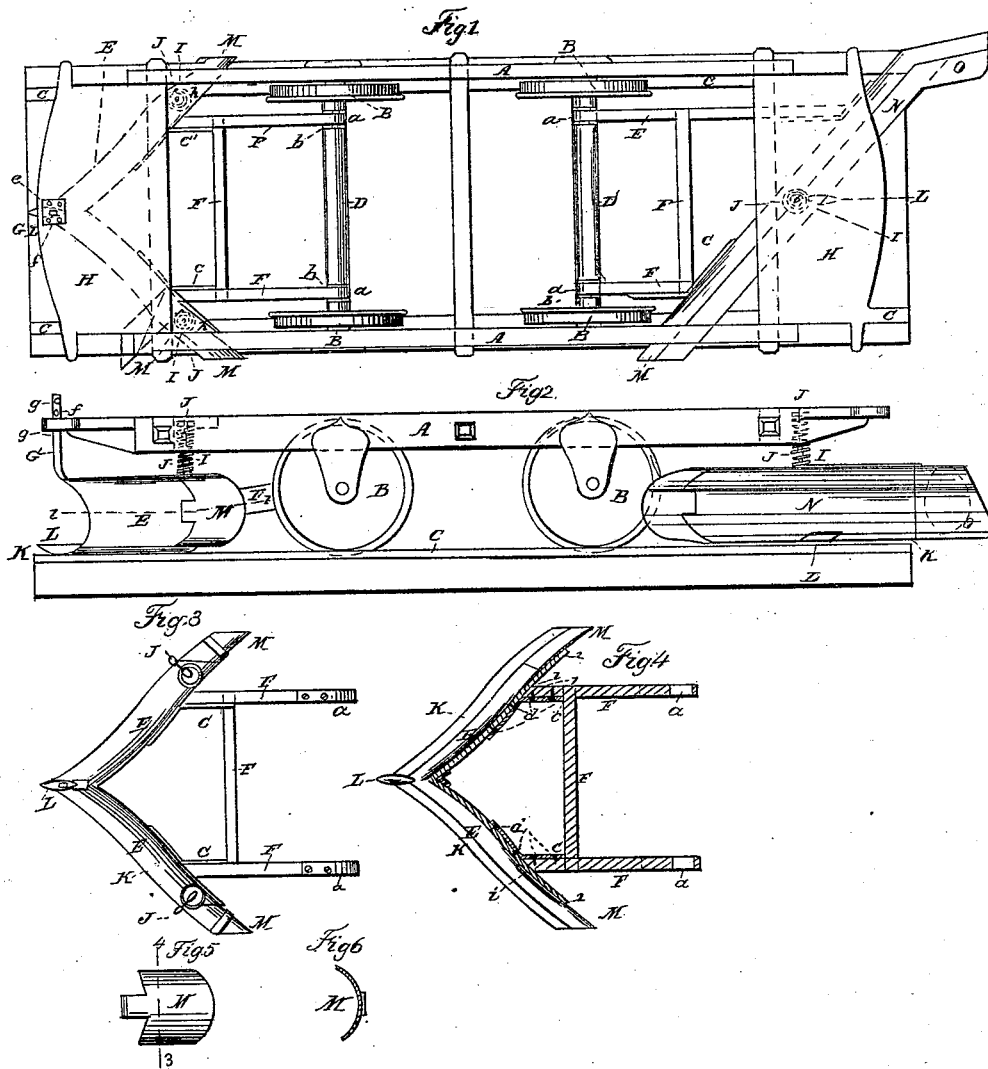


J. C. CARNCROSS.

Track Clearer.

No. 52,028.

Patented Jan. 16, 1866.



Witnesses
Stephen W. Cook
Alfred Koni

Inventor
Jas. C. Carncross

UNITED STATES PATENT OFFICE.

JACOB C. CARNCROSS, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVED RAILROAD SNOW-PLOW.

Specification forming part of Letters Patent No. 52,028, dated January 16, 1866.

