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NEW MEMBERS

Bouvier, Sgt. Karl, Hq. Co. 1st Sch. Bn. Teck., Ft. Belvoir, Va. TE 6086
Paganelli, Bon C., 1407 Riverview Terrace, Alexandria, Va. LI-5-6700, X-66476
*Powers, James F., 1818 N. Taylor St., Arlington, Va. CH 0552

CHANGE OF ADDRESS

Dana K. Law, 712 26th Place, S., Arlington, Va. Otis 7910

REINSTATED

William F. Gregory, 1062 Colgate Drive, Alexandria, Va. King 80254
Dorothy Lamore, 4709 Guilford Road, College Park, Md.

EXPLORING THE SKY - The annual summer program with the National Capital Parks has been arranged for the following dates for the coming season: Sundays, April 6 and May 4; Saturdays, September 13 and October 11. WALK-NICS have been scheduled for July 29 and August 12.

ROYAL CANADIAN HANDBOOK OF THE HEAVENS for 1952 has been received. You may obtain your copy from the Treasurer, Mrs. Alston.

OVER ONE THOUSAND CUB SCOUTS were included in the various groups visited by NCA members during January. Reports at the last meeting from several of the fifteen NCA members who worked in this program showed the various uses made of the telescopes, slides, pictures found in SKY AND TELESCOPE, and other methods of presentation.

Jewell Boling, Editor, 1717 P St., N. W. North 9621

STAR DUST
National Capital Astronomers
Washington, D. C.

March 1952 Vol. 9, No. 7

MARCH CALENDAR

- Date
- 1 March "THE MASSES OF GALAXIES," Dr. Thornton (Sat.) Page of the Operations Research Office of Johns Hopkins University. Commerce Auditorium 8:15 p. m.
 - 15 March DISCUSSION GROUP, 8:00 p. m. Commerce (Sat.) Auditorium. With Bob Wright.
 - 19 March "SOME PROBLEMS CONCERNING THE MOON," (Tues.) Mr. C. B. Watts, Astrophysicist, U. S. Naval Observatory. 8:30 p. m. Pierce Hall, 16th & Harvard, N. W.
 - 18, 19 or 20 GROUP OBSERVING at the NCA 5", Naval Observatory Grounds. First of these dates on which skies are clear.

Tuesday and Friday, 7-10 p. m. Telescope Making Class, Roosevelt High School, Room 319, 13th and Upshur, N.W. Miss Irene Warthen, Instructor. Telephone Lockwood 5-1237. Miss Warthen is present on Fridays.

NCA PRESIDENT JANET PERKINS has become NCA PRESIDENT JANET WRIGHT. Read the details in the story on the NCA dinner inside. Best of wishes from the entire NCA membership to President Wright and Past President Wright -- to "Perky" and "Bob"!

THE PROBLEM OF FINDING THE STRUCTURE OF OUR UNIVERSE

is a basic one in astronomy and an extremely difficult one. The size and age of the universe and the nature of space-time are almost unknown quantities at present. The determination of the mass of an average galaxy would contribute greatly toward a solution. We shall hear about a new method for measuring a galaxy's mass from Dr. Thornton Page, who is now at the Operations Research Office of Johns Hopkins University.

The method of measuring mass beyond the confines of the solar system is, in general, to observe the motions of double stars around each other and apply Newton's Law of Gravitation. A slow, inaccurate method has been used for measuring the masses of a few galaxies by observing their rotations. The new way of measuring mass involves the large number of galaxies which are double, and which move around each other just as do double stars. The periods of revolution are far too long to observe directly, but can be estimated statistically from differences in radial velocity. Applying this method to 20 different pairs leads to an average mass of a single galaxy of 80 billion times the mass of our sun. This value is inconsistent with Hubble's findings which have been interpreted as indicating that space is curved due to the presence of matter.

Dr. Page studied mathematics and physics at Yale and astrophysics at Oxford where he held a Rhodes Scholarship. He has been professor of astrophysics at Yerkes and McDonald Observatories and is now a research associate at these observatories as well as deputy director of the Operations Research Office of Johns Hopkins University in Chevy Chase, Maryland. His research has included work on planetary nebulae, the chemical composition of nebulae and comets, and the masses, velocities, and chemical composition of galaxies.

---Harriet Malitson

building is air-conditioned. Dormitory accommodations are 2.00 per night. Meals may be had in the dormitories or at cafeterias and restaurants. There are numerous hotels in Dallas, the largest two being the Baker and Adolphus. You can go to Dallas from all directions by highway, train, bus, or plane. Send registration to Mr. Wesley Gilliland, Convention Treasurer, 3824 Cedar Springs Avenue, Dallas 5, Texas. Five dollars will pay your registration and two nights lodging -- balance to be paid at registration desk on arrival. Texas Astronomical Society of Dallas, Fort Worth Astronomical Society, Port Arthur Astronomy Club, and Fort Worth Junior Astronomy Club are sponsoring this convention.

