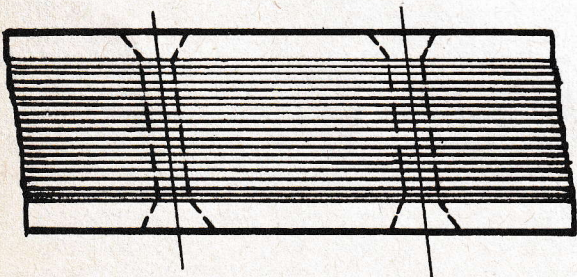


This joint must be a clean "sucking" fit, similar to the fit when two Johannsen gauge blocks are put together. They stick just by virtue of their flatness after being properly "wring" together. No rust, no oil or foreign matter of any kind must be on these surfaces. By all means do not try to correct defects by filing the ends of the coil core. This can only end in failure.



ILLUST. 20--DRAWING SHOWS COIL CORE KNOCKED OUT OF SQUARE.

The coil core is made of laminated electrical sheet steel. It is held together by two rivets. If struck vigorously with a metal tool it will burr and may be knocked out of line as shown in exaggerated form in illustration.

**Identifying the F-4 and F-6 Magneto Coils**

Select a new coil to replace the defective one. Sometimes it is an advantage to know when the coil was made.

This can be done as follows: The year and month when the coil was made is indicated either on the paper label or stamped on the side of the coil case. Following the date is the letter A, B, C or D, which indicates the improvements made in their construction, the D coils being the latest construction and are immersed in water for 12 hours at the factory before they are accepted for production. A black asphalt material is used to seal this coil in the housing instead of Halowax. This improves the water resistance of the coil. D coils are called "Tropical Coils."

**Assembling the F-4 and F-6 Magneto Coils**

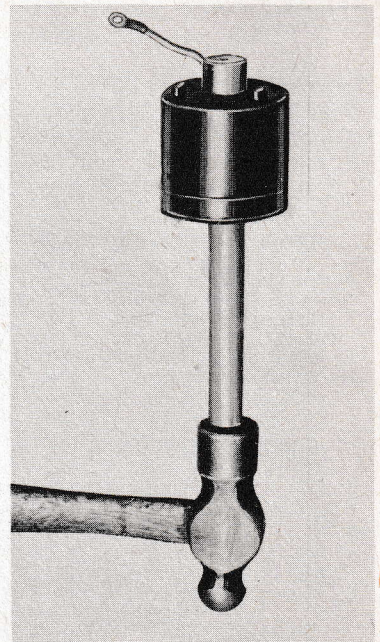
The coil must be a light fit between the interpoles and on the coil core. Otherwise vibration will loosen it and cause failure.

Also, do not attempt to file the diameter of the coil core so that it will slip into the winding easily, nor file the ends to make it fit between the interpoles easier. Paint the coil hole generously all around with a thick as-

Instrument. If the core is not in place, the transformer set-up of the coil is not complete and no spark will appear at the gap. This test should not be prolonged any more than is necessary to obtain the check. Subjecting the coil to the test conditions for a prolonged period may damage it.

Have vibrator switch "off" and high tension switch "B" connected to "Armature" terminal. Place coil on test box so brass secondary lead-out terminal is firmly against metal of collector ring holder. (See "A", Illust. 18.) Clip winding test leads to primary lead-out wires which extend from each end of coil housing. Snap on vibrator switch. There should be a strong spark across a 5/16" test gap.

**Removing Coil Core**



ILLUST. 19--REMOVING COIL CORE WITH HARD WOOD OR FIBER PUNCH.

Next, remove the coil core from the defective winding. Hold the coil in the hand, preferably with the coil lid up. By the use of a flat-end hardwood or fiber punch, at least 5/8 to 11/16" in diameter, drive the core downward between the fingers. Be sure to hold coil firmly when driving out core. Bakelite coil case is brittle and will break if dropped.

Never use a metal punch of any kind.

**Examination for Coil Core Fit Between Interpoles**

The least defect on the joining surfaces between the coil core and interpoles will permanently impair the magnetos operation.