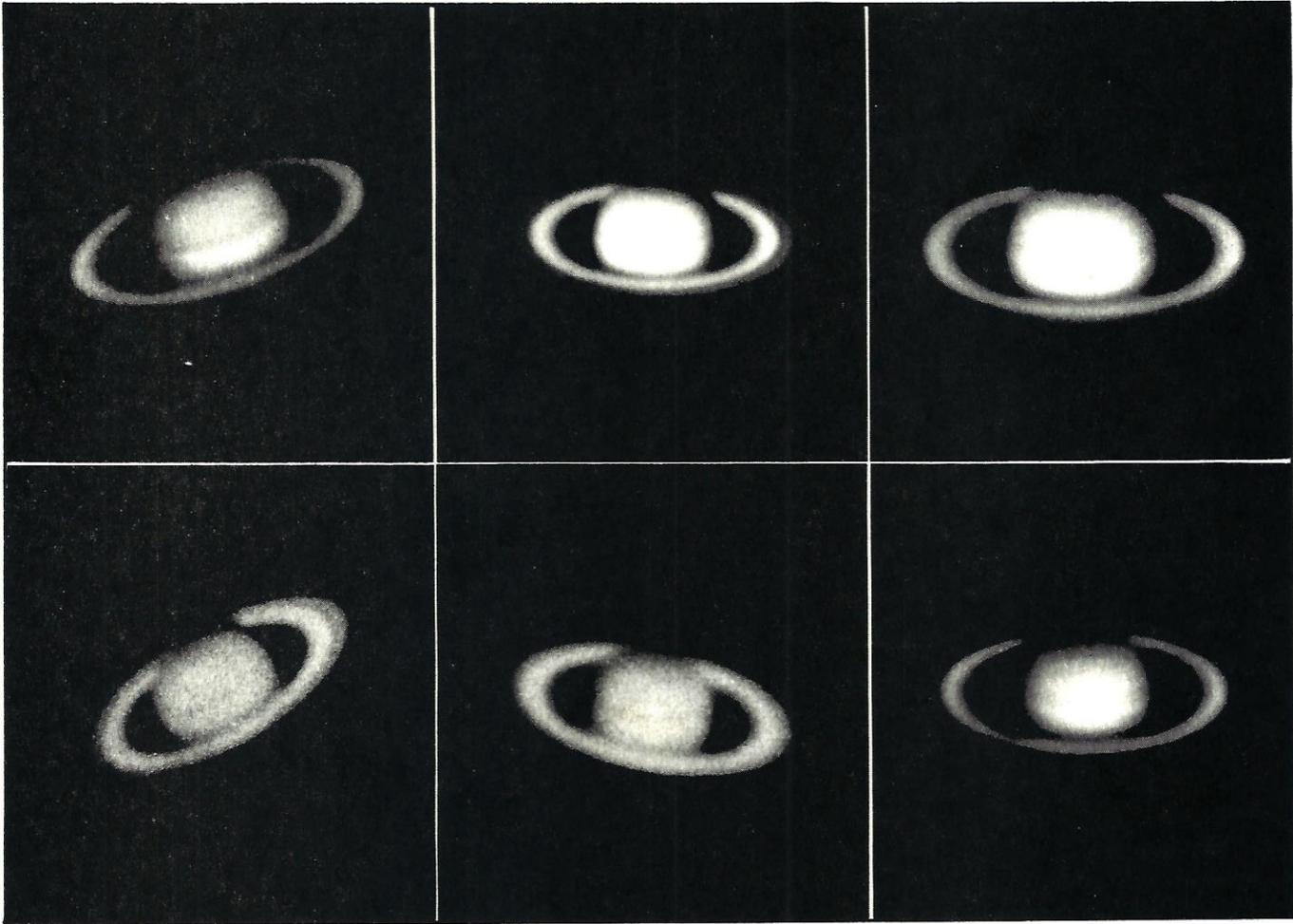


THE WASP



THE JOURNAL
OF THE WARREN
ASTRONOMICAL
SOCIETY



SEPT. 1978



The Warren Astronomical Society
P.O. Box 474
East Detroit, Michigan 48021

The top row shows three photographs taken with a Celestron 14. The leftmost is a seven second exposure at $f/70$ taken on H & W Control Film. The other two were taken at $f/90$, also for seven seconds, on Kodak SO-410 film. On the second row, the picture at extreme left was taken through a 12-1/2 inch at $f/90$; Tri-X was exposed for one second. The center one, a six second exposure on Tri-X, was taken with a Celestron 8 using a 12mm Kellner eyepiece. The last is from a home built eight inch $f/7$ reflector; eyepiece projection with a 7mm eyepiece was used, giving an effective focal ratio of $f/80$. It was a seven second exposure on Kodak SO-410.

