If, at the end of a record, the auto trip does not operate—that is, the pick-up remains at the end of a record—first see that the record has a run-off groove in its centre, as only records with run-off grooves can be played automatically. If the record is in order, increase the tension of the friction spring by turning the friction adjusting screw 6 (Fig. 3) in an anti-clockwise direction; about half a turn is all that should be necessary. This screw is accessible on removing the turntable.

When the changer operates before the end of a record or a bumping or tapping noise is audible, first examine the trip lever rubber 40 (Fig. 3) and, if worn, give it a half turn to present a new surface to the striker. If badly worn, renew. If trip lever rubber is in good condition, then reduce the tension of the friction spring (half a turn in a clockwise direction).

Certain records not operating changing mechanism.—The radius of operation for the auto-trip mechanism in the early models was set to operate on all recordings in the last 10 years or so. Unfortunately, some re-issues of 1932 recordings have been made which require a larger radius of operation.

To overcome this difficulty a clip has been fitted to the auto-trip operation lever to increase the radius of operation. The clip and instructions for fixing are available from the factory at Swindon.

Auto stop.—The changer should switch off the motor after the last record has been played. If it does not do so, and repeats the record continuously, or conversely, stops after every record and does not automatically change, a knowledge of the auto-stop mechanism is necessary to correct it.

Fig 6 shows the layout of the levers concerned. An $\frac{1}{8}$-in. diameter rod A, in front of the overarm support, is pressed down when the overarm is lowered. The rod rests on lip B of the lever C which is pivoted on its fulcrum D when the overarm presses down the rod. The composite lever E is operated by the peg F on the cam G.

The cam makes one revolution for a complete changing cycle. The diagram shows the position of the levers when the overarm is raised by records on the platform to be played. When the peg F passes the tip of the lever E the two parts of the lever, held solid by the spring K, attempt to pivot on the fulcrum L, but the tip H of lever C prevents the part J from moving, so the spring K relaxes and allows E to pivot separately on fulcrum M.

When the last record has fallen, the weight of the overarm pressing down A pivots C and lifts the tip H clear of J. J, now being free to move with E, pivots on L the next time E is operated by the peg F; the top of J operates the auxiliary clutch and the motor switch, stopping the changer at the completion of last record.

It will be seen that if the changer fails to stop, the lip H is not being lifted clear of the lever J, and to correct this the tip B should be bent up slightly to give increased movement to lever C when depressed by A.

If the changer stops after every record instead of automatically changing and playing the next record, either the lever C is held up, leaving J clear to move, or the gap between H and J is too large again, allowing J just sufficient movement to switch off the motor.

If C is held up, it may be necessary to bend down the tip B, and if the gap is too large the tip H can be bent nearer to J.

Platform adjustment.—The record platform (150, Fig. 5) is set to accommodate records of average dimensions. Occassionally records may be found outside the normal limits; if necessary, the platform may be adjusted to take them.

To control the platform movement are two adjustable links, each fitted with two screws. One link (165, Fig. 5), with its pivot at the bottom of the platform lever, controls the platform lift, whilst the other (B) controls the distance the platform moves inward.

It is this latter link which may be adjusted to accept records differing from the normal in diameter. To do this, loosen the screw further away from the platform and remove the other screw. Now refit this screw in an adjacent hole according to the adjustment required. Moving the screw to a hole nearer the platform lengthens the link and increases the inward movement of the platform. By moving the screw in an opposite direction the link is shortened and the outward movement of the platform increased.

The permissible adjustment is one hole on either side of existing position of the screw.

Pick-up returning to rest after playing record, but next record does not drop. Motor continues to revolve. If the top of the lever J (Fig. 6) is inspected, it will be noted that there are two levers operated by it. One on top of the auto-stop base plate controls the motor switch, and one underneath the plate controls the auxiliary clutch. The one which controls the clutch is slightly in advance of the lever which controls the switch, and is, therefore, operated earlier by the lever J.

The trouble in this case is the gap between H and J is just big enough to allow sufficient movement in J to operate the clutch lever but not the switch lever, and the remedy is to bend the lip H closer to J to decrease the gap.

Pick-up arm not free to travel across record.—This is usually due to the lever 76 (Fig. 4) being bent and rubbing against the frame if it is bent up or lever 74 if it has been bent down. Lever 76 should be clear of all obstructions, only touching the stud on the end of lever 74 when the selector mechanism is checking the size of the record.

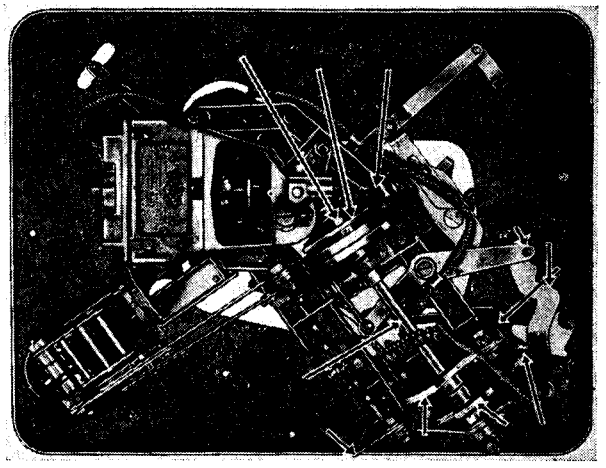

Fig. 4 (left) — Underside view.

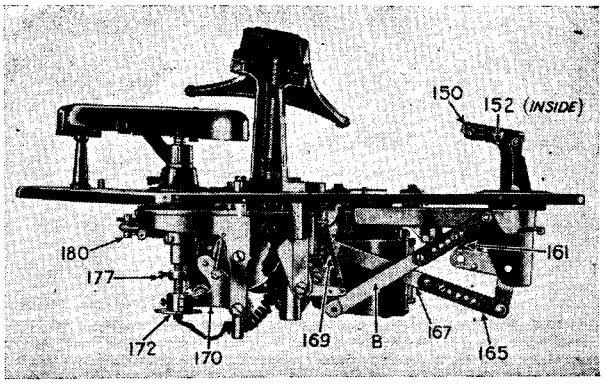

Fig. 5 (above)—Side view, which includes the levers associated with the platform. 152 is pawl inside platform.

Pick-up.—Garrard magnetic types of pick-up are interchangeable with the crystal without alteration to the pick-up arm, provided the pick-up is fitted in a Garrard head.