



GEAR-DRIVE STARTERS

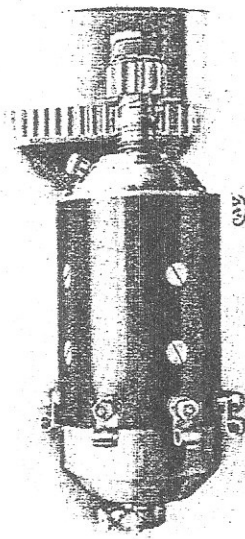
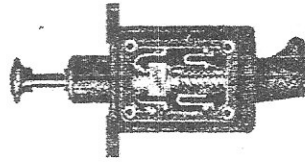
CYCLE OF OPERATIONS.

IMPORTANT

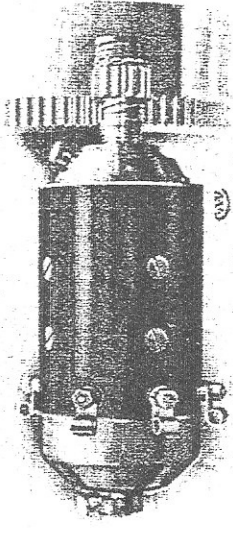
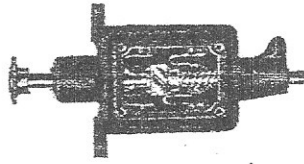
Re operation of switch. With this type of starter, instead of pressing the switch right home, as with the friction starters described in the following pages, there are two distinct movements. The first part of the travel (see centre illustration opposite) connects the battery to a separate winding in the motor which causes a sufficient end-wise movement of the shaft to just engage the gears quietly. At the same time the motor revolves slowly, causing the screw thread to pull the pinion right home.

This point in the travel can be distinctly felt, as at this point a ball, backed by a spring, enters a recess in the switch spindle. The momentary pause thus effected ensures silent engagement of the gears. The switch is then pressed right home (see bottom illustration) and the full power of the motor is thus applied.

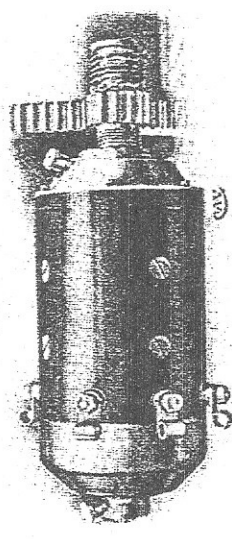
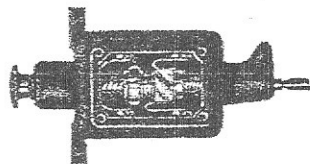
On some cars, where the switch can be conveniently mounted on the dash, another type of switch is used in which instead of the foot-operated plunger, the spindle is turned by hand. With this type the same cycle of operations takes place, it being only necessary to take care to turn SLOWLY until right home and release smartly directly the engine starts. Failure to comply with the foregoing directions will not necessarily entail damage to any part, but when trouble has been taken in the design to ensure that silent engagement of gears which is so pleasing to a good driver (and, incidentally, to passengers), it is just as well to take advantage of the possibilities provided. Lubrication is by grease cups at each end of the motor. The screw thread in the shaft and the lower end of the plunger switch should also be oiled occasionally.



STARTER GEAR OUT OF ENGAGEMENT.



PINION JUST ENGAGING.



STARTER GEAR FULLY MESHED.