

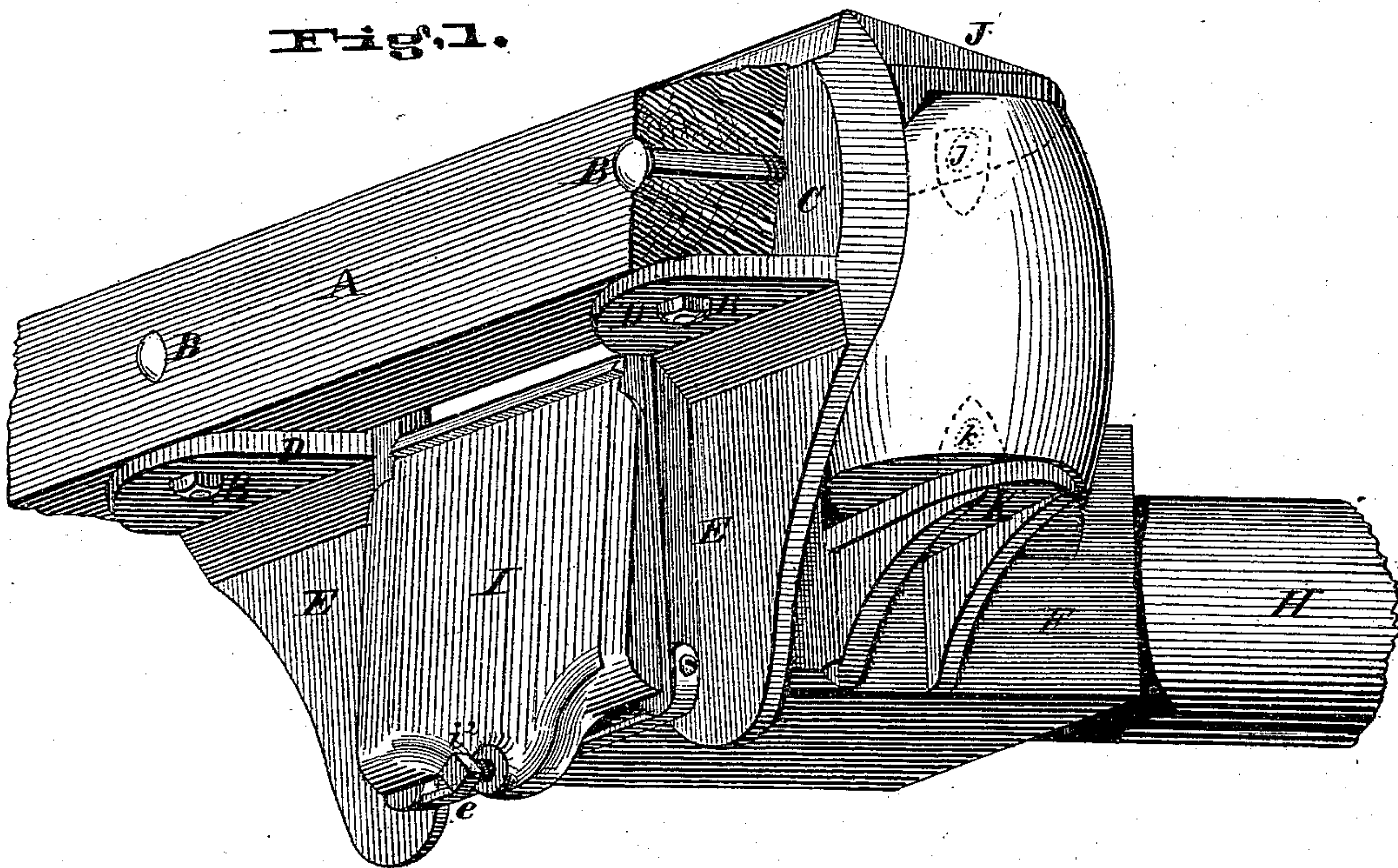
D. R. HART.

Improvement in Pedestal for Street-Railway Car.

