achievement, leaders of thought, were next sought from the various divisions of the National Research Council, as well as from the secretaries of the different sections of the American Association for the Advancement of Science and of certain societies of specialists. The response to these requests has been generous and, for the most part, prompt.

It is hoped that guests accepting the invitation will appear on the program of the association's meeting and will also be available for one or more public lectures in various scientific centers. For a number of years past the program of the American Association for the Advancement of Science has been a highly important one, even when limited entirely to the productive scholarship of America. The foregoing plan is intended to enrich the regular program and is felt to be in full harmony with the international character of the exposition.

No attempt will be made to give, in a single week, a cross-section of human knowledge: but it is believed that a bird's-eye view of the main lines of present-day research will be presented and will render the 1933 meeting a memorable scientific occasion. The aim is to establish personal contact between an intelligent audience and the leaders in science. The Century of Progress is the name under which this exposition is incorporated; but there is here no implication that it is a backward looking institution. The whole purpose is, indeed, to point the way to another coming Century of Progress, to demonstrate the unity and importance of science. Every effort will be made to eliminate from this meeting the turmoil and bustle of a world's fair by the selection of appropriate meeting places. But if, in these efforts, the local management is not in every way successful there will be compensations, illuminations of mind and matter, and foregatherings, which will leave the balance on the right side.

By action of the council of the American Association for the Advancement of Science at its recent meeting in Los Angeles, the exact date of the Chicago meeting was fixed as the last full week in June, 1933.

JOHN STEPHEN SEWELL
DIRECTOR OF EXHIBITS,
CHICAGO CENTENNIAL EXHIBITION

THE MARINE LABORATORY OF THE UNIVERSITY OF SYDNEY, AUSTRALIA

I HAVE just received from Professor W. J. Dakin, of the department of zoology, University of Sydney, New South Wales, Australia, a letter in which he informs me that, notwithstanding the great financial stringency in Australia he has succeeded in procuring funds for the establishment of a small temporary marine laboratory and the acquisition of an auxiliary yacht of 13 tons. Both the laboratory and the yacht belong to the department of zoology of the University of Sydney. A program of investigations without aid from the state is being carried out, although serious financial difficulties beset the University of Sydney. At present particular attention is being devoted to the plankton and certain hydrographic conditions to a distance of about five miles off shore east of Sydney. Already plankton catches have been taken regularly for eighteen months. Professor Dakin himself has been conducting experiments on the osmotic pressure of the blood of certain marine organisms apart from investigations that he has already made on "The osmotic concentration of the blood of *Callorhynchus millii* and *Epiceratodus* (*Neoceratodus*) *forsteri*, and the significance of the physico-chemical condition of the blood in regard to the systematic position of the Holocephali and the Dipnoi."[1]

Professor Dakin writes that his laboratory is very badly off for literature and that he is unable to raise more money to face the adverse exchange rates. He has asked help in obtaining literature, especially on the physical and chemical methods of oceanography and on plankton. It has occurred to me that by publishing this note in SCIENCE assistance for Professor Dakin's struggling laboratory might be procured. He says: "We are doing our utmost with private funds and often risking life too by working from inefficient boats on a most unruly because unprotected sea." Will those who are willing to send literature please address it as follows: Professor W. J. Dakin, Department of Zoology, University of Sydney, New South Wales, Australia. Any help that may be extended will be very greatly appreciated.

T. WAYLAND VAUGHAN
SCRIPPS INSTITUTION OF OCEANOGRAPHY

DEVELOPING NEW VARIETIES OF HOPS

LAST fall work was initiated to develop new varieties of hops. Because of an attack of downy mildew, *Pseudoperonospora humuli* (Miy. et tak.) Wils., it was desired to obtain new varieties which were not only resistant to this disease, but also superior in yield and quality. The variety Fuggles has been reported as resistant to this disease. This variety, however, under most Oregon conditions, is considered low in yielding ability and of a quality that is desired only by a certain trade.

Naturally fertilized seeds of this crop were collected in the growers' yards. Preliminary trials showed that the seed was dormant and would not grow under ordinary germinating conditions. The seed, therefore, was chilled for about ten days at freezing temperatures and then scarified by rubbing on coarse emery

[1] Zool. Soc. London, *Proc.*, pt. 1, pp. 11–16, April 14, 1931.