



Fig. 4. The East-west interferometer

pound interferometer will operate for a total time of about 12 h, and during the whole time every point in the response region will be under continuous observation. This very long integration time increases the sensitivity about 100 times over what it would be if the source simply passed once through a 40 sec-of-arc antenna beam. At the end of 12 h of observing, a one square degree region, that is several thousand beam-widths, will have been mapped. This will make the antenna comparable in sensitivity with the largest existing radiotelescope, not only for observations of small regions, but also in terms of

the area of sky (square beam-widths) that it surveys in a given time. The antenna uses synthesis methods, but has no elements to be moved along the surface of the Earth. Thus, for a given surface area it is cheaper than a variable-spacing interferometer. It uses its receiving area just as efficiently as the latter.

One may, without difficulty, improve the resolving power of the instrument to 20 sec of arc by adding two or four antennae.

With increasing reliability of electronic equipment associated with the disappearance of the thermionic valve, it would seem that the new antenna may be the first of a new generation of radiotelescopes in which numerous antennae, each of moderate size, are used.

The construction of this new telescope has been made possible by grants from the University of Sydney research vote, the Australian Research Grants Committee, the Nuffield Foundation and the Australian Electrical Research Board.

One of the authors was for some time a member of the design team at Leiden associated with the Benelux Cross Antenna Project; the design of the Sydney antenna was influenced by discussions at Leiden,

particularly those with Dr. J. A. Högbom.

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NEWS and VIEWS

U.S. Committee on Communication

A COMMITTEE to focus the views of the learned societies on the problems of communication in science has been set up in the United States by the National Academies of Science and of Engineering (see also page 1161 of this issue). The announcement from Washington says that this step has been taken at the request of the National Science Foundation, which implies that funds will be available. But the step will be a relief for those in the societies who may recently have been dismayed by the brashness of some influential talk about the ways in which scientific information might be handled more efficiently.

The committee is intended to study the problems of communication, to investigate new ways of solving them, and eventually to suggest "both to private organizations and to Federal agencies" what should be done. The terms of reference include a statement that the review ahead will not be confined to the United States. The problems arising from the interaction between "the Federal Government and the private sector" get special mention.

The executive secretary of the committee is to be Dr. F. Joachim Weyl, who has resigned from his post as chief scientist at the Office of Naval Research, U.S. Navy, to become a special assistant at the U.S. National Academy of Science. Dr. Weyl's formidable reputation is a measure of the importance attached to the work he has under-

taken. The chairman is Dr. Robert W. Cairns, now director of research of the Hercules Powder Company, and formerly a deputy assistant secretary of defence in the U.S. Government. The members of the committee are: G. E. Holbrook, vice-president, E. I. du Pont de Nemours and Company; J. C. R. Licklider, consultant to the director of research, International Business Machines Corporation; C. H. Linder, vice-president and group executive (retired), General Electric Company; H. W. Magoun, professor of physiology, University of California, Los Angeles; N. M. Newmark, head, Department of Civil Engineering, University of Illinois; W. H. Pickering, director, Jet Propulsion Laboratory; B. Riegel, director of chemical research, G. D. Scarle and Company; W. C. Steere, director, The New York Botanical Garden; J. W. Tukey, professor of mathematics, Princeton University; M. A. Tuve, director, Department of Terrestrial Magnetism, Carnegie Institution of Washington; P. Weiss, university professor, Graduate School of Biomedical Sciences, University of Texas; W. B. Wiley, president, John Wiley and Sons, Inc.; Van Zandt Williams, director, American Institute of Physics.

Atomic Energy Research Establishment, Harwell:

Dr. W. C. Marshall

DR. W. C. MARSHALL, formerly head of the Theoretical Physics Division of the Atomic Energy Research Establishment, Harwell, has been appointed deputy director of