Josiah Willard Gibbs; Professor Charles A. KrAUS 275

Obituary:
Professor S. P. L. Sorensen: Professor Wm. Mansfield Clark. Fabian Franklin: Professor F. D. Murnaghan. Earl E. Hoover: Dr. Carl L. Huibs. Recent Deaths 282

Scientific Events:
Excerpts at the California Meeting of the American Geociological Society of America; Awards of the Alfred P. Sloan Foundation; Election of Fellows of the Royal Society, London; The Establishment of an Institute of Technology at Northwestern University 284

Scientific Notes and News
Discussion:

Scientific Books:

Special Articles:

Scientific Apparatus and Laboratory Methods:
Use of Luminous Paint for Observation of Animal Movements in the Dark: Dr. John H. Lockhead. Quantitative Transfer of Aquous Solutions: Robert Ballentine. Amphibian Gametes as Biological Test Material: Dr. Roberts Rugh 301

Science News 6

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JOSIAH WILLARD GIBBS

By Professor Charles A. KrAUS

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On the one hundredth anniversary of his birth, we are here to do honor to the memory of Josiah Willard Gibbs, the greatest physical scientist that America has produced and one of the greatest original thinkers of all time. The occurrence of genius is commonly believed to be a phenomenon of pure chance, and such it may well be so far as native talent is concerned; but talent has merely a potential value; it is fruitful only when it is properly cultivated, indeed, we may say when it is self-cultivated under favorable conditions. Genius may be assisted in this process of self-cultivation but, in all cases, genius flourishes best in an environment of complete intellectual freedom. The history of American science bears this out.

Let us review, briefly, the careers of the American men of genius who contributed to the development of physical science from Colonial times up to the last quarter of the nineteenth century. Up to 1850, America had produced five great physical scientists: Benjamin Franklin, Benjamin Thompson (Count Rumford), Joseph Henry, Henry A. Rowland and Josiah Willard Gibbs.

Franklin and Rumford were products of pre-revolutionary America; they were self-taught, having received only very meager common school education. The two men, although their lives were, in certain respects, very diverse, had much in common. Both were exceptionally versatile; both were keen observers and ready experimenters; both were of a practical and inventive turn of mind; both were keenly conscious of their social environment and both did much to advance science and learning in other ways than through their scientific contributions. Franklin was active in promoting the establishment of libraries, colleges and