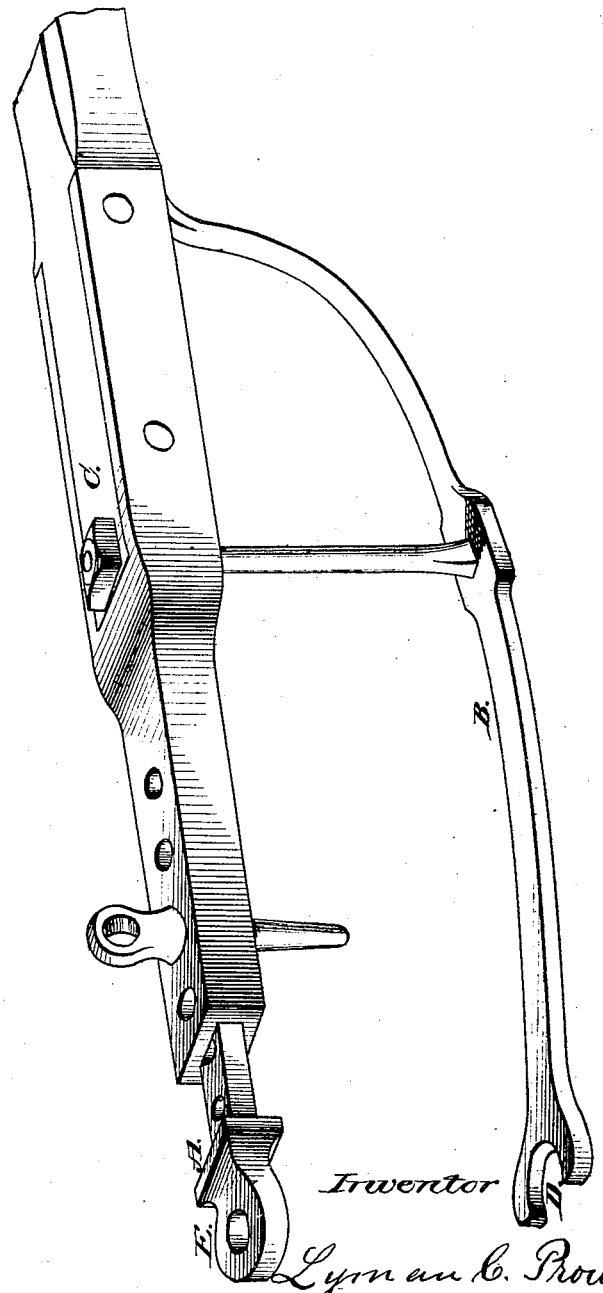
L. C. PROUTY.

Draw-Irons for Street-Car Poles.

No. 167,933. Patented Sept. 21, 1875.



Witnesses:

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LYMAN C. PROUTY, OF LOWELL, MASSACHUSETTS.

IMPROVEMENT IN DRAW-IRONS FOR STREET-CAR POLES.

Specification forming part of Letters Patent No. **167,933**, dated September 21, 1875; application filed June 23, 1875.

To all whom it may concern:

Be it known that I, LYMAN C. PROUTY, of Lowell, State of Massachusetts, have invented an Adjustable Draw-Iron, of which the following is a specification:

The object of my invention is to furnish an adjustable draw-iron, A, in connection with a brace-iron, B, attached to the poles C of horse-railroad cars. This adjustable draw-iron A, with section of pole C, is shown in the perspective view of the accompanying drawing.

C represents the pole; B, the brace-iron to hold the pole in position; D, that end of the brace-iron which fits about the fixed brace-pin attached to the body of the car; A, the adjustable draw-iron, and E that part of the adjustable draw-iron at which the pole C is coupled to the car.

At the present time, and with the poles now in use, on account of the variation in the relative distance from the body of the car of the brace-pin, which fits in the brace-iron B at D, and the point E, at which the draw-iron A is coupled, the pole can be used only for one car, and is made to fit only one car. For, suppose the brace-pin, around which the brace B fits at D, is nearer to the car, relatively to the point of coupling E, then the brace B must be moved back to the brace-pin; and in so moving it the pole C would be lowered from its horizontal position, as the draw-iron A, with its point of coupling E, is immovably attached to the pole C. This lowering of the pole would produce a continuous strain upon the collars of the horses, and would very much annoy and fret them. Thus, with an immovable draw-iron, A, the attempt to change a pole from one car to another would be fruitless in its results.

The same effect would be brought about if the brace-pin, around which the brace B fits at D, should chance to be at a greater distance from the car relatively to the point of coupling E, for then, it is perceived, the converse of the first supposition, that the pole would be elevated, and in this case, also, the force could not be applied favorably.

On account of these difficulties arising from the change of a pole from one car to another, each car has now its own pole, fitted and adjusted to and for itself alone, and should the draw-iron or any part of the pole break the car must be laid aside until a new pole is prepared to fit the car. Also, should the car be out of order, the pole provided for it is of no use until the car is used, or unless the pole is altered over for another car. Hereby is observed an inconvenience, and to remedy this difficulty is the object of this invention. For an occasion offers itself when it is necessary to change the pole from one car to another, and the pole is changed, having now the adjustable draw-iron A.

As at first supposed, it is found, for instance, that the pole C is too much lowered from the horizontal position for the comfort of the horses. It is now desired to elevate the pole C, and it is raised by means of the adjustable draw-iron A. The point of coupling E in the adjustable draw-iron A is moved toward the pole C—*i. e*, one or more holes are taken in, until the point of coupling E is at the requisite distance from the body of the car relatively to the brace-pin, which fits in the brace B at D. By moving the point of coupling E in this way it is seen that the pole C is shortened, and at the same time elevated, the collars are relieved from the extra pressure, the brace B supports the pole C in its proper position, and the desired result is effected.

If, again, in changing the pole C from one car to another it is found that the pole C is elevated too much from the horizontal position, this trouble is remedied by moving the point of coupling E in the adjustable draw-iron A from the pole C—*i. e.*, one or more holes are let out. In this way the pole C is lengthened, and lowered to its proper position at the same time.

When leaders are used for the car it is requisite to have the pole C elevated from its horizontal position in order that the extra force may be exerted on the pole C, and from that to the car, and to avoid pulling down the pole C so as to chafe the rear horses, as would be produced if the pole C were too low. To accomplish this elevation to the desired

height, as before described, one or more holes on the adjustable draw-iron A are taken in, and any downward force caused by the leaders will be spent upon the pole C, and not upon the horses.

I claim as my invention—

The combination of the draw-iron A, having adjusting-holes therein, with the perforated pole C, adjusting-pin, and the brace-iron B, all substantially as and for the purpose set forth.

LYMAN C. PROUTY.

Witnesses:

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