

but also to awaken many a slumbering soul to a larger and nobler life. By precept and example he set forth worthy ideals of virile scholarship, of genuine religion, of civic, national and international righteousness. His spirit, reverent and fearless and tolerant, loving and loyal, still lives in his disciples. Who shall say when its workings will end? His place in the history of speculative philosophy is secure. He, being dead, yet speaketh, and we have no need to grieve. But in the fresh sorrow for our loss, we mourn for Royce as the man and the moulder of men.

THE SCIENTIFIC EXHIBIT OF THE NATIONAL ACADEMY OF SCIENCES

At the recent meeting of the National Academy of Sciences at Boston, there were arranged at the Massachusetts Institute of Technology, an interesting series of scientific exhibits, which were explained by the exhibitors in person. The exhibits were as follows:

- H. S. WHITE, Vassar College. Graphic representations of triad systems.
- FRANK SCHLESINGER, Allegheny Observatory, Allegheny, Pa. Photographs of Jupiter.
- MISS A. J. CANNON, Harvard College Observatory. Stellar spectra.
- LEON CAMPBELL, Harvard College Observatory. Visual observations of variable stars.
- MISS H. S. LEAVITT, Harvard College Observatory. Photographic magnitudes.
- OLON I. BAILEY, Harvard College Observatory. Variable stars in clusters.
- A. G. WEBSTER, Clark University. Acoustical measuring apparatus: standard phone, phonometer and phonotrope. Application of a drop chronograph for use in ballistics.
- CHARLES A. KRAUS, Clark University. A new vacuum pump and a new thermostat.
- H. P. HOLLNAGEL, Massachusetts Institute of Technology. Methods of isolating the infra-red region of the spectrum.
- ALEXANDER MCADIE, Blue Hill Observatory. Cloud studies, wind structure and snow flakes.
- ELLSWORTH HUNTINGTON, Milton, Mass. The relation between solar changes and barometric gradients. Optimum temperature for the human race.
- ROBERT DEC. WARD, Harvard University. Weather types of the United States, illustrated by composite weather maps and instrumental records.
- R. A. DALY AND H. CLARK, Harvard University. Design for a deep-sea thermograph.
- FRANK HALL, Massachusetts Institute of Technology. A thermophone arranged so that direct comparison may be made with a magnetic receiver.
- A. H. GILL, Massachusetts Institute of Technology. Tests of lubricating mineral oils.
- F. G. KEYES AND J. B. DICKSON, Massachusetts Institute of Technology. Continuous flow calorimeter for measuring heats of reaction in solution.
- C. L. BURDICK, Massachusetts Institute of Technology. Determination of crystal structure by X-rays.
- R. E. WILSON, Massachusetts Institute of Technology. Apparatus for maintaining pressures of one tenth micron or less, and the investigation of the mechanism of chemical reactions.
- HENRY FAY, Massachusetts Institute of Technology. Erosion of large guns.
- ALBERT SAUVEUR, Massachusetts Institute of Technology and Harvard University: (1) Photomicrographic apparatus (original). (2) Photomicrographs of metals and alloys; charts and diagrams; specimens.
- H. O. HOFMAN, Massachusetts Institute of Technology. (1) Jenny flotation machine. (2) A laboratory revolving horizontal roasting furnace heated electrically and rotated in the same way.
- A. E. KENNELLY and Associates, Massachusetts Institute of Technology. Researches in electrical engineering.
- ALEXANDER KLEMIN, Massachusetts Institute of Technology. Aeroplane models used in wind tunnel.
- W. LINDGREN AND W. L. WHITEHEAD, Massachusetts Institute of Technology. Photomicrographs of silver ores from Chile and Tintic.
- C. H. WARREN, Massachusetts Institute of Technology. (1) A graduated sphere for crystallographic work. (2) Photographs of spherulites in polarized light.
- CHARLES PALACHE, Harvard University. Models showing gnomonic crystal projection.
- WALLACE W. ATWOOD, Harvard University. The former glaciers of the San Juan Mountains of Colorado. The physiographic stages in the evolution of the San Juan Mountains of Colorado.
- J. B. WOODWORTH, Harvard University. Glacial map of Cape Cod and adjacent islands. A glypolith from Nantucket.
- LAURENCE LA FORGE, U. S. Geological Survey. Recent topographic and geologic maps of New

