

SAMUEL A. OTIS.  
Pole for Horse Railroad Cars.

No. 121,656.

Patented Dec. 5, 1871.

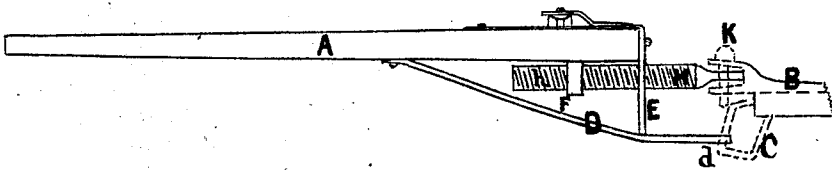


Fig. 1.

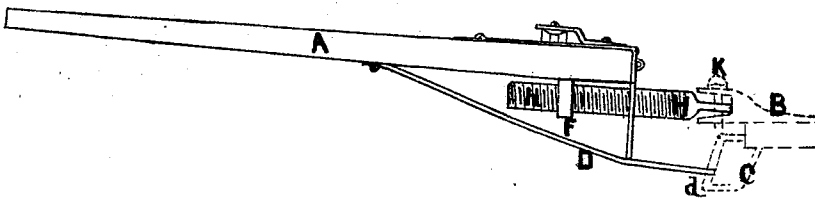


Fig. 2.

Witnesses: *Franklin Parker* *Samuel A. Otis* Inventor  
*J. P. Smith* *William Edson Otis*

## UNITED STATES PATENT OFFICE.

SAMUEL A. OTIS, OF BOSTON, MASSACHUSETTS.

## IMPROVEMENT IN DRAFT-POLES FOR HORSE-CARS.

Specification forming part of Letters Patent No. 121,656, dated December 5, 1871; antedated November 20, 1871.

*To all whom it may concern:*

Be it known that I, SAMUEL A. OTIS, of Boston, county of Suffolk and State of Massachusetts, have invented a certain new and useful Pole for Horse-Railroad Cars, of which the following is a specification:

The nature of my invention consists in combining with that kind of a car-pole which is self-sustaining an adjustable eye-piece, so arranged that the pole may be adjusted to any car—that is, so fixed that it will stand at the proper elevation to suit the horses.

In the drawing, Figures 1 and 2 represent the improved pole in two positions, caused by the adjustment of the upper eye-piece H.

Let A represent the pole, made in the usual manner, and provided with the brace D and standard E, as usual; the end *d* of the brace D abutting against the rigid down-hanger C, dependent

from the front of the car. B is the bunter or draw-rod, and is also attached to the front of the car. H is an adjustable eye-piece, and consists of an eye through which the draw-pin K passes, and of a shank, *h*, upon which a screw is cut. This shank screws through screw-nuts in E and F, so that it may be adjusted so as to have its eye at any desired distance from the end of the pole. The adjustment will, of course, elevate or depress the pole.

I claim as my invention—

The combination of the adjusting screw eye-piece H with the pole A, standard E, and coupling-pin K, substantially as described and for the purpose set forth.

SAMUEL A. OTIS.

Witnesses:

FRANK. G. PARKER,  
JAS. S. CONANT.

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