DETROIT ASTRONOMICAL SOCIETY

Volume 3 No. 10 **Newsletter** FEBRUARY 1967

9900 EAST JEFFERSON DETROIT, MICHIGAN 48214

DOUBLE FEATURE ASTRONOMY MOVIE AT FEBRUARY MEETING

Two exceptional motion pictures will be shown Sunday, February 12, at 3:15 p.m. in the Science Building of the University of Detroit.

"THE ASTRONOMER" furnishes a glimpse into the life of the professional astronomer and wide range of tools he employs to seek-out the secrets of the Universe.

"CHRISTIAN HUYGENS" takes the audience to 17th Century Holland, England and France to follow the career of this great Dutch inventor, astronomer, mathematician and scientist. Inventor of the pendulum clock, discoverer of the rings of Saturn and the wave nature of light, teacher of Leibnitz and idol of Newton --- Huygens loomed as a giant among the scientists of his time. Through the eye of the camera we see him designing and grinding the lenses for the telescopes which were far superior than those of his day.

Also, "Observing Notes" for February and March.

Bring your friends. The meeting is open to the public and there is no charge.

DINING UNDER THE STARS

by "Doc" Marshall

We can't offer you a meal in an orbiting satellite -but - we can offer a good dinner about as close to the stars as you can get in Detroit.

This sneaky approach is really to say Come to the Society's Annual Banquet on Saturday, April 15, 1967.

The banquet will be high up in the Ontario Room on the 25th floor of the Ponchartrain Hotel. The hotel is new, the room beautiful, the view magnificent and the place is noted for its good food.

Best. of all, in spite of drastic increases in hotel food prices in the last year, we can promise the price will not be more than $5.00 per person.

Next month the Newsletter will give you full details and will include a reservation blank. In the meantime, put a ring around the date on your calendar, save April 15 for a real good time.

Special Program Planned for Science Teachers

A special Friday evening program for Science teachers is being planned for late March or April. The purpose of this program is to acquaint teachers in the metropolitan area with the weekly activities of the Society and explain what is available in the way of models, exhibits and audio-visual aids for loan to those conducting a class unit on Astronomy.

Such a meeting was requested by Society President, Dr. Blass, as a result of a Science Teachers Seminar held at the University of Detroit last October. At that meeting Dr. Blass compiled a list of teachers who expressed a desire to attend such a program. It is hoped that a date can be chosen in early spring which will find weather conditions appropriate for some telescope viewing in the park area at the Center.

The committee appointed by Dr. Blass to arrange the program consists of D.A.S. Board members F. Nelson Lewis and R. Lloyd, and Norman Williams of Northwestern High School.

It is requested that members who wish to help with this project or have suggestions

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February Program of Events at Sylvia Allen Center

FRIDAY, FEBRUARY 3, 1967
8:30 p.m. - Beginner's Class
"LUNAR OCCULTATIONS"

FRIDAY, FEBRUARY 10, 1967
8:30 p.m. - GUEST SPEAKER, ERNEST KOSSOW
"CORRECTED OPTICAL SYSTEMS"

Mr. Kossow's visit scheduled for January was cancelled because of weather. He has consented to try again. He will discuss such things as optical resolution and Dawes limits, plus design and testing of telescopes and microscope systems.

★ Sunday, February 12

Don't Forget the Afternoon Meeting at U.of D. (See page one for details)]

FRIDAY, FEBRUARY 17, 1967
8:30 p.m. - Beginner's Class
"THE SATELLITES OF MARS "

This talk originally scheduled for Jan., but postponed because of weather.
9:00 p.m. - MOVIE

FRIDAY, FEBRUARY 24, 1967
8:30 p.m.. - Beginner's Class
"THE RED SPOT and SOUTH TROPICAL DISTURBANCE"

A discussion of two markings visible on the surface of Jupiter which do not vary in shape but do change position through the years.

