

the Spectrum

BUFFALO ASTRONOMICAL ASSOCIATION INC.
BUFFALO MUSEUM OF SCIENCE
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Editor: Ernst E. Both

JULY - AUGUST 1973

SUMMER STAR NIGHTS: During July and August we customarily "take to the hills" with our portable (and sometimes not-so portable) telescopes in search for dark skies and fellowship. Summer Star Nights are scheduled for Friday nights - if these are cloudy, the event takes place the following night (if that is cloudy too, you are out of luck!). THE FIRST EVENT takes place at the home of the Deazley's in Cowlesville (see map p. 2), at 6:00 pm on July 6 (or 7 if 6 is cloudy) - the Deazley's will provide hot dogs, hamburgers, and beverages BUT PLEASE BRING YOUR OWN DISH AND EATING UTENSILS, AND PLEASE LET THE DEAZLEY'S KNOW IF YOU ARE COMING SO THAT THEY KNOW HOW MUCH TO PREPARE - CALL THEM AT 652-0986 BEFORE JULY 5!!! To get to Cowlesville from the city, go out Broadway to West Alden, turn right on West Alden Rd. to Alden Rd. and then to Cowlesville. For the rest consult map on p. 2 (you can also take Clinton St. to Alden Rd., where you bear right toward Cowlesville). DON'T FORGET TO CALL THE DEAZLEY'S TO LET THEM KNOW YOU ARE COMING. CALL 652-0986 BEFORE JULY 5. Naturally, if you go, take your telescope along. The other star nights are:

B.A.A. NEWSTEAD OBSERVATORY: July 13/14; July 20/21; August 10/11; August 17/18. To get to Newstead Observatory, go out Rte. 5 (east) to the Town of Newstead, the observatory is on the grounds of CALSPAN'S Radiophysics Laboratory - watch for large radar dish on the left side (north side) of the road. The observatory is next to the radar dish and can be seen from the road.

The Audubon Society's BEAVER MEADOW: July 27/28; August 24/25; August 31/Sept. 1. See map on page 2. Going east on Welch Rd., cross Rte. 77, pass beyond a residential drive on your right and find entrance to Beaver Meadow beyond that on the right.

CAMP SPRUCELANDS: August 3/4. The map on page 2 should be self-explanatory. Note that the map is exactly to scale, but that 3 miles are missing in the middle. All star night activities (except for Deazley's) begin somewhere before it gets dark and go on ..?

