Brush Replacement

Brush replacement requires that the motor endplate (see FIG. 3) be removed. This is accomplished in either of two ways:

A. If the ends of the plate retaining pushpins can be seen through the two square apertures in the endplate, they can be pushed outward with the blade of a small screwdriver and then grasped with pliers and withdrawn.

B. If the pushpins cannot be seen through the endplate apertures they will have to be removed by using a small diameter drill to drill into the apertures allowing them to be grasped with tongs or a magnetic screwdriver blade. IT IS VERY IMPORTANT to remove the pins as described above so as to avoid unnecessary further disassembly of the motor. If the pins are not removed they may be drawn into the motor magnets into the motor's interior. Retrieving them will then require that the opposite endplate be removed and the armature withdrawn.

Replacement brushes and springs must be arranged as shown in FIGS. 3 and 4. First install the brushes followed by the springs. Use a pointed tool to push the "hooked end" of the springs into engagement with the shoulder of the spring. Then, using the same tool, force the "free end" of the spring over the "spring stop" where it will be retained in a notch. Complete the reassembly by replacing the small washers, endplate and pushpins. The motor will require several minutes of running to seat the new brushes before peak performance can be expected.