FEB. 24 continued
9:00 p.m. - Optics Class
"TELESCOPE ERECTING SYSTEMS"

How the upside-down image of the astronomical telescope can be righted for terrestrial viewing. Also, how some of these systems may be used to vary the power,

FRIDAY, MARCH 3, 1967
8:30 p.m. -- Beginner's Class
"THE ORION NEBULA"

The Great Nebula and the Horsehead; How to locate them; Observing through the telescope; The Trapezium.

9:00 p.m.
"DESIGN AND CONSTRUCTION OF TELESCOPE MOUNTS"

A comparison of the equatorial mount and the alt azimuth. Slow motion devices and clock drive. Hints on construction for the low budget astronomer.

FRIDAY, MARCH 10, 1967
8:30 p.m. - MOVIE
9:00 p.m. - SPECIAL

"PHOTOGRAPHING THE HEAVENS"

Simple methods of getting pictures of stars, planets and satellites. Basic photographic techniques. Guide systems for telescopes and hand guiding techniques.

TEACHERS - - cont'd from first page
to offer, please contact one of these three gentlemen. It is also requested that those acquainted with science teachers inform them that a card mailed to the Society expressing interest will assure an invitation to attend.

JANUARY MEETING

Attendance at the January Meeting broke all records for the last five years. Dick Love and Newell Saigeon pulled some tricks out of the hat that surprised the members of the Expedition that had been with them in Peru. We refer to some sound tapes that no one had suspected existed. Even the transcontinental radio conversations had been caught on tape. The audience was able to listen in to the actual shouting and side conversations at the time of totality.

The three amendments proposed by the By-Laws Committee were voted upon and passed.

ASTRO-LEAGUE CONVENTION

The 1967 General Convention of the Astronomical League will be held in Washington, D. C., June 70, July 1, 2, 3, and 4. All sessions and the exhibits will be at Georgetown University.

More about the trips, programs, housing and registration in a future Newsletter.

For paper presentations, write: G.R. Wright, 202 Piping Rock Dr., Silver Spring, Md. 20904.

For exhibits, write: Dr. James J.Krebs, 3922 Southern Av. S.E., Washington, D.C.20020.

Will you need electricity? Please give details of space and any other special requirements.

WANTED - Society Librarians

Our Society has lost its librarian.

Ludean Ernest, who has filled that position for the past two and a half years, because of other demands on her time, has found it impossible to continue.

During this period she has done a tremendous job of organizing, cataloging and preparing a guide list of current books on Astronomy which would be most desirable for purchase.

The Board of Directors has for some time discussed the advisability of setting up a program for building up the Society's library at the Allen Center. It is felt that a comprehensive collection of up-to-date reference books should be made available to our members. These would cover, in addition to Astronomy, such other subjects as Optics and Photography.

The first step in setting up such a pro¬ject is to provide for a staff of volunteer workers to insure that someone is available each Friday night to supervise the library nd assist members in obtaining information.

If you have an interest in books of this type and enjoy discussing research projects and helping people, this may be the sort of rewarding endeavor you are seeking. It would not require attendance at the Center every Friday. If a staff of four or five can be provided, this work could be rotated so that one night a month would be all that would be necessary.

A meeting is planned for the later part of February to discuss this matter. If you are interested in helping to plan such a project or helping to carry it out, please call: John Hartleib at TI 6-6703.

