



### Disputed Symbol

➤ HOW WELL the shamrock symbolizes the story of St. Patrick!

We know quite surely that there was a great bishop named Patrick in Ireland, in the first half of the fifth century A.D., but we know almost no details about his life and work.

Similarly, we know quite surely that the ancient Irish loved and honored a plant called the shamrock, and had a legend connecting it with their saint—but we do not know at all surely what the shamrock was.

The confusion arises largely out of the very name itself. The old Gaelic word which is transliterated into the modern Latin alphabet as "seamrog" and pronounced "shamrock" means simply trefoil or three-leaf. It might refer to any three-leaved plant; and it has been applied to at least three plant species common in Ireland. One of these is the common white clover; another is the so-called black clover, which has yellow flowers; the third is a three-leaved plant not at all related to the clovers, the oxalis or wood sorrel. Several other claimants have their champions, too.

According to Bailey's *Cyclopedia of Horticulture*, at the time of Spenser's *Faerie Queene* shamrock was said to be good to eat. That would appear to score one for the oxalis, for it is edible (in small quantities) whereas the clovers are not tempting to the human palate. However, Spenser lived more than a thousand years after the time of St. Patrick, so that doesn't really settle anything.

Indeed, it hardly settles what plant was considered to be the shamrock in Spenser's time, let alone St. Patrick's. For there are those who claim that the real shamrock is the watercress, which cer-

tainly is used for food to a far greater extent than the oxalis.

It seems rather unlikely, after all these centuries, that the argument will ever be settled.

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#### AERONAUTICS

### Present and Future Of Aeronautics

By DR. HUGH L. DRYDEN

President, Institute of the Aeronautical Sciences, and Physicist, National Bureau of Standards

*Excerpt from an address before the Science Talent Institute.*

➤ WHO CAN foresee the future development of aeronautics? The future depends greatly on continued scientific research and development, not only in the direct fields of aeronautics but also in the basic aeronautical sciences. An improvement in airplane design is often based on development undertaken and carried through without reference to possible aeronautical applications. Thus a new advance in metallurgy or in electrical engineering made for quite other purposes may find application in aeronautical design. Some idea of the broad base underlying aeronautical development may be obtained from the wide range of interests of the Institute of Aeronautical Sciences including aerodynamics, heat transfer, chemistry of fuels, metallurgy, and medicine, as well as more specifically engineering sciences of structural design, airplane performance and airplane production.

Research facilities have been greatly expanded both through the action of Congress in increasing the facilities of the National Advisory Committee for Aeronautics and through the action of industry in increasing their own facilities. Recent announcement was made of two industry-operated wind tunnels for studying aerodynamic problems at speeds up to 700 miles per hour, the cost of each being about \$2,100,000. Details of the new Government facilities have not been announced. Tools such as these enable scientists and engineers to study safely in the laboratory the performance of new designs at high speeds.

The skill and ingenuity of individual research workers are still the most important factors in determining the future. I hope that some of you present will be interested in the aeronautical sciences and become important elements in determining the future of aeronautics.

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## NOT CONTENT WITH CONVENTION



One of America's great astronomical laboratories asked us to produce the optical parts for a 24-inch Cassegrain telescope. This involved a 24-inch primary mirror and two small convex secondary mirrors. Not satisfied with conventional tests, we invented a more exacting one which enabled us to figure these secondary mirrors to a perfection never before attained.

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