

*The systematic corrections to Boss's preliminary general catalogue:* WILLIAM B. VARNUM, Dudley Observatory.

*Jupiter's third satellite:* W. H. PICKERING, Harvard Observatory Station, Jamaica.

*Relativity: An approximation:* CHARLES LANE POOR, Columbia University.

*The number and distribution of stars with Class B spectra having emission lines:* RALPH H. CURTISS, University of Michigan Observatory.

*Progress with color-index apparatus:* EDWARD S. KING, Harvard Observatory.

*Methods and results of the absolute magnitude determination of stars at the Dominion Astrophysical Observatory:* W. E. HARPER and R. K. YOUNG, Dominion Astrophysical Observatory.

*The spectral parallaxes of double stars:* FREDERICK C. LEONARD, University of California.

*Mean absolute magnitudes of the long-period variables and other stars of late types:* RALPH E. WILSON, Dudley Observatory.

*Atmospheric pulsation of cepheids, a method of attack:* W. CARL RUFUS, University of Michigan Observatory.

*Remarks on the luminosity function:* F. H. SEARES, Mount Wilson Observatory.

*On the orbit of the brighter component of Beta Lyrae:* R. A. ROSSITER, University of Michigan Observatory.

*The absorption lines of O-type stars:* J. S. PLASKETT, Dominion Astrophysical Observatory.

*Regularities in the arc spectrum of Zirconium:* C. C. KIESS and HARRIET KNUDSEN KIESS, U. S. Bureau of Standards.

*An Arctic episode in astronomy:* R. H. TUCKER, Lick Observatory.

*Two new camera lenses for spectrographs:* J. S. PLASKETT, Dominion Astrophysical Observatory.

*The orbits of the spectroscopic components of Boss 6148:* W. E. HARPER, Dominion Astrophysical Observatory.

*The orbit of the spectroscopic binary Boss 1452:* W. E. HARPER, Dominion Astrophysical Observatory.

*The wedge method and its application to astronomical spectrophotometry:* H. H. PLASKETT, Dominion Astrophysical Observatory.

*Photo-electric photometry at the Washburn Observatory:* JOEL STEBBINS, University of Wisconsin.

*The radial displacements in the Wallal photographs:* WILLIAM B. VARNUM, Dudley Observatory.

*Regularities in the spectrum of titanium:* HENRY NORRIS RUSSELL, Princeton University.

Abstracts of the papers will be published as usual in *Popular Astronomy*.

JOEL STEBBINS  
Secretary, American Astronomical Society

## AMERICAN METEOROLOGICAL SOCIETY

ONE of the largest and most interesting meetings of the American Meteorological Society was held at

the University of Southern California, on September 17, 18 and 19. The meeting was held conjointly with those of the Pacific and Southwestern Divisions of the American Association for the Advancement of Science and our Society enjoyed all the privileges obtained by the larger societies. The first session was devoted largely to evaporation problems and it was brought out in the discussion that none of the methods used were entirely satisfactory to engineers. Dr. George F. McEwen closed the discussion by stating that he believed the Calculation Process to be best for large bodies of water, whereby an equation based on isolation is used. Later Mr. Charles E. Grunsky offered the following resolution, which was passed with no dissenting votes:

RESOLVED, that the study of evaporation from open bodies of water should be extended, with particular references to the standardization of methods of observation, in order that known meteorological conditions may better serve as a basis for predicting evaporation losses from such water bodies.

The next session was largely devoted to the discussion of the problems of the Lower Colorado River as caused by mountain snowfall and flood crests. The discussions were unusually interesting as the problem is an international one. The people of the United States have spent great sums—five or six million dollars—on a project located in Mexican territory, for the purpose of conserving water for use in our country as well as in Mexico. Resolutions were passed covering this problem as follows:

Being impressed with the importance of flood control and other problems of the Lower Colorado River and the necessity for an early solution thereof, and realizing that the solution of these problems requires action by the United States because of their interstate and international aspects, BE IT RESOLVED by the American Meteorological Society that the attention of the Executive Committee of the Pacific Division of the American Association for the Advancement of Science be called to the present situation with the suggestion that the Pacific Division place itself on record as favoring early action by the United States to accomplish the permanent solution of these Colorado River problems.

The third session was taken up in discussing matters pertaining to forecasting the weather, and Mr. L. E. Blochman brought to light some interesting facts regarding the probabilities of long range forecasting based upon the geographical location of low pressure areas entering the United States from the Pacific Ocean.

