## Popular Astronomy.

Vol. XXXI, No. 9

**NOVEMBER, 1923** 

Whole No. 309

## THIRTIETH MEETING OF THE AMERICAN ASTRONOMICAL SOCIETY.

The thirtieth meeting of the Society was held at the Mount Wilson Observatory, Pasadena, California, on September 17 to 20, 1923. The meeting was in affiliation with the Pacific Division of the American Association for the Advancement of Science, which met in Los Angeles at the same time, and all sessions were also held jointly with the Astronomical Society of the Pacific. The eclipse of September 10 had attracted a large number of professional and amateur astronomers, both from the United States and abroad, and there were present at the meetings astronomers from Canada, Mexico, Argentina, Australia, Japan, England, France, Spain, Belgium, and Holland. The meeting was the largest in the history of the Society, nearly one hundred members being present, and the attendance at the sessions averaged about one hundred and twenty-five.

As contrary to all expectations there had been a general prevalence of cloudy weather on the Pacific Coast at the time of the eclipse, the days preceding the meeting were marked by the gathering in Pasadena of the personnel of the various disappointed parties, and the native Californians for once were not boasting of their climate. The visitors made use of the opportunity to visit the places of interest about Los Angeles, when it was not raining, and to commiserate with each other, but after all the shadow of the eclipse hung very lightly over the meeting, and from outward appearances it was largely a joke to travel thousands of miles and to work weeks or months only to be disappointed at the end.

The program began on the afternoon of Sunday, the 16th, with a splendid gathering and tea at the home of Dr. and Mrs. Walter S. Adams in Pasadena. The next morning it was raining, as might have been expected, and most of the members, who were quartered in Pasadena, made the trip of an hour or so to the University of Southern California, in Los Angeles, where the first session for technical papers was held. This was followed by a general research conference of the Association during the noon hour, and in the afternoon there was a

Key to Plate XXXI.

9-49-55-55-58-58-58-58-58-58-58-58-58-58-58-	84. Miss Bertha Calvert 85. Mrs. Remach 86. Mrs. Remach 87. Crawford 87. Crawford 88. Miss Heener 89. Mitchell 90. Biefeld 91. Frost 92. Miss Cannon 93. Swezey 94. Leonard 95. Stromberg 96. Stromberg 96. Swasey 97. Plaskett 98. Adams 100. Roy 101. Abbot 102. Aitken
35 37 40 44 42 43) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4	64. Miss Poole 65. Miss Mayberry 66. Mrs. Marsh 67. Miss Richmond 68. Mrs. Lowell 70. Lampland 71. Vorthington 72. Zernike 73. Zernike 74. Stebbins 75. Carroll 76. Menzel 77. Menzel 77. Miss Fretz 78. Miss Miss Pettit 82. Mrs. Mitchell 83. Mrs. Mitchell 84. Mrs. Fettit 85. Mrs. Miss Farnsworth
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	43. E. F. Adams 44. A. S. King 5. Miss Jessica Young 45. Miss Haumueller 47. Merfield 49. Urie 50. Mrs. Stetson 50. Mrs. Stetson 51. Sanchez 52. Mrs. Adams 54. Orusco 55. Mrs. Dawson 56. Mrs. Dawson 67. Larkin 68. H. C. Wilson 60. Miss Vosburgh 62. Miss Vosburgh 63. Miss Paryton
13/4 (18/19) (	23. Miss Bigelow 24. Hamilton 25. Miss Joyner 26. Rodes 30. Jewell 28. Mrs. Perrine 29. Perrine 30. Dawson 31. Parkhurst 32. Mrs. Moulton 34. Werriam 35. van Maanen 34. Werriam 36. Seares 36. Seares 37. Trumpler 38. Trumpler 39. Reinach 40. Pease 41. Mrs. Joy
(3) (4) (6) (A) (A) (A) (A) (A) (A) (A) (A) (A) (A	1. Kingston 2. Fath 3. Douglass 4. Fox 6. Bryant 6. Gallo 7. Stetson 8. Humason 8. Mrs. Roy 9. Tucker 1. Miss Lamson 9. Petit 6. Darling 7. Vanderlinden 8. Lee 7. Anter 8. Lee 7. Anter 9. Atter 1. E. C. Slipher 1. Fath

POPULAR ASTRONOMY, No. 309



THIRTIETH MEETING OF THE AMERICAN ASTRONOMICAL SOCIETY, MOUNT WILSON OBSERVATORY, SEPTEMBER 18, 1923.

symposium on eclipses and relativity which attracted a large audience. There were four addresses, as follows:

W. W. Campbell—Some Conditions Apparently Existing in the Solar Corona.

S. A. Mitchell—How the Spectrum of the Sun's Atmosphere is Studied at Eclipses and the Interpretation of the Results through the Aid of Modern Physics.