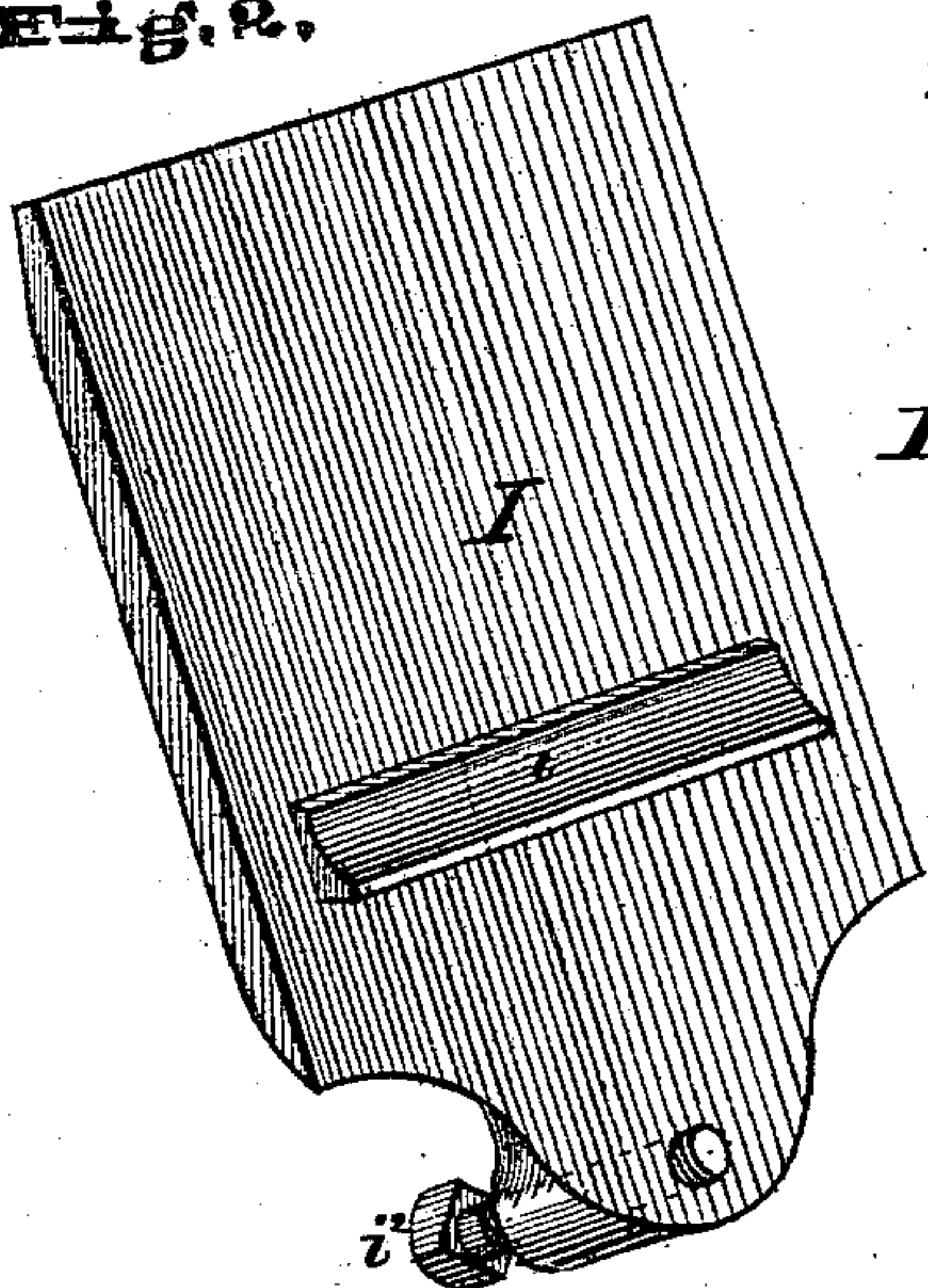
No. 126,054.

Patented April 23, 1872.

