

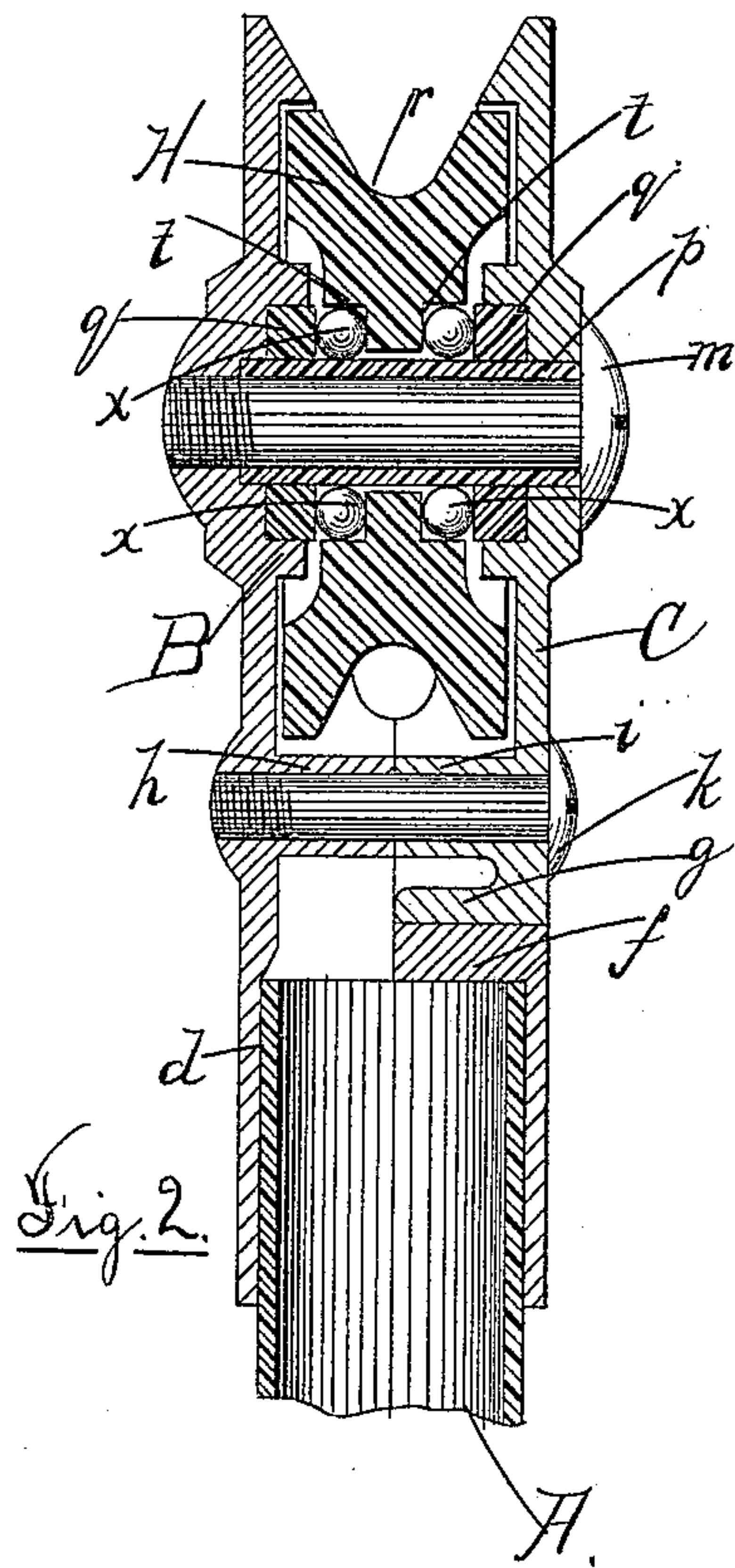
