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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.50193. (4). Mechanical pumps take the pressure down to 10^{-2} mm and then 16 inch diffusion pumps take over to further reduce the pressure to 10^{-6} mm. Our picture shows Mr. Leo Bennett turning off the valve to isolate the diffusion pump on test (Large upright tube, right) from the mechanical pump, during experiments