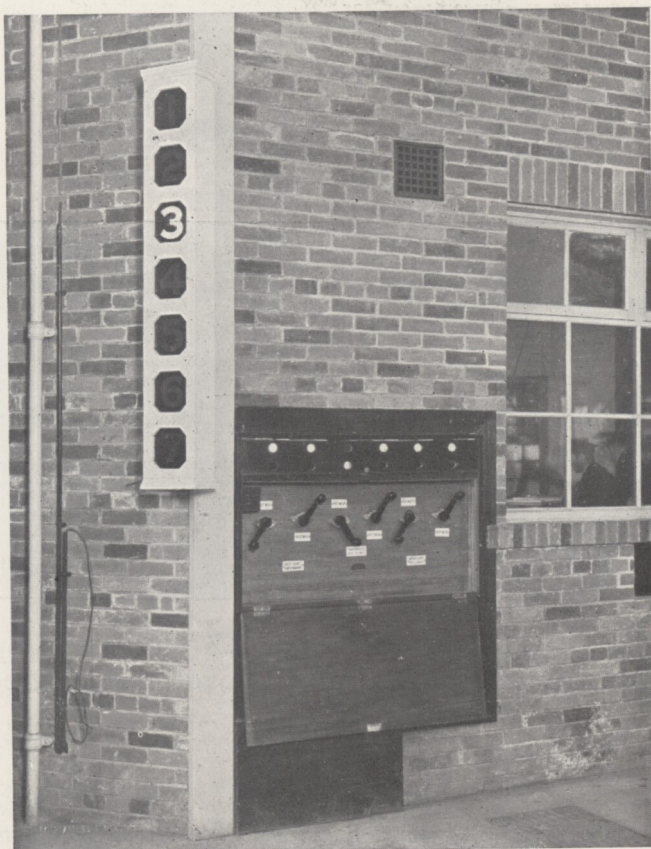


Electrically operated Point switches, overhead frogs and signals for tramcar depots.

The following particulars relate to an installation of electrically operated points and frogs at the entrance to a tram depot. It is particularly suitable for depots where full automatic operation would be impracticable, and we should be very pleased to submit schemes and prices for similar installations on your system.

The illustration shows a 6 handle manually operated Cabinet which controls 6 electrically operated point turners and 6 electrically operated overhead Frogs.



6 handle operating cabinet.

There are 6 pits in the depot and the turn-in from the straight into each pit is controlled by one of the switch handles in the Cabinet. This handle operates both the electrically operated point controller and the overhead frog. As the tramcars appear, the switchboard operator moves the handle of the switch which controls the particular point and frog for the bay into which he intends to turn the tramcar. The operation sets the point and the overhead frog, and the large illuminated signal (also shown on the print) indicates the number of the bay into which the tram will turn. There are 6 pairs of pilot lights embodied in the Cabinet over the switches. Each pair consists of a Red and Green light; Red showing when the particular point and frog are set for the straight and Green showing when they are set for the curve or turn-in to the depot.

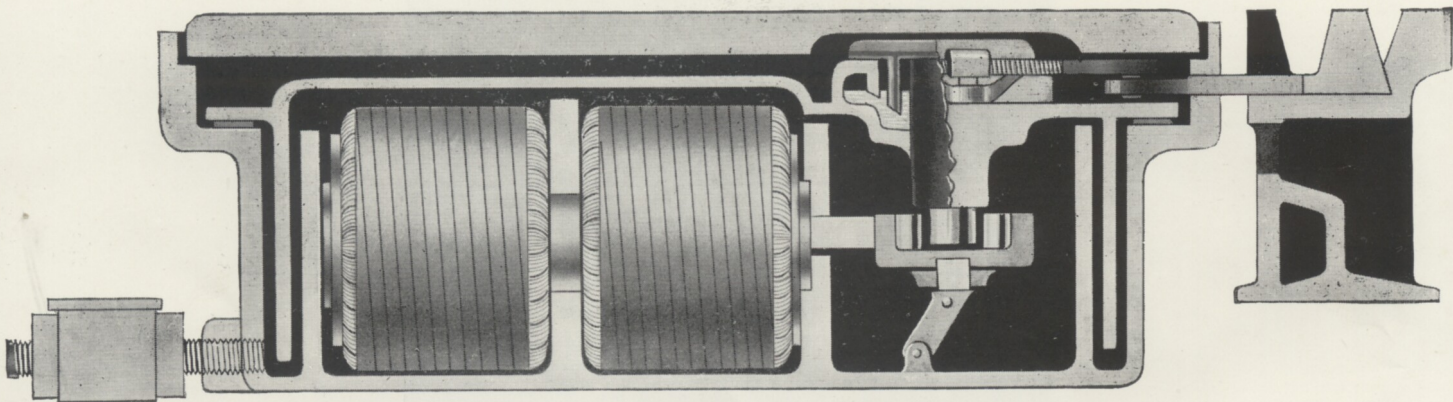
THE FOREST CITY ELECTRIC CO., LIMITED.

