

courtesies can be offered to the association on Sunday afternoon also, of which later notice will be given.

ENTERTAINMENT FOR LADIES

Mrs. Henry Gale, chairman of the Ladies' Committee, has reported the present stage of plans for entertaining the ladies while their husbands are attending the scientific sessions. On Wednesday, there will be an automobile trip up the North Shore, luncheon and visits to two or three private gardens, with tea; on Thursday afternoon, a visit to the University of Chicago campus, with tea at the Ida Noyes Hall; in the late afternoon, probably on Friday, a boat trip on the lake in private boats of Chicago yachtsmen. For at least the first and last of these functions the parties will be limited in number. Plans for registering for them will be announced in the printed programs for the meetings, along with plans for visiting other points of interest in Chicago by individual request, guest memberships at the women's clubs, etc.

THE CENTURY OF PROGRESS EXPOSITION

(From the Exposition office through the courtesy of Dr. Philip Fox)

The Century of Progress Exposition, in addition to having a historical background, will show the latest industrial developments and the basic scientific principles behind them. A replica of Fort Dearborn, Chicago's first building, is seen there, and with a turn of the head the lofty skyscrapers of America's foremost contribution to architecture, which had its inception in Chicago.

The general type of exhibits of the Basic Science Division was outlined by the Science Advisory Committee of the National Research Council. The exhibits are intended to present a unified front of modern science, but for operating purposes they are classified under the following seven heads—Mathematics, Astronomy, Physics, Chemistry, Biology, Geology and Medicine. The exhibits are for the most part presented in the Hall of Science. They are designed to be intelligible and appealing to the uninitiated and at the same time of interest to the specialist.

In the field of biology, every resource at command will be enlisted to present in clear and simple fashion a few of the fascinating problems and principles of that science. Living plants and animals will be used in the demonstration of the principles of genetics, evolution, ecology and animal societies. The rôle of the cell will be emphasized. Cell activities will be demonstrated and illustrated by models of magnified cells. So far as possible the demonstrations will be made by means of moving models, living specimens, moving pictures and transparencies, as well as preserved

plants and animals. Among highly interesting presentations will be the embryological exhibits, the models displaying the physical mechanism of speech and thought, the union of plant cells, the production of food in plants, the growth of trees, marine biology, the distribution of plant life over the globe, etc.

Chemistry will be presented as the fundamental science of the transformation of matter. The exhibits will attempt to demonstrate what chemistry is and what it has done to advance civilization. Such phenomena as burning, the rusting of metals, the combustion of fuels, the function of breathing, etc., will be shown as various manifestations of chemical change. The development of the world's raw materials and their production by means of chemical transformation into articles and commodities of vital necessity to mankind will be shown. The principle of catalysis and its application to the production of useful products, the application of the principle of absorption and the study of colloidal matter and the products which have resulted will likewise be portrayed. Important chemical applications of electricity will be demonstrated.

In the geological exhibits the origin and growth of the earth will be traced by means of operating models and other dynamic exhibits. How the processes of deposition and erosion have changed the earth's contours will be shown. The formation of mountain ranges, how volcanoes and geysers occur and the origin and recording of earthquakes will be explained. Petroleum's occurrence in the earth and man's amazing methods of locating it will be shown by a series of exhibits. A geological time clock, which records 2,000,000,000 years of the earth's history within the space of a few minutes, will be another unique feature of this exhibit.

Visitors will be given a broad and comprehensible view of mathematics. This science, for purposes of clarity in the exhibit, has been divided into four major subdivisions: numbers and algebra, geometry, analysis and applied mathematics. Historic apparatus and instruments used by the U. S. Navy in navigation, gunnery and communication will be on display. The contributions of mathematics to the development of other basic sciences will be interestingly set forth.

In the exhibits of physics, visitors will learn of a wide variety of phenomena—how gases can exert high pressure, how gas and steam engines and refrigerating systems operate, how drops of water and other liquids happen to be round, how sounds are produced, transmitted through the air and recorded. Fundamental electrical phenomena will be demonstrated, and the application of electricity and magnetism to industrial uses for man's welfare will be clearly set forth. One of the interesting features of the exhibits of physics