

probably boosted by mere curiosity, for the number of calls in July was 339,384. Clearly the automatic system provides an 'on demand' weather forecast service quite beyond the capacity of a forecast office answering direct inquiries. The mechanical arrangements of the forecasting service are described by W. R. Hanson in the July number of the *Meteorological Magazine*. The forecasts are prepared in the Meteorological Office and recorded on tape at telephone exchanges of the General Post Office. They do not, as has been the arrangement elsewhere, consist of the nearest applicable stock phrases, but are compiled to express the forecaster's opinion as nearly as possible within the limits of the time allowed—which must be at most 30 sec. The forecast can be revised at any time, and there is provision for automatic switching in of a second tape if the first breaks down and for keeping the service going during recording of a new forecast.

Nuclear Research Reactor at the Massachusetts Institute of Technology

THE National Science Foundation, Washington, D.C., has made a grant of 500,000 dollars to the Massachusetts Institute of Technology towards the construction of a nuclear research reactor, plans for which have been under way since 1952. The remaining cost, which will be at least 2,000,000 dollars, will be borne out of funds raised by Massachusetts Institute of Technology alumni and by a grant from the Rockefeller Foundation. The reactor will use enriched uranium-235 as fuel, and will be cooled and moderated by heavy water. The main core will be surrounded by a graphite reflector and housed in an air-tight building with a dome-shaped roof, the site for which is 136 Albany Street, Cambridge, Mass. Construction is already under way and is expected to be completed in the autumn of next year. The design of the reactor has been chosen to give the maximum degree of safety together with facilities for a large number of experiments in nuclear physics, which will be the principal function of the reactor. However, it will also be made available for research in solid-state physics, food technology, genetics, chemical and nuclear engineering, and medicine. The whole project is under the general direction of Dr. Manson Benedict, professor of nuclear engineering in the Department of Chemical Engineering. Dr. T. J. Thompson, formerly chairman of the Design and Construction Committee of the Omega West Reactor of the Los Alamos Scientific Laboratory, has designed the reactor and will supervise its construction.

Gwerin : a New Journal of Folk-lore

A NEW journal of folk-lore, *Gwerin* (Welsh for 'folk'), has been inaugurated, and the first number appeared in June. The forty-eight pages of the number contain three main articles, the first on how certain straw-rope granaries near Cork are made, a second on some Hebridean traditions, and a third on the manufacture in Suffolk of wooden rakes and scythe sticks. It is not easy to make descriptions of how things are constructed readily intelligible, and it is virtually impossible to make them exciting. Therefore, if the new journal is to survive, one might suggest that plenty of room should be set aside for the legend and fairy-tale side of the subject, which always has a great appeal. But constructional descriptions should be recorded somewhere even if only the accounts are deposited in some recognized

museum. The straw-rope granaries make an interesting article, and it must be news to many that rakes and scythe sticks were a special feature of rural industries in Cambridgeshire and the neighbouring counties of Suffolk and Bedfordshire. It is good to know that story-telling and traditional music are still popular in the Hebrides and that they have not been ousted by the modern, 'popular' entertainment that pours forth over the radio and television and from so many printing-presses and film studios. There is, indeed, room for a journal devoted to folk-lore, and all will wish the new venture every success.

Makers of Modern Science

THE series of ten articles, each devoted to a brief description of one of the great prime movers in the development of science, which appeared originally in *The Times Educational Supplement*, has now been reprinted and issued as an attractive booklet, entitled "Makers of Modern Science" (pp. 44+10 plates. London: The Times Publishing Co., Ltd., 1956; 2s. 6d.). Each article is accompanied by a full-page photograph of its subject. The aim of the contributors, present-day eminent men of science, is to write about their subjects in a way which would not appear absurdly elementary to specialists in science and yet which would not be too repellently difficult for specialists in humanities. It is hoped that the articles will act as a bridge of general conversation between arts men and scientists. Except for Louis Pasteur and Charles Darwin, the prime movers are physicists or chemists who laid the foundations for our present-day knowledge of the structure of matter and of the atom in particular—Galileo, Newton, Dalton, Faraday, Mendeleev, J. J. Thomson and Rutherford. The late Dr. Sherwood Taylor, who took a large part in the preparation of the series, contributes the article on Galileo, and this represents one of the last writings of this distinguished historian of science. Sir Lawrence Bragg is the author of the article on Faraday; Dr. Charles Singer on Pasteur; Prof. J. R. Partington on Mendeleev; Sir George Thomson on his father; and Prof. P. M. S. Blackett on Rutherford.

Basic Concepts and Methods of Psycho-analysis

THE centenary of Freud is commemorated in a recent number of the *British Journal for the Philosophy of Science*, which contains seven articles that attempt, with considerable though varying success, to clarify some of the basic concepts and methods of psycho-analysis. Two contributions state in very clear terms the theoretical and practical difficulties that arise from the over-determination of mental phenomena—that is, the fact that many of these data are explicable in terms of different, and incompatible, laws and hypotheses. Similar problems are, of course, encountered in other fields of science, so that this number of the *Journal* is of quite general interest.

Commonwealth Fund Fellowships for Advanced Study and Travel in the United States

A NUMBER of Commonwealth Fund fellowships are again being offered by the Commonwealth Fund, New York, to British subjects for study and travel in the United States. All expenses of travel, study, and living will be met, with some adjustment of stipends for married men. The fellowships which are open to British men or women who have not previously worked or studied for more than a few