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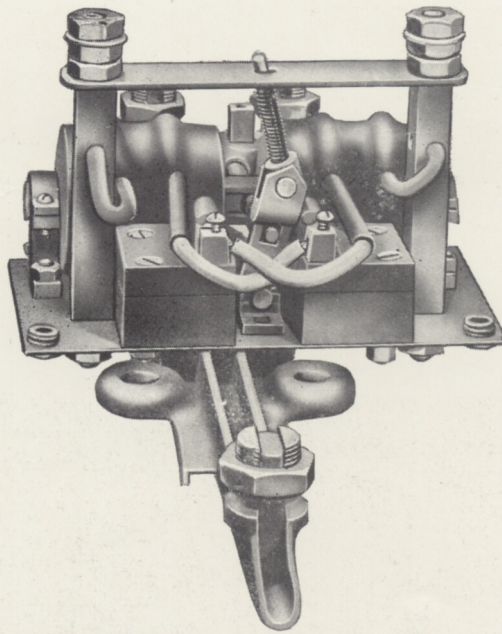
The control Cabinet is constructed entirely from Solid Mahogany and the front is French polished to give a good appearance. The control switches are of the double break, cam operated type and blowout coils are incorporated to damp the arc. The movement of the switch from one position to the other makes contact to the corresponding street box coil, and as the contact is only momentary it is practically impossible to burn out the coil. The overhead electric frogs are operated from contacts in the street boxes and not direct from the switches in the control cabinet, so that if a point is turned by means of a point rod, the overhead frog will automatically set itself for the same direction as the point. This feature of operating the frogs from the street boxes and not direct from the switches is very important, as it ensures that the overhead frog tongue is always set in the same position as the point tongue. The frog coil circuits are also arranged so that the contacts to the frog coils are only momentary, and the possibility of burn-outs is reduced to a minimum. The Street Boxes are those which we normally employ for our automatic point controllers, but with internal contacts to operate the overhead frogs.



Collins Water-tight street box type Q2 with point operating mechanism and contacts to the overhead frog coils.

In the accompanying print, Red pilot lights are showing on the Cabinet indicator for pits 1, 2, 4, 5 and 6, while a Green pilot light is showing for pit number 3; also the illuminated figure 3 is shown on the large indicator. The latter indicates to the approaching tram driver that he will be turned into pit number 3 and the switch-board operator knows from the fact that a Green light shows at number 3 that the point is correctly set for turn-in to number 3 pit. The light circuits are so connected that it is impossible for an indication to be given, unless the point is right over. A point which stops half-way over, due to an obstruction or any other cause would give no light indication, so that the operator would know at once that something was wrong.

The system was designed to give foolproof and safe operation, and we understand that it is proving entirely successful.



**Patent 2 coil overhead frog operated
from contacts in the street box.**

In this particular installation the overhead frog shown is connected by wires to contacts in the Street box, but the frog can be used with a contactor to operate frog switches on any tramway system. Frogs of this type are being used for the operation of overhead frogs on trackless trolley systems.