Club News

The Warren Astronomical Society (W.A.S.) is a nonprofit organization of Amateur Astronomers. Membership is open to all interested persons. Annual dues are as follows; Student- \$11.00, College- \$13.00, Senior Citizen- \$15.50, Individual- \$18.00, Family- \$23.00, the membership fees listed here include a one year subscription to Sky & Telescope Magazine.

Meetings are held on the first Thursday of each month at Cranbrook, and the third Thursday of each month at Macomb County Comm. College.

The EDITOR: Roger A. Civic---26335 Beaconsfield
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OBSERVATORY SCHEDULE

Dennis Jozwik..Chairman. 754-2037

Lectures for the coming month are listed below.

Sept... 1/2 ... Dennis Jozwik 754-2037
Sept... 8/9 ... Pete Kwentus 771-3283
Sept... 15/16 ... Frank and Diane McCullough 1-725-4736
Sept... 22/23 ... Don Mission 1-727-9083
Sept... 29/30 ... John Root 464-7908

The lecturer may select either the Friday or Saturday, depending on the Weather and their personal schedule. NOTE..If you cannot lecture on your scheduled weekend, please call for a replacement as early as possible. If you wish to use Stargate, please call by 9 pm on the evening you plan to go out.

•buy – sell – trade•

FOR SALE...Celestron 8 with: wedge, tripod, 3 eyepieces, aluminum dew cap, counterweights, prism diagonal, piggyback camera mount, off axis guider, illuminated eyepiece, tele-compressor, tele-extender, and 'T' mount and ring for Cannon body. New cost-\$1571.00, selling for-\$1150.00.

Also..a Celestron 5, plus photo accessories, selling for \$600.00. Write Richard Hill, 3932 Todd, Midland, Mich. 48640 OR call 1-517-835-5548.

For sale...Tasco 60 mm telescope (tube only) 2 eye pieces and a 24 mm finder ..\$25.00. Also, Jagers 4½" reflector (tube only) with a 10X30 mm finder. Contact Joe Nunau, 681-2006.

For Sale...10" f/6 reflector with Optic Craft mount (pipe), asking \$300.00 Also, Celestron photographic accessories- A.C.-D.C. drive corrector and off axis guiding assembly. F. B. Bruner, 643 Washington, Hope In. 47246

For Sale ... 8" f/6 reflector, with 2.14 diagonal, mounted in 10" tube-50" long no eyepiece focusing mount. \$125.00. Also 4" O.D.-24" long, black iron stand that is ready to accept 3 legs and equatorial head (Pacific) \$15.00 plus, a 22½ lb. counter weight with 1" hole & screw clamp. \$15.00 Contact Roger Civic, 776-8735

FOR SALE...Unitron Unihex. Cost New \$35.25, will sell for half price. Mint condition. Bob Shannon-885-4283. Call after 6 p.m.

MINUTES OF THE JULY 20, 1978 MEETING OF THE WARREN ASTRONOMICAL SOCIETY HELD AT
MACOMB COMMUNITY COLLEGE:

The meeting was opened at 8:30 p.m. by our President Dave Harrington. Mention was made of the ninth anniversary of the first moon landing. Details of the August 11 and 12 camp-out star party were then revealed. Held annually in connection with the Perseid Meteor Shower, the get together will feature a messier contest conducted by Lou Faix. Doug Bock will organize a baseball game between our society and the Detroit group. Diane McCullough requested all to donate salads. Co-chairpeople for the event are Dennis Jozwik and Loretta Caulley.

Dave Dobrzelewski was the featured speaker. He gave an illustrated lecture entitled, "The Stellar Connection." New insights in understanding the universe were presented.

Robin Bock, treasurer, gave \$207, as our bank balance. She urged new and old members to update their dues in order to enjoy full participation in the Society's benefits. Rick Hill described exceptional optical buys to be had through Coulter Optical Co. Tim Skonieczny offered a Celestron 90 for \$370 to be purchased from University Optics. Members were invited to take advantage of this attractive price.

All new members were introduced by Mr. Harrington. Dennis Jozwik, observatory chairman, thanked everyone for painting and fixing up the Stargate facility. Pete Kwentus reminded all who wish to go to the eclipse next February to make their reservations as soon as possible. Doug Bock then disclosed the winners of the last Messier Contest. First place was taken by Rick and Delores Hill; second, Frank and Diane McCullough and, third, Dave Locke. Bernard Short, founder of the local chapter of the L-5 Society, spoke briefly on space colonization and invited all to the next meeting at his home in Rochester, Michigan. He resides at 626 Longford and can be reached at 375-0050. Monday, August 14, is the date of the next meeting.

