

# Living Memorial Growing Fast For 1886 Graduate

Helge Ness who graduated from A&M College in 1886 and as a botanist spent the rest of his life here until he died more than 30 years ago, has his own living memorial. The "Ness Oaks" are exceptionally fast growing.

Ness was a pioneer in forest tree breeding and so far as is known he was the first in America and among the first in the world to produce controlled hybrids between species of forest trees.

He also was a colorful character as recalled by friends and indicated by correspondence files.

"One of the grand old men of Texas A&M" is Ernest Langford's description of Ness. Langford, now the university archivist but for many years head of architectural instruction, resided next door to the Nesses before the botanist died Dec. 30, 1928.

"The hybrid vigor of the Ness Oak is extremely outstanding," Professor Homer T. Blackhurst said of the strain.

A memorial plaque honoring the memory of Ness was mounted in 1961 on one of the two Ness oaks

in front of the Texas Agricultural Experiment Station building. Three other trees are just east of the Kyle Field stands.

Hybridization of crossing plants or trees provides vigor, faster growth and that is just what the Ness oaks have done.

Blackhurst said "in diameter

## 5 Dates Set For Required National GRE

A&M University again will be a testing center for the national Graduate Record Examinations required of applicants for admission to many American graduate schools. S. A. Kerley announced as director of the campus Counseling and Testing Center.

"Texas A&M also participates in the institutional testing program of the Educational Testing Service and graduating seniors will take the tests on dates to be announced," he said.

The national test dates for 1964-65 are Nov. 21, Jan. 16, March 6, April 24 and July 10.

More than 80,000 persons took Graduate Record Examinations last year, the Educational Testing Service announced from its headquarters at Princeton, N. J.

For the first time this fall an Advanced Business Test, designed for candidates who have majored in business administration at the undergraduate level, will be offered, Kerley said.

Candidates are permitted to take both the Aptitude Test and one Advanced Test on any nationwide testing date.

they are greater than the parent tree was, judging from pictures taken years ago."

Dr. Blackhurst said the Ness strain has grown twice as rapidly as other oaks.

An overcup oak and a live oak were crossed in 1909 and 1910 by Ness to produce his hybrid trees.

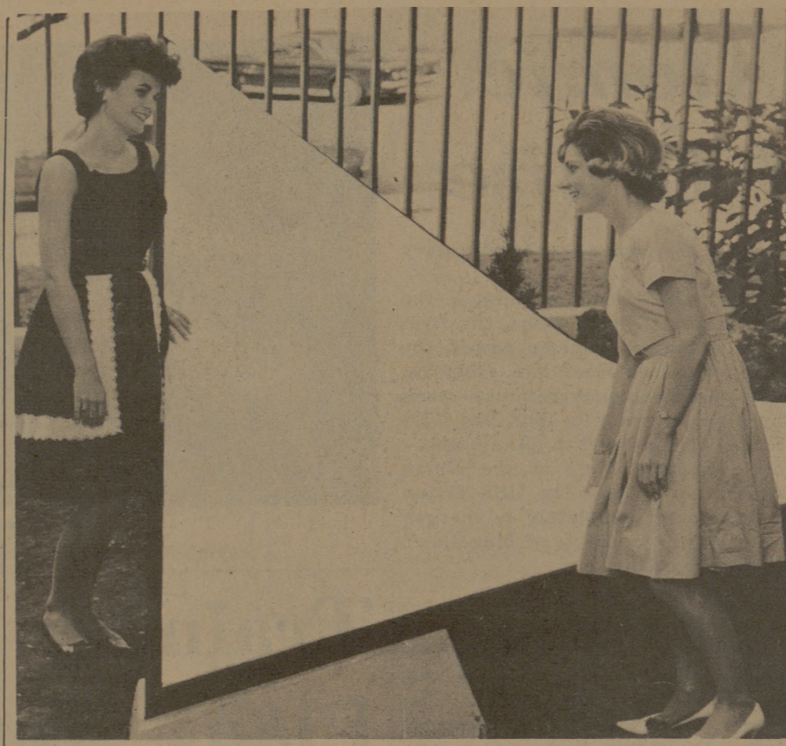
Professor Fred R. Brison who retired recently recalled at the plaque ceremony in 1961 that Ness had said "The speed of growth of the oak is slow and before the hybridizer can really judge of the success of his work, life is gone. . . He is working for another generation."

This very slowness of growth has discouraged work in hybridizing forest trees, although more attention now is being paid the subject, Blackhurst said.

Ness also labored in other ways for future generations of Texans. He worked extensively at improving berries and developed the Ness berry by crossing the wild Louisiana dewberry and the raspberry. In turn the Ness berry stock was used in developing the Brazos blackberry which is finding wide acceptance.

