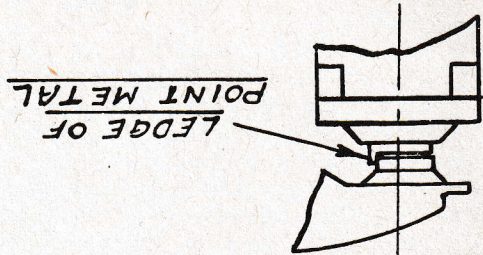


F-4 and F-6 Magnetos—General

The F-4 and F-6 magnetos have been designed so as to make possible the convenient replacement of any part in the field. This section of the Manual, covering the F-4 and F-6 magnetos, is divided into two parts. The first covers the recommended dismantling and testing procedure to follow when attempting to locate the cause of faulty operation in an F-4 or F-6 magneto. The remaining part covers adjusting, testing and general information necessary to properly repair a magneto and restore it to its most efficient operating condition.

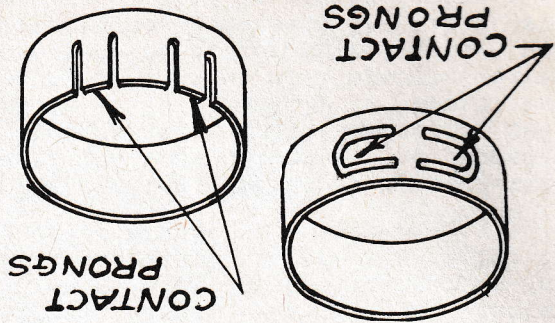
Preliminary Examination of the Circuit Breaker

Remove the breaker housing cover and examine for correct point performance and setting. A ledge of point metal running up to the side of the companion point causes a slow break and poor performance



ILLUST. 8--LEDGE OF POINT METAL CAUSES A SLOW BREAK AND POOR PERFORMANCE.

Breaker points on F-4 magneto should be set to .013"; breaker points on F-6 magneto should be set to .020". To adjust point opening, loosen stationary point support screw (2) slightly and use a screw driver as a pry to move stationary point support as necessary. Tighten screw and check adjustment. (Illust. 10).



ILLUST. 9--CONTACT PRONGS SHOULD BE BENT TO MAKE A FIRM ELECTRICAL CIRCUIT.

Examine the breaker for excess oil around the outside and at the bottom. Occasionally over-oiling is noted. This may interfere with the proper primary circuit from the cup member to the breaker housing. The contact prongs of the breaker cup (Illust. 9) are supposed to be bent out at the factory so as to make a firm electrical circuit between this cup and the housing in which it fits. The oil interferes with this contact. Likewise a loose fitting cup produces the same effect. BEND THE PRONGS OUT, if need be, and reduce the oil supply.

Examination of the Distributor

Remove the distributor block. Examine the brush track for black carbon, burns, and for the spot on the bronze insert that tells whether the spark has been occurring at the correct place. A magneto spark is a rather long drawn-out discharge. It has a tendency to burn the brush track unless the spark is started soon enough to permit a rather complete discharge before the brush runs off of the insert and onto the distributor disc surface. Distributor disc brush track can be readily cleaned of black carbon with a soft rubber eraser. Do not use sandpaper.

All sparks from the F-4 magneto are of one polarity. The spot on the distributor disc insert should be as shown in Illust. 11.

A slight blackening of the disc surface at the trailing edge of the insert is normal. The remainder of the brush track on the F-4 disc should be almost completely free of carbon.

ILLUST. 10
BREAKER ADJUSTMENT.
1--BREAKER POINT OPENING. 2--STATIONARY (ADJUSTABLE) POINT SUPPORT SCREW. 3--BREAKER CAM. 4--BREAKER ARM RUBBING BLOCK ON HIGH RIDGE OF CAM.

