

J. MATTHEWS.  
Track-Clearers.

No. 211,475.

Patented Jan. 21, 1879.

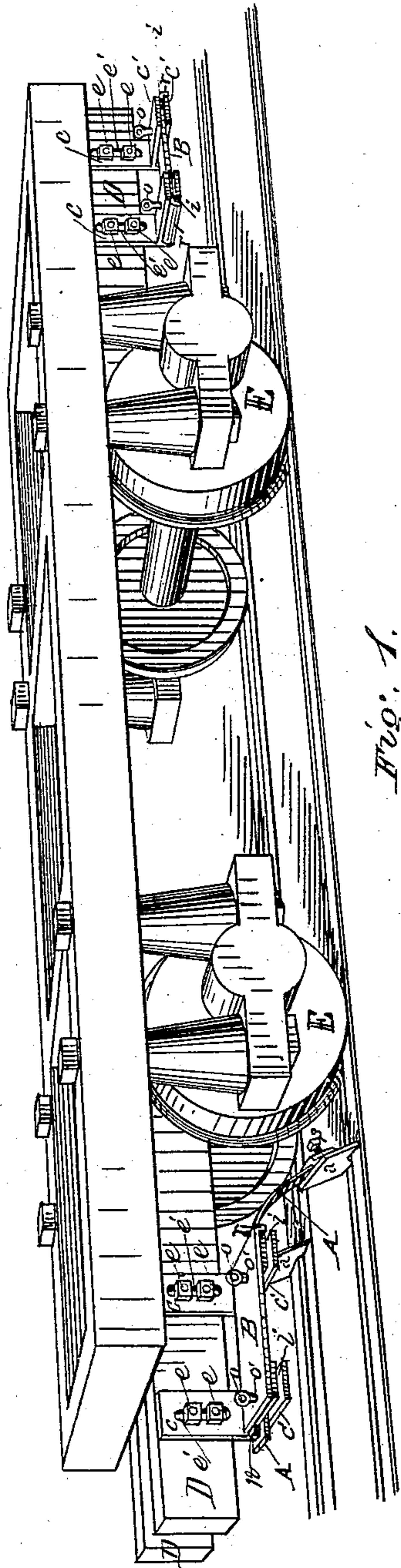


Fig. 1.

