MULLARD RECORD CHANGER

TYPE 2974

NOTE: The record changer has been adjusted correctly in the factory, and any faults which may develop will probably be due to changes in the various friction drives due to excess moisture or temperature. It is, therefore, recommended, when service is required, that a careful visual examination be made by slowly turning the turntable by hand, at the same time comparing the movements with the drawings and descriptions given in this sheet. The main adjusting screws need not be touched unless the movement has been altered since leaving the factory. **The turntable should not be turned when laying on its side** (see under Starting Mechanism). During the playing of a record the pick-up can be moved by hand, for instance, to repeat a passage of the record. **Whilst the changing mechanism is in operation and the pick-up is therefore moving automatically, it must not be touched.**

GENERAL.

A self-starting induction motor is used which drives, via a system of reduction wheels, on to the underside of the turntable near the outer edge. The centre shaft of the turntable is then used to operate the changer mechanism. The manual controls bring springs into action, which then take charge of the operational functions. It is, therefore, almost impossible to cause harm to the changer mechanism by misuse of the manual knobs.

Records of thickness outside the limits of 0.1 inch and 0.07 inch cannot be played automatically; these should be played manually with the short spindle. A thickness gauge is incorporated in the short spindle.

The motor is rated for 220 volts 50 cycles per second and is used in conjunction with a 560 ohms resistor for operation on 240 volts 50 cycles per second supply.

THE DRIVE.

The shaft of the motor is tapered and a rubber wheel drives from the shaft to the underside of the turntable. The wheel is spring loaded so that it makes continuous contact with the motor shaft and the turntable, and any wear on the rubber wheel is automatically taken up.

Turntable speed is controlled by the position of the rubber wheel on the motor shaft. If the wheel is moved toward the edge of the turntable, speed is reduced; movement in the other direction increases speed. The position of the wheel is determined by the position of the fixing bracket (Fig. 1) and the wheel may be moved in either direction by slackening the speed adjusting screws and moving the bent end of the bracket as indicated by the arrows.

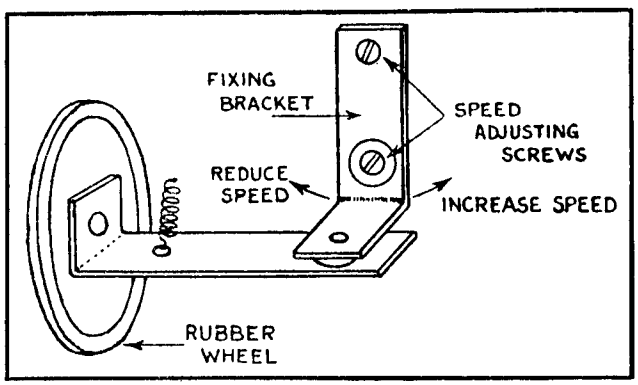

Fig. 1

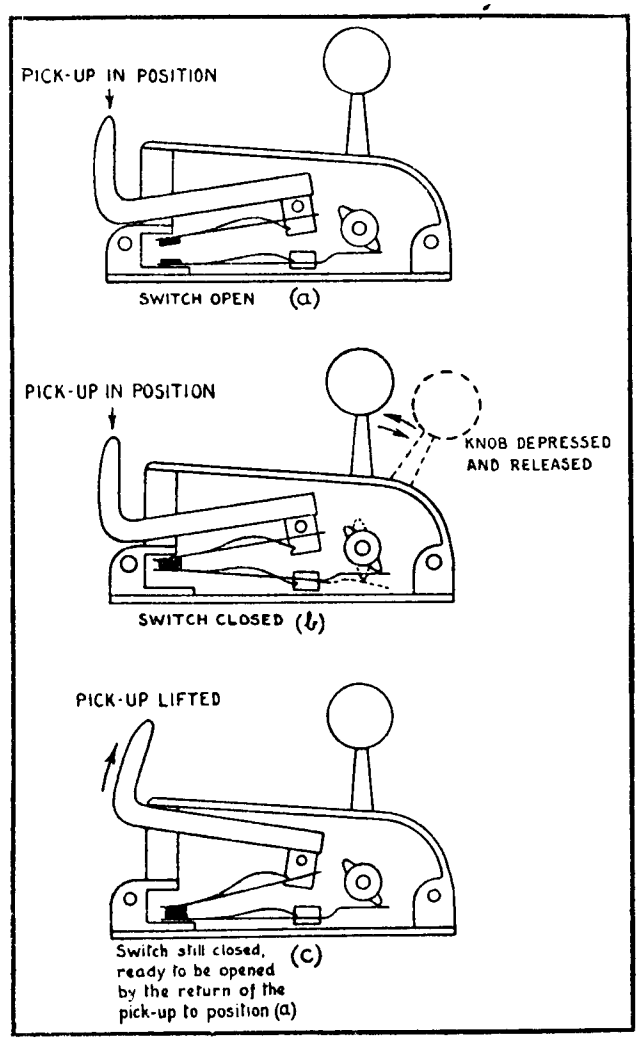

Fig. 2

THE STARTING SWITCH.

Refer to Fig. 2.

This is attached to the pick-up rest, and performs the following functions:—

(a) To start the mechanism.
(b) To stop the mechanism at any time.
(c) To reject any record.

Part of this switch mechanism is also operated by the pick-up arm itself, which automatically switches the unit off after the last record on the pile has been played. This function, together with item (a) above, is an electrical one, whilst items (b) and (c) above are mechanical controls situated under the motor board.

The electrical functioning of the switch is indicated in Fig. 2, where (a) indicates the "at rest" position, i.e., motor "off." At (b) the starting lever has been pressed and released, causing the contacts to make, thus starting the motor. At (c) is shown the condition which applies during the playing of records and the changing sequences. The pick-up will return to its rest on the completion of playing the last record in the stack, or when the lever is put in the "stop" position.