

J. E. GREEN.
TRACK-CLEARERS.

No. 182,917.

Patented Oct. 3, 1876.

FIG. 1.

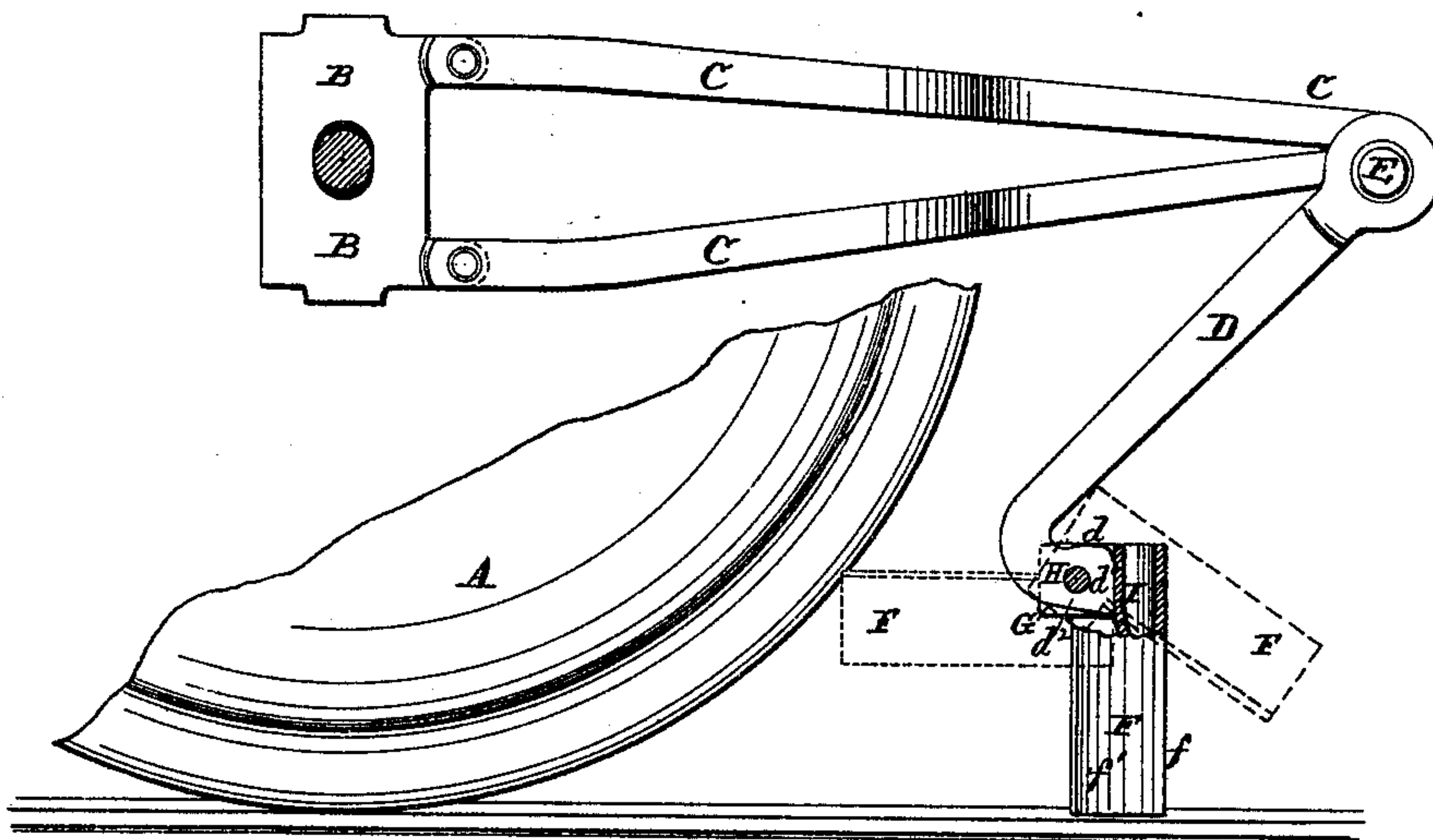


FIG. 2.

