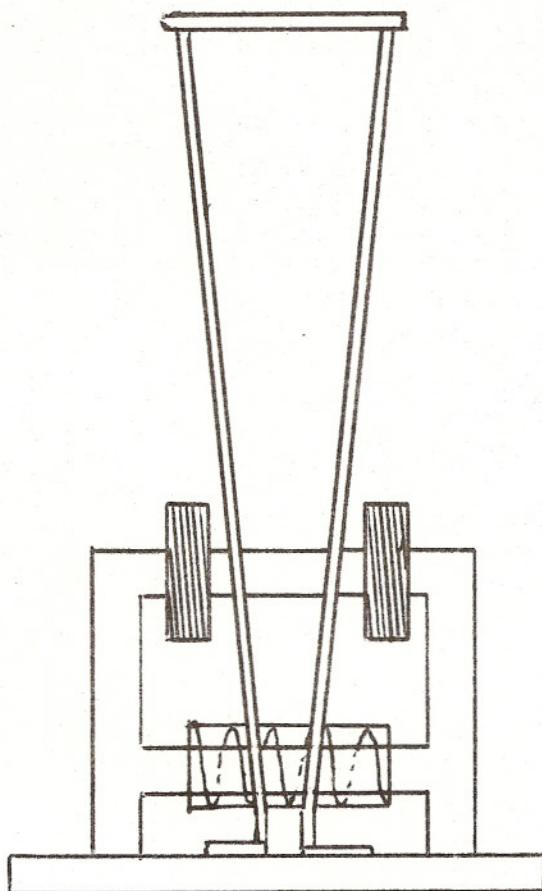


E-5 S-1

1A



(See WARNINGS.) Use a high voltage transformer to the secondary of which are attached two vertical, diverging metal rods. When the push-button switch in the primary is held down, an arc forms at the bottom of the rods, climbs to near the top because of convection currents in the heated air, and extinguishes itself near the top. The cycle repeats itself as long as the primary switch remains closed.

WARNINGS. (1) The secondary of the transformer consists of two 10,000-volt coils, only one of which is in use. Failure to use proper care can therefore be fatal. Never allow your hands to come within several inches of the secondary coils or the wires and rods connected thereto. Ground the iron core to a water pipe if available. If a water pipe is not available the air or gas line will be satisfactory. Be certain that the ground wire, or any other extraneous metal object, is far removed from the secondary circuit. (2) Occasionally the arc will remain near the bottom of the rods. When this happens, release the push-button switch immediately and start again. (3) In order to avoid overheating, never hold the push-button switch down for a time longer than that necessary for perhaps 10 arcs to form. Another series of arcs can be started after the lapse of perhaps 10 seconds.