

Rutherford Laboratory

Technical Leaflet

E4

ELECTRICAL SERVICES SECTION

The Section provides comprehensive electrical services to the Laboratory and includes manufacture and installation of Laboratory electrical equipment, maintenance and modifications to plant, site electrical distribution and installation of electrical services to buildings and laboratories.

A wide range of equipment is manufactured for the NIMROD Experimental programme including equipment for spark chambers power packs, control equipment for servo mechanisms in addition to equipment for NIMROD'S operation. Another example is a transistorised controller for the A.E.R.E. Cyclotron. (Fig.1)

The workshop, which includes an area for testing and calibration, machine area, heavy plant test area in addition to a general work bench area, is responsible for the installation of motor generator sets, heavy current busbars, rectifier equipment and their ducting and wiring. (Fig.2)

A planned maintenance system is operated for building lighting and small power, cranes, lifts, portable electric tools, fire alarms, calorifier room auxiliary equipment, site warnings battery operated vehicles and street lighting services. A breakdown service is of course provided.

The site distribution of electricity and control of consumption for the whole laboratory is the responsibility of the section as is the installation and commissioning of new switchgear cabling, etc. and the acceptance of such work from contractors. (Fig.3) The provision of small power and lighting to new buildings and modifications is also covered. Much of the above work is executed by contractors sited at the Laboratory and directed by the Section.