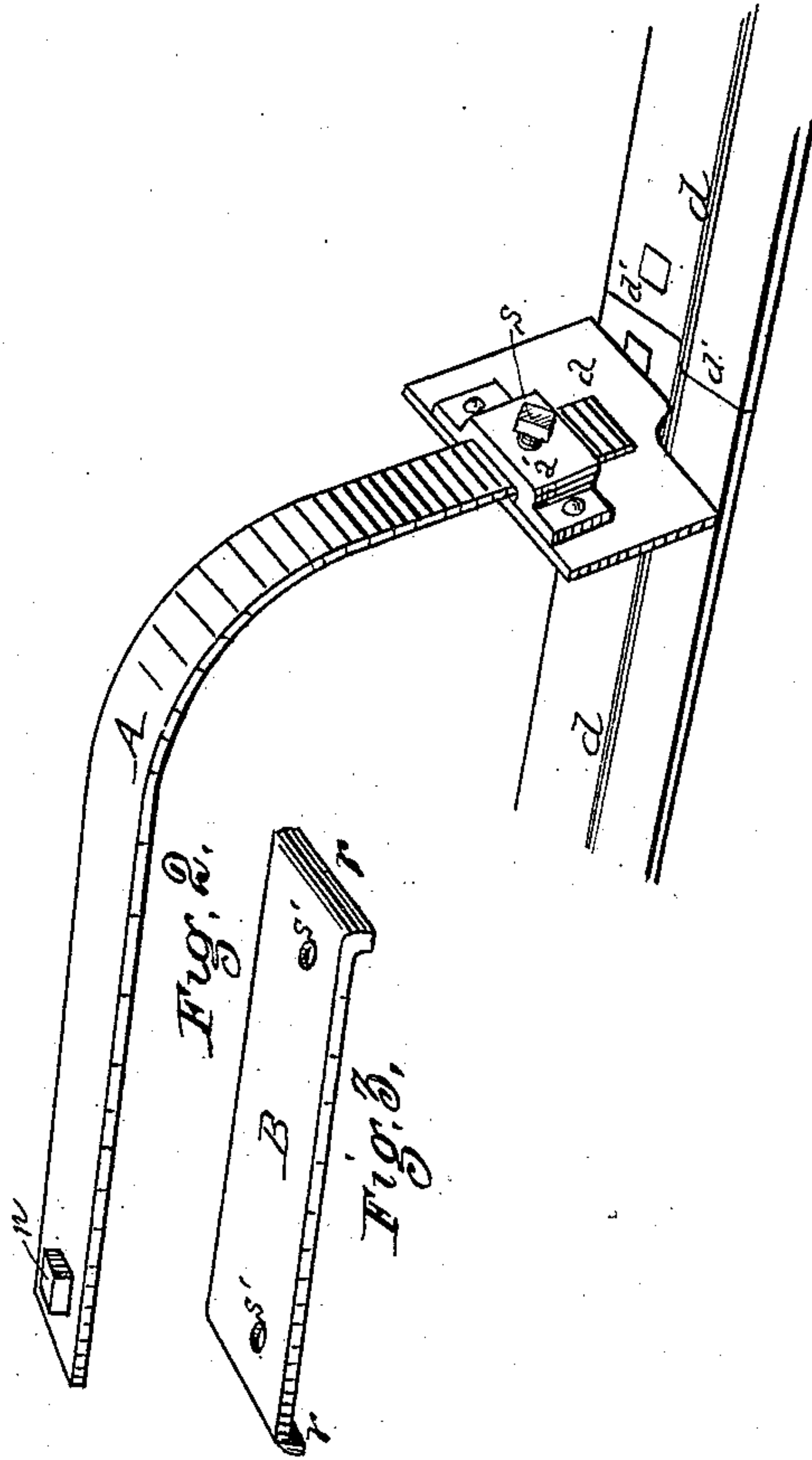


Fig. 2.

Fig. 3.

Witnesses

Francis L. Clark  
Claudius L. Parker

Inventor John Matthews

By Attorney George H. Christy



# UNITED STATES PATENT OFFICE.

JOHN MATTHEWS, OF PITTSBURG, PA., ASSIGNOR TO HIMSELF, M. W. BELTZ-HOOVER, AND JOHN GILBERT, OF SAME PLACE.

## IMPROVEMENT IN TRACK-CLEARERS.

Specification forming part of Letters Patent No. **211,475**, dated January 21, 1879; application filed November 21, 1878.

### *To all whom it may concern:*

Be it known that I, JOHN MATTHEWS, of Pittsburg, county of Allegheny, State of Pennsylvania, have invented or discovered a new and useful Improvement in Track-Clearers; and I do hereby declare the following to be a full, clear, concise, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—like letters indicating like parts—

Figure 1 is a perspective view of the main or supporting frame and trucks of a street-car, showing my improved track-clearer applied thereto. Fig. 2 is a perspective view, drawn to an enlarged scale, of the spring-bar and scraper, and the arrangement of the same in relation to the rail; and Fig. 3 is a like view of a metal plate, the use of which will presently appear.

My invention relates to a device for clearing the rails of a street-car track; and it is designed to be applied to the car-body so as to operate in front of the wheels and clear the rails of snow, mud, &c., at each passage of the car.

It is constructed as follows: Scrapers *a*, having an acting face corresponding in form to the face of the rail, are secured to curved spring-bars *A*. I prefer to make this connection adjustable, so that the scraper can be moved up and down upon the spring-bar, and fixed or set at any desired point of adjustment. This I accomplish by riveting a cap, *a'*, to the back of the scraper-plate *a*, making an eye or box between the two adapted to receive the spring-bar, and a set-screw, *s*, working through the cap, binds the spring-bar to the back of the scraper.

