

(No Model.)

C. A. LIEB.  
TROLLEY EAR.

No. 522,844.

Patented July 10, 1894.

FIG. 1.-

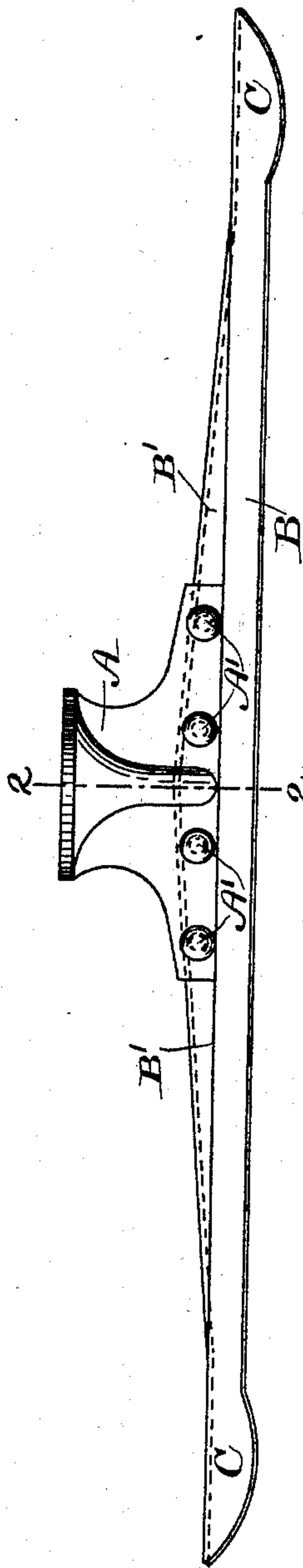
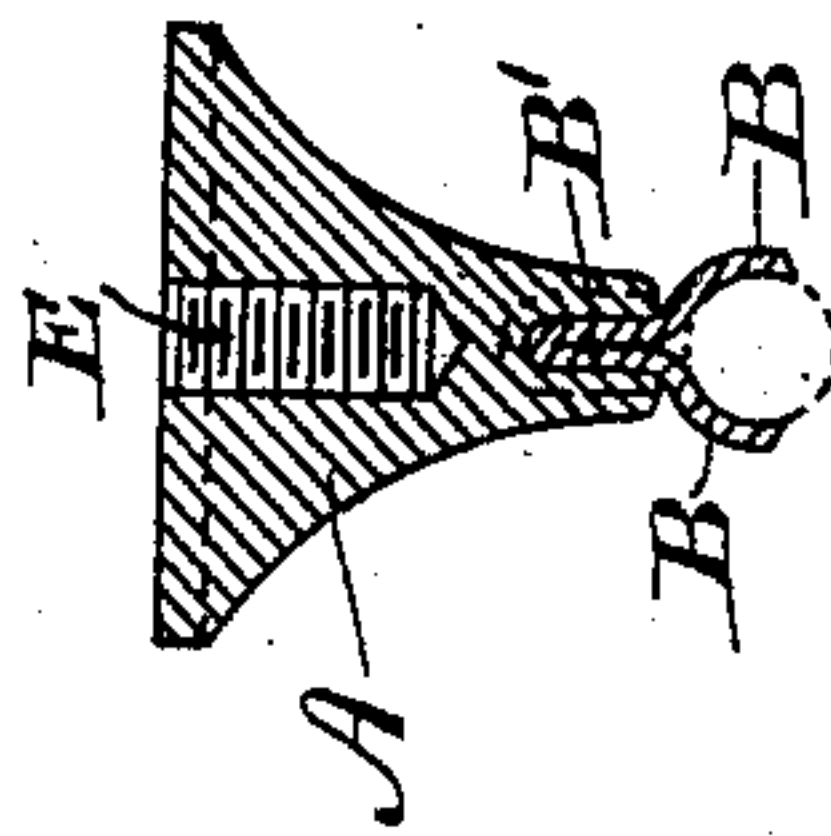


FIG. 2.-



WITNESSES.

A. F. Macdonald.

J. J. Johnston.

INVENTOR.

Charles A. Lieb, by  
Bentley and Woodgett

# UNITED STATES PATENT OFFICE.

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

## TROLLEY-EAR.

SPECIFICATION forming part of Letters Patent No. 522,844, dated July 10, 1894.

Application filed April 12, 1894. Serial No. 507,244. (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-Ears, of which the following is a specification.

My invention relates to trolley ears, or appliances designed to support the trolley wire either from a span wire or from a bracket, and has for its object to provide a cheap and efficient construction; to which end I form the body of the ear of sheet metal with an upwardly-extending fold or fin riveted to a cast metal part.

The accompanying drawings show an embodiment of my invention, wherein—

Figure 1 is a side elevation; Fig. 2 a section upon the line 2—2 of Fig. 1, of my improved trolley ear.

A is a cast metal part or bolt-portion provided with a bolt-hole E for attachment to the bracket arm or span wire.

B is a sheet metal portion which, as shown best in Fig. 2, is formed with an upwardly-extending fin or fold B' and with two ears C, C, adapted to fold around a trolley wire and hold it in place; the interior portion of the sleeve is provided with a coating of solder, as commonly used in such constructions.

A', A', &c., are the rivets.

To assemble the ear the part B is first stamped out and then pressed into shape, having a fin B' made as shown in Fig. 1; the portion B' is then inserted in the slot of the part A, holes previously being provided for the rivets A', &c., which are then inserted, and by a proper rivet punch the heads can be upset at a single operation, if desired.

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 ear having a sheet metal portion with an upwardly-extending fin or fold and a cast metal bolt-portion secured to the fin or fold.

2. As a new article of manufacture, an improved trolley ear, comprising a sheet metal part B, an upwardly-extending fin or fold B', a cast metal bolt-portion A, and rivets A', A', &c., securing the sheet metal part to the cast metal part.

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.