The morning session of the last day was made most interesting by the presence of two aviators, Messrs. Wyatt and Lawing, from the Air Field at San Diego, who flew to Los Angeles that morning in a plane

especially prepared for taking meteorological observations while aloft. These men left their station in San Diego for Los Angeles at about the same time the other members of our society left their hotels for the meeting place at the University of Southern California. They arrived promptly at 9 a. m. and gave most interesting talks regarding upper air conditions over the southwest portion of California, based upon almost daily observation taken during the last two years by these gentlemen.

The afternoon session, which concluded the series, was specially devoted to the influences of weather upon forest fires. It was brought out at this meeting that humidity was even more important than wind in starting, spreading and stopping forest fires.

It was proved that the United States Weather Bureau could be of great help in forewarning fire-fighters of dangerous conditions and the following resolution was submitted and passed unanimously:

WHEREAS, the conservation of the remaining forest area and the reforestation of large areas already cut over are largely dependent on the prevention and control of forest fires, and

WHEREAS, in the prevention and control of forest fires a fore-knowledge of the weather is most important, and

WHEREAS, the making of weather forecasts for forest areas is difficult, because most of the observation stations are outside these areas; therefore be it

RESOLVED, that the Congress be asked to appropriate such funds as are needed to provide meteorological stations in the forest areas and to make adequate study of forest weather and to apply the results of this study to forest fire prevention and control.

Votes of thanks were given to the Pacific Division of the American Association for the Advancement of Science and to the University of Southern California for the conveniences afforded the meetings of our society. After which it adjourned *sine die*.

E. A. BEALS,  
*Secretary pro tem.*

### THE AMERICAN PHYSICAL SOCIETY

THE one hundred and twenty-second regular meeting of the American Physical Society was held in the Norman Bridge Laboratory of Physics, California Institute of Technology, Pasadena, on September 18, 1923. The morning session was a session of the Physical Society alone, and the afternoon session was a joint session with the American Astronomical Society. The attendance was about sixty. The presiding officer was Professor E. C. Watson.

Papers presented at the morning session and those contributed by the Physical Society to the afternoon session were as follows:

*The physical characteristics of diplacusis:* V. O. KNUDSEN and GEO. E. SHAMBAUGH, University of California, Southern Branch.

*Interference phenomena with a thick glass plate in the path of one of the interfering beams:* W. N. BIRCHBY, Norman Bridge Laboratory of Physics, California Institute of Technology.

*On the condition known as electrical neutrality:* FERNANDO SANFORD, Stanford University.

*A method of comparing the rates of mixing of two liquids:* L. E. DODD, University of California, Southern Branch.

*The crystal structure of benzene:* JARED KIRTLAND MORSE, Ryerson Physical Laboratory, University of Chicago.

*Oscillograms of the barkhausen effect:* S. R. WILLIAMS, Norman Bridge Laboratory, California Institute of Technology.

*Magnetic results obtained by the Carnegie during cruises IV, V and VI:* J. P. AULT, Carnegie Institution of Washington.

*Accurate measurements of the energy content of extreme ultraviolet mercury lines, and the precise determination of the photoelectric long-wavelength limit of a clean surface of mercury:* C. B. KAZDA, Norman Bridge Laboratory, California Institute of Technology.

*Effect of temperature and surface impurities on photocurrents with aluminum surfaces from which surface films have been removed by melting in vacuo:* J. REED NIELSEN, Norman Bridge Laboratory, California Institute of Technology.

*Magnetic beta ray analysis of soft x-rays:* JOSEPH A. BECHER, Norman Bridge Laboratory, California Institute of Technology.

*The pulling of electrons out of metals by intense electrical fields:* R. A. MILLIKAN and CARL F. EYRING, Norman Bridge Laboratory, California Institute of Technology.

*The appearance of certain ghosts in the general x-ray spectrum formed by reflection from calcite; an explanation of their cause and the means of their elimination:* A. E. HENNINGS, Stanford University.

*The influence of the scattering substance on the wave length and intensity of scattered x-rays:* P. A. ROSS, Stanford University.

### JOINT SESSION WITH THE AMERICAN ASTRONOMICAL SOCIETY

*Effects of a total solar eclipse on the earth's magnetic and electric fields:* J. P. AULT, Carnegie Institution of Washington.

*Photographic film characteristics in the ultraviolet:* GEORGE R. HARRISON and CEDRIC E. HESTHAL, Stanford University.

*Extreme ultraviolet spectra:* R. A. MILLIKAN and I. S. BOWEN, Norman Bridge Laboratory of Physics, California Institute of Technology.

*The vacuum spark spectrum of calcium:* J. A. ANDERSON, Mt. Wilson Solar Observatory.

*Series spectra in oxygen and sulphur:* J. J. HOPFIELD, University of California.

D. L. WEBSTER,  
*Local Secretary for the Pacific Coast*