The spring-bars *A* are hung or supported in brackets or hangers *c c'* in such position as to bring the scrapers *a* to bear upon the face of the rail, by preference a little in front of the wheels *E*. The elasticity of the springs *A* will permit the scrapers *a* to ride over obstructions which cannot be removed, and the tension or pressure of the scraper upon the rail may be changed, as desired, by adjusting the scraper up or down upon the spring-bar, as described, or by adjusting the hangers *c c'*,

which are fastened to bed-timbers *D* by bolts *e*, passing through slots *e'* in the hangers.

The spring-bars rest in slots or spaces *i*, formed by the upper and lower ears or plates *c'*, which project laterally from the part *c* of the hangers, the space *i* corresponding to the thickness of the spring-bar *A*. The spring-bar is slipped into these spaces by a sidewise motion, and secured by pins *o*, which pass through registering-holes *o'* in the plates *c'*, so as to prevent sidewise displacement. An enlarged head or shoulder, *n*, on the forward end of the spring-bar prevents it from being drawn endwise out of its supporting-hangers.

On account of the form of the ordinary street-car rail it can be cleared of snow, mud, and other like obstructions most effectually by throwing them off toward or from the lowest part of the rail-face, or toward the inside of the track. To accomplish this I give the spring-bar *A* a slight twist at or below the point of downward deflection, so as to incline the face of the scraper *a* inward somewhat. This inclination of the scraper is clearly illustrated in Fig. 2, where the joint *d'* in the rails *d* represents a line transverse to the rails, and the scraper *a* is set at an inclination thereto. A like inclination can be secured, however, by arranging the hangers *c c'* so as to carry the spring-bars a little out of line of the rails.

Suitable hangers being arranged on either side and at both ends of the car, two scrapers, with their spring-bars, will suffice for each car, as they may be shifted from one end of the car to the other at pleasure, and with very little delay.

When the spaces *i*, between the plates *c'*, are not occupied by the spring-bars *A*, I prefer to insert a blank or plate, *B*, so as to keep the spaces free from dirt, snow, &c. These blanks have holes *s'* made through them in such positions as to register with the pin-holes *o'* when the blank is shoved back to the rear edge of the spaces.

To secure the proper endwise adjustment of the blanks, I bend down one or both ends, or otherwise make guides *r*, which, bearing against the edge of the hangers, will bring the blank to the desired position. The pins



*o* may thus hold the blanks in place. I have found it convenient to provide one of these blanks for each set of hangers, and when the spring-bars occupy the spaces *i* these blanks may be carried on the upper plates, *c'*, and held by the pins *o*, as before.

This apparatus affords a cheap, light, durable, and efficient device for clearing the rails for the passage of each car; and on account of its lightness, and the ease with which it may be applied, I have found its use very advantageous during those parts of the year when mud is liable to be frozen on the rails at night, as by applying the spring-bars and scrapers to the car making the last trip (the hangers being attached to the car-frame all the time) the track or rails are effectually cleared of mud and dirt, and consequently a smooth track is had the following morning.

I claim herein as my invention—

1. The combination of open-sided bracket, removable spring-bar inserted laterally in said

bracket, and scraper adjustable vertically on the bar, substantially as set forth.

2. The combination of spring A, having a shoulder or stop, *n*, hangers *c c'*, having spaces *i*, adapted to receive the spring-pins *o*, arranged to prevent sidewise displacement of the spring and scraper *a*, arranged substantially as and for the purposes set forth.

3. The combination of brackets *c c'*, having slots or spaces *i* formed therein for receiving a scraper, spring A, and blank B, adapted to occupy such spaces, and having pin-holes therein, arranged to register with pin-holes in the hangers, substantially as and for the purposes set forth.

In testimony whereof I have hereunto set my hand.

JOHN MATTHEWS.

Witnesses:

J. J. McCORMICK,  
CLAUDIUS L. PARKER.