## THE AUSTRALIAN NATIONAL STANDARDS LABORATORY By Sir David Rivett, K.C.M.G.

COMMONWEALTH COUNCIL FOR SCIENTIFIC AND INDUSTRIAL RESEARCH

WITH the help of the Department of Scientific and Industrial Research, a plan for a Standards Laboratory in Australia was drawn up in 1927, to be controlled by the recently created Council for Scientific and Industrial Research. Unfortunately, the need for it was not fully realized in political circles until, after ten years or more, the growth of secondary industries and an impending acceleration

Particular attention has been paid to the problem of means to run special electrical or other services from one room to another. Vertical ducts to every alternate room and horizontal ducts along the external walls serve this purpose. In addition, numbers of 2-in. diameter pipes have been embedded in the reinforced concrete floors to provide passage between rooms on opposite sides of corridors.



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due to war activity, made further postponement obviously dangerous.

Rapid progress has been made in the past eighteen months and a handsome building has now been completed on a site generously provided in its grounds by the University of Sydney. The front (eastern) elevation is faced with white Hawkesbury sandstone to fit in with the general architectural scheme of the main frontage of the University; the sides and back are treated with light-coloured brick and stone trimmings.

With two stories and a basement in front and three stories and basement behind, the total floor space available is 80,000 sq. ft. Besides laboratories and test rooms for the usual three sections of metrology, electro-technology and physics, there is adequate provision for general offices, workshops and a library. Many of the rooms, including a 130-ft. tape tunnel, are air-conditioned, the plant being designed to maintain a temperature of 68° F.  $\pm 1^{\circ}$  at bench height. The laboratory will hold all national standards for the Commonwealth and will, of course, maintain intimate contact with the National Physical Laboratory at Teddington, which during the past two years has extended its hospitality to some nine officers for purposes of general experience in the calibration and use of instruments. It is the intention to establish substandards laboratories, under State Government control, in certain of the capital cities, to carry testing work beyond the stage to which it will be taken by the National Standards Laboratory.

Considering existing difficulties in obtaining equipment, the Council has been fortunate in securing the instruments and workshop machines which are now in its possession.

The building, which cost  $\pounds 100,000$ , will for the present house certain other activities of the Council for Scientific and Industrial Research in physics, as well as the normal standards services.