

recommendation. He served as its first assistant observer until 1901.

In that year he became interested in scientific interpretations of relationships between climatic changes and the annual growth of trees, as shown in their growth-rings. His subsequent investigations led to development of a scientific technique to which he gave the name 'dendrochronology'. The technique is used to date fragments of wood by correlation of annual growth-rings of the trees which produced them.

Prof. Douglass joined the University of Arizona faculty in 1906 as head of the Department of Physics. In 1918 he was made director of the University's Steward Observatory and served in that capacity until 1938, when he became director emeritus. The astronomer-turned-dendrochronologist laid the foundations of tree-ring analysis so firmly that he was able to offer a course in the University—the first of its kind—in 1929. By 1935 his research had advanced the technique to a point that made it possible for the University to establish its Laboratory of Tree-Ring Research under his direction.

Prof. Douglass's studies of tree rings became so widely known that they obscured to some extent his earlier prominence as an astronomer. After graduation from Trinity College in Connecticut with a B.A. degree in 1889, he served five years with Harvard Observatory. During that period he was a member of the Harvard-Boyden expedition to South America to select a southern hemisphere astronomical observatory site. He helped in choosing the Arequipa, Peru, site and later served as a member of the Harvard solar eclipse expedition to Chile.

Both the Harvard experience and an early developed interest in the planet Mars served Prof. Douglass well in the selection of the site for the Lowell Observatory. Despite many other activities, he continued his long-term studies of the red planet through the years. In 1924, using the new Steward Observatory 36-in. telescope, he found that melting of the south polar cap on Mars was followed by distinct 'greening' of the planet's dark markings. The University of Arizona instrument showed the green markings so

clearly in the 1920's that many 'public night' observatory visitors saw the colour change. Also in 1924 Prof. Douglass first pointed out that Mars may support a low form of organic life—a contention that earned him world-wide scientific attention.

A man of broad capabilities, Prof. Douglass ran for political office in 1902, was elected, and served two terms as probate judge of Arizona's Coconino County. During that period he also laid out the Navajo-Coconino county boundary, taught a year at Arizona State College, Flagstaff, and pursued the early tree-ring studies which he later developed at the University of Arizona. He married Ida Whittington of Los Angeles on August 3, 1905.

Soon after joining the faculty of the University of Arizona in 1906, Prof. Douglass realized the opportunities for astronomical research at the University if a large observational instrument could be obtained. His years of effort on this project culminated in 1916 when Mrs. Lavinia Steward gave the University sufficient funds to establish the Observatory bearing her husband's name. The 36-in. telescope mirror, first of its size made in the United States, was completed and mounted in 1922 under the direction of Prof. Douglass.

During his long and distinguished career, Prof. Douglass served the University of Arizona not only as teacher and scientist but also in two major administrative positions. He was acting president of the University from December 1910 until May 1911, and dean of the College of Liberal Arts during 1915-18.

In the years since Dr. Douglass established the Laboratory of Tree-Ring Research, dendrochronology has made significant contributions to several areas of science. One of his most widely recognized successes came in 1929 when he completed an Arizona climatic sequence extending back to A.D. 700. The achievement made it possible to date more than 30 prehistoric Indian ruins through examination and correlation of cross-sections of beams used in constructing the early Indian dwellings.

Prof. Douglass is survived by his wife, Ida Douglass, and a nephew, Andrew W. Douglass, both of Tucson, Arizona.

NEWS and VIEWS

Royal Society Visiting Professorship :

Prof. M. Szwarc

PROF. M. SZWARC, research professor in the State University College of Forestry at Syracuse University, New York, has been appointed Royal Society visiting professor for the academic year 1962-63. He is expected to take appointment on August 1, 1963, and to work in the Department of Inorganic and Physical Chemistry in the University of Liverpool on ionic and anionic and stereospecific polymerization. Prof. Szwarc has achieved distinction in many fields of physical chemistry and his name is associated with the discovery of the valuable 'toluene carrier gas techniques' for measuring bond dissociation energies and the elucidation of kinetics mechanism. He has also worked on 'living polymers' and electron transfer processes in non-aqueous solutions and is connected with many of the pioneering developments in anionic polymerizations.

Smithsonian Institution Langley Gold Medal :

Dr. H. L. Dryden

DR. H. L. DRYDEN, deputy administrator of the National Aeronautics and Space Administration, has been awarded the Langley Gold Medal of the Smithsonian Institution. The Langley Medal is founded in memory of Samuel Pierpont Langley, pioneer in aviation and secretary of the Smithsonian Institution during 1887-1906. It has previously been awarded only nine times in the fifty-four years since its establishment in 1908, the first being given to the Wright brothers in 1909. Dr. Dryden was selected "in recognition of his important applications of experimental science to the problems of flight and for his wise and courageous administration of much of America's research and technical developments that now make possible the conquest of air and space".