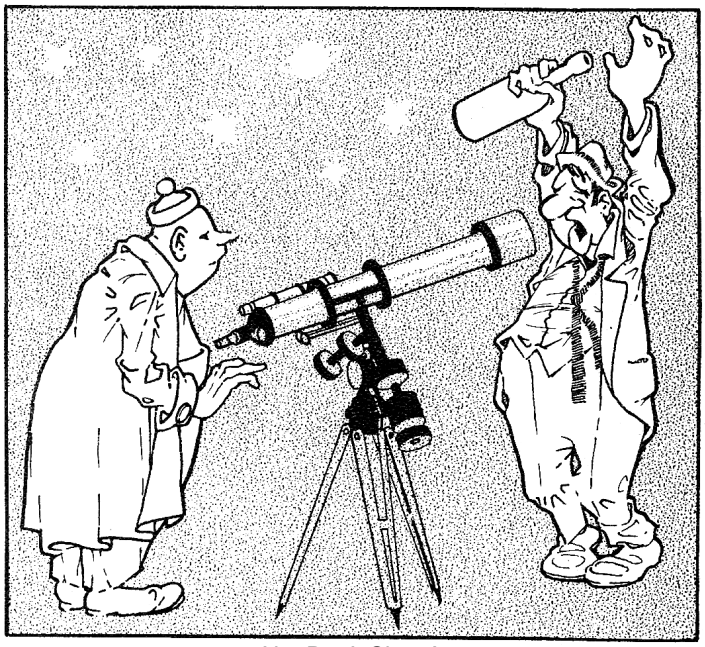
TO BUILD TELESCOPE MOUNTS

There is always a need for an efficient low-budget telescope mount. With the recent increase in the mirror making activities at the Center, this need is greater. It is proposed to set up a mount building class using the craft shop facilities.

We have successfully prevailed on Mr. Cass Niborski, designer of the 'Niborski Equatorial Mount", to begin such a class. Cass, who was very active in the past as an instructor in mirror-making, is back with us again on Fridays. This fact we know will be recognized as "good news" by many of our old timers. If you enjoy woodworking or metalworking and would like to assist in this area, or if you are interested in en-rolling in such a class, please contact Mr. Niborski on Friday at the Center or 'phone Dick Lloyd at VE 7-7857.

Spring Observing Party

In next month's issue we would like to run an article on planning a Spring observing party. Suggestions for time and locale are solicited. Call Linda Lloyd, VE 7-7857.



No, Don't Shoot!

G.L. Regional Convention

The Great Lakes Regional Convention will be held in Indianapolis this summer. While the date has not yet been announced, it is not too early to plan a paper or exhibit. It is planned to hold a "Telescope Fair" such as the one which was so successful at Greenville, Ohio, last year. If you are interested in presenting a paper or entering a Teaching, Optical or General Astronomical Exhibit and want help or advice, contact: Nelson Lewis, Fragk Lipke or Joseph Shires.

Amateur Astrophotography

Whether the amateur astronomer builds or purchases his first telescope, within a short time he begins to dream of catching on film the sights he sees through the eye¬piece. He suspects that it can be done. He may know that others have done it. But he doesn't know how. A glance through the ads or catalogs reveals that there are camera attachments for telescopes, also that they are costly. There are, however, many photos that can be taken with equipment at hand.

With a 35mm camera, striking photographs of of the moon can be made using the telescope as, an auxiliary lens.

A camera with a 50mm (2 inch) lens pointed directly at the moon will produce an image on the film 1/50 of an inch in diameter. The same camera used with s 6 inch telescope at 48 power will give a one inch image. Using a film such as Eastman Plus-X should give adequate exposure capable of enlarging to 8"x10" size. The procedure for this type of photography is as follows:

Focus telescope on the moon (if you norm¬ally wear glasses, keep them on while doing this). Set the camera at infinity focus and1/50 second (with a 2 and 1/2 inch 'scope, use 1/25 second at 30 power). Set lens at widest aperture. Place camera lens close to eyepiece, but make certain that it does not touch. Make sure that camera is normal to axis of eyepiece (not tilted). Distance from eyepiece to lens may be varied. Keep a record and analyze negatives to determine best position.

This system works fine for Lunar shots because the moon is bright and relatively close. If used on Jupiter, the image will be only

1/40 of an in. in diam. and shutter speed must be changed to 1/10 sec. At this speed some means other than hand-holding should be employed.

Interesting photo work can be done on Jupiter using the camera without the telescope. Using a tripod or piggy-back mounting on the telescope, make exposures of one or two seconds at f2.8 Or f3.5. Include some prominent stars such as Castor and Pollux in the field. Negatives or slides taken a week apart may be projected and used to draw an accurate chart of the path of the planet as it moves in orbit.

Next month eyepiece projection and hand guiding for planetary photography will be discussed.

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