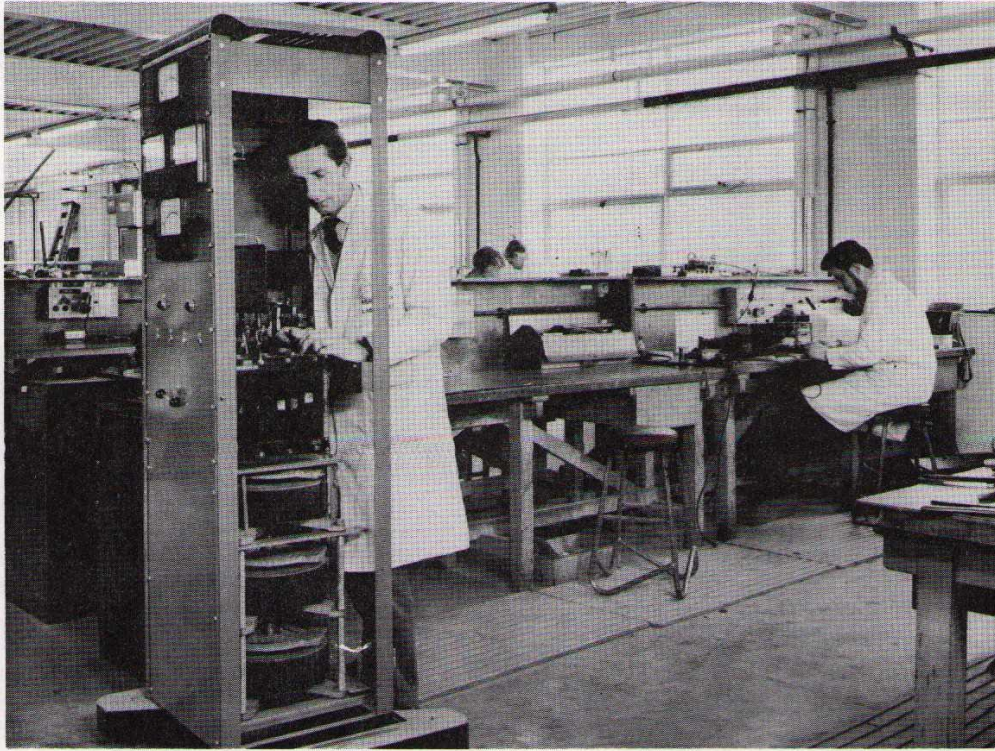


FIGURE 1. CONTROLLER ASSEMBLY

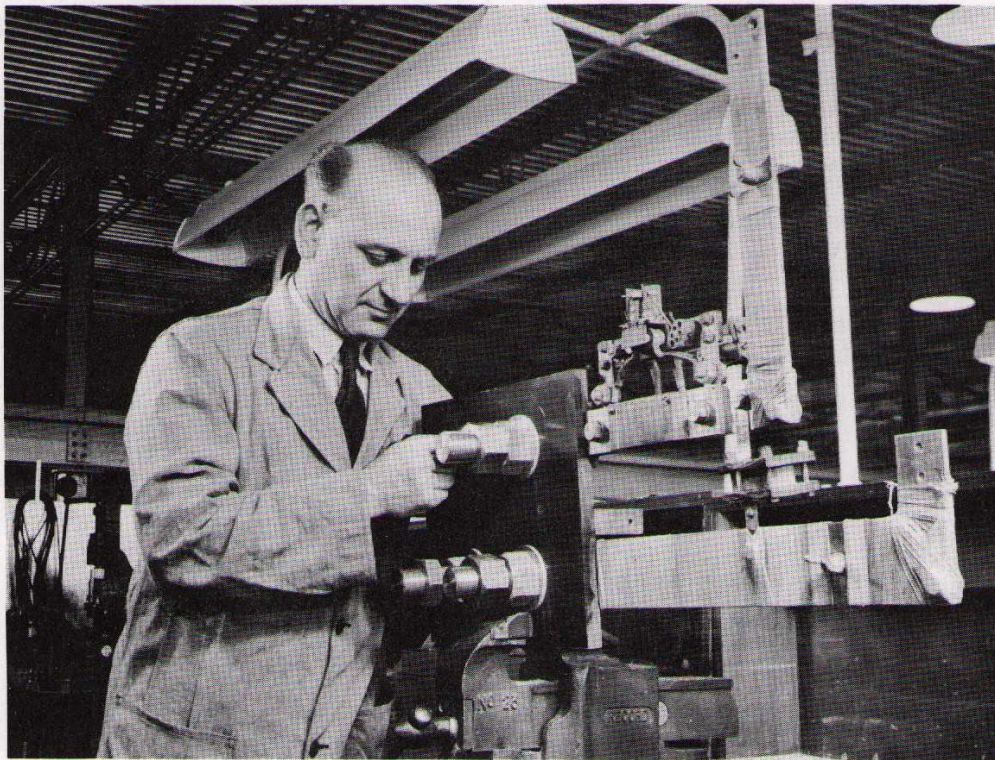


FIGURE 2. WORK ON BUSBARS

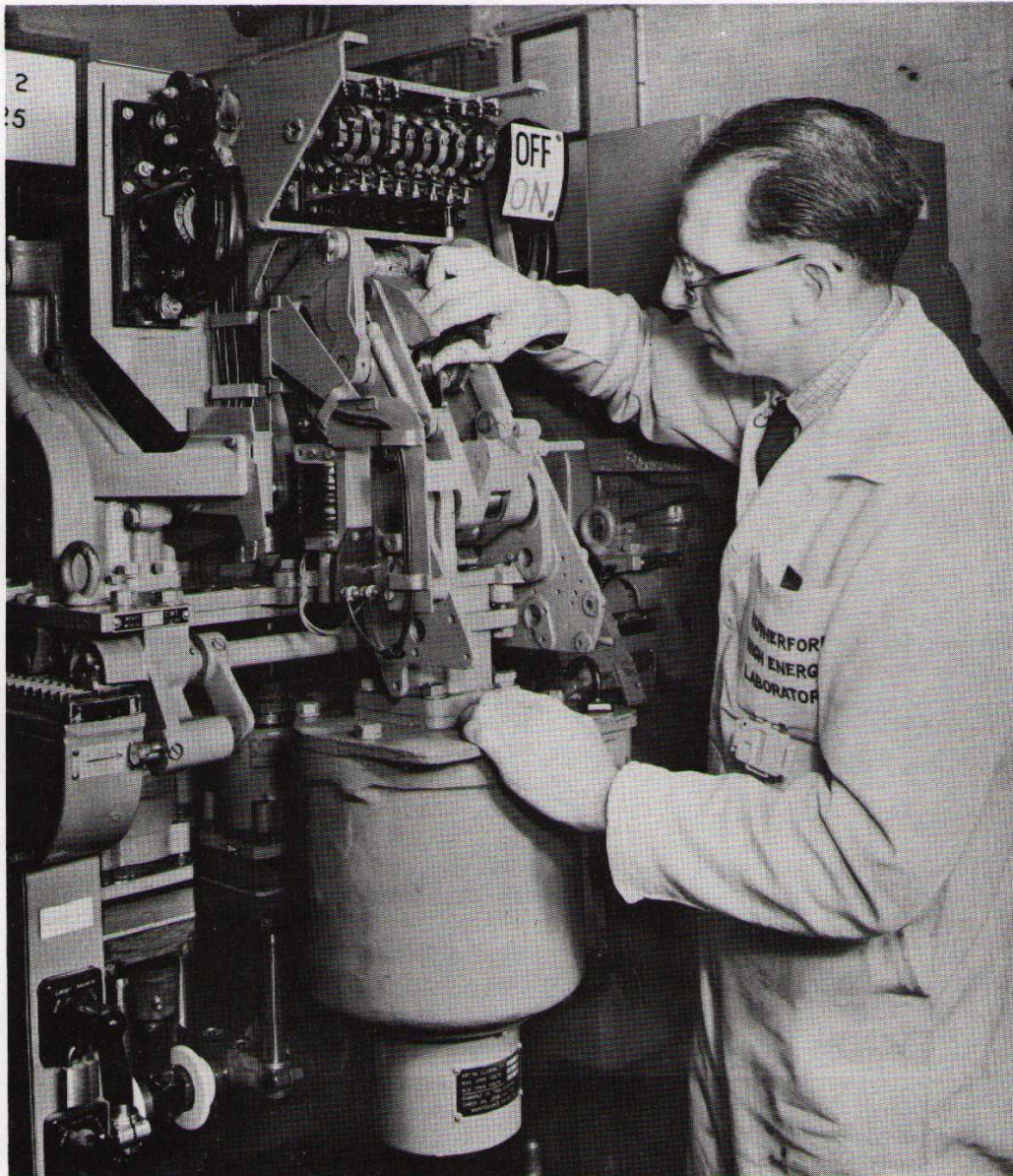


FIGURE 3. WORKING ON SWITCHGEAR