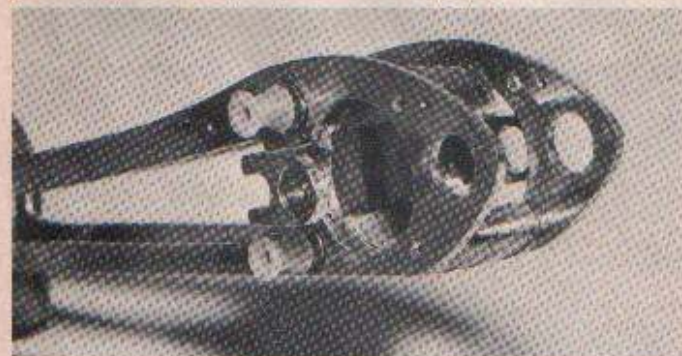
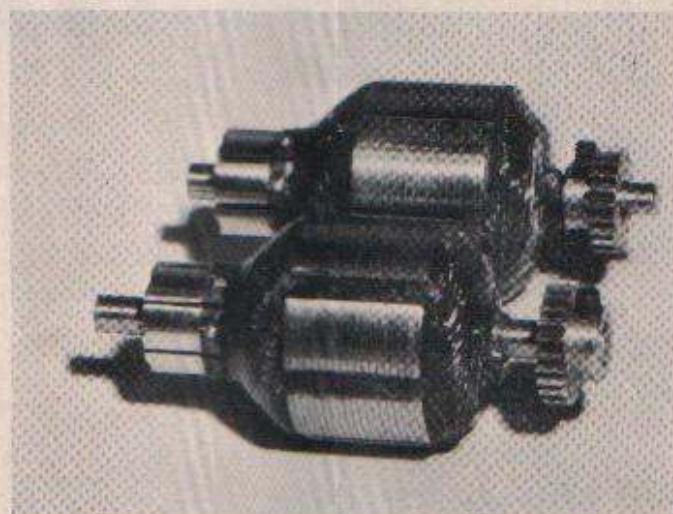




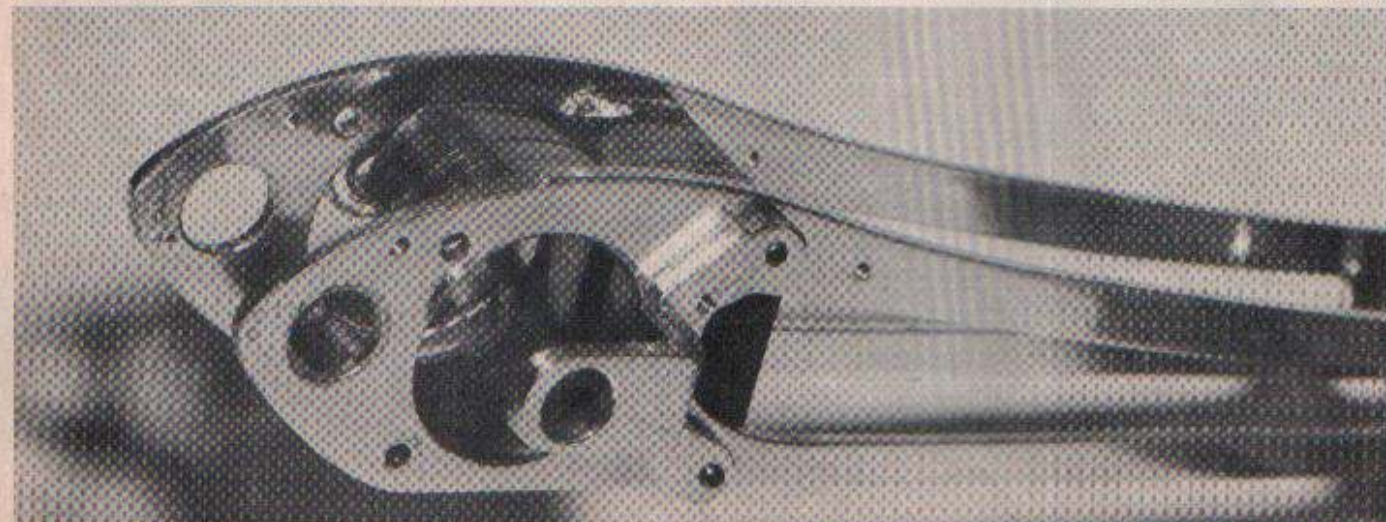
14) Rather than drilling holes or filing the laminations to balance the armature, which lessens the magnetism, I file the epoxy between the laminations. File a small amount of epoxy from the heavy side of the armature and replace armature on razor blades. Gently roll the armature several times. If it stops in the same position every time, it's still out of balance. File a little more epoxy from the bottom or heavy side. Repeat this step until the armature stops in a different position each time it's rolled on the razor blades. The armature will then be balanced. Be careful not to file too deep so you don't cut any of the armature wires.



15) Install a 1/4-inch flanged ball bearing in left hand endplate. Use the best bearings you can find. This reworked armature will be turning in excess of 60,000 rpm, so I use A.B.E.C. class 7 stainless bearings. Next install two 2/56 screws through the endplate and install full width laminations on the bottom, then the magnet, and then the narrowed laminations on the top.



16) Cut off commutator end of armature shaft leaving only 1/8-inch of shaft, or just enough to ride in the ball bearing. This motor will be installed in a specially made chassis with the gear mounted inside the endplate, like the upper armature. If you are planning to install this motor in a conventional chassis the gear will end up farther out on the end of the shaft. You will have to file the flat spot from the gear set screw at the end of the shaft as in lower armature. This end should not be cut off until it is installed in the motor and marked for positioning.



17 & 18) Two views showing motor in the frame rails . . . a preview of next month's article on how to build the complete chassis.