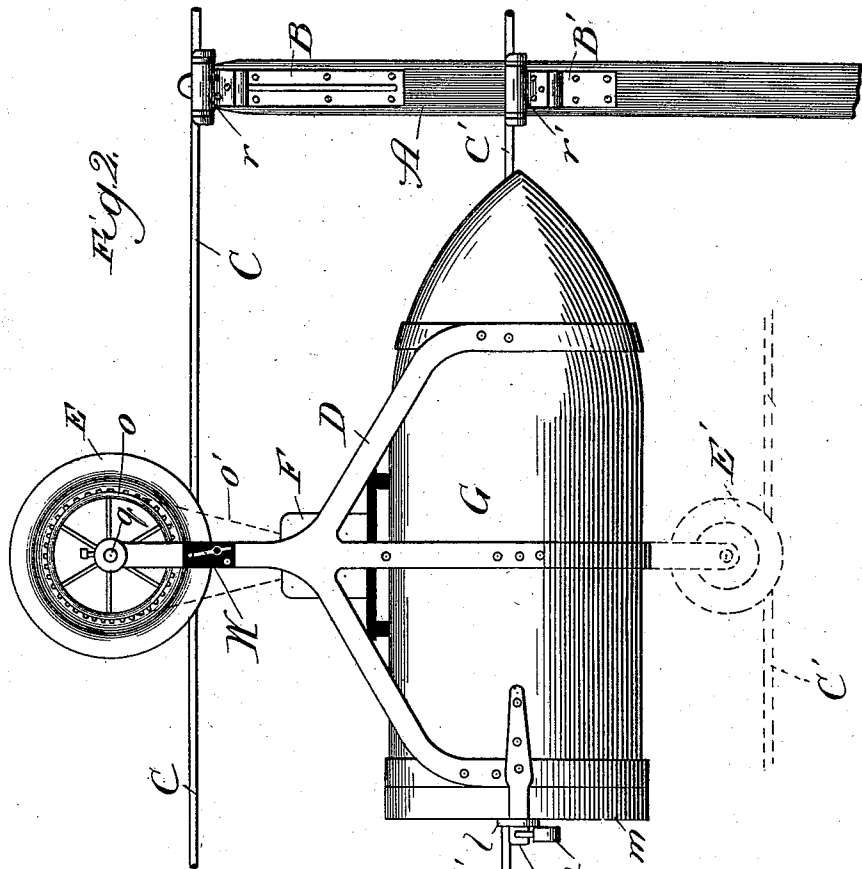


(No Model.)

R. E. SHERMAN.
ELECTRIC TRANSPORTATION SYSTEM.

No. 543,357.

Patented July 23, 1895.



UNITED STATES PATENT OFFICE

RICHARD E. SHERMAN, OF CHICAGO, ILLINOIS.

ELECTRIC TRANSPORTATION SYSTEM.

SPECIFICATION forming part of Letters Patent No. 543,357, dated July 23, 1895.

Application filed March 1, 1895. Serial No. 540,164. (No model.)

To all whom it may concern:

Be it known that I, RICHARD E. SHERMAN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Overhead Electric Systems of Mail Transportation, of which the following is a specification.

My invention relates to an improvement in the system of mail transportation wherein a mail-carrying receptacle is employed by equipping it with an electric motor and suspending it on an overhead track, from which the electric current is supplied to the motor to drive it and thereby drive a wheel, through the medium of which the receptacle is suspended from the overhead track, to transport the carrier.

The object of my invention is to provide means of improved construction in the system referred to, thereby the better to adapt it for its purpose.

Figure 1 is a view showing a mail-bag carriage in end elevation equipped with an electric motor and suspended on an overhead electric-cable track supported on posts provided at intervals along the route of transportation, though only a portion of one of the posts is represented, and Fig. 2 shows the same by a view in side elevation.

For local postal transportation it is desirable to run the line over the roofs of houses, and to that end are provided, as the preferred construction for the purpose, a desired number of supporting-posts like the post represented at A in the figures of the drawings, at suitable intervals along the route of transportation, in vertical position, on the roofs of houses in the locality in which the system is employed. From each post A, which is preferably formed of metal, and need not be more than, say, twelve feet high, there extend at a right angle from it an upper bracket B and a lower bracket B', provided at their outer extremities, respectively, with insulated bearings *r* and *r'* for the track, which, as shown, comprise the outgoing line (cable) C and the return-line (cable) C' of an electric generator, (dynamo, not shown,) the strength of which may be gaged according to the load to be carried by it.