Dr. Paul Strong, professor of astronomy at Macomb, displayed slides of sun spots. Doug Smith offered his slides of the Mars-Saturn conjunction. Jeff Stanek displayed professional shots of deep sky nebulae. Doug Bock capped the evening with pictures of the National meeting held this year on June 24 in Wisconsin.

The meeting was closed at 10:55 p.m. by Mr. Harrington.

Respectfully submitted,



Loretta D. Caulley Secretary

W.A.S. Summer Campout

The Warren Astronomical Society hosted its annual summer "Weekend with the Stars" on August 11, 12, and 13. Sixty-two members from four Michigan Societies attended the affair at the rural campsite. A highlight of the weekend was a dusk-to-dawn watch team effort on Perseid meteor showers. With two observers at each cardinal point and two data tabulators, over 230 members of shower were observed. Each team completed sky plots for half hour intervals throughout the night. Data on color, brilliance and trailing was also gathered. A peak rate of seventy-four per hour was recorded at 1:30 AM (EDT) on Saturday morning under mediocre sky conditions. Sky transparency was limited to fifth magnitude overhead and third magnitude near the horizons. After 3:00 AM sky conditions deteriorated further. Collated plots of all the trail paths indicated no other meteor origin points outside the Perseus constellation. Sporadic meteors were observed to vary from two to twelve an hour.

Saturday's daytime activities featured an intra club baseball game, fishing, sunspot observing and the usual comparisons of telescope designs along with casual strolls through the woods. A picnic dinner, with Superchef Frank McCullough attending the grills, prepared everyone for the second longest night of astronomical events. In the fading twilight, Warren's popular program "Eclipse at Sea-1977" was projected onto the outside wall of the observatory while the taped dialogue and background music was played over quadrasonic speakers. In the early evening the resolution of amateur and commercial telescopes and seeing skills of the builders and owners were tested on astronomical charts prepared by the club's commercial artist Roger Civic. At a 'quarter mile distance the participants had to identify planetary features, split progressively closer double stars and describe faint satellite arrangements. Society President, Dr. David Harrington awarded top honors to Louis Faix with his homemade a 10" F5.8 Newtonian. Jim Vax's 8" Celestron was runner up. The main feature of the night was a new type of Messier observing contest which challenged the participants' knowledge of sky objects, riddle and clue solving ability and observing skills. Dolores and Rick Hill won the ninety-minute event and the right to claim the coveted "Kenneth Wilson Observing Trophy." Mr. Wilson, being on a brief summer leave from the San Francisco Morrison Planetarium and the California Academy of Science, was present to participate in the judging along with program director Lou Faix. Runners ups were Rick Carter, Frank McCullough and Douglas Bock. While some members continued the meteor watch and astrophotography, others gathered about the campfire to enjoy the summer night, hot coffee and the guitar and singing of Jim Yax. The fading of the embers and the sight of Orion vaulting over the horizon signaled the conclusion of the weekend. Much credit for an enjoyable outing was given to co-chairman Loretta Caulley and Dennis Jozwik.

The Economical ATM

by Brad Vincent

2. Grinding Stand

From what I've seen in the numerous books on building telescopes, there are almost as many designs for grinding stands as there are telescopes! I heard of one beauty that almost costs as much to build as the majority of parts for the telescope.

The stand is easily assembled from wood if you have some laying around, If not, you will soon learn to stumble backwards with your jaw dragging on the floor, eyes as big as the mirror at U. of M., and arms flung out past their limit. You have just learned the price of lumber. We'll forget that route, it only leads to expense.

A common stand is the good old 55-gallon drum. While some users may sell you an empty one for \$3-4, we can get our own free. The daring individual will notice numerous empty drums along roadways where construction is taking place. There are all of the drums you may want if you're willing to risk arrest. Or, go to a building site where drums are used. Those working there may let you have one. If not, you can get it while also obtaining your tube (see last month's article). But there is another source which is free and until now, unknown.

Look at the local automatic car washes in the area. Many of them have empty drums which contained concentrated soap, lying around to guide cars or just discarded. Go to them on a Friday when the workers have received their pay. Better yet, go on a rainy Friday since they won't have much work to do. This is the situation I had when I went to my local car wash. I casually interrupted the crap game that was in progress and requested an empty drum. I made sure to ask the owner (he's the one desperately trying to win all of the wages back). He'll be so anxious to get back to the game that he'll let you have any of the drums you want. You have just received your free drum. Also, since we know that in craps the advantage is to the bettor who bets the dice to lose, you may end up making money. Just be sure you have the drum first.

