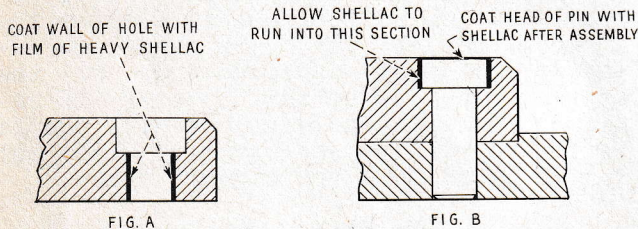


BLUE RIBBON SERVICE

leading end of the brush contact. If the magneto has been operating with the spark not properly advanced, this blackened spot will be at the center of the insert. The longest life of the distributor disc can only be secured by the proper timing and the exclusion of all water.

When replacing a distributor disc, the distributor disc pin should first be pushed into place in the disc before final assembly to the gear. Check the clearance between the body diameter of the pin and the hole in the disc. If any excessive amount of clearance exists, the disc may eventually come loose after assembly and cause excessive disc and brush wear which may result in faulty performance of the magneto.



ILLUST. 29--INSTALLING NEW DISTRIBUTOR DISC PIN.

To correct such cases where excessive clearance exists the following procedure should be used. Coat the hole in the disc with a film of heavy shellac as shown in sketch Fig. "A". Allow the shellac to dry thoroughly. Place disc on gear. Coat pin with shellac and drive into place through the disc and into the gear. Be careful not to strike the disc in doing this since the disc may readily be cracked. Then coat the head of the pin with shellac allowing same to run into the space between the head and the counter bore in the disc, (see sketch Fig. "B"). Wipe off excessive shellac from the face of the disc. Be absolutely certain that no shellac remains in the brush path. This procedure if carefully followed will give an assembly which will remain tight indefinitely.

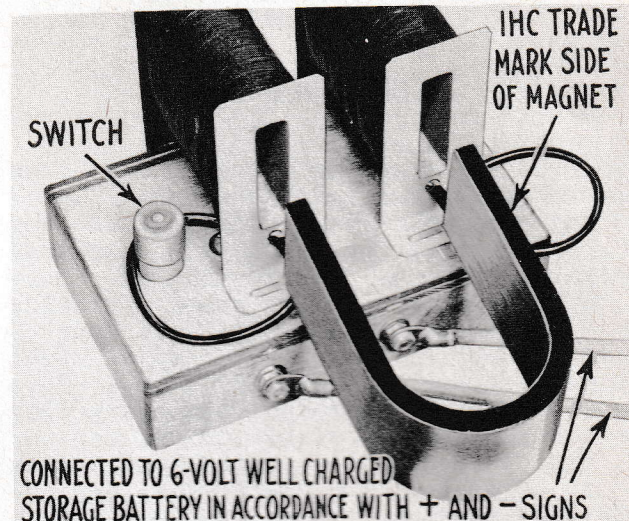
Distributor Brushes

These brushes have to be of the proper material to match the disc they are rubbing against. This material has been worked out for each magneto by test. Be sure that E4A brushes are not used in F-4 magnetos. The E4A brush is grooved lengthwise and the F-4 has no groove. The latest and most successful F-4 brush (No. 32032 DXa) has a flat spot on the neck for holding the brush spring. The

latest and most successful F-6 brush is the new National Carbon grade, lettered "FK" on the side. (See Illust. 13.) These brushes run relatively clean and are less aggressive than earlier brushes.

Charging F-4 or F-6 Magnet

Unless a magnet is cracked by rough handling, it usually improves with age, but it loses a little of its magnetism gradually. Always recharge the magnet during an overhaul. It is a good investment.



ILLUST. 30--SHOWING PROPER METHOD OF INSERTING F-4 AND F-6 MAGNETO IN SPOOL TYPE CHARGER.

Magnetizer terminals are identified + and -, and must be so connected to a well-charged 6-volt storage battery. The terminals are at the front of the magnetizer, and magnet should be inserted into spools from this end, with IHC trade-mark on right; magnet will be magnetized in accordance with original factory polarity. If magnet has no IHC trade-mark, hold magnet in front of spools and depress switch an instant. (See Illust. 30.) Magnet is being inserted properly if magnetizer tends to pull it into spools.

Push magnet all the way into spools and place keeper over ends. (See Illust. 31.) Compress magnetizer switch once or twice for total of about two seconds. To keep switch depressed longer accomplishes no further good, but discharges battery unnecessarily and heats up magnetizer.

Slide keeper downward off ends of magnet, pull magnet from spools and immediately assemble on magneto. Never slide keeper up on side of magnet, as