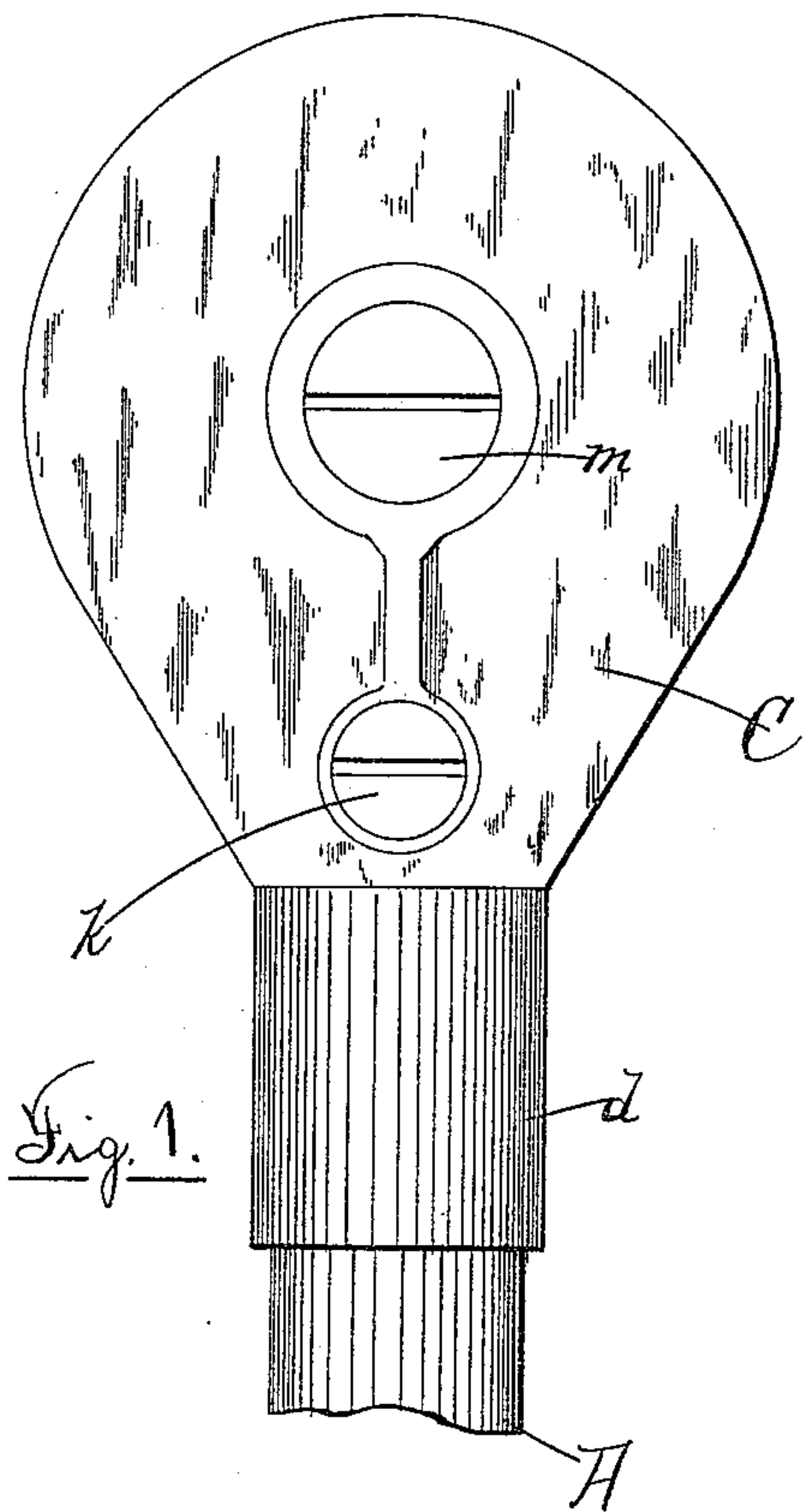
(No Model.)

