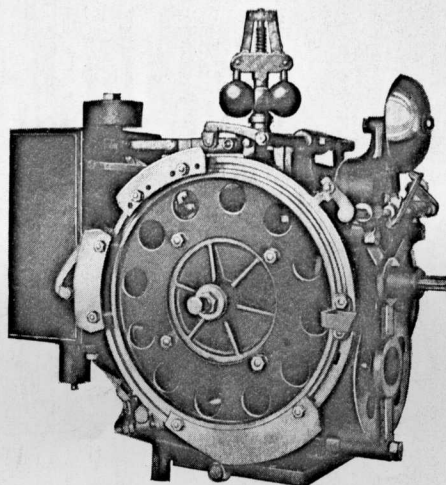

WINDER PROTECTION

METROVICK-LILLY PROTECTIVE SYSTEM



52244

Metrovick-Lilly protective devices are of three types:—

The type "C" Controller, which gives the highest degree of protection and is used for high-speed winding and deep shafts.

The type "D" Controller, which is applied to moderate depths.

The Simplex type Controller, which is recommended only for low-speed winding from shallow depths or for haulage protection.

The spheres of application of the three types are outlined more specifically in Leaflets 747/12-1 *et seq.*

The principle of operation is the same for all types. A speed-indicating element consisting of a light ball governor, and a distance-measuring feature consisting of a dial or dials carrying suitably profiled cams, have their action co-ordinated to operate a floating mechanism which, in its extreme position, opens a lightly-poised switch connected in a low-voltage safety circuit. The "C" and "D" types have separate forward and reverse overwind limit switches, also connected in the safety circuit, but on the Simplex model one switch is made to serve for all purposes. The opening of the safety circuit results in the tripping of a master switch which de-energises an electro-magnet or magnets to cut off the power supply and release the brake controls.

The general scheme of protection will be readily followed from the pictorial diagrams.

Fig. 1 (on page two) shows the scheme for an electric winder with alternating current motor drive. Fig. 2 (on page three) that for an electric winder with Ward-Leonard control and Fig. 3 (on page four) that for a steam-driven winding engine.

