

special activities, are available for 15¢. Special thanks to Janet Perkins and George Flachy for their work in duplicating it.

NEW MEMBERS

- Crowell, James D., 4909 14th Street N.W. Randolph 2088
- Deane, Mrs. Kenneth W., 2148 O St. N.W. Michigan 2872
- Gleason, Fred H., 2201 G Street N.W. Metropolitan 7748
- Herschfeld, Aaron, 1430 Newton St. N.W. Adams 2889
- Hutzler, Harriet, 1513 20th St. N.W. Adams 9873
- Wood, Mr. and Mrs. Herbert, 3417 New Mexico Ave. N.W. Ordway 2438
- \*Carroll, Jr., Leo M., 3601 Conn. Ave. N.W. Woodley 6900

OCCULTATION PREDICTIONS

Morgan Gilley

Dec.	Star. No.	Mag.	Immersion	Hour	Angle
15	2965	7.0	6:37 PM	4	W
19	3458	6.5	6:29 PM	1	W
21	128	7.3	5:27 PM	1.5	E
23	380	7.4	7:04 PM	1.5	E

All on dark edge and all E.S.T. Astronomical twilight ends 44m after occultation on December 23.

POPULAR ASTRONOMY CLASS to be conducted by Charles Drayton, Jr. Intended for adults and serious younger students, this class will provide an opportunity to learn astronomy by observations with binoculars from 4x to 10x and a Skyscope, projected illustrations, and informal talks. This is a private enterprise of Mr. Drayton's and a fee will be collected of 75¢ per meeting or \$5 for ten meetings. For time and place, call Mr. Drayton at North 8890, address 2400 Wyoming Avenue N.W. There is a widespread need of such a class and NCA is pleased to refer inquiries to Mr. Drayton.

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Mabel Sterns, editor, 2517 K Street N.W. District 9422

STAR DUST  
National Capital Astronomers  
Washington, D. C.

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Dec. COMING EVENTS

- 2 Observation for pupils and parents at Colesville School, 8 p.m. Carroll Slemaker, Chairman.
- 6 "Popular Astronomy," C. H. Gamble, 8 p.m. at National Museum. Illustrated.
- 18 5-inch night: Uranus, operation of the telescope, general observation; Carroll Slemaker, Chairman.
- 20 Junior night at the 5-inch, with Carl Werntz.
- Mon.) Telescope-making class, McKinley High School, 6:30
- Wed.) until 9:51. Mr. McLellan supervises mirror grind-
- Thurs.) ing and machining mounts.

"POPULAR ASTRONOMY" will be Carl H. Gamble's topic on December 6. Mr. Gamble is proprietor of Sky Ridge Observatory and founder of the Popular Astronomy Club at Moline, Ill. During the last seventeen years he has spoken to more than 400 audiences, and annually is host to nearly 1500 visitors at his observatory. He will show a number of slides.

THE PRINCIPAL OF COLESVILLE SCHOOL has asked NCA to bring telescopes Tuesday night, December 2 or December 9 if the weather is cloudy. The school is six miles from Silver Spring traffic light, on the Colesville Pike. Mr. Slemaker will request certain scopes and others are asked to volunteer. Set up by 8 o'clock; a large crowd is expected from the community.

JUNIOR NIGHT AT THE 5" was rained out November 22. With better skies Saturday, December 20, Carl Werntz will again focus the telescope.

5-INCH NIGHT for the regular members enjoyed its third successive clear night for observing. Mr. Slemaker is adept at finding difficult objects and gives a descriptive account of each. The next meeting will be December 18 when Uranus should be visible. Besides general observation, those who want to use the telescope will be shown how to use it properly.

TELESCOPE-MAKING CLASS has 22 registered students. More mirror blanks are expected early in December, which will accommodate others who want to grind. December 22 will be the last class before Christmas vacation.

TWO-INCH LENS BLANKS, crown and flint, rough ground, surplus from Naval Ordnance Laboratory have been released to NCA through the Public Schools. They are not for sale but will be given to members of NCA and registrants of the telescope class who request them. See Mr. McLellan.

THE ASTRONOMICAL HOBBY SHOW was a pronounced success. Mr. Stanton was there with his celestial globe of spun copper. An intricate gear train rotates it to show motions of the sun, moon, and stars in relation to a fixed position on the earth. Carroll Slemaker had a lunar and stellar camera made out of cardboard, also photos taken with them; Walter Gilbert, photos of the moon and series of sunspots taken with a 2" refractor; John Lankford had an assortment of books, observation records, and astronomical charts. An entire table was covered by Miss Warthen's exhibit: umbrella planetarium, scrapbooks, model of ecliptic constellations and visible planet orbits, others showing relative sizes of the planets, and earth and moon.