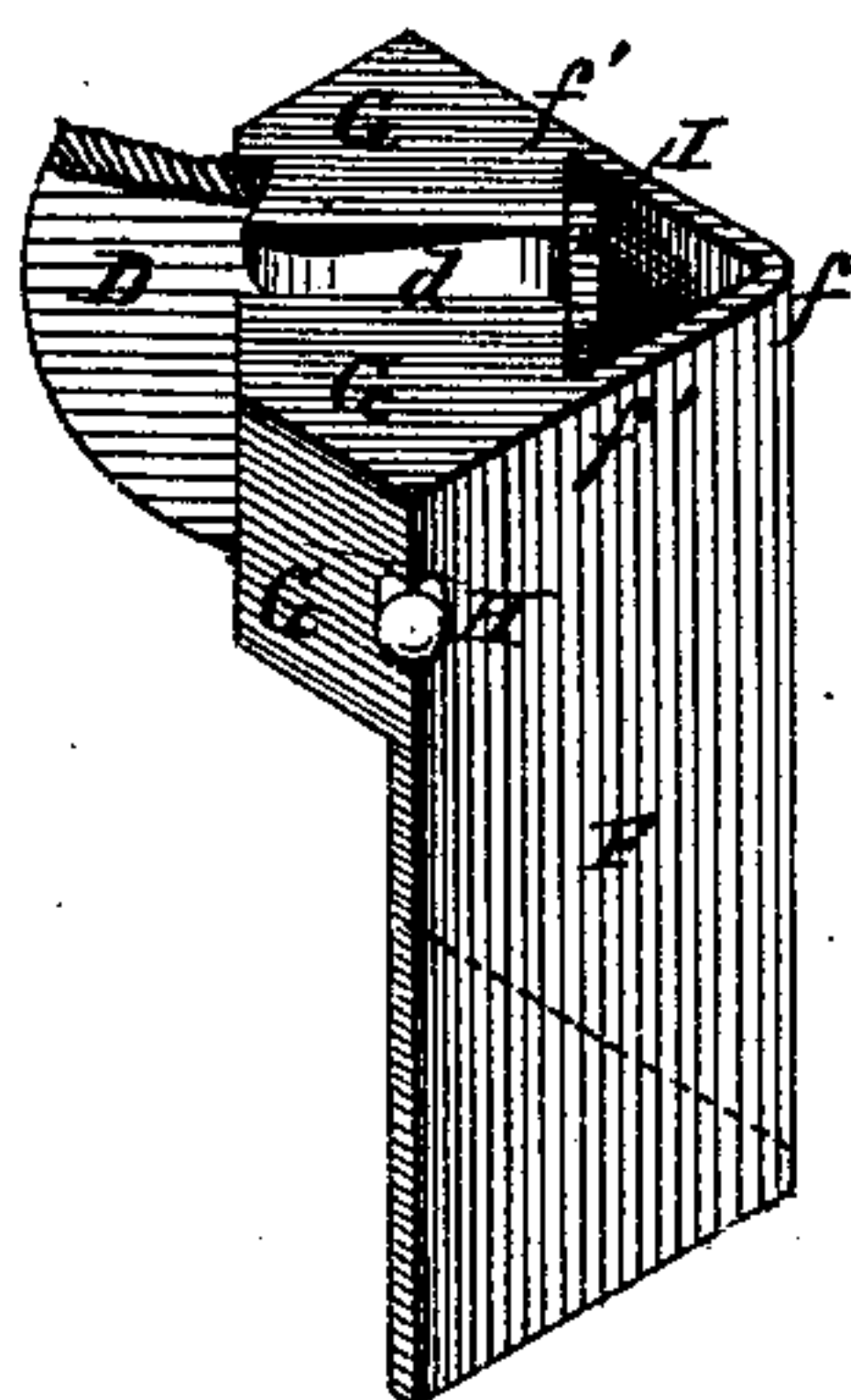
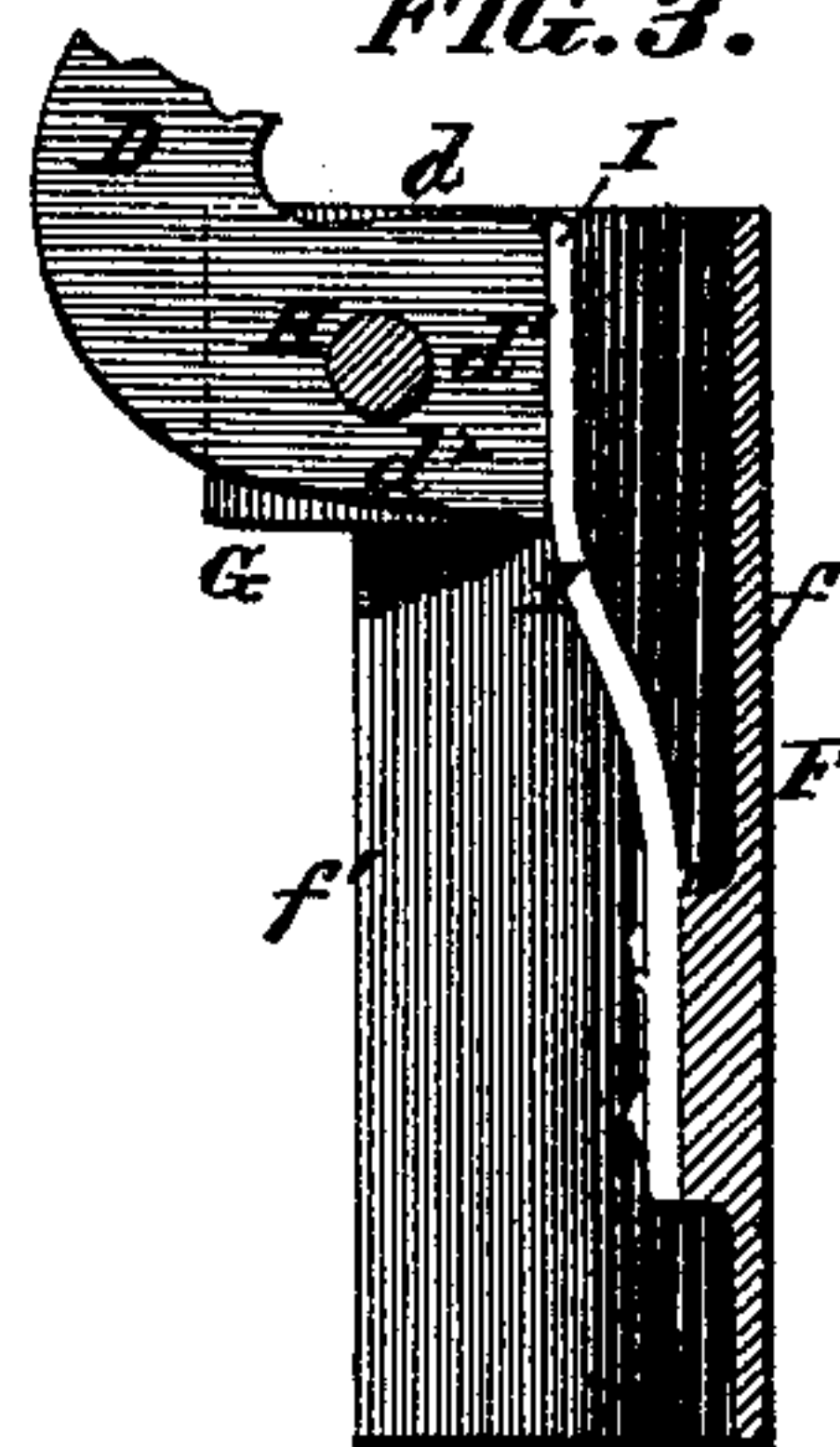