D is a skeleton frame, formed, preferably,

of metal, and carrying at its upper end and suitably insulated from it a metal shaft *g*, having journaled on one end a peripherally-grooved driving contact-wheel E, like the trolley-wheel commonly employed on the cars of electric surface railways; and the driving-wheel also carries on its sleeve-extension *p* a sprocket-wheel *o*. On the frame D is supported in suitable position and properly insulated an electric motor F of any well-known or suitable type, the shaft *n* of which carries an insulated sprocket-wheel *n'*, geared to the sprocket-wheel *o* by means of a chain *o'*.

Below the motor F is supported in the frame D, being permanently fastened thereto, the receptacle or case G, preferably formed of sheet-steel, and of dimensions adapting it to hold a mail-bag (not shown) and of the general cartridge shape illustrated, the pointed forward extremity being provided the better to overcome the resistance of the atmosphere, and the rear end being open and provided with a close-fitting cap *m*, fastened in place by means of a hasp *l*, hinged at one end to the frame D at one side of the case to adapt it to be extended diametrically across the face of the cap to the opposite side of the case, where it engages a staple *l'* on the frame and to which it may be fastened by a padlock *k*.

At the inner side of the frame D the latter is provided with an extension D' of metal, containing two upright metal rods *i* and *h*, which serve as guides for the vertical sockets *i'* and *h'* of a shaft *g* terminating at its outer end in a journal-bearing for a contact-wheel E', like the wheel E, but preferably smaller, and the wheel E' is controlled, to depress it yieldingly, by a spring *h²* on the rod *h*. The shaft *g* is connected by a conductor *w*, containing an electric switch W, of any suitable variety, with one pole of the motor, the other pole thereof being connected by the conductor *w'* with the frame D.

The carriage afforded by the mail-receptacle and its supporting-frame carrying the motor and contact-wheels is suspended on the overhead track by placing the wheel E on the line C, and by placing the wheel E' on the line C' it affords a guide. Upon closing the switch W the circuit is closed from the current-carrying line C to the return-line C' through the motor and frame, whereby the motor is driven to

drive the wheel *o*, through its gear connection therewith, and consequently the wheel *E*, which drives the carriage along the route traversed by the line or track.

5 In transmitting mail from one postal station to another by means of my improvement a mail-bag is inserted into and locked in the receptacle *G* at the sending station, (into which the line *CC'* may extend), and on being placed
10 on the line, by closing the switch *W* the carriage, with its load, runs to the distant receiving-station, where it is stopped either by opening the switch *W* or by insulating the line where the wheel *E* contacts with it at the end
15 of the route, or otherwise, and the mail-bag is taken out. The return journey of the carriage, say with a bag of other mail, may be made on the same or a different line on adjusting it thereon pointed in the proper direction.
20 In this manner the transportation of mail may be accomplished with great speed, say at the rate of one hundred miles per hour, and need not be interfered with or obstructed by any of the impediments liable to be encountered in
25 surface-road transportation.

The contact *E'* instead of extending from the side of the carriage might be under the latter, as indicated by the dotted representation, to contact with the line *C'*, then below it.

30 What I claim as new, and desire to secure by Letters Patent, is—

1. In an overhead electric system of mail transportation, the combination with the outgoing and return circuit-lines supported one
35 above the other on posts, of a mail-bag re-

ceptacle, a metallic frame supporting said receptacle, a driving contact-wheel on a shaft carried by the frame and by which said frame is suspended on one of said lines, an electric motor on the frame and insulated therefrom
40 and from said receptacle and having its armature-shaft geared with said contact-wheel, an extension of the frame carrying vertical guide-rods, a second, spring-controlled, contact-wheel journaled to bear against the other
45 of said lines on a shaft having guide-sockets surrounding said rods, an electrical connection through the motor between said contact-wheels, and a switch in said connection, substantially as described.
50

2. Means for carrying mail in an overhead electric system of mail-transportation, comprising a metallic skeleton-frame *D* carrying an insulated metal shaft *q* having journaled upon it a driving contact-wheel *E*, an electric
55 motor *F* supported on and insulated from the frame and having its shaft *n* geared with said driving contact-wheel, a cartridge-shaped mail-receptacle *G* secured in said frame and open at its larger end where it is provided with
60 a cover *m* and with a hinged hasp *l* and a staple *l'* at which to engage and lock the hasp, and a contact-wheel *E'* resiliently journaled on the frame and electrically connected with the contact-wheel *E* through the motor, as and for the
65 purpose set forth.

RICHARD E. SHERMAN.

In presence of—

JOHN W. KILMORE,
J. N. HANSON.