MR. CILLEY'S RETIREMENT FROM NAVAL OBSERVATORY. To all of us in NCA the Naval Observatory will never be quite the same, now that Mr. Cilley has retired. How we shall miss him at the 12"! -- Miss the tirelessness and the skill with which he located rare objects! Miss his inimitable humor! . . . On Mr. Cilley's last day at the Observatory the Observatory staff met in the library and the superintendent of the Observatory, Admiral Frederick A. Graf, made several remarks on Mr. Cilley's career with the Naval Observatory and presented him with a letter which read in part: "In addition to the normal duties of your position you have been called upon to serve as guide for the large number of visitors attending the public tours of the Observatory. The many letters and expressions of appreciation received from groups and individuals are ample evidence of the cordial and painstaking manner in which you have explained the work and operation of this, the only government Observatory. You have made many friends, both for yourself and for the Naval Observatory. . . You . . . can be proud of your accomplishments." An informal gathering followed at which the Observatory staff presented Mr. Cilley with a small radio of the technical type which will be useful in the astronomical work which he plans to carry out.

ANNUAL NCA DINNER on February 16 was attended by the following: Marian Ambleau, Ione Alston, Jewell Boling, George Borresen, Sylvia Bertolini, Thelma Cressey, James Cracroft, Mary Cracroft, William Doster, Betty Fazekas, Dorothy Geare, Margaret Glock, Elizabeth Goerner, Mr. and Mrs. Nelson Griggs, Ruth Heisey, Lyle Johnson, Loren Leger, Grant McCabe, Nettie Mansker, David Minton, Guinevere Scott, Leo Scott, Mabel Sterns, Irene Warthen, Janet Wright, Bob Wright, Blanche Windham, Ray Windham, Marie Schiff, and Morton Schiff. Only a few NCA'ers knew when they arrived that their president, Janet Perkins, was now Mrs. G. R. Wright. The few who had heard let it be known right away. This really enlivened things. We were all rushing up to give our best wishes to the bride and groom and wanting to hear all about it. The story was simple. Bob and Janet had gotten married in Silver Spring at 9:00 p. m. February 8. They went away on a short trip to New York and told no one. (They plan to make the convention trip to Dallas their real honeymoon.) Janet was wearing her wedding dress, a lovely afternoon thing of deep ivory brocaded satin. It was extremely becoming to Janet. Back to the dinner -- a delicious steak was served. In the center of the table was a large bowl of pink carnations. Janet presented a carnation in appreciation to a number of NCA'ers who have been especially active the past year in carrying out some NCA duty. After this, games were played and contests held. Winners of some of the contests were presented with key chains, to which were attached miniature models of telescopes, equipped with telescopic photographs of the moon of astonishing realism. There was a hat-making contest and two or three astronomical quizzes. The evening ended merrily with much flash bulb popping as the photographers had a field day, particularly getting "candid" of Mr. and Mrs. Wright.

NCA ON THE AIR. Mr. Nelson Griggs, who has a 2-hour Saturday morning show for WASH-FM put NCA on the air on February 9 and again on February 16. The February 9 broadcast was a recorded interview with Mabel Sterns, Leo Scott, Janet and Bob Wright. Mabel talked chiefly of the history of NCA, Janet talked about the purposes of NCA, Leo on his eclipse trip to Brazil, and Bob on his recent cooperation in the Cub Scout program and telescope making class. The second broadcast was on the telescope making class with Irene Warthen, Bob Wright, and Mr. Griggs. Bob Wright, in telling the radio audience when the class meets said this, "We hold a telescope making class every Friday night in the week." Mr. Griggs thinks this will become a classic. For those who didn't hear it on the air, we thought we ought to quote it here. We hope Bob will forgive us.

GROUP OBSERVATION NIGHT for March will again try the same program carried out in January. The date will be March 18, 19, or 20, whichever is the first clear night. The place will be at the NCA's 5" Alvan Clark refractor, Naval Observatory, since that location will provide a place to warm up in the event of cold weather. Bring your telescope if you have one.

"SOME PROBLEMS CONCERNING THE MOON," the illustrated talk to be given at Pierce Hall on March 19, will be devoted mainly to the surface of the moon and the problems encountered in mapping it. Mr. Watts, the lecturer, is now in charge of a special project at the Naval Observatory consisting of a topographic survey of a portion of the moon's surface. The reason for making the survey will be discussed as well as the methods involved.

ASTRONOMICAL LEAGUE CONVENTION. It will be held July 4, 5, and 6 in the Fondren Science Building, Southern Methodist University, Dallas 5, Texas. The