SCIENCE

VOL. LXII SEPTEMBER 18, 1925 No. 1603

CONTENTS

SCIENCE: A Weekly Journal devoted to the Advancement of Science, edited by J. McKeen Cattell and published every Friday by

THE SCIENCE PRESS

Lancaster, Pa. Garrison, N. Y.

New York City: Grand Central Terminal.

Annual Subscription, $6.00. Single Copies, 15 Cts.

SCIENCE is the official organ of the American Association for the Advancement of Science. Information regarding membership in the association may be secured from the office of the permanent secretary, in the Smithsonian Institution Building, Washington, D. C.

Entered as second-class matter July 18, 1923, at the Post Office at Lancaster, Pa., under the Act of March 8, 1879.

COOPERATIVE RESEARCH: A CASE REPORT

COOPERATIVE scientific research among different major departments of different institutions is so rare and of such significance for the future development of American science that the story of the successful accomplishment of such an undertaking for now six years may prove to be stimulating as well as interesting. As a sequel to the growing complexity of scientific technique, it is probable that there will be an increase in the number of cooperative researches of the type to be described, since this form of scientific work possesses a distinct advantage in the pooling of knowledge and resources. Individual scientific achievement, of course, may always be expected to develop whenever genius and opportunity are in proper conjunction. As the specialties will continue to diverge, however, the organization of science will imply greater liaison and cooperation between the specialists, in order to advance the common front of scientific knowledge.

In the case to be described, the mutual incentive to productive effort has been so fruitful that a morale and enthusiasm has developed which is astonishing. Individual ambition has been disciplined to team work for the success of the endeavor as a whole, and instead of engendering the slight jealousies and friction which often arise between workers on the same scientific problem, friendships have been created and cemented which seem impossible of dissolution.

This particular cooperative venture originated with some of the scientists engaged in the Chemical Warfare Service during the war. Among those associated together at the American University Experiment Station at Washington were Professor A. S. Loevenhart, of the University of Wisconsin, and Professor W. Lee Lewis, of Northwestern University. Professor Lewis is the chemist who developed "Lewisite," about which so much romance arose at the end of the war, and Professor Loevenhart is the pharmacologist who directed the study of the action of this and other substances on the human body.

Professor Loevenhart became impressed with the significance of their cooperative researches. In discussing "an institute for research in synthetic organic chemistry" at a meeting in 1918, Professor Loevenhart said:

In my work at the American University Experiment Station I have seen how satisfactory and effective research work in close cooperation between chemists and