

evolution and subatomic energy is evidence of how completely interrelated the sciences of astronomy and nuclear physics have become. Nuclear physics is used to explain such phenomena as variable stars, red giants, white dwarfs, novae, and super-novae.

---Eugene S. Henning

McGraw-Hill Book Company recently announced publication of the 4th edition of "The Elements of Astronomy" by E. A. Fath, Professor of Astronomy in Carlton College. It is claimed to be written in the simplest possible language and avoids the use of higher mathematics, yet is strictly scientific and puts one in touch with the latest and best research in astronomy.

A Dipper-Full of Stars by Lou Williams, 1944, is intended for young readers. It is profusely illustrated with drawings of constellations and directions to find them in the sky are easy to follow. However, the text contains some questionable statements of fact.

SUN LORE OF THE INDIANS was the topic of the 13th annual James Arthur lecture, delivered by Matthew W. Stirling on January 17th at the National Museum. (Notice was received too late to be passed along.) Mr. Stirling recited a number of myths surrounding the sun and moon by which the Indians measured time and ordered their lives.

American Indians were actually concerned more about the effects of the sun than the sun itself, such as the seasons, crops, and temperatures. Some groups represent the sun as a disk in their ceremonies, others in California and Panama as a sphere. Still others look upon the sun as a hole in the sky through which the light shines. The sun was most universally venerated as a deity among the Indians although certain tribes believed it was an object under the control of a god. The lecture was concluded with a few slides.

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### STAR DUST

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Amateur Astronomers Association  
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V.-P., Major U. S. Lyons, 4315 Chesapeake St. N.W.  
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WHAT WE LEARN FROM LOOKING AT THE SUN will be the subject of an illustrated lecture by Major U. S. Lyons of the Naval Observatory at the meeting on February 3d, 8 p.m. at the National Museum.

HISTORY OF ASTRONOMY GROUP learned a great deal about the development of telescopes and their usefulness, at the last meeting. Dr. Woolard also discussed spectroscopy and its many applications. The next class will meet Monday, February 19th, 7:30 p.m. at the home of Dr. Woolard.

SOLAR ECLIPSE OBSERVATION. The Detroit Astronomical Society sent us the following letter:

"There is a movement afoot, first suggested by the above society, to try to ascertain the number of amateur astronomical societies which might be interested in sending members, under the auspices of the AALA, who would offer to work along with the professional astronomer in the observational field on the occasion of the coming total solar eclipse of July 9, 1945, the path of which will move in a ~~north~~-easterly direction over Saskatchewan. After ~~names~~ of interested societies have been obtained,

the editor of SKY AND TELESCOPE has generously promised to publish details of the plans as they develop. The professional astronomer is being asked to advise our most useful form of observational procedure.

"A speedy reply will be helpful in the event that some of your group might be interested. No more details to date. Please address reply to Mrs. M. Back, Sec., 46 Edgemere, Grosse Pointe Farms 30, Michigan."

Two of our members have signified their interest in going.

SOUND MOVIES SHOWN of clouds, fire weather, and fog. Clouds are of great significance in weather forecasting. They are divided into four main types--cirrus, stratus, cumulus, and nimbus. They usually appear in definite cycles with nimbus coming before a storm and cirrus during clear weather.

One of the least known services of the Weather Bureau is the maintenance of fire weather stations in timber country. High winds and low humidity are perfect conditions for forest fires. From fire weather stations close observation is kept over the surrounding land and upon detection of a spark, crews set to work immediately to prevent the blaze from spreading. Daily fire weather maps are made from accurate reports sent in from these stations.

Fog, according to a Navy training film, is one of the worst hazards to fliers. This Walt Disney production showed the formation of fog as the moist air is condensed. When the air is cooled so that its temperature equals the dew-point, fog forms. The amount of spread between the dew-point and the air temperature helps in predicting fog. Light winds serve to intensify the fog while strong winds often prevent its formation. Fog usually forms in the early morning hours and clears

a few hours after sunrise. Advection fog which forms over the coast or sea, depending on the direction of the wind, covers a large area and is more dangerous to the flier.

---Joyce Kummell  
Vera Cooper

#### BOOKS

Recent accessions as the Public Library, Technology Division:

- Air Navigation: Part 4 Navigation Instruments. Published by McGraw-Hill under authority of the Navy Department.
- Primer of Navigation, Geo. W. Mixter. 2d edition, 1944. Piloting and celestial navigation textbook.
- Stars and Planets, Donald H. Menzel, revised 1938. A wealth of information packed in a small book. Clear and comprehensible to the beginner and a useful reference for any amateur. Cited in other books on astronomy.
- Primer of Celestial Navigation, John Favill. 3d edition, 1944.
- The Universe Around Us, Sir James H. Jeans. 4th edition, 1944. Considerably revised.
- Beginner's Star-Book, Edgar G. Murphy. 4th edition, 1937.

Books may be obtained from the main library or through any of its branches.

Biography of the Earth, by George Gamow, The Viking Press, 1941. Planetary evolution is described in a simple, readable manner, with particular emphases on our own earth and moon; also

Birth and Death of the Sun, same author and publisher, 1940. This fascinating account of stellar