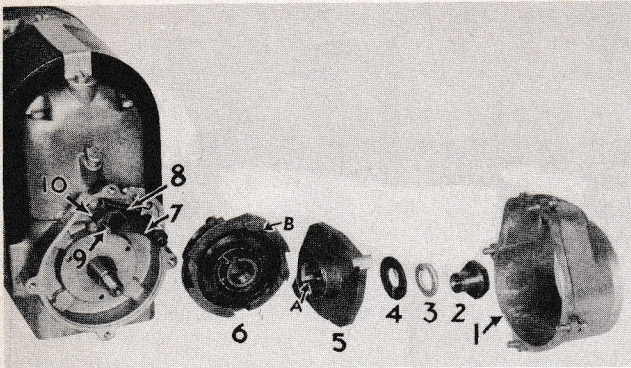


BLUE RIBBON SERVICE

Dismantling F-Type Impulse Coupling



ILLUST. 43--F-TYPE IMPULSE COUPLING DISMANTLED FROM THE MAGNETO.

To remove the coupling member (6) start puller SE-912 in the threads (See Illust. 39, Item 9), then lock the member with pawl (7) and screw the puller until considerable effort is required to turn it. If the impulse has been allowed to stand or operate without sufficient oil, coupling member (6) is likely to be rusted and stuck on the shaft. It may be necessary to use two screw drivers, one from each side between the coupling and the magneto frame, and to hit the puller SE-912 a rather hard blow, at the same time exerting pressure on the screw drivers. Care must be used when this condition exists to remove the member without damaging the threads or the magneto frame.

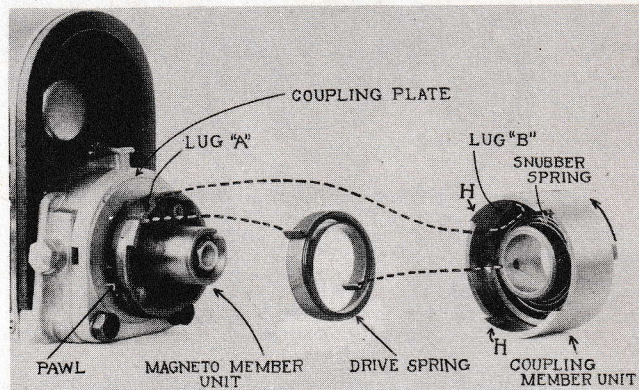
To separate cam member from magneto member, pull outward until lugs clear, let unwind about one-half turn, and then remove. Drive spring can be easily pried out with a screw driver. In replacing spring, first hook it into position at "B", being sure it will wind in the direction shown. Wind the spring into position, using the right hand to push it gradually down and the left hand to hold the wound coils in place.

When assembling the coupling be sure that the hub of magneto member (6) is clean and well oiled, and if the latch spring (8) is rusty, replace it with a new one. Couplings must be oiled generously with cream separator oil at regular intervals. When the weather is extremely cold, kerosene should be used.

The earlier engaging pawls were held on the pawl pin by cotter pins. Be sure that these cotter pins are tight. If they are loose they will soon wear and drop out. Replace these cotter pins if they show any signs of wear. At present snap rings are used to hold these pawls

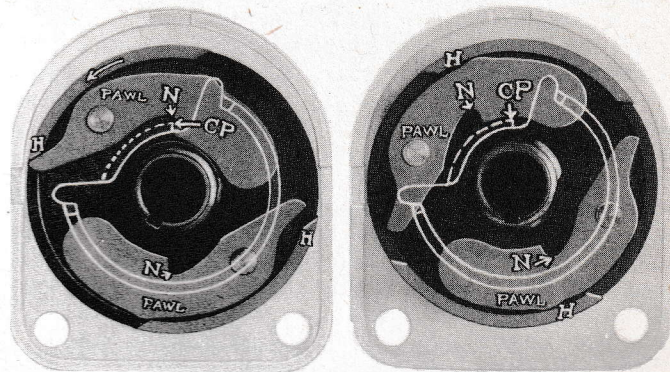
on. They must be tight on the pawl pins when in place, otherwise they will wear and fall off. This causes a general wreckage of the magneto frame.

How the International E4A Impulse Coupling Works



ILLUST. 44--E4A IMPULSE COUPLING PARTIALLY DISMANTLED TO SHOW HOW IT WORKS.

Following is a brief description of how the E4A Impulse Coupling operates: The coupling member unit (Illust. 44) is locked to the magneto drive shaft and always rotates steadily at engine speed. The magneto member unit is keyed to the armature driving end. These two units are connected to the drive spring as indicated in Illust. 44.



ILLUST. 45
PAWL ENGAGED AND ABOUT TO BE TRIPPED BY LUG "H"

ILLUST. 46
CENTRIFUGAL FORCE HOLDS PAWLS OUT OF ENGAGEMENT AT SPEEDS GREATER THAN 100 R.P.M.

Attached to the back of the magneto member unit are two pawls (Illusts. 44, 45, and 46). When the engine is turning at less than 100 R.P.M., gravity causes the uppermost pawl to catch the coupling plate at "CP", Illusts. 45 and 48, in notch "N", Illust. 45. This prevents the magneto member from turning until lug "H" of the steadily rotating coupling member trips the pawl by hitting its tail as shown in Illust. 45.