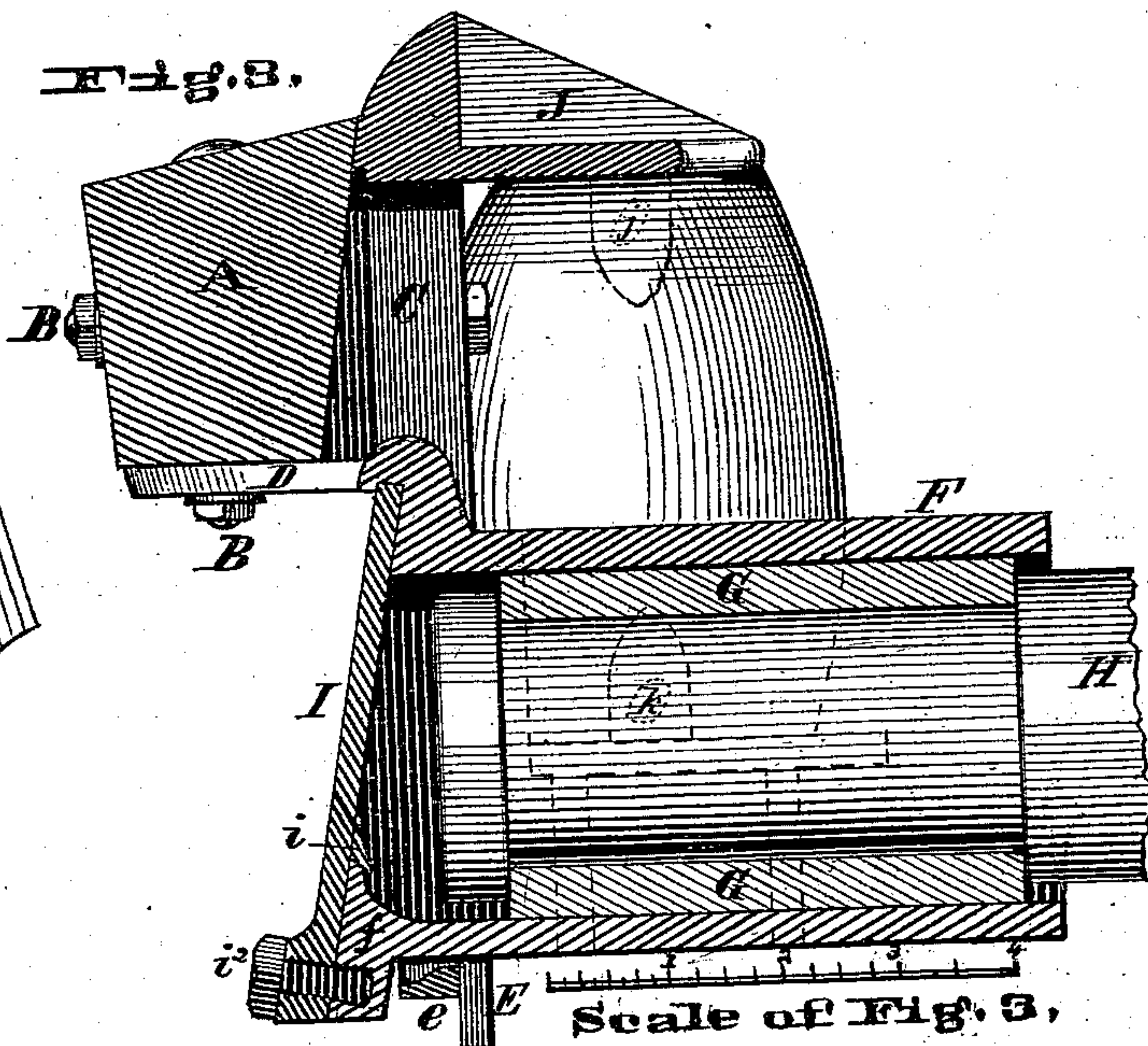
Fig. 1.



W. E. B. DUBOIS



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Scale of Fig. 3,
INVENTOR.

