



Figure 3

last record, in which case the changer will automatically shut off.

Stopping-

The changer can be stopped at any time by turning the stop-start control knob to position "Stop". It will start again if the knob is placed on position "Start", resuming playing at the place where it was interrupted.

**CAUTION:** The movements of the tone arm are controlled by the changer mechanism. The tone arm should therefore never on any account be forced into position by hand. The overarm should not be raised from the spindle while playing to avoid risk of damaging the records.

**CHANGE CYCLE**

It is recommended that the change cycle operation be observed by rotating the turntable by hand. The action described below can then be readily followed and the function of each part more easily understood.

A three-speed, governor controlled, 4-pole motor is used to drive the changer mechanism. Power is transmitted to the turntable directly by the motor shaft. The turntable speed is determined by the position of speed adjustment lever (107).

As the tone arm moves into the eccentric groove of a record, the stud (A) of the tone arm control lever (21) moves against the trip lever actuating fork (63), which in turn, carries the trip lever (70) in toward the turntable hub. Trip lever (70) is fed inwards by the friction provided by its own weight resting on the trip lever actuating fork (63). As the trip lever (70) moves inward it latches at point (B) (Fig. 3) with the clutch stop lever. The drive gear striker pad (126), turning with drive gear (128), strikes the trip lever (70) at point (C) (Fig. 3) causing the trip lever to move away from the turntable hub. Since the trip lever (70) and the clutch stop lever are latched together, the outward travel of trip lever (70) disengages the clutch lever

from the clutch plate. The tension of the clutch plate spring (74) moves the clutch plate in to permit the clutch pinion gear (53) to mesh with drive gear (128) and start the change cycle.

The clutch pinion (53) now turns the pause gear (83) which, in turn, rotates any time the changer mechanism is in any phase of the change cycle. The pause gear is coupled to the main gear (82) by means of a spring loaded stud which is riveted on top of main gear (82). Thus, the pause gear (83) drives the main gear (82) throughout the change cycle.

The main gear (82) is fastened to the shaft of the main cam (91); therefore, the main cam turns with the main drive gear.

As the cam turns, the finger of the cam lever (92) rides up the groove of the cam. This causes the lift bracket (96) to be pivoted upward, thus raising the tone arm off the record. The main cam (91) is so shaped that when the finger of the cam lever (92) rides around the groove in the top of the cam, the cam lever is pivoted; this moves the tone arm actuating lever (97) out which, in turn, moves the tone arm out clear of the records.

The roller nearest the hub on top of main gear (82) comes in contact with the cam that is mounted on the ejector lever (43), thus actuating the ejector lever causing it to turn the ejector lever crank (101) and record selector shaft (10). The selector shaft is fastened to the ejector lever crank by the set screws (100). As the selector shaft and roller (8) turn, it pulls the push lever actuating link, located in the overarm (1), against the push lever (5) dropping a record to the turntable.

At the same time the ejector lever crank (101) turns, the stud (D) of this crank turns the selector crank (104). When a 12" record is to be dropped to the turntable, the weight of the record on the selecting feeler pivots the feeler against the selector latch (115). Therefore, the selector latch is moved against the selector crank cam (104). As the selector cam re-