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

will be an optical section which reveals refraction of light by prisms and lenses, colored effects produced in various ways and important spectra.

The astronomical exhibit is housed in the Adler Planetarium and Astronomical Museum, which contains an unexcelled collection of antique astronomical and mathematical instruments for observation and computation. The chief exhibit is the Zeiss Optical Planetarium. No instrument has been devised which has greater versatility in exhibiting the phenomena of any science.

The medical sciences will tell the story of the control of pain, of the doctor's service to the sick, of antisepsis and asepsis in surgery, the discovery of the x-ray, the extension and clarifications of man's vision by means of the microscope, the progress of medicine from the saddle-back doctor of 1833 to the scientific practitioner of to-day. One of the striking features of the medical exhibit will be the transparent man—a heroic model of the human body, showing the skeletal, nervous, vascular, respiratory, digestive and muscular systems.

Outdoor and indoor exhibits will come to tell a complete story of social science, tracing the life of man from earliest times to the present. In the outdoor area groups of Indians will live their native life as closely as possible. This exhibit will culminate in a reproduction of one of the great Maya buildings of Yucatan—the highest development of American aboriginal culture.

The indoor exhibits will be housed in the Hall of Social Science. A central exhibit—the American family—sets the keynote for the stories of education and social work. The dramatic story of anthropology begins a huge relief map showing the nine cultures of North America.

Another display tells how the story of the past is read: once read it becomes history. This in turn leads to the exhibits in psychology and sociology and on to statistics, economics and political science. In the section on education is shown the development of the American School in response to American needs.

The record of agriculture and engineering, too extensive even to be summarized here, is shown in appropriate buildings. To the engineers the exhibits in the Electrical Building and Transportation Building will be of special interest. The type of construction in many of the buildings also presents some novelties. In addition there are separate exhibits by the great industrial concerns.

POINTS OF INTEREST AND EXCURSIONS

(By courtesy of the local committee)

There are numerous points of interest in and about Chicago for its visitors. The city is being built on a definite program, which has as its slogan Daniel H. Burnham's injunction: "Make no little plans." The park and boulevard systems, the forest preserves, the reversal of the Chicago River as an item toward the sanitation of Chicago and the development of the Lakes-to-Gulf Waterway are integral parts of the plan.

One should visit the Art Institute, the Field Museum of Natural History, the Adler Planetarium and Astronomical Museum, the Museum of Science and Industry (which in its present form preserves the beauty of the Fine Arts Building of the Columbian Exposition), the Shedd Aquarium, the Oriental Institute, the Zoological Gardens, the Chicago Historical Society Building, the Museum of the Chicago Academy of Sciences and the educational institutions, principally the University of Chicago and Northwestern University.

If interested in the world's food supply, visit the International Harvester plant, the Stock Yards and the Board of Trade. One may visit also the steel center in South Chicago and Gary, the oil-refining plants in Whiting, the great merchandising plants of Sears-Roebuck and Montgomery Ward, the Merchandise Mart, great stores, of which Marshall Field's is the premier, the banking center of LaSalle Street and the great printing establishment of the Lakeside Press.

The Sand Dunes at the south end of Lake Michigan, Lake Geneva with the botanical gardens and the Yerkes Observatory, or farther, the Dells of Wisconsin, provide attractive excursions; likewise, short lake trips or boat trips across the lake and to Milwaukee.

THE AMERICAN ASSOCIATION PRESS SERVICE

(By Austin H. Clark)

The aim of the Press Service is to assist in presenting to the public through the press a true and accurate story of the development of science in this country. Naturally the development of science, as portrayed in the press from year to year, is to a large extent comparable to a history of the scouts and advance guards of an army rather than to the more methodical progress of the army itself.

When we who are engaged in science delve into history we like to read of the more spectacular events, and we are prone to evaluate history on the basis of a scattered and more or less disconnected series of such events, more or less completely ignoring the more prosaic social trends that gave these events their significance or made them possible.

To one who really knows history the average man's idea of historical events seems just as far afield from a proper conception of the basic fundamentals as science in the press seems to the scientific man. Both