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CONTENTS:

<i>The Physical Properties of Aqueous Salt Solutions in Relation to the Ionic Theory:</i> PROFESSOR ARTHUR A. NOYES.....	577
<i>The Field of Logic:</i> PROFESSOR FREDERICK J. E. WOODBRIDGE.....	587
<i>Clarence L. Herrick:</i> PROFESSOR A. D. COLE..	600
<i>Scientific Books:—</i>	
<i>The Harriman Alaska Expedition:</i> C. L. MARLATT. <i>Haller's Lehrbuch der vergleichenden Anatomie:</i> J. P. McM.....	601
<i>Societies and Academies:—</i>	
<i>The San Francisco Section of the American Mathematical Society:</i> PROFESSOR G. A. MILLER. <i>New York Academy of Sciences, Section of Geology and Mineralogy:</i> EDMUND OTIS HOVEY. <i>The Elisha Mitchell Scientific Society:</i> PROFESSOR ALVIN S. WHEELER	604
<i>Discussion and Correspondence:—</i>	
<i>Soil Management:</i> PROFESSOR E. W. HILGARD. 'The Metric Fallacy,' once more: PROFESSOR W. LE CONTE STEVENS. <i>Professor William Morton Wheeler on the Kelep:</i> O. F. COOK.....	605
<i>Special Articles:—</i>	
<i>The Brain of a Swedish Statesman:</i> DR. EDW. ANTHONY SPITZKA.....	612
<i>Scientific Notes and News.....</i>	613
<i>University and Educational News.....</i>	616

THE PHYSICAL PROPERTIES OF AQUEOUS SALT SOLUTIONS IN RELATION TO THE IONIC THEORY.*

It is generally recognized that the further progress of physical science will be greatly facilitated by a better systematization of the knowledge already accumulated, and this is true in an especially high degree of the newly developed branch of science in which this section is directly interested. It has, therefore, seemed to me that the most valuable contribution that I could make toward the solution of the present problems of physical chemistry in correspondence with the aims of this Congress, would be a formulation of the present status of some of our knowledge relating to important classes of phenomena which are being actively investigated, but which have not yet received a final interpretation. It was my original hope to discuss several such classes of phenomena; but the effort involved in the collation and criticism of the available data connected with the problem which was first studied, forced me to confine my attention to that alone. This problem concerns *the physical properties of aqueous salt solutions in relation to the ionic theory*. This is the subject which I shall attempt to present to you: I hope that its importance and the greater definiteness that can be given to its treatment may compensate for the somewhat limited scope of this paper.

Permit me to say in advance that I have

MSS. intended for publication and books, etc., intended for review should be sent to the Editor of SCIENCE, Garrison-on-Hudson, N. Y.

* Address delivered at St. Louis before the Section of Physical Chemistry of the Congress of Arts and Science.