

£336,000 RADIO TELESCOPE

To Weigh 1,270 Tons

By our own Reporter

Work should begin this summer on building at the Jodrell Bank, Cheshire, experimental station of Manchester University a new steerable radio telescope to supersede the present fixed telescope there which is already the largest of its kind in the world and which in 1950 first picked up radio waves from the Andromeda nebula, 750,000 light years away.

The immediate object of study with the new telescope will be to continue the work on the galactic and extra-galactic radio emissions which has been begun by the application of radio techniques to astronomy since the war, with particular reference to the number and nature of the dark radio stars; it will also be used to plot the intensity of the radiation, especially from the regions of the Milky Way which are obscured to vision by dust-clouds in interstellar space. New information may be obtained about the sun, meteors, the moon, and some of the planets. Dr A. C. B. Lovell, Professor of Radio-astronomy at Manchester University, says that without a doubt the instrument will do for radio-astronomy what the large telescopes in America have done for classical astronomy.

Building the telescope will probably cost about £336,000, half of which will be borne by the Nuffield Foundation and half by the Government vote to the Department of Scientific and Industrial Research. It is hoped to complete the building in less than four years. The diameter of the paraboloid aerial will be 250 feet, compared with the present 220 feet diameter of the fixed telescope, and its bowl will be about 60 feet deep instead of the 25 feet of the present one.

BATTLESHIPS' SHARE

The telescope will be mounted on a platform 310 feet in diameter; the height, to the top of the horizontal axis, will be 185 feet and when the beam from the aerial is horizontal the total height will be 300 feet. The telescope will weigh 1,270 tons. The main elevating tracks at each end of the horizontal axis will come from the battleships Revenge and Royal Sovereign, lately broken up.

Being steerable, the new instrument will be able to follow the radio stars and other sources of emission, instead of waiting to intercept them, and will be able to photograph them uninterruptedly with a vastly greater sensitivity than has so far been possible. It will also give a greater resolution than present instruments, and so can be used on a much shorter wave-length.

With these factors, the telescope will bring astrophysicists nearer to the solution of the primary problem of whether there are not in fact as many radio stars as there are visible ones, while in day-time study, for example, it will advance the knowledge recently gained from its predecessor of the orbits of the great streams of meteors discovered on the unlit hemisphere of the earth.

[Photograph on page 6]

SETBACK TO EUROPEAN DEFENCE COMMUNITY?

Dr Adenauer's Condition for Signing

TREATY NOT BINDING ON A REUNITED GERMANY

From our own Correspondents

PARIS, APRIL 25.

