

# BOOKS

## PALOMAR

### The World's Largest Telescope

By Helen Wright.

The Macmillan Co., New York \$3.75

**H**ELEN WRIGHT's book is a popular history of the origin and development of the 200-inch Hale telescope—and a good one. Though it's a small book (188 pages) it covers a lot of ground, starting with Galileo and the first astronomical telescope, and working up to George Ellery Hale and the greatest of all telescopes.

After a historical introduction on telescopes, Miss Wright settles down to the story of the 200-inch from the time when Hale first conceived it in 1928, through the negotiations with the Rockefeller Foundation which resulted in a \$6,000,000 grant to build it, the selection of Palomar Mountain as the site for it, the construction of the observatory, the casting of the mirror at the Corning Glass Works, the building of the mounting at the Westinghouse Elec-

tric and Manufacturing Company, and the dedication of the telescope on June 3, 1948.

Helen Wright is an astronomer herself (she's been associated with the Vassar College Astronomy Department, the U. S. Naval Observatory, Mount Wilson Observatory and the Maria Mitchell Observatory) and she is author of a biography of Maria Mitchell, America's first woman astronomer. For the past three years she has been working, under a Carnegie Foundation grant, on what is to be the official biography of George Ellery Hale. *Palomar* is a detour from this long-range project.

Naturally, then, this book is strong on detail from the years when Hale was alive (he died in 1938). Material on the final construction, tests and recent observations made with the 200-inch telescope is confined to a few pages in the book—though that doesn't keep it from being a first-rate introduction to the Palomar Observatory.

## Recent Faculty Publications

### THOMAS POWNALL

By John A. Schutz, Assistant Professor of History

The Arthur H. Clark Co., Glendale, Calif.

\$10.00

**A** BIOGRAPHY of the British defender of American liberties who served as Governor of Massachusetts from 1757 to 1760—and an incisive study of Anglo-American relations in the eighteenth century.

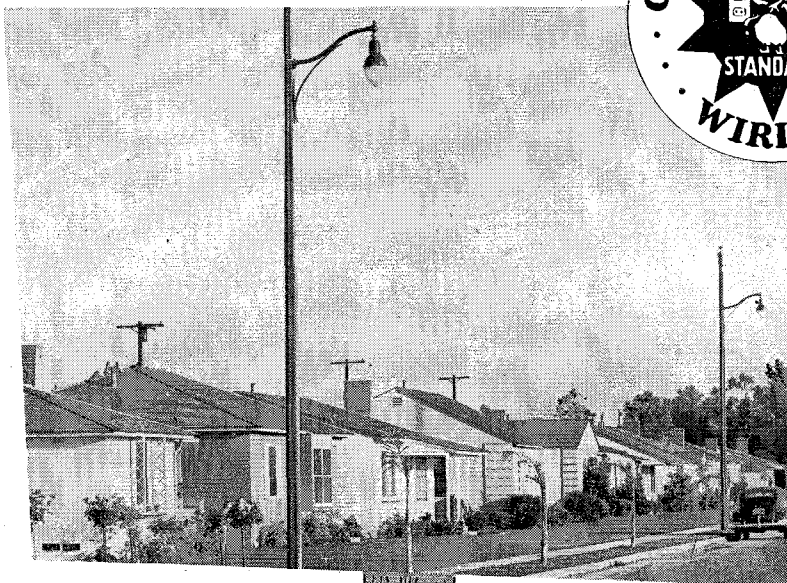
### PRINCIPLES OF PLANT PHYSIOLOGY

By James Bonner, Professor of Biology, and Arthur W. Galston, Associate Professor of Biology

W. H. Freeman & Company, San Francisco

\$5.50

**A** TEXTBOOK for undergraduate students, at the second or third year level, who have had a course in general chemistry and general biology or botany.



