THE CHOKING COIL is to choke back exceedingly heavy rushes of current which may have passed the automatic switch; also to assist the lightning arrester.

CONTENTS OF A MOTOR.

One armature and commutator.
Two brush holders.
Four carbon brushes.
Four field coils.

HOW TO GET THE CAR READY FOR THE ROAD.

1. See the pole is off the wire.
2. See both switches are off.
3. Try both controllers for mechanical operation.
4. Try both hand brakes, and ascertain that the blocks gradually pull on to the wheels.
5. Try both sand pedals and see the sand passes through on to the rail. See the boxes are full of dry sand.
6. Try both foot gongs, and ascertain that they ring clear.
7. Examine the life guards.
8. Examine the motor and armature bearings, and see the cups are full of grease.
9. See that the car is equiped with a full complement of tools and spare parts, viz:--

One screw driver.
One controller spanner.
One crocodile spanner.
One point hook.
One piece of angle iron.
One piece of earth cable.
One commutator cleaning stick.
One hurricane lamp.
One spare trolley wheel.
Two spare lamps.

Keep the reverse lever in your pocket. Put the pole on the wire, and try your lights, put both switches in, and when you are ready, put your reverse lever on, and push it forward. Ring your foot-gong, get the Conductor's signal, and apply your handle to the first notch.

HOW TO APPLY THE POWER.

Never put the power on when the BRAKES ARE ON, or EVEN PARTLY ON, and never put the brakes on when the POWER IS ON. When starting up an incline, release your brakes, and put the power on at the same time. In advancing the controller handle and increasing the power in series running, it is ABSOLUTELY ESSENTIAL for the operator to dwell at least four seconds between each notch, or until the car has obtained the speed this particular notch will allow it ti run, before going on to the next; this is a point that will be very strictly enforced, and is necessary for the protection from damage of the motors. Too rapid application of power is improper, causing overloads on the armatures, and consequently overheating the field and armature coils. When you reach the fifth notch in series, or the SERIES RUNNING NOTCH, the car may be allowed to travel