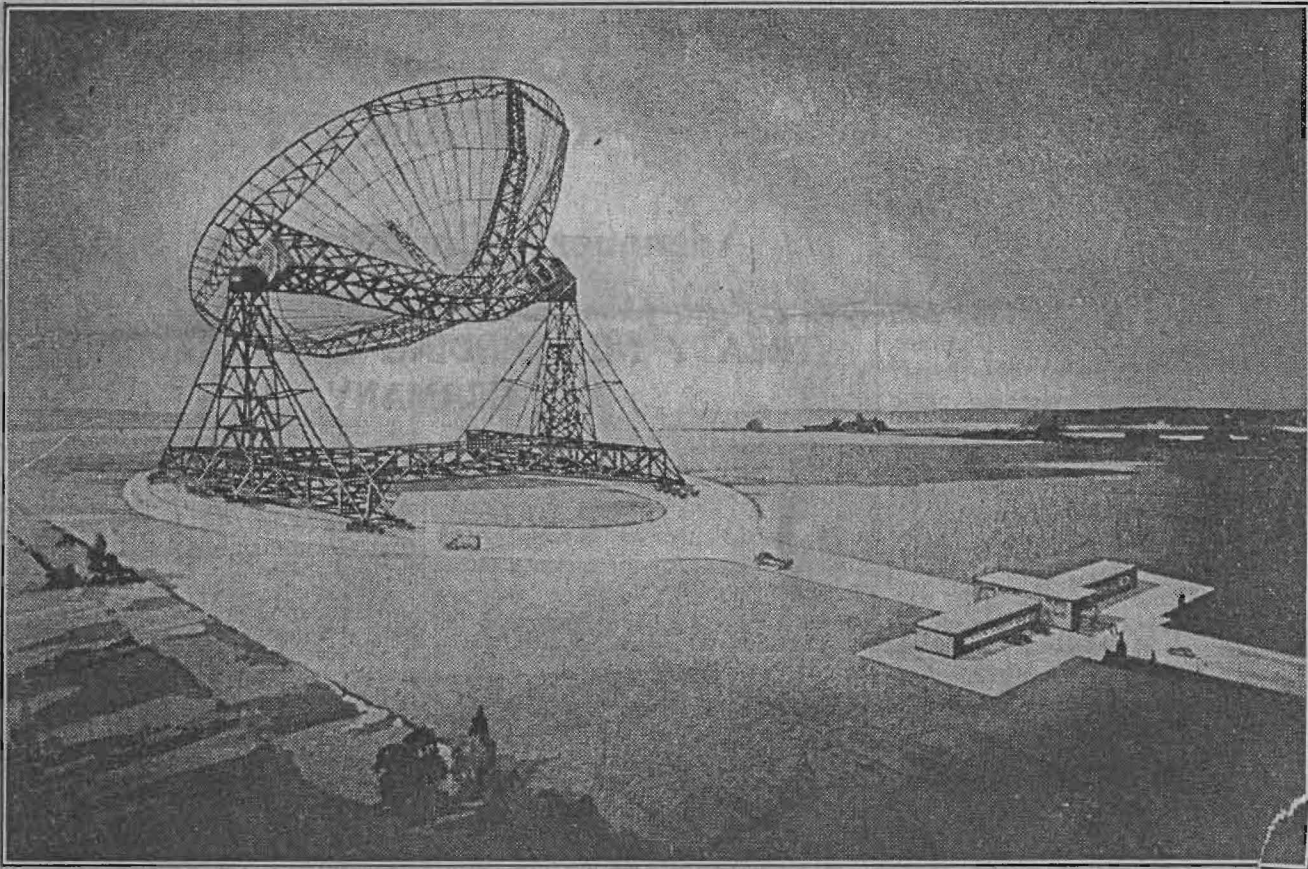
The word "surprise" is certainly an understatement for the feelings at the French Foreign Ministry after a statement by Dr Adenauer that his signature to a treaty establishing a European Defence Community would not be binding after the reunion of Germany. It is claimed here that this statement is in sharp contradiction with the assurances given by the Federal Chancellor in conversations with Paris, London, and Washington.

It is understood that the Chancellor is often faced with a difficult internal position; this is presumed to have been the explanation in the past of a somewhat zigzag course of public declara-

reunion of Germany. Dr Schumacher suggests various means of guaranteeing free all-German elections under international control.

Agreement between the German Government and Opposition has not, however, managed to protract itself for a full twenty-four hours. Social Democratic headquarters announced this evening that there would be no meeting between the Opposition and Dr Adenauer on the subject of all-German elections, four-Power talks, or anything else. They accuse Dr Adenauer of having broken faith with them.

This accusation is based on the fact that Dr Adenauer allowed the Opposition to study the latest letter sent to him by the French Foreign Minister, M. Schuman, on the Saar, but asked that its contents should be kept secret. Dr Adenauer then himself disc-



An artist's drawing of the steerable radio telescope which will be installed at the Manchester University Experimental Station at Jodrell Bank, Cheshire. A description of it appears on page 5

FOR MORE TIME the Stumbling-Block Kashmir

should the situation be favourable it would be ready at the end of the period of demilitarisation to enter into consultations with the United Nations representative to consider a further reduction of forces on the Indian side."

Dr Graham said India considered that the question of a definite period for demilitarisation and a date for a plebiscite administrator to take office (Fleet Admiral Nimitz has been designated) could be settled without difficulty once the agreement on the scope of demilitarisation and the number of forces to remain had been reached. Of the Pakistan Government's viewpoint he said.

"Pakistan agrees that the demilitarisation programme envisaged by the United Nations representative should be completed not later than July 15, 1952. Pakistan insists that the demilitarisation programme should embrace all the armed forces in Jammu and Kashmir without exception, namely the Pakistan Army, Azad (Free) Kashmir forces, the Indian Army, state army, and the state militia.

"Pakistan agrees that at the end of the period of demilitarisation there should remain on each side of the cease-fire line the lowest possible number of armed forces in proportion to the number of armed forces which..."