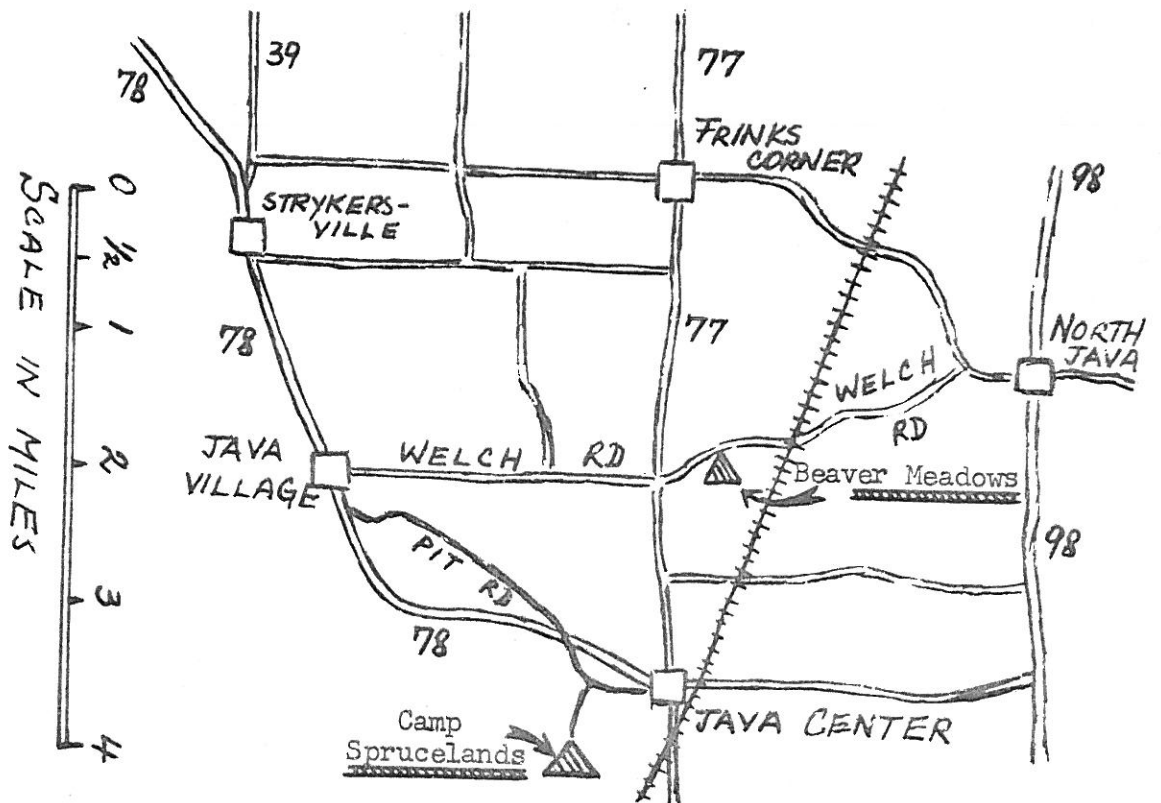
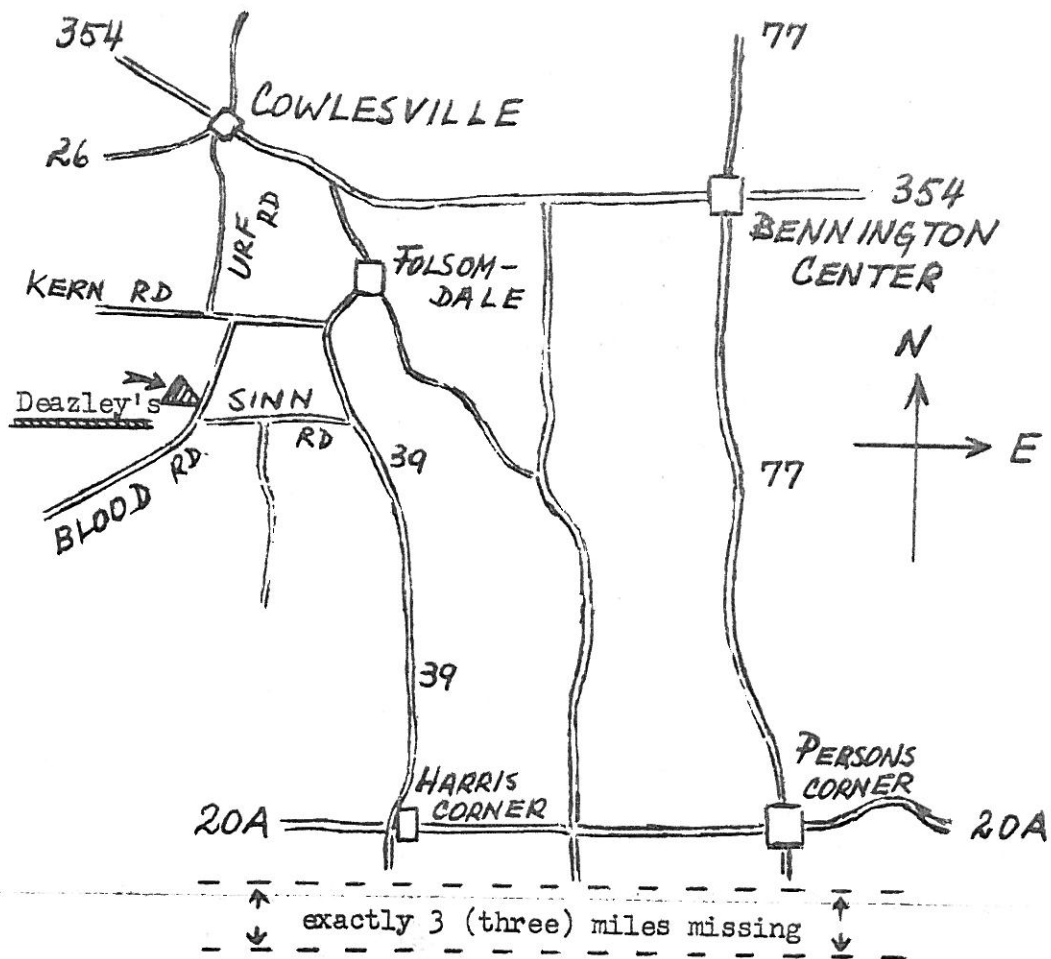
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ELECTION OF BOARD MEMBERS: At the June meeting the following were elected as members-at-large to the Board of Directors of the Buffalo Astronomical Association to serve a term of two years: Mrs. Edith Geiger, Mr. William Chambers, Dr. Fred Price. Our warmest congratulations!

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* TWO HOURS WITH ALVAN CLARK, SR. * By Charles S. Palmer

The writer is not a professional astronomer, - hardly an amateur; but I am one of those for whom ... "the stars have a compelling call." When a lad, working on the old farm in Chicopee Street, walking two miles to the High School, and laboring hard at Latin and Greek, I had the good fortune to be literally caught with an absolute love affair for natural science, and of course astronomy received a fair part of my devotion. So much so, that with the aid of Burritt (1, see note at end of article) and Dick (2) - Dear Old Dick - I made a small telescope (continued p. 3)



* DEEP SKY OBSERVING FOR JULY AND AUGUST 1973 * By John Riggs

The skies of July and August are for amateur astronomers what the Fall Sunday afternoon football games are to sports addicts. And just as certain teams are perennial favorites, so too are objects like M 13 and M 57. However, when it comes to the selection of favorite objects, I, for one, am the unswerving champion of the many interesting, but unnoticed, underdogs of the league. It is quite true that objects like M 13 and friends are very spectacular and worthy of observation, but I think it is unfortunate that so many amateurs look at these to the almost total exclusion of everything else. In a certain sense, the observer could consider himself a "talent scout" on the lookout for promising material to add to his "team" of fine objects.

