2. To facilitate connecting the solenoid switch with the actuating lever, slightly pull out the starter pinion.

3. When installing a new switch, adjust the plunger so that the centerline of the pivot pin in the yoke is 32.4 ± 0.1 mm (1.275 ± .004 in.) from the solenoid flange.

Note: Testing solenoid switch

1. Total armature travel should be 10 ± 0.2 mm (.394 ± .008 in.). Of this, 3 mm (.118 in.) is contact reserve.

2. To check, connect a 6 V lamp between the main terminals and push in the armature. Measure the travel remaining after the test lamp lights.

3. When installed in the starter the solenoid switch must pull the armature in when 4 volts are applied between terminal 30 and ground. If it does not, check for proper starter brush seating.

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Testing Brushes and Commutator

1. Remove starter end cap.

2. Inspect brushes for wear and free movement in the guides of the brush holders. If the brushes are worn so that they will not bear on the commutator they must be replaced by new ones of the same type. Replace brushes which are oil saturated or have loose flexible connectors.
When installing brushes the flexible connectors should be positioned so that they will not hinder brush movement during operation and subsequent wear. Always install a complete set even if only one brush requires replacement.

3. Test tension of brush springs. Replace weak springs.

4. If the commutator is oily or gummed, it may be cleaned with a cloth dampened with solvent or carbon tetrachloride wrapped around a piece of wood.
Dirt or solvent should not enter the bearing.

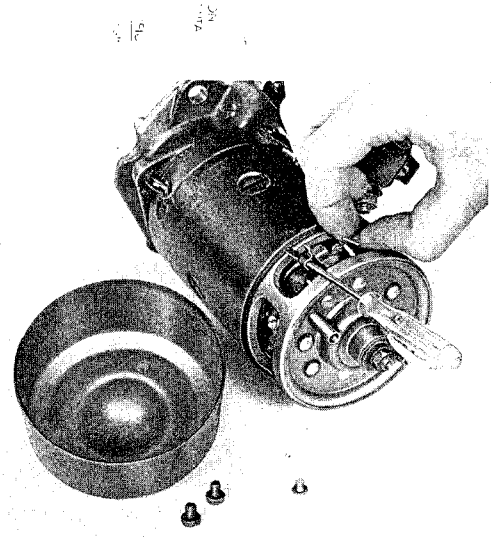

Fig. 24

5. If the commutator surface is scored or shows burned spots, the starter must be overhauled.