FIG. 3.



ATTEST:

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UNITED STATES PATENT OFFICE.

JAMES E. GREEN, OF ST. LOUIS, MISSOURI.

IMPROVEMENT IN TRACK-CLEARERS.

Specification forming part of Letters Patent No. **182,917**, dated October 3, 1876; application filed January 22, 1876.

To all whom it may concern:

Be it known that I, JAMES E. GREEN, of the city and county of St. Louis, and State of Missouri, have invented a new and useful Improvement in Track-Clearers, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings.

My improvement relates to a device for clearing the rails of street-railway tracks; and consists of a spring-shoe supported at the end of an arm secured to the grease-box of the car.

Figure 1 is an inside elevation of the apparatus. Fig. 2 is an enlarged perspective of the shoe. Fig. 3 is a section of same.

A is the car-wheel; B, the grease-box. C is an arm or frame attached to the grease-box, and consisting of two bars, C C. Jointed to the end of the frame C is an arm, D, which is adjustable upon its hinge-bolt E, so as to raise or lower the lower end of said arm, which carries the shoe. The shoe consists of a piece of angle-plate, F, whose lower end is made to fit the rail, and which stands vertical with its corner *f* over the middle of the rail, and the wings *f' f'* inclining backwardly, so as to discharge stones or other objects from the rail sidewise. At the rear of the plate *f' f' f'* is a lug, G, through which and the lower end of the arm D passes a hinge-bolt, H, so that the shoe admits of being tilted either backward or forward on the arm D, as shown in dotted lines at Fig. 1. The end of the arm D is made of angular form *d d¹ d²*, and a spring, I, attached to the shoe bears against the straight side *d¹*, which tends to hold the shoe in a vertical position, as shown in full lines. The shoe may be tilted so far backward or forward that the spring bears against the flat side *d²* or *d*, and thus tends to hold the shoe up; but in ordinary use the shoe is not thrown in either of these inclined positions; but when coming in contact with a fixed obstruction is merely raised sufficiently to pass over it and return by the influence of the spring to its vertical position.

In use, the arm D is adjusted vertically upon the hinge E, so that the bottom of the shoe is a little above the top of the rail, and thus there is no friction between them.

I make the attachment of the device to the grease-box because this is the only part of the car which is at all times in the same relative position with the rails, the whole car-body rising and falling, and swaying from side to side.

The following may be cited as advantages arising by attaching the device to the axle-box instead of to the axle: When the device is attached to the axle, it necessitates the forming of grooves in the axle, which is costly and objectionable. Further, the attachment of the device to the axle subjects the parts to constant wear and friction, and requires constant attention and lubrication to prevent wear at the point of attachment. By my mode of attaching the device to the axle-box the alteration in the axle, &c., is avoided, as the attachment can be readily, easily, and cheaply made to the axle-box, and all friction of parts is avoided, and after being attached to the box it does not require any attention. The cost of fitting one axle for the reception of the device is greater than the cost of four of my devices as attached to the axle-box.

I claim—

1. The combination of grease-box B, frame C, adjustable arm D, and a shoe, constructed to clear the rail of obstructions, for the purpose set forth.

2. The combination of shoe F, spring I, pivot H, and arm D, substantially as and for the purpose set forth.

3. The combination of a track-clearing shoe and its rigid supporting-frame, when said frame is secured to grease-box B, substantially as set forth.

JAMES E. GREEN.

Witnesses:

SAML. KNIGHT,
ROBERT BURNS.