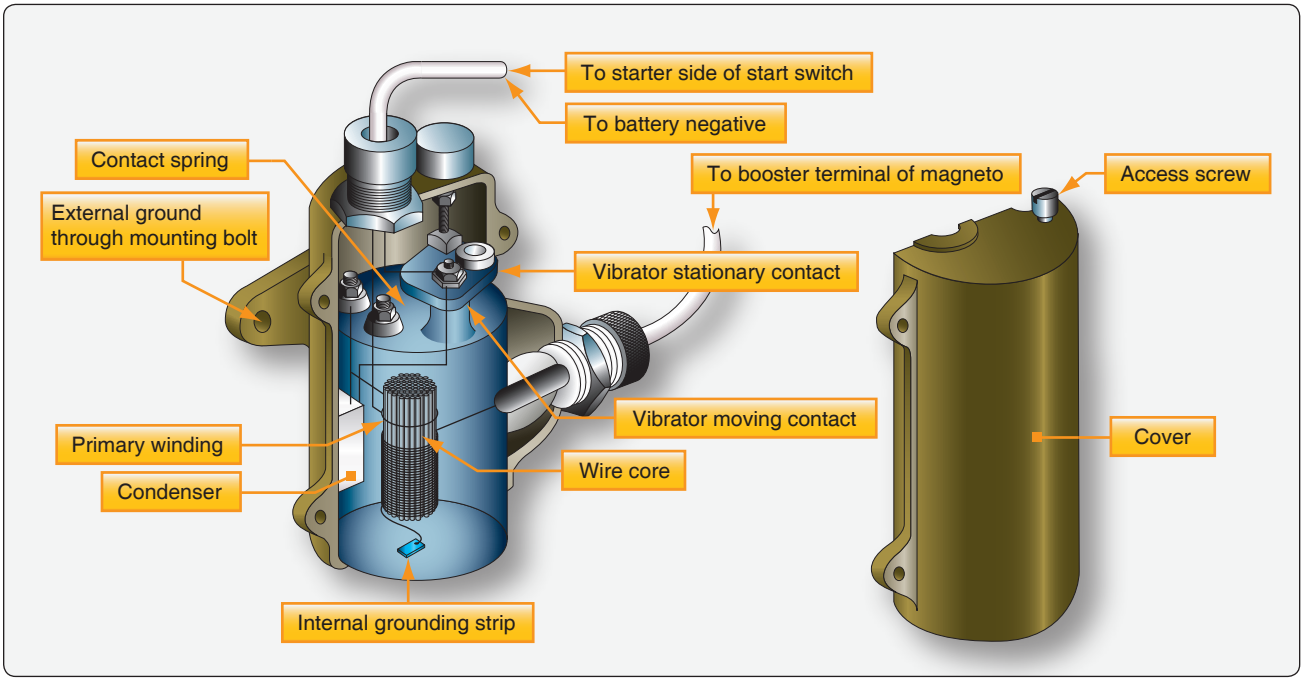

Figure 4-24. *Booster coil.*

other terminated at a high-tension terminal. The high-tension terminal is connected to an electrode in the distributor by an ignition cable.

Since the regular distributor terminal is grounded through the primary or secondary coil of a high-tension magneto, the high-voltage furnished by the booster coil must be distributed by a separate circuit in the distributor rotor. This is accomplished by using two electrodes in one distributor rotor. The main electrode, or finger, carries the magneto output voltage; the auxiliary electrode or trailing finger, distributes only the output of the booster coil. The auxiliary electrode is always located so that it trails the main electrode, thus retarding the spark during the starting period.

Figure 4-25 illustrates, in schematic form, the booster coil components shown in *Figure 4-24*. In operation, battery voltage is applied to the positive (+) terminal of the booster coil through the start switch. This causes current to flow through the closed contact points to the primary coil and ground. *[Figure 4-25]* Current flow through the primary coil sets up a magnetic field about the coil that magnetizes the coil core. As the core is magnetized, it attracts the movable contact point, which is normally held against the stationary contact point by a spring.

As the movable contact point is pulled toward the iron core, the primary circuit is broken, collapsing the magnetic field that extended about the coil core. Since the coil core

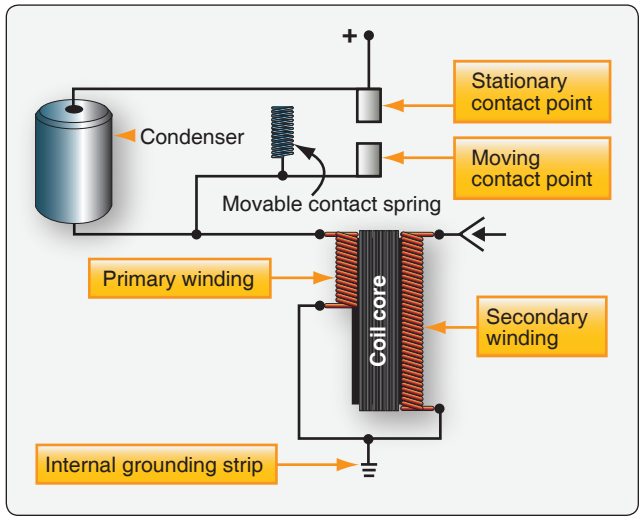

Figure 4-25. *Booster coil schematic.*

acts as an electromagnet only when current flows in the primary coil, it loses its magnetism as soon as the primary coil circuit is broken. This permits the action of the spring to close the contact points and again complete the primary coil circuit. This remagnetizes the coil core, and again attracts the movable contact point, which again opens the primary coil circuit. This action causes the movable contact point to vibrate rapidly, as long as the start switch is held in the closed, or on, position. The result of this action is a continuously expanding and collapsing magnetic field that links the secondary coil of the booster coil. With several