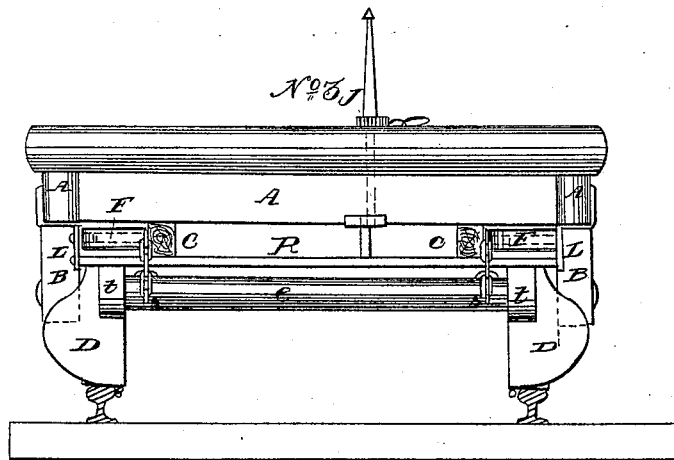
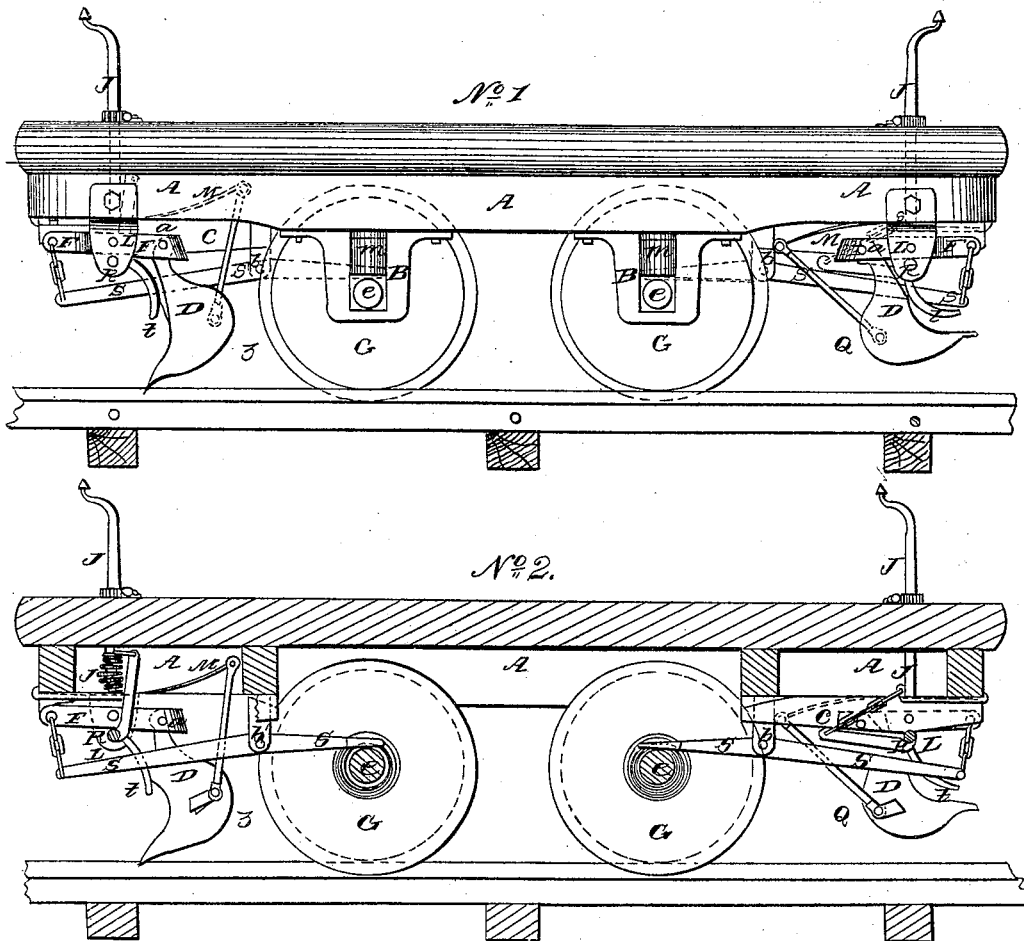


MEDBURY & WYATT.

Car-Track Clearer.

No. 51,850.

Patented Jan. 2, 1866.



