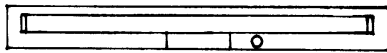
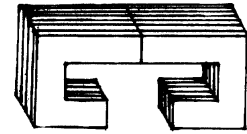
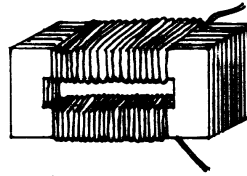


## 220 - VOLT A. C. MOTOR

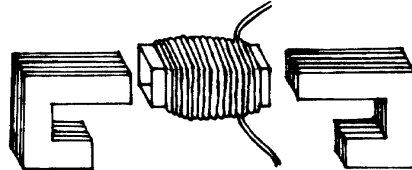
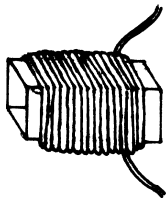
This motor was designed by Somnath Dutta. Prof C. K. Desai of the Exploratory, Pune presented me a model.



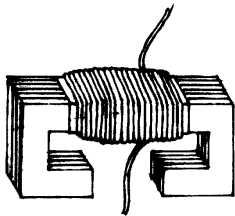
1. Open a burnt tube light choke.



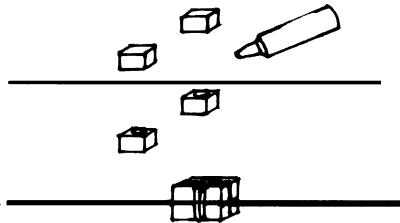
2. Inside the casing you will find copper wire wrapped on two U shaped laminations. Discard the burnt copper wire.



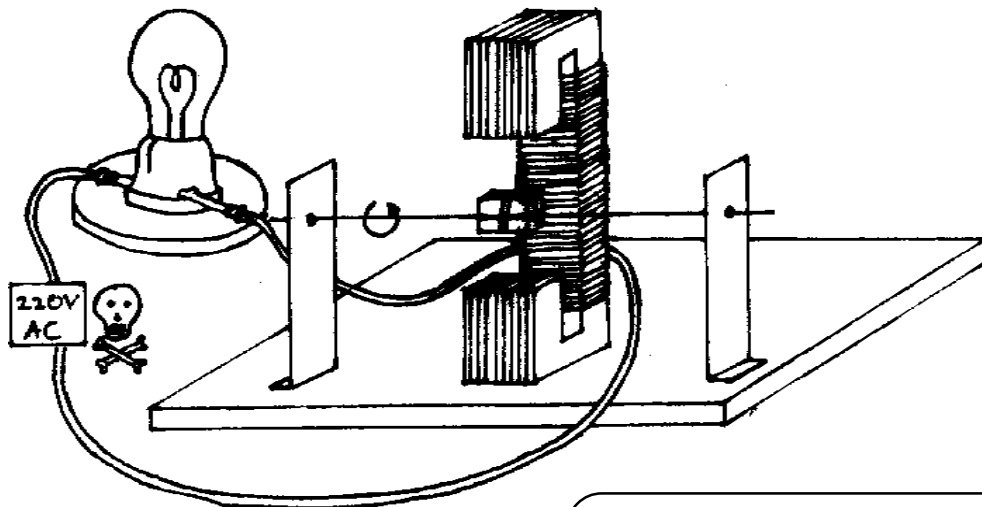
3. Make a cardboard square section spool. The two U shaped laminations will fit in this spool. Wind 1,200 turns of 30 gauge insulated copper wire (motor rewinding wire) on this spool. Insert the U shaped laminations in the spool. Mask the laminations with insulation tape.



5. This will be the finished coil.



6. Take a 20-cm long bicycle spoke and stick four small rectangular magnets on it as shown. You can also tie the magnets with thread to anchor them.



7. Place the coil on a wooden board as shown and anchor it in place. Connect one end of the copper wire of the coil in series to a 75-watt light bulb (220-volt). The other end of the coil and the bulb can be connected to the 220-volt A.C. Mains through a switch. Mount the cycle spoke on two brackets so that the spoke can rotate freely and the magnet block is between the facets of the lamination. Now, put the switch **ON**. If you now give a small rotation to the spoke, it will keep rotating.

**CAUTION:** THIS EXPERIMENT SHOULD BE STRICTLY DONE UNDER ADULT SUPERVISION. UNDER NO CIRCUMSTANCES TOUCH THE "U" SHAPED LAMINATIONS OR WIRES WITH YOUR BARE FINGERS, AS THE 220-VOLT A.C. CURRENT CAN GIVE A FATAL SHOCK.

(Pix: Dr. Vidula Mhasikar)