Series 7
3:45

CENTRAL OFFICE OF INFORMATION PHOTOGRAPH:

(See Feature Set Intro. No.296)

BIRMINGHAM PROTON SYNCHROTRON.

Under the supervision of Professor Marcus Oliphant, 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 electron-volts 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.50199. (18). Mr. Walter Stiles is testing a model of the accelerating electrode tuning system. To tune the accelerating electrode over the wide frequency range of 250 kilocycles/sec to 10 megacycles/sec, a variable inductance of unusual design is used. Our picture shows Walter Stiles working on the variable inductance in the radiofrequency room. (6/50).