To all whom it may concern:

Be it known that I, JACOB C. CARNCROSS, of the city and county of Philadelphia, and State of Pennsylvania, have invented a new and Improved Railroad Snow-Plow and Track-Clearer; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a top view or plan of the truck of a passenger-car, with the improvement attached thereto. Fig. 2 is a side elevation of the same. Fig. 3 is a top view of the plow E and swinging frame F in connection, detached from the truck. Fig. 4 is a horizontal section of the same at the red line 1 2 of Fig. 2. Fig. 5 is a face view of one of the wings M M. Fig. 6 is a cross-section of the same at the red line 3 4 of Fig. 5.

Like letters in all the figures indicate the same parts.

The nature of my invention mainly consists in combining a railroad snow-plow and track-clearer with the adjacent axle of a car or locomotive truck by means of a swinging frame, substantially as follows.

I have represented the improvement combined with the truck A of a passenger-car, the wheels B of which rest on the rails C C of a portion of a track. D and D' are the axles of the truck. E is a double plow for clearing snow or other obstructions from the track, it being adapted to turning persons or other objects off the track to prevent loss of life or accidents, as well as cleaning snow therefrom. The plow is combined with the axle D by means of the swinging frame F, there being boxes *a a* in the projecting arms of the frame, which fit on the journals *b b* of the axle, so that the latter may turn freely therein. The front part of the said frame is permanently attached to the plow E by means of the braces *c c*, which are confined to the frame and plow by means of bolts or rivets, or by screws *d*, so as to provide for the plow having an up-and-down swinging motion in connection with said frame F.

G is a suspension-rod, permanently attached at its lower end with the plow, and working freely at its upper end in a slot of the plate *e*,

confined to the platform H of the car-truck, so as to allow of a vertical adjustment of the plow by means of the pin *f* and holes *g* in the end of the rod.

There are cylindrical springs I I, which rest in suitable recesses in the upper side of the plow, and are supported at their upper end by recesses in the under sides of the corner-pieces *h h* of the truck. These springs prevent the plow being thrown up by a slight resistance, but yield when it passes over unyielding objects.

There are chains J J, which support the plow at the points where the springs I are situated, the said chains passing through the central opening of the springs. The said springs and chains may be over any other part of the plow where found to be most convenient, or there may be a single spring at the central peak, and a rod or rods may be used instead of the chains. This arrangement is represented in the model.

The plow E is provided with a share, K, made of steel or hardened iron, which has a shoe, L, for the purpose of sliding over projecting stones at the crossings of streets, so as to raise the plow to prevent accident thereto.

To allow the car to run with the other end foremost I provide hinged wings M M, which may be thrown backward, as represented by red lines in Fig. 1, to prevent their catching the snow. The said wings are sunk in the face of the plow to present an even surface, having a bearing in the body of the plow from the point 1 to the point 2, as represented in Fig. 4. They turn freely on the vertical pins or rods *i*.

For clearing double tracks, so as to provide for the snow being thrown outside of each track, I have a plow, N, which is placed diagonally with the truck instead of the plow E above described, and hung to the axle D' by means of a swinging frame, F, in the same manner as the plow E. It is also supported by chains or rods, and is provided with springs I, as the plow E. The said plow N is provided at its foremost end with the scoop O, to insure the free cutting of the snow as the plow advances.

The plow may be attached to a locomotive-truck for clearing the snow from large rods.

In such case it should be of greater depth than represented, by either increasing the depth of the curve or having a succession of curves, so as to extend to or above the truck-frame for clearing deep snows.

Having thus fully described my invention, what I claim therein as new, and desire to secure by Letters Patent, is—

1. Combining the plows E N with the axles D D' by means of the swinging frames F, substantially in the manner and for the purpose hereinbefore described.

2. The combination and arrangement of the springs I, and rods or chains J, with the plows E N and truck A, substantially in the manner and for the purpose above set forth.

3. The combination of the shoes L with the plows E N, substantially as and for the purpose above set forth.

4. The combination of the wings M with the plows E N, substantially as described, and for the purpose specified.

5. Constructing the plow N with the scoop O, substantially in the manner described, and for the purpose set forth.

In testimony that the above is my invention I have hereunto set my hand and affixed my seal this 9th day of November, 1865.

JACOB C. CARNCROSS. [L. S.]

Witnesses:

STEPHEN USTICK,
JOHN WHITE.