

Another distinct feature will be the presentation of phenomena and processes of the basic sciences, rather than mere apparatus or even results which have been obtained by use of apparatus. That this is no simple undertaking will be evident to every one. To demonstrate, on the lecture table, a chemical reaction in the presence of a class is one thing; to maintain this process in continuous operation for one hundred and fifty days is quite another thing. To demonstrate the phenomena involved in some vital process in the laboratory, perhaps on the stage of a microscope, for a few minutes, is one thing; to keep the phenomena visible to a large number of visitors for a period of five months is something quite different. To what extent these dynamic exhibitions can be substituted for the static ones so largely employed hitherto must be left for the future to decide. Whatever is possible in this direction will be achieved largely by the aid of clever, generous and wise advice from various leaders of science who have in the past so freely given valuable suggestions and help.

The inherent difficulty of making clear an intellectual advance by purely material means, plus a few printed legends, is something which needs only to be stated in order to be appreciated. Curiously enough, exposition becomes especially arduous in those very fields, such as algebra and quantitative physics, which lend themselves so readily to description in mathematical symbols. Since the main goal of the Chicago Centennial is a demonstration of the indebtedness of society to science, nothing in the way of a stated course in science will be offered; on the other hand, it is hoped that the exhibits, even in the pure sciences, will furnish entertainment and inspiration as well as instruction.

The Department of Exhibits, which is under the direction of Mr. John S. Sewell, includes besides the basic sciences six other divisions, namely those of applied science, of which Mr. J. F. Bell is the chief; agriculture, in charge of Mr. Harvey J. Sconce; social science, at the head of which is Professor H. W. Odum; state and federal participation, in charge of Mr. C. Van Deventer; foreign participation, at the head of which is Mr. Felix J. Streyckmans; and fine arts, which has not yet been organized. The entire executive responsibility of the fair has been placed upon Mr. Lenox R. Lohr, who is manager of the exposition; but responsibility for the preparation and installation of exhibits in the basic sciences is in the hands of the following: chief of division, Professor Henry Crew; associate in astronomy, Professor Philip Fox; associate in physics and mathematics, Dr. Gordon S. Fulcher; associate in chemistry, Dr. Irving Muskat; associate in biology, Mr. J. F. W. Pearson; associate in geology, Professor J. V. Lewis.

The plans of the division of the basic sciences include also the publication of a series of small volumes devoted to the latest phases of some twenty branches of science, pure and applied. The authors are well-known scholars. The series will be handled by the Waverly Press, Williams and Wilkins.

Readers of *SCIENCE* have already learned that the American Association for the Advancement of Science will hold its summer meeting for 1933 in Chicago. A considerable number of foreign scholars in each section of the association are being invited for this occasion.

JOHN STEPHEN SEWELL,
Director of Exhibits

THE WORK OF CHINESE BOTANISTS ON THE FLORA OF CHINA

It is interesting to note the efforts that the younger generation of Chinese botanists are devoting to the further elucidation of the very rich and complex flora of China. This work by Chinese botanists under the auspices of Chinese institutions has been developed within the last two decades. There has recently been issued under the joint auspices of the Metropolitan Museum of Natural History, Nanking, and the Fan Memorial Institute of Biology, Peiping, an important contribution to our knowledge of the fern flora of China.¹ The volume is large quarto in size, and contains full descriptions in English and in Chinese, and illustrations, of fifty-one species of Chinese ferns, including a number recently described as new by Mr. Ching. The format, typography and press work is good. The very excellent illustrations showing both macroscopic and microscopic characters renders this publication particularly useful to those interested in the study of Chinese ferns. This important work deserves a place in every botanical library.

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EXPONENTS AND FOOTNOTES

THE writer has long wondered whether an alternative could not be devised for the now very general practice of applying Arabic numerals to footnotes, and indicating their place of reference in the text by numbers typographically identical with those employed as exponents. In a vast majority of cases, of course, no confusion results from this procedure. Either no mathematical formulae are present in a paper, or the context makes it evident, in a given case, whether or not we have to do with an exponent. But in some instances this is not true. Exponent

¹H. H. Hu and R. C. Ching, "*Icones filicum sinicarum*," Fasc. 1, p. 1-102, pl. 1-50, 1930.