

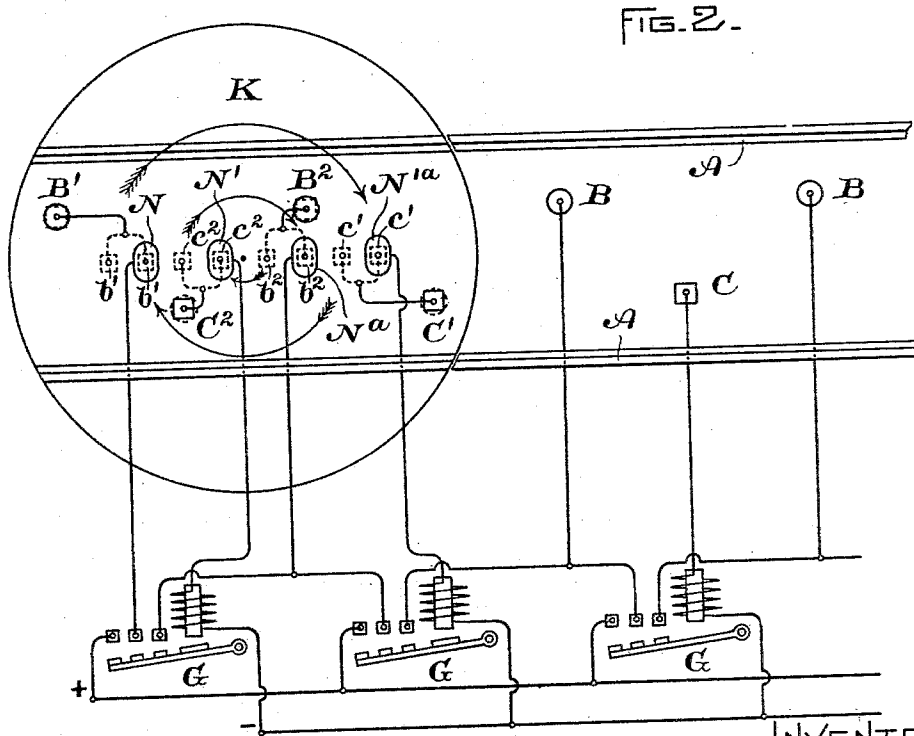
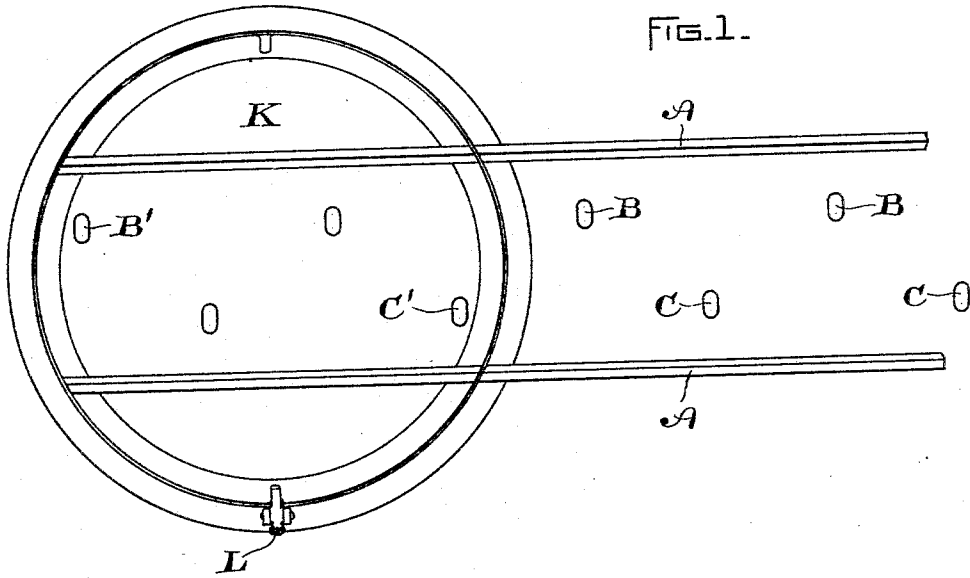
(No Model.)

E. M. HEWLETT.

TURN TABLE FOR SURFACE CONTACT ELECTRIC RAILWAYS.

No. 583,997.

Patented June 8, 1897.



WITNESSES.

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UNITED STATES PATENT OFFICE.

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TURN-TABLE FOR SURFACE-CONTACT ELECTRIC RAILWAYS.

SPECIFICATION forming part of Letters Patent No. 583,997, dated June 8, 1897.

Application filed November 18, 1896. Serial No. 612,585. (No model.)

To all whom it may concern:

Be it known that I, EDWARD M. HEWLETT, a citizen of the United States, residing at Schenectady, in the county of Schenectady, State of New York, have invented certain new and useful Improvements in Turn-Tables for Surface-Contact Electric Railways, (Case No. 478,) of which the following is a specification.