Brison recalled earlier how a group of A&M students on an agronomy field trip invaded a berry patch Ness had developed in that work. The class was caught redhanded by Ness.

"He exorciated with great relish and mounting enthusiasm the entire class (the instructor included) in all the seven languages at his fluent command," Brison recalled. "His general theme was that Texas was on the verge of becoming a land of berries, but our unfortunate excursion had reduced that possibility to naught."



NEW CONSTRUCTION . . . Miss Joan Hager, right and Mrs. Linda Kelley test a structure of cardboard.

# Cardboard Usage Expanded To Roof

James H. Marsh, III, is an associated professor of architecture who mixes research with a regular diet of teaching.

His best-known work involves thin-shell construction, using a "spider web" of steel rods, sprung into position and sprayed with concrete.

Once the concrete hardens, the structure is permanent. One of the New York World's fair buildings was constructed on the Marsh theory.

The professor's latest project also involves a thin-shell facility, but instead of using steel, Marsh is experimenting with plain cardboard.

"A sheet of paper is flexible," Marsh commented, bending a piece of paper. "But if we fold the paper like bellows, the paper develops a longitudinal strength."

The corrugated cardboard used is thin, but the inner portion is

wrinkled to give it strength.

Working with Marsh is Rocky (Rocky) P. Thorpe, a U.S. Air Force captain back at A&M for advanced studies.

Their finished product is a double curved roof, which would be ideal for outdoor covering for a patio, for instance. It consists of many strips of cardboard, with a waterproof coating applied to the entire surface.

Marsh and Thorpe estimate the total cost of materials for an eight foot square roof section is less than \$5.

The structural applications of roofs constructed with corrugated cardboard could be applied to almost any building type, Marsh explained.

"But most likely would be confined to residences, schools or others," he added. "Strength, weight, cost and ease of handling are factors that make the material important."

How strong is the roof? "We test loaded it with weight greater than that of man," Marsh commented. "It's strong."

The interior makeup of the roof includes many strips of cardboard and a honey-comb type core constructed of strips of corrugated cardboard about 1 1/2-inches deep.

Thorpe is continuing the search to develop cardboard structures of different shapes.

# Geological Oceanographers Puzzled Over 'Light Rock'

A&M University geological oceanographers have a puzzling bit of evidence brought up from the bottom where the Gulf of Mexico is almost 12,000 feet deep.

The evidence is in the form of whitish "light rock" or concretion found in clay deposited a million years ago. This makes it some of the oldest sediment recovered from the bottom of the Sigsbee Deep, deepest part of the Gulf.

The bits of "light rock" and clay material recovered in one of the 40-foot cores or samples brought up from the Sigsbee Deep leads to geologically exciting questions

about the shaping of the Gulf of Mexico. One interpretation is that it has been a large basin for much longer than some specialists now believe.

Other cores taken within half a mile of where we found this concretion contains clays and the other materials found on the bottom throughout the Sigsbee Deep," Bill Bryant said. The A&M assistant professor headed the scientific party on a recent cruise when the Research Vessel Alaminos sailed from Galveston to the southwestern Gulf and took the deep

cores. Identifying the concretions has proven interesting. Geologists here and in a major oil company laboratory at Houston attempted to identify a sample by X-ray diffraction.

High-powered microscopic study of the concretion and clay revealed the fossilized remains of creatures which became extinct about a million years ago. Thus the dating.

A&M geological oceanographers hope to sail early next year on another cruise and take more cores from the Sigsbee Deep.

# Student Slates Colorado Meet

Billy Richardson, A&M University graduate student, will present results of his research at the American Institute of Biological Sciences meeting in Boulder, Colo., Aug. 23-28.

The Channelview resident has been studying the effects of ionizing radiation on seed germination.

Richardson examined the influence of light on the germination of nine ornamental plants used for decorative purposes and two lettuce varieties.

"Most seeds are light sensitive to some extent," Richardson commented.

He found that some plants grew faster once irradiated while other varieties had opposite responses.

"Generally speaking, red-filtered light greatly promoted germination compared to dark-germination seeds, and near infra-red light greatly reduced germination," Richardson explained.

The gamma-irradiation was accomplished by exposing the seeds to a Cobalt 60 source, housed at the A&M Nuclear Science Center.

A Robert E. Lee High School (Baytown) graduate, Richardson received his bachelor's degree in floriculture and worked as a technician in the Department of Floriculture until he entered military service in 1959.

He received his master's degree in January. His research with seed germination was used to fulfill partial requirements toward his advanced degree. Richardson currently is working toward a doctorate in plant sciences.



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