These drums are best if the top is still on. It's easier to fix a platform to it that way. There are usually two holes on the top. One is 2.25 inches wide and the other is one inch. The inside diameter on top is 22 3/8" while overall height is 35 1/4". Water is the easiest ballast to use. Filling the drum halfway gives you 230 pounds to push against. If the drum is in the basement next to a floor drain, it'll be easy to empty the water by using a hose to siphon it out and down the drain.

Plywood is a good material for the platform itself. The thickness should be 3/4" but an inexpensive way is to use two pieces of 3/8", mounted together with the grains crossing each other. Be sure to use screws to attach it and not

nails. As for the mirror cleats, you can use three pieces of wood and a wedge or adjustable cleats using wing nuts, whatever is available. Give it all a few coats of shellac to seal it up well

I've heard that after each use of one kind of grit, that after you clean the grinding stand, give it another coat of shellac to seal in any grit you may have missed. This is alright if you have enough shellac on hand. But at \$4 a quart, you might want to go another route. You can try using the silicon waterproofing spray the is sold in sporting goods stores. It runs about \$2 a can and is easier to apply with the platform on the drum than shellac on a paintbrush. Also, it can be used later to waterproof a pair of shoes for those dewy nights of observing.

After you've made your telescope, if you don't want to make another one (!?!), the barrel has many other uses. You can cut the top off and use it for a trashcan, store things in it, burn leaves in it, return it to the highway construction site where you found it, or fill it with concrete and use it for a counterweight (I don't know how big your scope may be).

Next month: A word about pipe mounts.

APPRENTICE ASTRONOMERS NOTEBOOK

Lou Faix

As this is being written, this apprentice is deep in the throes of building his own observatory. When I pause to wipe my face and let the din of hammer and saw quiet down, I reflect on why am I doing this? - I must admit I'm not really sure. Perhaps the best reason is I just like to make things. That thought takes me back to how I got into amateur astronomy in the first place. It was the summer of 1970 and just like now, I was engaged in the back yard with shovel and dirt, wheelbarrows and cement, saws, hammers, boards and paint. The project for that summer was to build a swimming pool! What you may ask, has a swimming pool got to do with astronomy? Well, read on dear friends, read on. It has everything to do with astronomy. About two feet down a layer of Michigan pan clay was encountered and the next three feet of excavation was just sweat and guts. A 50'x30' slab of concrete was mixed and poured by hand; one wheelbarrow full at a time. It rained the day the liner was to be installed and the side walls started to collapse. The conduit bender broke and yours truly was knocked out by the blow from the chucking handle. In essence, I wore myself out that summer. With a firm intent I resolved to not do a darn thing the next year except sit at pool side and lounge the summer away. At keeping that pledge, I excelled!

The late evening and midnight swims of the summer of '71 were superb. While drying off and lounging with some refreshment, I could not help but notice that two distinctly orangish stars were drifting across the low southern sky. One of them was most strange - it moved relative to the other stars. It occurred to me that I should take a closer look at that. An examination of retail store telescopes revealed that they were little more than toys. For a real telescope one might have to mortgage his soul. Alas, how could I get a real telescope - cheap? A twitch in a distant memory file recalled that there was an Edmunds Scientific catalog about the house somewhere and I recalled seeing telescope making stuff. Two weeks and three dollars later I was pouring through Sam Brown's "All About Telescopes". It spoke of tools and laps, abrasives and masks, W strokes and knife edges. After a dozen readings, I silently boasted, "That doesn't sound so tough- I can do that". The winter of '72 was spent grinding and polishing glass.

Well, six telescopes and four cameras later, we've come to the point of building our own observatory. Long ago it was discovered that amateur astronomy was a great way to meet people and make new friends; the men at the lumber yard, the lady at the hardware store, the folks at the paint store, the local building inspector, and of course the ever so friendly banker. Needless to say, the construction of this observatory has been a great boom to local business.

Learning a lesson from "Doctor Dave", I obtain the building permit first but only after posting bond and barely escaping the boys from the booby hatch. Did you ever try to explain to a building inspector the plans for a round house that had to rotate and must not have heat, plumbing or lights? Who cares if the township officials think I'm nuts.

Well, things are progressing nicely - I've gotten a good sun tan, lost five pounds and made one helluva heap of sawdust. With any amount of luck the ribbon will be cut and the "first light" ceremony will be about Labor Day. Providing the dome doesn't leak too bad and opening slit doesn't freeze shut, this fall should start a new and expanded phase in the apprentice's observing programs. Wish me well and keep your fingers crossed. After all nothing works right the first time.

A special expression of gratitude is extended to the members of the Warren Astronomical Society without who's assistance the project would have been greatly extended. Thanks again to Dave Harrington, Pete and Ginger Kwentus, Ooug and Robin Bock, Frank McCullough, Gary Boyd and his delightful friend Shelly. Good night Dink, wherever you are.