

ber of series of closely related novel problems. In the solution of successive problems of a series the essential common elements are gradually abstracted and associated with an appropriate symbol of some sort. There thus develops a general concept which functions increasingly in succeeding problems in directing observation and controlling re-formulation of hypotheses, until finally new problems are solved at sight or a general formula is given for all problems of the series. In the solution of successive series of problems further functioning and development of the concept occur, enabling the subject finally to generalize correctly in advance for new series of problems of the same type. The order of abstraction of essential situation-elements was found to follow closely the order of frequency of the subject's reactions to them. This is also the order of their temporal nearness to the goal or end of the trial. The recombination of essential elements in connection with appropriate symbols, and their association with effective responses, follow the same order though somewhat less closely. There was usually a high degree of transfer of the effects of learning from problem to problem and from series to series of problems. The median percentage of transfer from the first to the second series was almost invariably surpassed by subjects who required more than the median number of trials for the mastery of the first series. This high degree of transfer in the work of slow learners appears to have arisen from the greater strength of mechanical associations rather than from a deeper insight into the causal relations involved. However, the basic concept mentioned above appears to have been the principal medium of transfer. Yet it should not be forgotten that this concept functioned through specific associations which had become mechanized to a high degree largely through repetition.

EDWARD K. STRONG, JR.,  
*Secretary*

#### GENERAL MEETING OF THE AMERICAN CHEMICAL SOCIETY

THE 59th meeting of the American Chemical Society was held at St. Louis, Mo., April 12 to Friday, April 16, 1920. The council meeting was held on the 12th, a general meeting on April 13th, both in the morning and in the afternoon, divisional meetings all day Wednesday and Thursday morning, and excursions, Thursday afternoon and Friday. Full details of the meeting and program will

be found in the May issue of the *Journal of Industrial and Engineering Chemistry*. The registration was slightly over one thousand, eight hundred and twenty-five enjoying the smoker.

General public addresses were given by Paul W. Brown, editor and publisher of "America at Work," on "The Physical Basis for the Economical Development of the Mississippi Valley," by Chas. H. Herty on "Victory and its Responsibilities." The chief public address was given in the assembly room at the Central High School on "Chemical Warfare" by Col. Amos A. Fries, director of the Chemical Warfare Service.

The following Divisions and Sections met: Agricultural and Food, Biological, Industrial Chemists and Chemical Engineers, Organic, Pharmaceutical, Physical and Inorganic, rubber, and water, Sewage and Sanitation Divisions and the Dye, Leather, and Sugar Sections. Further details of their meetings will be found in the May issue of the *Journal of Industrial and Engineering Chemistry*.

The banquet, held on Thursday evening, April 15, filled the large banquet hall of the Hotel Statler.

A general business meeting was held on Tuesday morning, at which resolutions published in the Council Proceedings, this issue, on the death of Professor Alfred Werner were read by Dr. Chas. H. Herty. Also, Ernest Solvay was unanimously elected an honorary member of the American Chemical Society.

CHAS. L. PARSONS,  
*Secretary*

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## SCIENCE

A Weekly Journal devoted to the Advancement of Science, publishing the official notices and proceedings of the American Association for the Advancement of Science

Published every Friday by

### THE SCIENCE PRESS

LANCASTER, PA.

GARRISON, N. Y.

NEW YORK, N. Y.

Entered in the post-office at Lancaster, Pa., as second class matter