



D

~~50198~~

CENTRAL OFFICE OF INFORMATION PHOTOGRAPH:
CROWN COPYRIGHT RESERVED.

(See Feature Set Intro. No.296)

BIRMINGHAM PROTON SYNCHROTRON.

Under the supervision of Professor Marcus Cliphant, F.R.S., members of the Physics Department of the Birmingham University are constructing what will be one of the largest proton synchrotrons in the world. It will be used for accelerating protons to an energy of 1,300,000,000 electronvolts for use as projectiles in the study of nuclear structure.

It is hoped that, with the aid of the synchrotron, it will be possible to find some clue to the force which holds together the particles in the nucleus of an atom. Mesons will be produced in the collision of these energetic protons with the atomic nuclei. These mesons are particles with weights intermediate between that of the proton and the electron.

The proton synchrotron is to be used for fundamental research in nuclear physics and cannot have immediate uses in applied science.

D. 50188. (3). As a very low pressure must be obtained in the vacuum box, a complex pumping system has been devised. Our picture shows Mr. Charles Barrow, (right), assisted by Mr. Jack Lupton, bolting on the first five manifolds, which will connect the pumps with the porcelain vacuum box.
(6/50).