L. PFINGST.

TROLLEY WHEEL FOR ELECTRICALLY PROPELLED VEHICLES.

No. 438,359.

Patented Oct. 14, 1890.



Witnesses
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UNITED STATES PATENT OFFICE.

LOUIS PFINGST, OF BOSTON, MASSACHUSETTS.

TROLLEY-WHEEL FOR ELECTRICALLY-PROPELLED VEHICLES.

SPECIFICATION forming part of Letters Patent No. 438,359, dated October 14, 1890.

Application filed July 14, 1890. Serial No. 358,645. (No model.)

To all whom it may concern:

Be it known that I, LOUIS PFINGST, of Boston, in the county of Suffolk, State of Massachusetts, have invented certain new and useful Improvements in Trolley-Wheels for Electrically-Propelled Vehicles, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side elevation of my improved trolley, and Fig. 2 a vertical transverse section of the same.

Like letters of reference indicate corresponding parts in the different figures of the drawings.

My invention relates to means for mounting the trolley-wheel on the pole of electrically-propelled vehicles, it being especially adapted for use on electrically-propelled street-cars where an overhead conducting-wire is employed; and it consists in certain novel features hereinafter fully set forth and claimed, the object being to produce a simpler, cheaper, and more effective device of this character than is now in ordinary use.

The nature and operation of the improvement will be readily understood by all conversant with such matters from the following explanation.

In the drawings, A represents the trolley-pole, which may consist of a metallic tube, and is pivoted centrally to the monitor-roof of the car in the usual manner. An approximately oval-shaped plate B has a sleeve *d* formed at its lower end, adapted to receive the top of the pole A. A flange *f* on said sleeve projects inwardly toward the main plate B. A companion plate C has a boss *g*, adapted to rest on the flange *f*. Inwardly-projecting tubes *h i* are formed on the plates B C, which register with each other when in position, and are fitted to receive a screw-bolt *k*, whereby said plates are secured together. The plates B C are tapped centrally and connected through the opening thus formed by a screw-bolt *m*, which is surrounded by a metallic bushing *p*. Metallic rings *q* are disposed on

said bushing adjacent to the inner face of said plates, and are respectively disposed in annular grooves formed therein.

The trolley-wheel H is journaled on the bushing *p*, said wheel being grooved on its periphery at *r* to receive the overhead wire and provided with annular rabbets *t* at its center. Balls *x* are disposed in the rabbets of the wheel H and bear on the bushing *p* and against the rings *q*, said balls forming a ball-bearing for said wheel. By turning out the screws *m k* and removing the face-plate C the different parts may be readily detached and replaced when worn. By providing the wheel H with the ball-bearings, as described, said wheel will retain its position on the overhead wire without binding while passing around the curves in the track much more readily than wheels mounted in the ordinary way. Moreover, the wheel H as it becomes worn can be replaced by removing the face-plate in the manner described without unshipping the pole.

Having thus explained my invention, what I claim is—

1. In a device of the character described, a face-plate provided with a sleeve or socket for the trolley-pole, in combination with a companion plate bolted thereto and a trolley-wheel journaled by ball-bearings between said plates.

2. In a device of the character described, a face-plate provided with a socket for the trolley-pole, a companion plate bolted thereto, a bushing on a bolt connecting said plates, a trolley-wheel having centrally-arranged annular rabbets, and balls disposed in said rabbets and bearing on said bushing, substantially as and for the purpose set forth.

3. In a device of the character described, the combination of a face-plate provided with a socket for the trolley-pole, a companion face-plate bolted thereto, a bushing on a bolt connecting said plates, wear-rings disposed on said bushing and in grooves in said plates, a rabbeted trolley-wheel, and balls disposed in said rabbets and bearing against said bushing and rings, substantially as and for the purpose set forth.

4. In a device of the character described,

the plate B, provided with the socket *d*, in combination with the plate C, secured thereto by bolts *m* *k*, the bushing *p* on the bolt *m*, the grooved wheel H, provided with the rabbets
5 *t*, and the bearings *x*, arranged to operate substantially as described.

5. In a device of the character described, two face-plates detachably secured together

and adapted to be attached to the trolley-pole, in combination with a trolley-wheel journaled by ball-bearings between said plates, substantially as described.

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