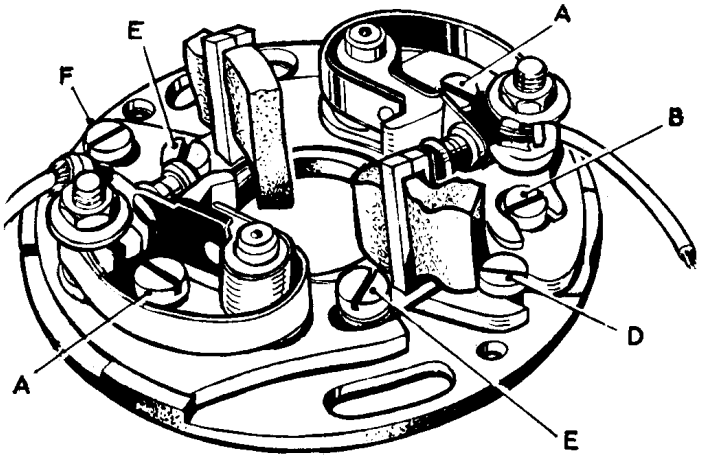
emery cloth, afterwards wiping away any trace of dirt or metal dust with a clean petrol (gasoline) moistened cloth. The contact faces should be slightly domed to ensure point contact. There is no need to remove the pitting from the fixed contact. When re-fitting the moving contacts do not forget to refit the insulating shields to the capacitor terminals. Apply two drops of clean engine oil to the rear end of the C.B. cam. felt pads. Also apply a smear of grease to the moving contact pivot post.

Key

A—Cable Eyelet
B—Fixed Contact Securing Screw
C—Fixed Contact Eccentric Adjustment Screw
D—Angular Adjustment Plate Fixing Screw
E—Angular Adjustment Plate Eccentric Screw



CONTACT BREAKER—TYPE 6CA
Fig. 26

84. Checking the High Tension Circuit

If ignition failure or mis-firing occurs, and the fault is not in the low tension circuit, then check the ignition coils as described in Subsection 81. If the coils prove satisfactory, ensure that the high tension cables are not the cause of the fault.

If a good spark is available at the high tension cable, then the sparking plug suppressor cap or the sparking plug itself may be the cause of the fault. Clean the sparking plug and adjust the electrodes to the required setting, and then re-test the engine for running performance. If the fault recurs then it is likely the suppressor caps are faulty and these should be renewed.

CAPACITOR IGNITION (MODEL 2MC)

85. General

The Lucas motor cycle capacitor system has been developed to enable machines to be run with or without a battery. The rider therefore has the choice of running with normal battery operation or running without battery if desired (e.g. competing in trials or other competitive events) and for emergency operation in case of battery failure.

Machines can readily be started without the battery and run as normal with full use of standard lighting. When stationary, however, parking lights will not work unless the battery is connected. The capacitor system also has the advantage of being much less critical with regard to alternator timing.

The system utilises the standard 12 volt battery-coil ignition equipment with the Zener diode charging regulator mounted on an efficient heat sink, plus a spring mounted high capacity electrolytic capacitor (Model 2MC), of a special shock-resistant type.

The energy pulses from the alternator are stored by the capacitor to ensure that sufficient current flows through the ignition coil at the moment of contact opening, thus producing an adequate spark for starting. When running, the capacitor also helps to reduce the D.C. voltage ripple.

Also with this system alternator timing is much less critical. Provided the centres of the rotor and stator poles are roughly in line in the fully retarded position satisfactory starting will be obtained. Furthermore any auto-advance angle and speed characteristics may be used and perfect running ignition performance achieved.

86. Identification of Capacitor Terminals

The 2MC capacitor is an electrolytic (polarised) type and care must be taken to see that the correct wiring connections are made when fitting. Spare Lucar connectors are supplied to assist in connecting up. Looking at the terminal end of the unit it will be seen that there are two sizes of Lucar connector. The small $\frac{3}{16}$ in. Lucar is the *positive* (earth) terminal the rivet of which is marked with a spot of red paint. The double $\frac{1}{4}$ in. Lucar forms the *negative* terminal.