Charles E. St. John—The Constitution of the Sun's Atmosphere,

Charles E. St. John—The Constitution of the Sun's Atmosphere, the Levels of the Gases and the Nature of their Circulation. Results bearing on the displacements of solar spectrum lines as required by the theory of relativity.

as required by the theory of relativity.

R. J. Trumpler—Relativity as Represented by the Einstein Eclipse Problem.

Although most of the visiting astronomers had experienced a cloudy sky at the time of the eclipse on September 10, partial or complete success was reported by observers in the vicinity of Santa Barbara, California, and in the interior of Mexico, and preliminary reports, with photographs of the corona, were given by Messrs. Brackett, Worthington, Douglass, Gallo, and Miller.

On Monday evening, the members of the Society and of the Association re-assembled in the Bovard Auditorium, University of Southern California, to listen to the address of the retiring president of the Pacific Division, Dr. E. Percival Lewis, who spoke on "The Contributions of Astronomy to Civilization."

On Tuesday morning, the Society met at the Pasadena headquarters of the Mount Wilson Observatory, where the session for papers was held in the library. Opportunity was given both before and after the session for inspection of the offices, laboratory, and shops of this unique astronomical institution. In addition to the regular list of papers, members were privileged to hear from two Americans who had come far to be present at the meeting, Messrs. C. D. Perrine of the Cordoba Observatory and B. H. Dawson of the La Plata Observatory, who gave accounts of the work these institutions are doing in the southern hemisphere.

The members were guests of the Mount Wilson Observatory for luncheon, which was served in the Government Building. In the afternoon the Society met at the new Norman Bridge Physical Laboratory of the California Institute of Technology in a session of papers of joint interest with the physicists. After this session, there was opportunity to inspect the facilities of the laboratory.

One event, which was of especial interest to about thirty members, was the reunion dinner of present and former students and members of the staffs of the Lick Observatory and Students' Observatory, University of California. This was held at the University Club, Pasadena, on Tuesday evening, and represented all generations of astronomers who had been at these institutions, beginning with Mr. Ambrose Swasey, one of the creators of the Lick telescope. To the great regret of all, both President Campbell and Professor Leuschner had been

called home by the disastrous conflagration in Berkeley, but it was a relief to learn that the homes of neither of them had been harmed.

The public address of the Association on Tuesday evening, was by Dr. John C. Merriam, president of the Carnegie Institution of Washington, on "The Meaning of History as Illustrated by the Records Secured at Rancho La Brea."

On Wednesday morning, members of the Society and friends gathered early at the Pasadena office for conveyances up Mount Wilson. After the thrilling ride on the steep, winding road, the members had all arrived safely at the summit before noon and were distributed among the cottages of the Mount Wilson Hotel. After a preliminary visit to some of the instrumental wonders on the mountain, luncheon was served at the Monastery which, for this special occasion, was forced to belie its name. As a real California sun was shining by this time, an awning had been erected in the courtyard. After lunch, the members visited the Smithsonian station close by, and were particularly interested in Dr. Abbot's solar cooker.

In the afternoon, the final session was held under unique circumstances, in the dome of the one hundred-inch Hooker telescope. With the great reflector turned low in declination, there was ample room for the audience of more than one hundred on the platform underneath the mounting, and the movable dome and shutters gave unusual facilities for proper gradation of light and dark, depending upon the needs of the program. The papers included reports on current work with the one hundred-inch reflector, and ended with a communication from Dr. George E. Hale on "The Development of Industrial Research," a paper which is printed in full on later pages of this report. It was to the regret of all that the originator of the great institution on Mount Wilson could not be present, but thanks to the facilities of the telegraph the Society was able to send a message of greeting to its absent host and to receive a word from Dr. Hale in reply.

The all too short remaining time of that day was open for strolls about the mountain, and tea at the Kapteyn Cottage, served by the lady members of the staff. Dinner was at the Mount Wilson Hotel. In the evening, with both the large reflectors available, the members had the opportunity to renew or increase their enthusiasm for the scenery of the heavens. The region of Copernicus on the moon seen with the sixty-inch, and the Hercules cluster with the one hundred-inch, were enough to bring forth exclamations of surprise from those long familiar with views with smaller instruments. These and other objects kept the visitors oscillating from one great dome to the other until a late hour. To some, however, perhaps the best display of all was the spectacle of the lights of Pasadena, Los Angeles, and other cities in the valley below.

Some of the members risked their lives and took the return stages for Pasadena that night, but many remained over and made the trip the next morning. By Thursday noon, the meeting was well dispersed, and the long-anticipated combination of the total eclipse and the meeting of the Society of 1923 had become a memory.

This being the annual meeting, there were various matters of business which were acted on by the Council and at the general sessions. Announcement was made of the election of the following as honorary members:

Herbert Hall Turner, Director of the University Observatory, Oxford.

