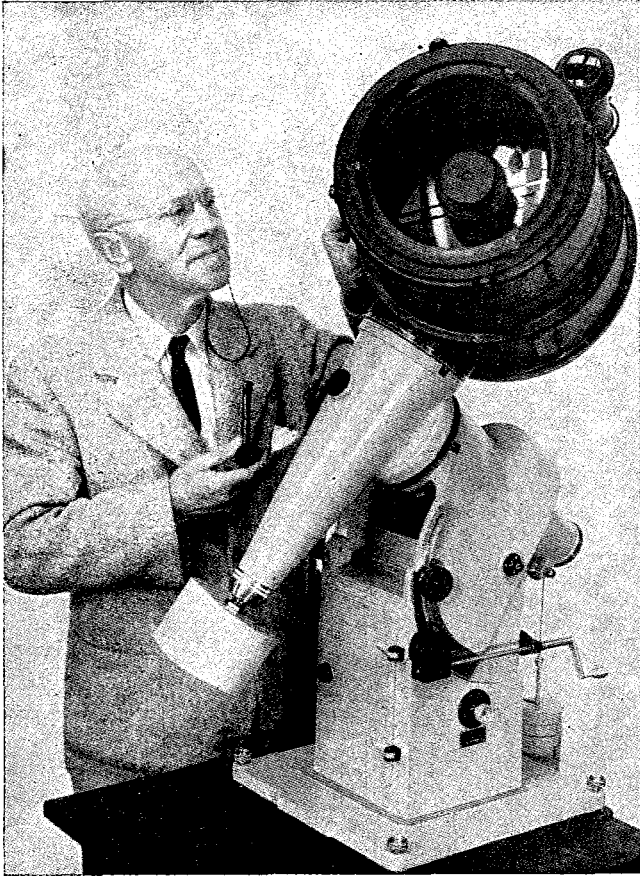


From Russell W. Porter



Russell W. Porter, dean of amateur astronomers, and creator of six of the illustrations reproduced in this issue, is shown here with the Observatory's portable 8-inch $f\ 1$ Schmidt camera, which he designed. Photograph by James Fassero.

IT IS SUPRISING that the great astronomical observatories of California have not created a larger following of laymen to take a more active interest in this, our noblest of sciences. I am referring not to the dilettante, but to the seriously-inclined amateur as compared to the professionals themselves.

These so-called amateurs are far more numerous in the eastern states than here on the West Coast. There are literally thousands of enthusiasts east of the Mississippi who have made their telescopes with their own hands. They have formed groups in all the large cities, where they meet together to discuss the various theories of our universe and to compare notes on the great advancements and discoveries in astronomy.

Besides our preeminence in the number of observatories in the West, we also have the finest "seeing" conditions and the greatest number of clear nights. With the deserts so easily accessible for weekend trips, I wonder why more people do not take advantage of this opportunity to get away from the glaring street and neon lights. With a relatively small and inexpensive telescope they can easily explore the heavens in the clear and quiet of desert nights.

Since I was somewhat responsible for starting the amateur telescope-making hobby which has swept this

country and Europe, I feel entitled to stress the pleasures that this movement has given to so many. There are people from all walks of life who have fallen victims to this indoor sport and have actually made powerful telescopes themselves that would have been the envy of Galileo and Newton. Some of them have turned professional, like the young Kansas farm boy named Clyde Tombaugh, who made his own telescope from parts of a discarded cream separator. What he saw through it so intrigued him that he asked for a job—any old job—at the Flagstaff Observatory in Arizona. As a result, he found Pluto, our most remote relative known at present in our solar system.

A few amateurs are putting their telescopes to useful work, such as watching variable stars, comets, and meteors, observations outside the more important programs of the large observatories.

As a matter of fact, our largest telescope today, at Palomar Mountain, is essentially a camera, and astronomers rarely will look through it. Instead, a moderate-size telescope of, say, twelve inches aperture, gives the inquisitive eye of the amateur about as much fine detail of the moon, or Mars as if he were looking through the 200-inch giant.

"Would-be astronomers" drop in often to see me. Many more write to me for help, and since they have dubbed me "father confessor," I answer them all conscientiously. I have never regretted the long hours devoted to helping these amateurs. The satisfaction of knowing that they are deriving keen enjoyment in better understanding the mechanism of the universe we live in is ample reward.

RUSSELL W. PORTER

Russell W. Porter, associate in optics and instrument design at the California Institute until his retirement a few years ago, is referred to as the "idea man" of the Palomar project. Porter's architectural drawings for the telescope, the observatory, and the equipment on the Palomar Mountain installation are to be found in this magazine and in nearly every publication concerned with the story of the 200-inch.

Widely known for his ingenuity in building his own telescopes from spare parts and for popularizing this hobby among amateur observers throughout the country, Porter was chosen in 1928 by Dr. George Ellery Hale to join the Institute staff and make preliminary sketches for the Astrophysical Laboratory at Caltech. Performing a variety of tasks on this project and the development of Palomar itself, some of Porter's most significant contributions have been in the translation of blueprint designs into three-dimensional drawings, and in the design of accessory equipment for the telescope and its mechanism.

Russell Porter received his undergraduate training at Norwich University, which has subsequently awarded him an honorary M.E. degree, and he was graduated from M.I.T. as an architect. After leaving Massachusetts Tech, as an architect, however, Porter turned first to Arctic exploration. He went as surveyor with the Cook expedition to West Greenland in 1894 and was with three Peary Relief expeditions, in 1896, 1897, and 1899. He was artist and surveyor with the Ziegler Polar Expeditions of 1901-02 and 1903-05, when he discovered a number of new islands and mapped more than 500 miles of new coastline.

As a side interest he turned to the design and construction of home-made telescopes, including one which he patented and put on the market. Despite his preoccupation with the vast Palomar project during the last 20 years, he is looked upon as patron saint by amateur astronomers the world over and still maintains a lively correspondence with them.

(Editor's note—On February 22, 1949, Russell Porter, 77, died of a heart attack, at his home in Pasadena.)