(No Model.)

J. M. ANDERSEN.

TROLLEY POLE.

No. 438,219. Patented Oct. 14, 1890.

Fig: 1.

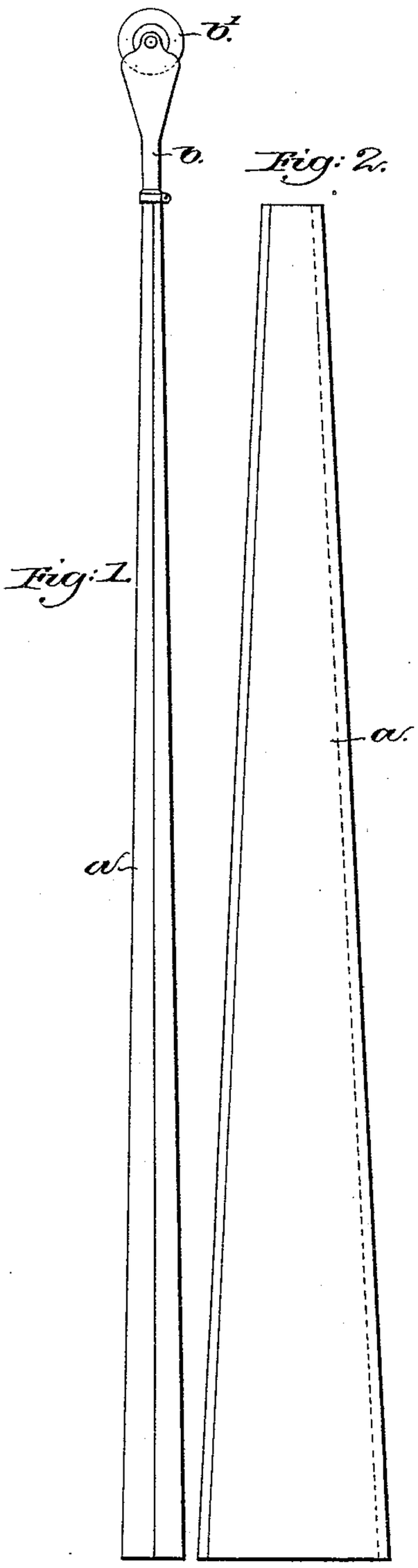


Fig: 2.

Fig: 3.

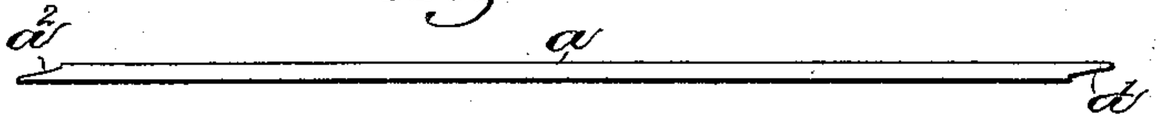
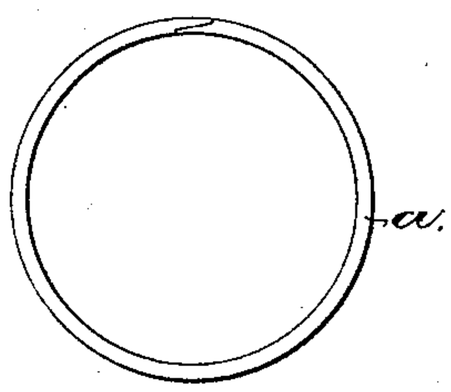


Fig: 4.



Witnesses.
Frederick L. Emery
George E. Hunting.

Inventor.
Johan M. Andersen,
by Crosby & Gregory
attys

UNITED STATES PATENT OFFICE.

JOHAN M. ANDERSEN, OF BOSTON, MASSACHUSETTS.

TROLLEY-POLE.

SPECIFICATION forming part of Letters Patent No. 438,219, dated October 14, 1890.

Application filed July 19, 1890. Serial No. 359,460. (No model.)

To all whom it may concern:

Be it known that I, JOHAN M. ANDERSEN, a subject of the King of Norway and Sweden, but at present residing at Boston, county of Suffolk, State of Massachusetts, have invented an Improvement in Trolley-Poles, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention has for its object to provide a strong, efficient, and simple trolley-pole of novel construction, as will be described, adapted to be used in connection with the overhead system of electric railways.

My invention therefore consists in the herein-described trolley-pole, it consisting of a tapering metallic blank bent longitudinally and having its edges secured together, the said pole being tapered from its top toward its bottom, substantially as and for the purposes specified.

Figure 1 in front elevation represents a trolley-pole constructed in accordance with my invention. Fig. 2 is a detail of the metal blank from which the trolley-pole is made; Fig. 3, an end view, on an enlarged scale, of the blank shown in Fig. 2, and Fig. 4 an end view of the trolley-pole, to more clearly show the manner of forming the trolley-pole from the blank.

In accordance with my invention the metal blank a, preferably of sheet-steel, is made tapering, and the opposite edges or sides of the tapered blank are preferably beveled or cut away, as at a' a^2, the bevel a' being on the under side of the blank and the bevel a^2 on the upper side. The metal blank a is then bent longitudinally in any suitable or desired manner, so that the beveled edges a' and a^2 preferably lap over each other, as shown in Fig. 4, and the blank thus forms a hollow tapering pole, it being considerably narrower at one end than at the other. The hollow pole has its lapped edges a' a^2 brazed or otherwise suitably united. The hollow pole has secured to its upper end the usual metallic arms b, in which is journaled the usual trolley-wheel b'.

The trolley-pole, when made in one piece, as herein shown, is substantially light, and being of tapering form the amount of metal in the pole gradually increases from its top toward its bottom, thereby obtaining increased strength at the place desired—viz., at the junction of the trolley-pole with its support—the upper portion of the tapered pole containing the least amount of metal, being, therefore, very light.

My improved hollow metallic trolley-pole is substantially light, and therefore a much lighter spring can be used to keep the trolley-wheel in contact with the trolley-wire.

I prefer to bevel the edges of the blank and overlap the same, but I do not desire to limit myself in this respect, as the edges may remain unbeveled and may be butted against each other and then secured together.

I claim—

The herein-described hollow trolley-pole, it consisting of a tapering metallic blank bent longitudinally and having its edges secured together, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHAN M. ANDERSEN.

Witnesses:
JAS. H. CHURCHILL,
EMMA J. BENNETT.