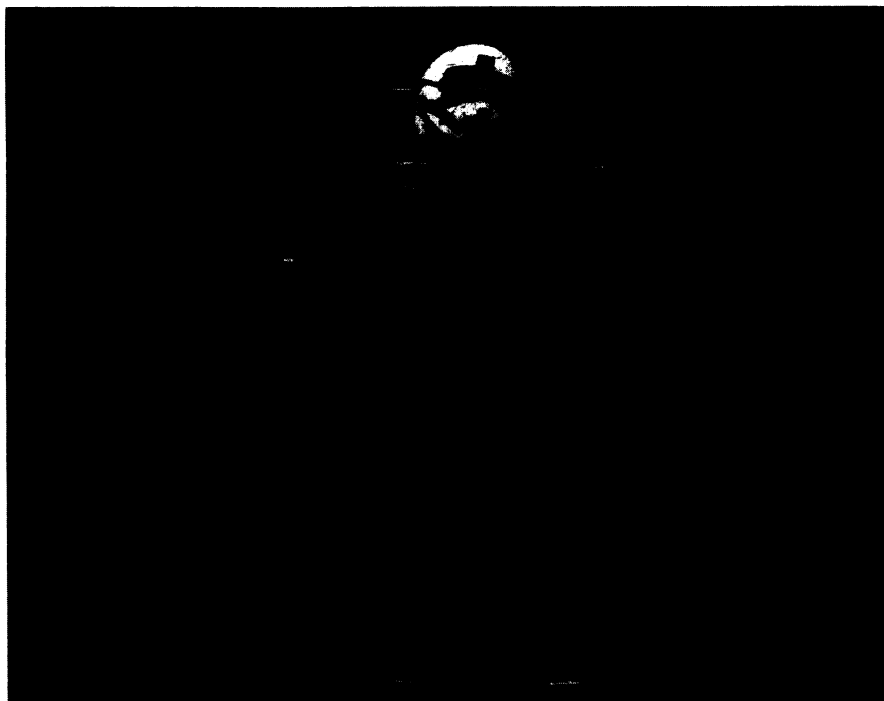
► A PSYCHOLOGIST has begun a two-year investigation to solve once and for all the old problem—why does a setting hen set.

Dr. Daniel S. Lehrman of Newark College of Arts and Sciences, the State University of New Jersey, will try to discover what hormones or other factors induce birds, both male and female in some species, to incubate their eggs with such tenacity.

Doing his work with doves, Dr. Lehrman is especially interested in the "brood patch," a tender, bald area strategically located where the birds do their sitting.

It may be that the tender area feels hot to the birds, due to the large blood supply, stimulating them to sit on eggs to have the spot cooled, he theorized.

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EJECTION SEAT—An improved method of emergency escape for pilots bailing out of supersonic aircraft has been developed for the Air Force by Douglas Aircraft Company. Principal element of the system, previously used only in research aircraft, is a downward ejection seat stabilized in an upright position by two fins. A pilot forced to abandon his plane at a high altitude would ride the seat down quickly to 15,000 feet, there be separated automatically from the seat to reach the ground by conventional parachute. For lower-altitude bail-outs, the pilot and chute are cleared from the seat within three seconds. Only one hand is needed to trigger the entire automatic sequence.