

(No Model.)

C. A. LIEB.
TROLLEY WHEEL.

No. 522,845.

Patented July 10, 1894.

FIG. 1.

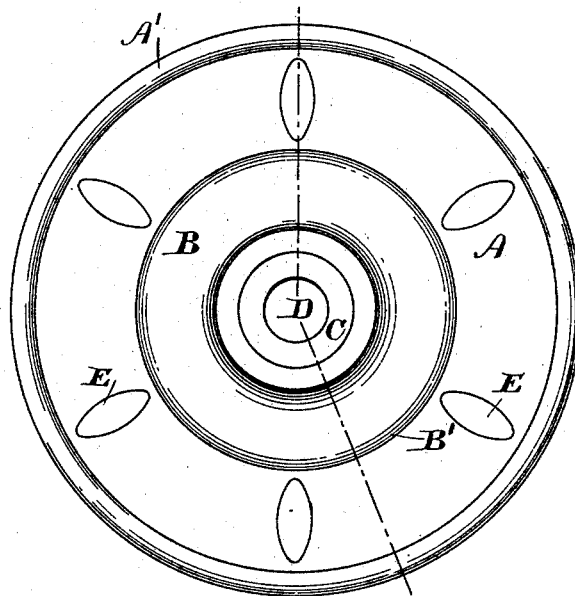
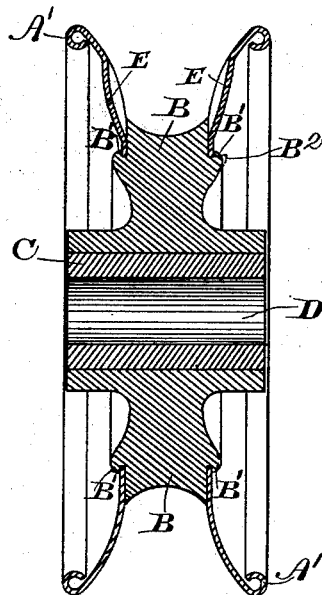


FIG. 2.



WITNESSES.

A. J. Macdonald.
A. A. McBride.

INVENTOR.

Charles A. Lieb, by
Geo. R. Blodgett,
Att'y.

UNITED STATES PATENT OFFICE.

CHARLES A. LIEB, OF NEW YORK, N. Y., ASSIGNOR TO THE GENERAL
ELECTRIC COMPANY, OF BOSTON, MASSACHUSETTS.

TROLLEY-WHEEL.

SPECIFICATION forming part of Letters Patent No. 522,845, dated July 10, 1894.

Application filed April 12, 1894. Serial No. 507,245. (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. LIEB, a citizen of the United States, residing at New York, county of New York, and State of New York, have invented certain new and useful Improvements in Trolley-Wheels, of which the following is a specification.

My invention relates to trolleys for electric railways, and has for its object to improve their construction by providing a more durable and cheaper construction for the trolley wheel which is at the same time lighter in weight. To this end I employ a copper or bronze core for the wheel and provide it with thin sheet steel flanges properly secured thereto, and these flanges I provide with radial corrugations extending nearly to their rims, so that when the bearing surface of the flange is worn, the corrugations will still serve to support the rim of the flange so that it will not drop off and permit the trolley to run off the wire.

In the accompanying drawings which show an embodiment of my invention, like letters refer to like parts throughout; and therein—

Figure 1 is a side elevation, and Fig. 2 a section, of my improved trolley wheel.

A, A are steel flanges having a turned or spun lip A', which serves to stiffen them; these flanges are secured to a body or core B, having a concave surface adapted to make contact with the trolley wire. The flanges A are held in engagement with this core or central body by lips B' formed upon the core, as shown in dotted lines at B², which lips are afterward turned or spun down over the edge of the flange.

C is a sleeve of iron having a central opening D forming a bearing for the trolley in the usual way. This central opening may be provided with a bushing of anti-friction metal of any kind.

E, E, &c., are the radial corrugations to which I have referred in my statement of invention, of which I have illustrated six, but any greater or less number may be provided, as may be desired, and the object of the invention will be attained.

The improved construction indicated provides a light trolley wheel which can be cheaply made, by which a considerable saving in the amount of copper or bronze is effected, and which is more durable than the ordinary wheel, inasmuch as the flashing when the trolley wheel strikes the wire is confined to the steel surfaces; as iron or steel has a greater heat constant than bronze, and a higher melting point, it is not so apt to be burned by the spark, and the durability of the wheel is thereby increased.

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

1. As a new article of manufacture, a trolley-wheel having a central core of copper or bronze and provided with steel flanges having stiffened edges.

2. As a new article of manufacture, a trolley-wheel having a central core of good conducting metal, as copper or bronze, and steel flanges secured to such core, such steel flanges being provided with radial corrugations.

3. As a new article of manufacture, a trolley wheel provided with flanges having corrugations extending part way from the hub of the trolley wheel to the circumferences of the flanges.

4. As a new article of manufacture, a trolley-wheel comprising a central core of good conducting metal, as copper or bronze, and steel flanges having stiffened edges and secured in place by a lip turned over from the core.

5. As a new article of manufacture, a trolley-wheel comprising a core of good conducting metal, as copper or bronze, and sheet metal flanges having stiffened edges and secured in place by a lip turned over from the core, such wheel provided with a central bushing around the bearing, substantially as set out herein.

In witness whereof I have hereunto set my hand this 10th day of April, 1894.

CHARLES A. LIEB.

Witnesses:

WM. H. CAPEL,
THOS. F. CONREY.