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Plant physiology is a subdiscipline of botany concerned with the functioning, or physiology, of plants. Closely related fields include plant morphology (structure of plants), plant ecology (interactions with the environment), phytochemistry (biochemistry of plants), cell biology, genetics, biophysics and molecular biology. Fundamental processes such as photosynthesis, respiration, plant nutrition, plant hormone functions, tropisms, nastic movements, photoperiodism, photomorphogenesis, circadian Principles of plant physiology. Item Preview. remove-circle. Share or Embed This Item. EMBED.Â Principles of plant physiology. by. Bonner, James Frederick, 1910-. Publication date. 1952. Topics. Plant physiology. Publisher. San Francisco, W. H. Freeman. Plant Pathogens & Principles of Plant Pathology. 1951-57 -E. A. GaÃ¼mann was one of the first to investigate the physiology of the wilts caused by *Fusarium* spp. He put forth the involvement of toxin (toxin theory) in wilt diseases. 1952 -N.F. Jensen suggested blending of different resistant genotypes of similar agronomic characters in fields of oats to reduce the spread of rust and losses from rust. 1953 -N. E. Borlaug and associates developed multiline cultivars for wheat. 1953 â€œ Pontecorvo and his associates demonstrated parasexualism in fungi. 1956 -J. G. Horsfall published a book entitl Access study documents, get answers to your study questions, and connect with real tutors for PLS 360 : Principles of Plant Physiology at University Of Arizona.Â Principles of Plant Physiology Questions & Answers. Principles of Plant Physiology Documents. All (36). Assessments.

Scientists died on June 3rd. Science events on June 3rd. Search Site. Today in Science History - Quickie Quiz. Telescopes were a special interest of his, and Gregory also experimented with making an achromatic telescope. Gregory and did important work on series. It manufactured and leased equipment. Panavision is an anamorphic system, using a 65mm negative and a 70mm print, projected in a letterbox shape with a 2.66 to 1 ratio. Gottschalk developed specially designed lenses used during capture and projection that worked with an image recorded on the film that is compressed horizontally. An unmodified widescreen image would occupy only half the area of a standard 1.33 to 1 film frame, wasting space above and below. Instead of using a single mirror, telescopes are being designed with many smaller mirrors aligned to collect and focus the light as if they were a single mirror. These are called segmented mirrors. Resolving Power. If you mark two black dots close together on a piece of paper and look at them from the other side of the room, your eye may see them as a single dot. Likewise, stars that lie close together or markings on planets may not be distinguishable. The large telescopes and the associated equipment astronomers use are extremely expensive. Therefore the largest telescopes are often national or international facilities. The largest optical telescopes in the U.S. at this time are the twin 10 meters Keck telescopes; these telescopes pioneered the use of segmented mirrors. PerkinElmer and Manufacturing Company, and the dedication of the telescope on June 3, 1948. Helen Wright is an astronomer herself (she's been associated with the Vassar College Astronomy Department, the U. S. Naval Observatory, Mount Wilson Observatory and the Maria Mitchell Observatory) and she is author of a biography of Maria Mitchell, America's first woman astronomer. For the past three years she has been working, under a Carnegie Foundation grant, on what is to be the official biography of George Ellery Hale. Palomar is a detour from this long-range project. Naturally Is she meeting us at the restaurant? I'm leaving on Monday is more common than I'm going to leave on Monday. We often use the present continuous with a future meaning, especially for future arrangements, i.e. for plans we have made at a fixed time or place in the future. Don't use the present simple for this. NOT see some friends tonight. 3C defining relative clauses with who, which, where Use defining relative clauses to explain what a person, thing or place is or does. It was not too long, however, until Italian astronomer Galileo heard about the invention that through use of correctly-positioned lenses, allowed people to see things a long way away. The tools used in the manufacturing of the first refracting telescope were all Galileo needed to know and within 24 hours he had developed a better one. In fact, the process of improvements Galileo made on Lippershey's telescope was quite dramatic. Whereas the original version had a magnification of 3, the new telescope had a magnification of around 30. Galileo achieved these extraordinary results by figuring o