The constellation of Sagittarius contains a great variety of deep sky objects and is one of the best places for the observer to seek out and find beauty. There are 15 Messier objects alone, and many of these are among the most spectacular of the entire catalogue. Nebulae and clusters like M 8, M 22, and M 24 have few equals in any other part of the sky.

For me, one of the most striking and awe inspiring sights which I have ever seen is found within the borders of Sagittarius. About 3.5° north of the star gamma Sagittarii, lies a little known open star cluster, NGC 6520. Its coordinates are: $18^h 0.3m, -27^\circ 54'$. With a 10-inch reflector it appears as a fairly compact grouping of faint stars about $4'$ across mixed with a coarser clumping of bright members. The cluster by itself is a pretty thing, though not as outstanding as some others in Sagittarius. So why write about it? Because immediately preceding the cluster is a wonderful object, a prominent dark nebula, called B 86. The "B" stands for the discoverer's name, the famous pioneer in Milky Way photography, E. E. Barnard. In 1884, Barnard described it as "a small triangular hole in the Milky Way, perfectly black, some $2'$ in diameter, very much like a jet black nebula. A bright orange star on north preceding border. A very remarkable object." The combined sight of this dark nebula and little cluster together in a rich milky star background is truly without equal in kind. I have seen B 86 with a telescope as small as a 3-inch, f/5 refractor at 18 X. Though most certainly the nebula is small with this kind of instrumentation and power, it is nevertheless quite apparent as a tiny black spot on the general Milky Way background. More effective views of the two objects can be had with more magnification and larger telescopes. The only real requirement for a good view is that ever present problem of a dark sky. If the Milky Way is not visible to the unaided eye, then the dark nebula will not be visible either. The darker the sky and the brighter the Milky Way, then so much the better one will be able to see the nebula and the milky background which make it visible. There are many other dark nebulae known throughout the Milky Way. Most of these, however, are entirely photographic and few can be seen well visually. B 86 is an excellent example of one of these few. (For a photograph of B 86 see: "The Milky Way," by Bart J. and Priscilla F. Bok, third edition 1957, fig. 90, page 175).

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TWO HOURS WITH ALVAN CLARK, SR. (continued from page 1)
and taught myself the stars, so that even now I can place most of them as I remember the trees out in the old apple orchard. Some years later, as I frequently went from my home in Chicopee, Mass., to North Andover, Mass., where I had charge of the High School, I was carried into Boston on the old Boston and Albany Rail Road and of course any one with natural interest would have to note the towering telescope tube that hung right across the Charles river, over in Cambridge. ... I made up my mind to visit that sacred spot just as soon as opportunity would offer; which I did one bright day in October. (continued on page 4)

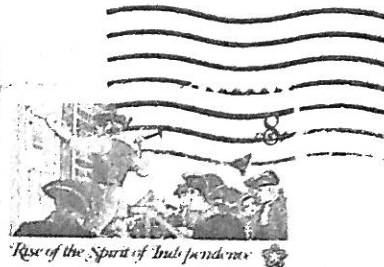
(Clark, from page 3)

As I wended my way down the street whereon I supposed I would naturally find the Clark home, I had to make frequent inquiries as to the whereabouts of that noted astronomical artisan, Alvan Clark, but nobody in all that region knew anything about such a man. One old German store-keeper, who said he had been there for years, insisted that I was on a false scent, and that there was no astronomer at the foot of that street, where shortly after I found the object of my quest. That was back in about 1882 or 1883 and I reflected that the old adage concerning a prophet in his own country was about true in Massachusetts. Arriving at the shrine of telescope making in America, I was sent from the front door to the rear of the grounds, where I found the shop. Therein I entered somewhat timidly, for I was no professional, only a science-crazy student, but at least I would have a chance to see something before I was kicked out, - as I very properly deserved, if I was to be in the way. Soon, as I entered, a pleasant middle-aged man, who turned out to be Alvan, Jr., asked me what I wanted, and, on my boldly asking for his father, said that he was busy with some visitors who had come to close a contract with his firm for a large instrument. All right, but meanwhile there was much to see that even I could understand, and much more that I frankly did not. But I noted the quiet, easy bearing of the son, and the nervous, almost saint-vitus-dance style of the elder Clark, since, as he afterwards told me that day, he was then about 82 years old. (concluded in Sept.-Oct. issue).

NOTES to above: (1) Elijah Hinsdale Burritt (1794-1838) was the author of the very popular "Geography of the Heavens" which, by 1866, had sold over 300,000 copies! (2) Thomas Dick (1774-1857), a Scottish writer, was the author of the widely-read "Practical Astronomer" first published in 1845 and reprinted many times during the 19th century. TWO HOURS WITH ALVAN CLARK, SR. first appeared in Popular Astronomy (35: 143-145) in 1926.

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