- England and other parts of the United States. JOHN M. CLARKE, State Museum, Albany, N. Y. Portfolio of paleontological plates, in press. Plates of "Wild flowers of New York," in press. Geological map of Ogdensburg, N. Y., and vicinity, in press.
- H. W. SHIMER, Massachusetts Institute of Technology. Evolution of some brachiopods.
- RICHARD M. FIELD, Harvard University. Ordovician rocks and faunas of central Pennsylvania.
- W. B. SCOTT, Princeton University. Proofs of plates for forthcoming report on paleontology of Patagonia.
- W. J. V. OSTERHOUT, Harvard University. Pigments produced by the oxidation of a colorless plant chromogen.
- CHARLES W. JOHNSON, Boston Society of Natural History. Distribution and variation of *Helix hortensis*.
- JOSEPH A. CUSHMAN, Boston Society of Natural History. Some fossil and recent foraminifera.
- ALFRED G. MAYER, Marine Laboratory, Carnegie Institution. Yacht and laboratory of the Carnegie Institution at Tortugas, Florida.
- HUBERT LYMAN CLARK, Museum of Comparative Zoology, Harvard University. Echinoderms from Torres straits, Australia, with colored drawings and lithographs.
- G. H. PARKER, Harvard University. The suction efficiency of a California sea-anemone.
- W. T. BOVIE, Harvard University. Visible effects of Schumann rays on protoplasm. Effects of radium rays on permeability of protoplasm.
- C. T. BRUES, Bussey Institution, Harvard University. Specimens and charts illustrating insects as carriers of infantile paralysis.
- W. E. CASTLE, Bussey Institution, Harvard University. Examples of Mendelian inheritance, reversion and variety formation in rats and guinea-pigs.
- FRANCIS G. BENEDICT, Nutrition Laboratory, Carnegie Institution. Respiration apparatus for animals.
- T. B. OSBORNE, Connecticut Agricultural Station, and L. B. MENDEL, Sheffield Scientific School, Yale University. Photographs representing the growth of chickens fed with definite mixtures of food stuffs under laboratory conditions which have heretofore not led to success.
- I. CHANDLER WALKER, Medical Service, Peter Bent Brigham Hospital. Protein sensitization in relation to bronchial asthma.
- H. S. WELLS, Medical Service, Peter Bent Brigham Hospital. Electrocardiography, or the application of the string galvanometer to the study of cardiac cases.
- ALBERT A. GHOREYEB, Cancer Commission, Harvard University. Metal casts of heart and kidney blood vessels.
- S. B. WOLBACH, Harvard Medical School. Studies in Rocky Mountain spotted fever.
- HARVEY CUSHING AND W. M. BOOTHBY, Peter Bent Brigham Hospital. Apparatus of routine methods for clinical metabolism determinations.
- E. W. GOODPASTURE, Peter Bent Brigham Hospital. An anatomical study of senescence, with especial reference to tumors.
- E. E. TYZZER AND C. C. LITTLE, Harvard Medical School. The inheritance of susceptibility to transplanted tumor.
- W. DUANE, Harvard Medical School. The technique of the preparation of radium for therapeutic purposes.
- G. C. WHIPPLE, School for Health Officers, of Harvard University and Massachusetts Institute of Technology. Charts showing organization and membership of the school.
- W. T. SEDGWICK, Massachusetts Institute of Technology. (1) Diagrams and tables illustrating the investigations of Professor Weston and Mr. Turner upon "The digestion of sewage effluents in an otherwise unpolluted stream." (2) An investigation of the behavior of certain species of bacteria in various materials between zero Centigrade and zero Fahrenheit. (3) A field investigation of the sanitary environment of a suburban population. (In room 10-411.)
- S. C. PRESCOTT, Massachusetts Institute of Technology. Diseases of the banana in Central America and their control. (In room 10-411.)
- ALFRED M. TOZZER, Peabody Museum, Harvard University. Race-mixture in Hawaii.
- CHARLES PEABODY, Peabody Museum, Harvard University. Prehistoric specimens from caves of France and Palestine.
- E. A. HOOTON, Peabody Museum, Harvard University. Casts and reconstruction of ancient man: skull of apes.
- S. J. GUERNSEY, Peabody Museum, Harvard University. Cave explorations in northeastern Arizona.
- ORIC BATES, Peabody Museum, Harvard University. Prehistoric Libyan remains.

THE NEW YORK MEETING OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

THE American Association for the Advancement of Science will hold its sixty-ninth meeting in New York City, from December 26 to December 30, 1916. This will be the fifteenth