

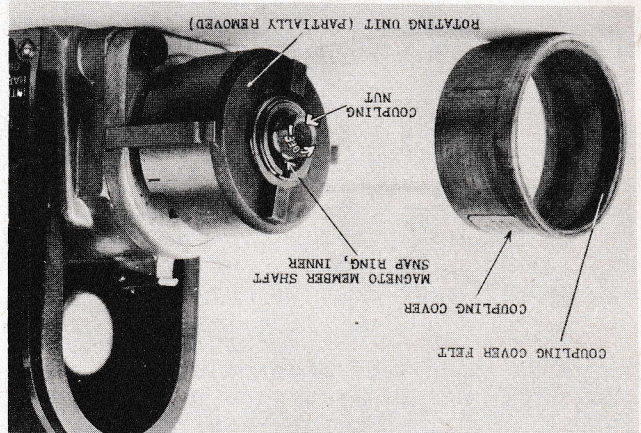
# INTERNATIONAL E4A TYPE IMPULSE COUPLING

In the meantime, the drive spring has been wound up almost one-quarter revolution. Therefore, when the pawl is tripped, this spring unwinds, hurling the magneto member unit and rotor rapidly forward. Then, in the next one-half revolution, the second pawl comes to the top, catches, is tripped and the magneto armature is again hurled rapidly forward. Tripping of the pawls is timed so as to cause a spark when engine is on dead center or from dead center to 8° after dead center, provided the magneto is properly timed to the engine.

The snubber spring acts as a cushion against the impact of lugs "A" against lugs "B", Illust. 44, after the magneto member unit and rotor have been hurled forward by the drive spring. Cushioning movement of the snubber spring is limited by lug "L" which fits into groove "G", Illust. 53.

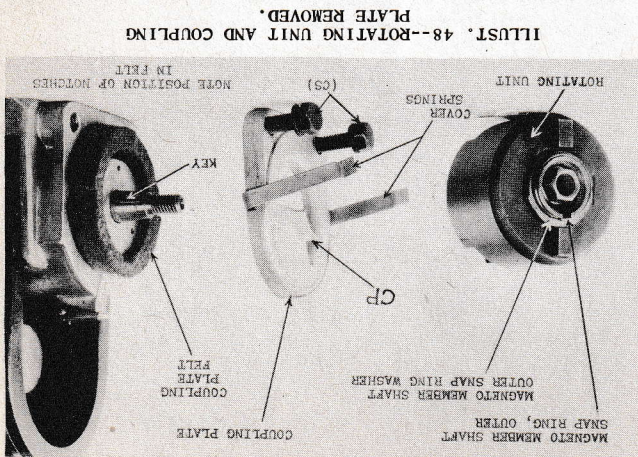
When the engine runs at a speed greater than 160 to 180 R.P.M., the centrifugal effect on the pawls is sufficient to hold them firmly against the inside of the two lugs "H" as in Illust. 46, so that notches "N" fail to catch at "Q". All parts of the coupling then rotate as a single unit.

## Dismantling E4A Type Coupling



1. Release the two cover springs and remove coupling cover Illust. 47. Examine the coupling cover felt. If a new felt is necessary, remove old felt, clean coupling cover of all dirt, oil and grease and shellac new felt in place.

2. Using a 9/16" socket wrench, with a socket having an outside diameter of not more than 25/32", unscrew the coupling nut, Illust. 47, from the rotor driving end. While the nut is being un-



3. Should it be necessary to remove a pawl, this can be done after the pawl pin snap ring has been pried off. (See Illust. 50).

4. To separate the coupling member unit from the magneto member unit (see Illust. 50), first pry off the magneto member shaft snap ring, outer (Illusts. 48 and 49), and remove it and its washer. Place the rotating unit in a vise as shown in Illust. 49, and insert winder SE-783 No. 1. Turn winder clockwise with handle SE-783 No. 4 just enough to release pressure of lugs "A" against lugs "B", Illust. 44, and at same time press upward on the coupling nut as shown in Illust. 49.

When the magneto member has been pushed upward to the height shown, lugs "A" and "B" will clear each other. Carefully permit the drive spring to unwind. In unwinding, the spring will move handle SE-783 No. 4 counterclockwise as indicated in Illust. 49. The magneto member unit and coupling member unit can then be separated.