Witnesses;

Geo. A. Bonnell
Thos. J. Atwood Jr.

Inventors Charles Medbury
Thomas Wyatt

UNITED STATES PATENT OFFICE.

CHARLES MEDBURY AND THOMAS WYATT, OF CRANSTON, R. I.

IMPROVED RAILROAD-PLOW.

Specification forming part of Letters Patent No. 51,850, dated January 2, 1866.

To all whom it may concern:

Be it known that we, CHARLES MEDBURY and THOMAS WYATT, both of Cranston, in the county of Providence and State of Rhode Island, have invented a new and useful Improvement in Plows for Clearing Railroad-Tracks of Snow, &c.; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a side elevation of the running-gear of a rail-car arranged with our improved plow. Fig. 2 is a longitudinal section of the same, and Fig. 3 is an end elevation.

Similar letters of reference indicate corresponding parts in all the figures.

This invention is designed chiefly for the cars of street-railroads, although it is to a certain extent adapted to other rail-cars and to locomotive-engines.

The invention consists in mounting the plow forward of the car-wheel in such a manner that when in the position intended for its operation it will adapt itself in respect to position and elevation from the track to the loaded state of the car, so that whether the car be empty and light or heavily loaded the plow will be held in the same position and at the same distance above the track or rail.

The invention further consists in so combining a plow for clearing snow, &c., from railroad-tracks with a suitable spring that the force of the spring shall serve to hold the plow up out of the way when it is not required for use, to hold the plow in position when it is in use, or to allow the plow to yield to avoid obstructions on the track, as occasion may require.

To enable others skilled in the art to make and use our invention, we will proceed to describe the same.

A A is the frame-work of the car. B B are the pedestals, in which the boxes which form the end bearings of the axle *ee* are placed. G G are the car-wheels.

D D are the plows at each end of the car. They are made of cast or wrought iron, in form suitable for lifting up the snow, &c., and turning it off to one side of the track, and are hung by a pivot, *a*, at the top, to one end of the equal-lever F, which is mounted in a

hanger, L, and a cross-bar, C, on each side of the frame, as shown in Fig. 3, and being mounted in this way, although they may be to a certain extent connected for the purpose of controlling their operation at one end of the car, at the same time they are calculated to operate independently of each other in yielding to avoid obstructions on the track. The forward end of the lever F is connected by links to the graduating-lever S, having a fulcrum at *b*, with its opposite end resting upon the axle, beside the wheel, as shown in Fig. 2, and thus arranged it will be seen that as the car is loaded and the yielding of the rubbersprings *m m* causes the car to settle the fulcrum *b* also settles, and while the end of the lever on the axle is fixed the opposite end thereof is depressed, in proportion to the length of its arm. The end of the lever F, connected to S by links, is also depressed, and its opposite end elevated, and with it the plow, the movement of the plow at this point being calculated to provide for the depression of the frame-work of the car and the plow caused by the load, such depression tending to elevate the plow to an equal extent, so that its clearance from the track will be the same under all circumstances.

The plow is held in position for use by the arm *t* of the rocker-shaft R on one side and a spring, M, connected by its free end to the rear of the plow, on the other side. The position of the plow is adjusted by means of the rocker-shaft and a vertical crank-shaft, J, the two being connected by a chain, V, which, by winding of the shaft J, swings the rocker-shaft and the plow into the desired position. By turning the crank so as to wind the chain on its shaft the plow is depressed from the position shown at 2, above the track, to that shown at 3, with its point down, near the track in the position in which it is used, where it is held by the force of the spring M pressing against its rear. If, therefore, while the plow is in this position, it should meet an obstruction on the track, the plow would be swung rearward until it passed over it, and then be returned by the spring to its former position and resume operation.

Thus it will be seen that by the manner of combining the spring with the plow its force is directed to holding the plow up out of the

way from the track, to holding the plow in position while it is plowing, and to yielding with the plow for the purpose of avoiding obstructions on the track.

Having described the invention, what we claim, and desire to secure by Letters Patent, is—

1. Mounting the plow in such a manner that it will adapt itself in respect to its position and elevation to the loaded state of the car.

2. The combination and arrangement of the

spring with the plow, to operate substantially as described, for the purposes specified.

3. Controlling the operation of the plows by means of a crank-shaft and suitable connections, substantially as described.

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Witnesses:

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THOS. J. ABBOTT, Jr.