Among the books were a copy of Newton's "Optiks" 1730; "Scenery of the Heavens," 1837, from Mr. Johnson's collection; colored star chart of 1835, "Uranography" 1844, Smith's "Illustrated Astronomy," 1866, and "Fourteen Weeks' Course in Astronomy," 1873, all displayed by Bob Wright. He also showed an electric soldering iron adapted to make grooves in pitch lap, a Foucault testing device, etc. Mr. D'Andelet brought (see page 5)

his shiny, new 6-inch telescope with skeletal tube. It was the center of much admiration. A number of still pictures were presented. Mr. Wright and his committee are to be commended for the fine showing of these and other items. It is hoped that the hobby show will be repeated and that even more gadgeteers will exhibit their handiwork.

Discussion group will not meet in December: too near Christmas, Mr. Wright says.

VISIT TO WILLIAMS OBSERVATORY at Frederick, Md., was made by about thirty association members on October 25. Miss Leah B. Allen, Director, arranged several interesting telescopic and spectroscopic observations. Also on display for the group were a number of devices and models constructed by Miss Allen, demonstrating various aspects of astronomy and physics. The exhibits and observations, together with Miss Allen's informative explanations with reference to each, added to the astronomical knowledge of every NCA member who made the trip. ---Jewell Boling

PICNIC-OBSERVATION at Sligo Creek Cabin November 8 was favored by clear weather. Besides observation with several scopes, Miss Warthen's pictures of the Philadelphia convention were an added attraction. Mr. Benfer treated the crowd to a peek through his richest-field telescope, one of the first among our members.

VISITORS TO THE RADAR STATION at Sterling, Va., November 14 brought back reports of much larger instruments than were used a year ago. One of them measures height of the ionosphere; a disc 25 feet in diameter measures radiation of the sun; another device is intended to measure amount of hydrogen in the Milky Way. Those who went were fortunate in having the personal guidance of Mr. Grote Reber who described these instruments at the October meeting. No meteors were visible either visually or by radar.

"TEN YEARS WITH THE NATIONAL CAPITAL ASTRONOMERS," compiled by Grace Scholz, 19 pages giving the history, names of speakers, classes, officers, trustees, and

BOOKS

"The Naming of the Telescope," Edward Rosen. New York: Henry Schuman, 1947. Pp. xvi, 110. Illustrated. \$2.50. Foreword by Harlow Shapley.

The history of how Galileo's "perspicillum" eventually acquired the name "telescope" is presented in great detail for those interested in this particular incident in the history of astronomy. Actually, the author has chosen much too small a topic to be covered in an entire book, and consequently has brought in many facts irrelevant to the immediate purpose of his subject, but facts which in themselves, are very interesting from the standpoint of astronomical history and which contribute to an understanding of the beliefs and feelings prevalent at the onset of the scientific revolution 350 years ago. Presumably, the details presented are accurate and complete, but the writer's style is at times confusing, and this reviewer found it difficult to retain interest long enough to finish the book. ---Priscilla B. Wood

"Making Your Own Telescope," Allyn J. Thompson. Sky Publishing Co., Cambridge, Mass. 1947. 211 pp. 104 illustrations. \$3.50.

Well written and organized, this volume is a stimulating, intensely practical guide to construction of small reflectors at low cost. The author is an experienced builder and instructor of classes in amateur telescope making at the Hayden Planetarium.

After an introductory chapter on the Story of the Telescope, the author proceeds with systematic description of each step in construction from grindings, polishing, and figuring mirrors to preparing mountings. The appendix material thoughtfully anticipates many contingencies and questions which arise in the course of construction.

Although designed primarily as a handbook for beginners, the book will doubtless provide many valuable

technical hints and unique solutions for the more advanced amateur. It should also have a large measure of appeal for the non-builder. He will not only gain an insight into the pet enthusiasm of many a fellow amateur, but will absorb telescope lore not readily accessible elsewhere in such digestible form.  
---R. J. Hinckley. (Available from R. M. McLellan.)

"The 200 Inch Telescope and Some Problems It May Solve," Edwin Hubble. Publications of Astronomical Society of the Pacific. Aug. 1947, pp. 153-67.

This is an entertaining popular lecture delivered in April of this year by the noted Mount Wilson astronomer. There is a brief sketch of the development of telescopes in general and the 200-inch in particular. The main body of the lecture discusses the principal aspects of the unique light-gathering power of the 200-inch, namely, resolution, dispersion, and depth penetration. Three specific problems are selected to illustrate the three aspects. They are respectively: the existence of canals on Mars, the relative abundance of chemical elements in the stars, and the nature of the "red shift," as it bears upon the large-scale structure of the universe.  
---R. J. Hinckley

"Unlocking Secrets of the Northern Lights," Carl W. Gartlein. National Geographic Magazine, Nov. 1947.

The author of this authoritative article is a Cornell physicist who has been Director of the National Geographic-Cornell study of aurora since 1938. The solar causes of the aurora are described and the correlation with magnetic storms pointed out. A good explanation is given of the methods of observation and instruments used to determine the height of the aurora, brightness, and spectrum. The principal forms of auroral displays are catalogued and their rather definite sequences pointed out. The article is accompanied by 39 illustrations and eight excellent color paintings. The author makes an appeal for help from amateur astronomers in the observation program and offers detailed instructions to anyone who writes to him or to the National Geographic Society. ---R. J. Hinckley