Benjamin Baillaud, Director of the Paris Observatory.

As a result of the election held at the last session, those in the following list whose terms begin in 1923 were elected as officers, the others continue to serve unexpired terms:

President	W. W. Campbell	1922-1925
Vice-Presidents	Henry Norris Russell	1922-1924
	Ernest W. Brown	1923-1925
Secretary	Joel Stebbins	1923-1924
Treasurer	Benjamin Boss	1923-1924
Councilors	A. O. Leuschner	1921-1924
	Frederick Slocum	1921-1924
	John M. Poor	1922-1925
	Chas. E. St. John	1922-1925
	Heber D. Curtis	1923-1926
	Anne S. Young	1923-1926
Ex-President	Frank Schlesinger	

Members of the Division of Physical Sciences, National Research Council:

W. W. Campbell	1921-1924
Edwin B. Frost	1922-1925
Ernest W. Brown	1923-1926
Harlow Shapley	1924-1927

The following persons were elected to membership, making a total of four hundred and one in the Society:

E. F. Adams, Mount Wilson Observatory, Pasadena, Calif.

Paul Biefeld, Denison University, Granville, Ohio.

J. W. Campbell, University of Alberta, Edmonton, Alberta, Canada.

W. H. Christie, Dominion Astrophysical Observatory, Victoria, B. C., Canada.

W. W. Coblentz, Bureau of Standards, Washington, D. C.

Leslie J. Comrie, Swarthmore College, Swarthmore, Pa.

C. H. Davis, Yale University Observatory, New Haven, Conn.

Mary S. Fretz, Mount Wilson Observatory, Pasadena, Calif.

Mary Howe, Vassar College Observatory, Poughkeepsie, N. Y.

T. S. Jacobsen, Lick Observatory, Mount Hamilton, Calif.

F. C. Leonard, Southern Branch, University of California, Los Angeles, Calif.

Ross W. Marriott, Swarthmore College, Swarthmore, Pa. Hiram M. Perkins, Ohio Wesleyan University, Delaware, Ohio. Phoebe Poole, Mount Wilson Observatory, Pasadena, Calif. Dorothea Isaac-Roberts, 38 Hill Point Ave., San Francisco, Calif. A. C. Schock, Central High School, Broad and Green Sts., Philadelphia, Pa.

Dorothy L. Schwan, Box 224, Route 1, Mountain View, Calif.

The following members of the Society were present at the Mount Wilson meeting:

C. G. Abbot E. F. Adams W. S. Adams Mrs. W. S. Adams R. G. Aitken F. C. Leonard A. O. Leuschner Mrs. Percival Lowell
W. J. Luyten
W. D. MacMillan
Mrs. H. M. Marsh
Beatrice W. Mayberry D. Alter D. Alter
J. A. Anderson
H. D. Babcock
C. E. Barnes
Harriet W. Bigelow
F. P. Brackett
Ada M. Brayton
Cora G. Burwell
Mary R. Calvert Beatrice W. Mayb D. H. Menzel P. W. Merrill D. C. Miller J. A. Miller S. A. Mitchell D. W. Morehouse F. R. Moulton Mary R. Calvert J. W. Campbell W. W. Campbell S. B. Nicholson 5. B. Nicholson
J. A. Parkhurst
F. G. Pease
C. D. Perrine
E. Pettit
Mrs. E. Pettit
J. S. Plaskett
Phoebe Poole
Myrtle L. Richmond
L. Rodés Annie J. Cannon W. A. Cogshall R. T. Crawford H. D. Curtis B. H. Dawson A. E. Douglass F. Ellerman C. T. Elvey Myrtle L. Rich L. Rodés A. J. Roy F. H. Safford C. E. St. John R. F. Sanford F. H. Seares E. C. Slipher J. Stebbins Alice H. Farnsworth E. A. Fath P. Fox Mary S. Fretz E. B. Frost J. Gallo W. M. Hamilton J. Stebbins W. M. Hamilton
Margaret Harwood
W. P. Hoge
L. G. Hoxton
E. P. Hubble
M. L. Humason
H. M. Jeffers
W. R. Jewell
A. H. Joy
Mary C. Joyner
Lois M. Keener
A. S. King
C. O. Lampland
Eleanor A. Lamson H. T. Stetson G. Stromberg R. Sullivan
A. Swasey
G. D. Swezey
S. D. Townley
R. Trumpler R. H. Tucker F. D. Urie A. van Maanen Marion E. Vosburgh Louise W. Ware H. C. Wilson I. Yamamoto Eleanor A. Lamson Isabella Lange E. L. Larkin O. J. Lee Jessica M. Young

It was announced that the next meetings of the Society had been fixed by the Council as follows: 1923 December, at Vassar College; 1924 September, at Dartmouth College; and 1924 December, at Washington, D. C.