ATTEST:
Jas L Swine
Walter Allen

Daniel R. Hart -
By Knight & W. Atys

UNITED STATES PATENT OFFICE.

DANIEL R. HART, OF ST. LOUIS, MISSOURI.

IMPROVEMENT IN PEDESTALS FOR STREET-RAILWAY CARS.

Specification forming part of Letters Patent No. 126,054, dated April 23, 1872.

Specification describing a certain Improved Pedestal for Street-Railway Cars, invented by DANIEL R. HART, of St. Louis, in the county of St. Louis and State of Missouri.

The first part of my improvement consists in the construction of the pedestal, which is such as to enable its attachment to the inner side of the sill. The second part of my improvement consists in the attachment of a pedestal to the inner side of the sill, and extending inwardly therefrom so as to lower the body of the car in relation to the axles and the track, and to enable a shorter, and consequently lighter, axle to be used.

These improvements are intended more particularly for narrow-gauge cars, as it is absolutely necessary that the body should be as low as feasible, so that the tendency to upset should be reduced to a minimum by lowering the center of gravity of the car; but my improvement is applicable to all street-cars.

Figure 1 is a perspective view of my pedestal, showing a portion of the sill. Fig. 2 is a perspective view of the inside of the cap. Fig. 3 is a vertical axial section of the box and transverse section of the pedestal and sill.

A is the sill, to which the pedestal is attached by bolts B passing through the plate C and lugs D, the latter extending beneath the sill. E are guide-jaws, connected at the lower ends by a bridge, *e*. F is a box sliding vertically between the jaws E, which latter enter channels in the sides of the box. G are the brasses in which the axle H has bearing. I is the cap closing the outer end of the box, and having a lip, *i*, resting upon the top of the outer upturned edge *f* of the box, said upturned portion serving to retain the axle-grease. The upper edge of the cap enters a channel in the box, and its lower end is secured by a screw, *i*². J K are brackets extending from the pedestal and box respectively, and having teats *j* *k* entering the ends of the rubber springs L in the ordinary manner.

Pedestals for cars, both for street and other railways, have always heretofore, as far as my knowledge extends, been placed vertically beneath the sill.

This arrangement has had the following disadvantages: The lateral surging of the car springs the pedestals outward, and as there is no part of the frame between the sills of a street-car to which the lower part of the

pedestals can be effectually braced, this side-springing of the pedestals is universal, and causes the brasses to wear unequally and the axle to turn with greatly-increased friction therein. The load in the car, by springing the floor-timbers downward, also throws the pedestals outward at bottom, when they are vertically beneath the sills, but would not have that effect on my pedestal, as the springs L and box are inside the sill and act to prevent the down-spring of the timbers. Another disadvantage of placing the pedestal and box beneath the sill is that the car-body is necessarily, in such case, at too great an elevation above the track. This has two disadvantages: first, entrance and exit is more difficult, and, secondly, the car is more likely to be turned over. The latter disadvantage is not of much moment upon the usual wide gauge; but on the narrow gauge of three feet (now coming into use) it is necessary that the car-body should be placed at as low a level as feasible. This is accomplished by placing the axle-box inside the sill and so that when the springs are depressed the axle may be on a level with the sills, or nearly so. Another advantage is gained by my arrangement. The axle may be shortened several inches at each end, resulting in a saving of weight in two ways—first, in the decreased length, and, second, by a decrease in the diameter—the shortening of the bar admitting of such reduction.

The placing of my pedestals inside the sills of the car prevents the lateral surging of the car from springing them outward, and the strain on the pedestals, caused by the weight of the car, and the side strain, caused by the lateral surging of the car, act in opposition to each other. The pedestal, consequently, retains its right position, which results in the easy running of the axle and even wearing of the brasses.

I claim as my invention—

The pedestal for street-railway cars, extending inwardly from the sill, substantially as set forth.

In testimony of which invention I have hereunto set my hand.

DANIEL R. HART.

Witnesses:

SAML. KNIGHT,
A. WIGHT.

My 50 words.