

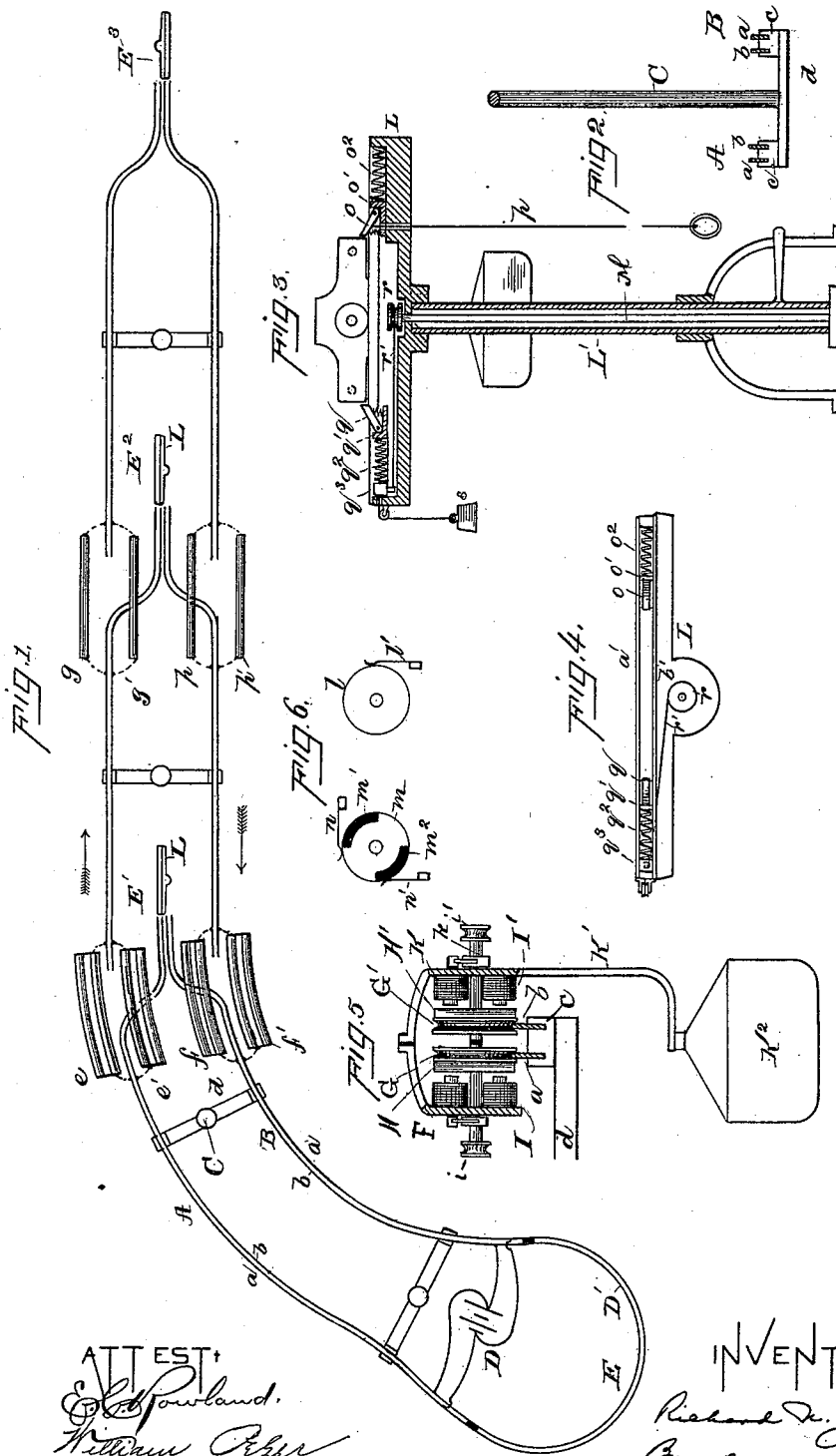
(No Model.)

R. N. DYER.

ELECTRICAL STORE SERVICE APPARATUS.

No. 395,961.

Patented Jan. 8, 1889.



ATTEST:
E. S. Powland,
William P. Puffer

INVENTOR:
Richard N. Dyer
By [Signature]

track, forming a bail, K' , for the receptacle K^2 . This carrier is fully described in one of my applications before referred to. The driving-shaft k has a metal disk, l , on one side, on which bears a spring, l' , insulated from the frame and connected by wires with both magnets. On the other side the shaft k has a commutator-disk, m , provided with segments of insulation $m^1 m^2$, on which commutator-disk bear springs $n n'$, connected each with one of the magnets. The magnets being set at right angles to each other, they will be energized alternately and will attract the armatures alternately, thus producing a continuous rotation of the driving-wheels. Since, as will be explained further on, the carriers have the same relation to the electric circuit, whether on the outgoing way or on the returning way, it is not necessary to shift the commutator, as described in a former application of the electrical carrier designed to run back and forth on the same way, and hence the commutator-disk m is fixed directly to the shaft k .