My invention relates to surface-contact systems of supply for electric roads, and has for its object to provide for such a system a turn-table upon which the car may be reversed.

In the operation of single-track closed-conduit systems, where the cars do not need to be turned, no difficulty arises from crossing of contacts; but where it is necessary to reverse the car at the end of the trip this process involves some method of reversing the connections either on the car or in the roadway. The latter being impracticable, it is desirable that the sliding contacts or shoes by which current is taken from one set of contacts and delivered to the other for operating the switches should be connected by some form of reversing-switch. This is common in the art and is not claimed in this application. When this change has been effected, however, and the car has been reversed by a turn-table, the high-potential and low-potential or positive and negative studs or sectional conductors on the turn-table must also be reversed, it being necessary that they should agree with those on the roadway outside. It is to provide a mechanism capable of effecting this reversal by the simple rotation of the turn-table itself that I have devised the present invention, which is illustrated in the accompanying drawings, which are partly diagrammatic.

Figure 1 is a diagram of the turn-table as it appears in practice, and Fig. 2 a plan with the circuit connections shown in diagram.

In Fig. 1, K is a turn-table provided with the contact-buttons B' C' and with the usual rails and surrounding pit, also with a latch L, the construction being common and well understood.

In Fig. 2, A A are the track-rails, B B the positive sectional conductors, and C C the negative or low-potential conductors in cir-

cuit with the pick-up coils of the switches G G. The particular arrangement of connections is not of my invention. K is, as before, the turn-table. This is provided with studs or sectional conductors B' B² C' C². Each of these contacts or studs has connected with it two auxiliary contacts b' c', &c. The contacts B' C' are upon the upper surface of the turn-table, as shown in Fig. 1, so that they furnish current and take it from the shoes of the motor-car when it is run on the table. Other contacts N N' are also provided, these being located below the turn-table and being respectively connected to the positive side of the circuit through the switches G and to the negative side through the pick-up coil on the switches. By the arrows I have shown the rotation of the table and the alteration it makes in the contacts. This is as follows: When the car runs on the table, the positive shoe will be in connection with the studs or contacts B' B² and the negative with the studs or contacts C' C², so that the switches G G' would be picked up. When the current through the motors fails, the switches fall. At this time the switch shifting the shoes would be changed, and the turn-table would then be revolved. The contact B' then takes the place of the contact C', and vice versa. The contact C² takes the place of the contact B², and vice versa. One of the auxiliary contacts b' would then break contact with the feeder-contact N and the other contact b' would make contact with the feeder-contact N', the reverse operation taking place with the auxiliary contacts c' c'. A similar change takes place with the contact C² and the auxiliary contacts c², which are shifted to the position of the contacts b², they taking the place of those at c². The sum of the changes is that the high-potential studs B' B² are now in the position of the low-potential studs C' C², still remaining in contact with the shoe on the motor-car, the polarity of which, however, is changed, it being on the negative side of the circuit, whereas it was formerly on the positive. A corresponding change takes place with the contacts C' C², which are made positive to accord with the positive polarity of the shoe with which they are in contact.

So far as I am aware I am the first to de-

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vis a turn-table for such systems as I have described provided with contacts which are reversed in polarity by the simple act of rotating the turn-table, so as to adapt the car to run in the opposite direction with no change in its operation; and I desire to make broad claims.

What I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a surface-contact electric railway, sectional conductors in the roadway, a turn-table, studs upon the turn-table, contacts above and below the turn-table and switches in circuit with the conductors and contacts, whereby by the operation of the turn-table the invariable relation of the contacts on the turn-table and in the railway is preserved, as herein set forth.

2. In a turn-table for a surface-contact railway, the combination of permanent contacts of opposite polarities, exposed studs upon the turn-table, and intermediate contacts operating by the rotation of the turn-table to reverse the relation of the exposed studs and the permanent contacts thereby to reverse their polarities.

3. A turn-table for a surface-contact rail-

way, provided with contacts or studs of differing polarities connected permanently to the circuit-operating switches, and sliding contacts or studs located beneath the turn-table and coöperating with said contacts or studs of differing polarities, and acting by the rotation of the turn-table to reverse the polarity of the sectional conductors thereon.

4. A turn-table for a surface-contact railway, comprising contacts permanently connected to the circuit-operating switches and located beneath the turn-table, sliding contacts coöperating therewith, and also located beneath the turn-table, and sectional conductors upon the turn-table connected to the sliding contacts, the relation of the parts being such that the rotation of the turn-table reverses the relation of the exposed contacts and those permanently connected to the switches.

In witness whereof I have hereunto set my hand this 4th day of November, 1896.

EDWARD M. HEWLETT.

Witnesses:

B. B. HULL,

C. L. HAYNES.