At each sales-station I provide a turn-table, L , which is a platform mounted on a turning pipe, L' , extending down to the counter. This platform has parallel strips $a' b'$ to receive the carrier. In the normal position of the turn-table the strips $a' b'$ are in line with the outgoing track A , as shown at stations E' and E^2 . The carrier runs upon the turn-table from the track A and strikes a pivoted spring-stop, o , which is a latch pivoted on a sliding block, o' , backed up by a spring, o^2 . A cord, p , extends from the stop o down to within reach of the saleswoman. The spring-stop o arrests the movement of the carrier, the circuit through the motor on the carrier being broken as it leaves the way A . As the carrier strikes the stop o it rides over a spring-pawl, q . This is pivoted to a sliding block, q' , which is backed up by a spring, q^2 , extending to another sliding block, q^3 . A stationary shaft, M , projects up through the turning pipe L' and carries a grooved wheel, r , on its upper end, to which is attached a cord or wire, r' , extending to the sliding block q^3 . A weight, s , attached to the block q^3 retracts it to its normal position.

The operation of these turn-table devices is as follows: The carrier runs in upon the turn-table, rides over the pawl q , and is arrested by the spring-stop o . When it is desired to return the carrier to the cashier, the turn-table is turned a half-revolution by the handle t , bringing the turn-table tracks into line with the tracks of the returning way B , as shown at sales-station E^3 in Fig. 1. This movement causes the cord r' to wind up on the wheel r , drawing the block q^3 forward and putting the spring q^2 under tension against the carrier. The cord p is now pulled by the operator, withdrawing the stop o from in front of the carrier, and the carrier is forced by the spring q^2 upon the returning-way B , and is started in its return movement upon such way, so as to cause the electric motor to operate. The turn-table is then re-

turned to its normal position. By means of the turn-table the bail of the carrier is brought upon the outside of the return way, where it meets no obstructions, and the carrier is caused to travel with the same end forward as when upon the outgoing way, the motor having the same circuit relations upon both ways.

What I claim is—

1. In electrical store-service apparatus, the combination, with two ways, each composed of two parallel tracks placed close together, of supports connecting such ways together and supporting them from their inner sides, whereby the tracks will be left clear upon their tops and their outer sides and beneath for the movement of the carrier-receptacles, wheeled carriers traveling on such ways and having electric motors by which they are driven, taking current from the tracks, and provided with bails hanging down on the outer side of the ways and curved laterally beneath such ways to support the receptacles, and a source of electrical energy connected with the tracks of both ways, substantially as set forth.

2. In electrical store-service apparatus, the combination, with outgoing and returning ways, each consisting of two tracks, and carriers with electric motors traveling upon such ways, of a source of electric energy connected from one pole to the inner tracks of the two ways and from the other pole to the outer tracks, and a turn-table for reversing the position of the carrier in shifting from one way to the other, substantially as set forth.

3. In an electrical store-service apparatus, the combination, with the two ways supported and connected together on their inner sides, of carriers having electric motors traveling on such ways and provided with bails depending on one side, and a turn-table for reversing the position of the carriers in shifting them from one way to the other, substantially as set forth.

4. In electrical store-service apparatus, the combination, with carriers having depending bails, of outgoing and returning ways, each of which is broken and deflected laterally at stations, and bridging switching-plates at such breaks for lifting carriers to or from succeeding stations over such breaks, substantially as set forth.

5. In electrical store-service apparatus, the combination, with carriers having depending bails, of outgoing and returning ways, each of which is broken and deflected laterally at stations, and bridging switching-plates at such breaks for lifting carriers to or from succeeding stations over such breaks, and a turn-table at each sales-station for reversing the position of the carriers in shifting from one way to the other, substantially as set forth.

6. In electrical store-service apparatus, the combination, with outgoing and returning ways, each consisting of two tracks, and carriers with electric motors traveling upon such ways, of a turn-table for reversing the posi-

tion of the carrier in shifting from one way to the other, and a spring which is put under tension by the turning of the table and acting when the carrier is released to start it

5 onto the return way, substantially as set forth.

7. In electrical store-service apparatus, the combination, with outgoing and returning ways, each consisting of two tracks, and carriers with electric motors traveling upon such

10 ways, of a turn-table for reversing the position of the carrier in shifting from one way to the other, a spring-stop with pivoted releasing-latch, and a spring starting device with a pivoted latch over which the carrier rides, sub-

15 stantially as set forth.

8. In electrical store-service apparatus, the combination, with outgoing and returning ways, each consisting of two tracks, and carriers with electric motors traveling upon such

20 ways, of a turn-table for reversing the posi-

tion of the carrier in shifting from one way to the other, a turning pipe on which the turntable is mounted, a stationary shaft within said pipe, a spring mechanism for starting the carrier on its return journey, and a connection be-

25 tween the stationary rod and the spring, substantially as set forth.

9. In electrical store-service apparatus, the combination, with outgoing and returning ways having each two tracks connected with the source of electrical energy, of a section of

30 track disconnected from the circuit and joining the ways together at the cashier's end, substantially as set forth.

This specification signed and witnessed this

35 30th day of June, 1887.

RICHARD N. DYER.

Witnesses:

WILLIAM PELZER,
E. C. ROWLAND.