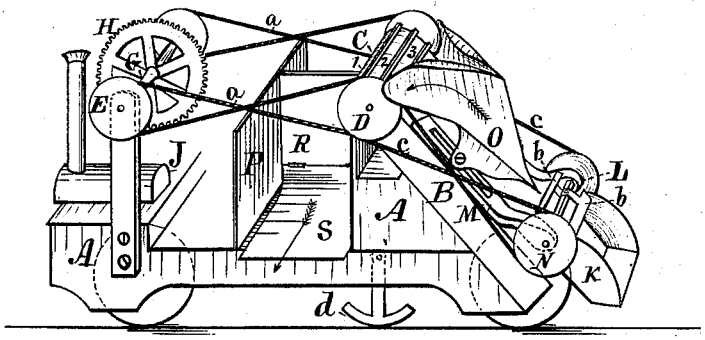
T. REEDER & A. FETTERHOFF.

Snow-Plow.

No. 165,177. Patented July 6, 1875.



Witnesses:

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UNITED STATES PATENT OFFICE.

THOMAS REEDER AND ALBERT FETTERHOFF, OF OSKALOOSA, IOWA.

IMPROVEMENT IN SNOW-PLOWS.

Specification forming part of Letters Patent No. **165,177**, dated July 6, 1875; application filed November 19, 1874.

To all whom it may concern:

Be it known that we, THOMAS REEDER and ALBERT FETTERHOFF, of Oskaloosa, in the county of Mahaska and State of Iowa, have invented a Snow-Plow and Track-Cleaner for Railways, of which the following is a specification:

The object of our invention is to provide a machine suitable to run on a railway-track in the manner of a locomotive, and to gather, lift, carry, and throw off snow. It consists in the combination of a gathering-plow, a rotary scraper, an endless carrier, and a distributing-plow, or a divided and adjustable box, with a truck or carriage and an engine, all as hereinafter fully set forth.

Our drawing is a perspective view, illustrating the construction and operation of our invention.

A A represent the body of the truck or carriage. B is the carrier-frame, rigidly attached in any suitable way at the front of the carriage, to stand upward and rearward at an angle of about forty-five (45) degrees. C is an endless apron, having a series of transverse cleats, 1 2 3, mounted upon and moved by suitable shafts or cylinders that have their bearings at the top and bottom of the frame B. D D are driving-pulleys rigidly attached to the ends of the top shaft carrying the apron C. Power is transmitted to them by crossed belts or chains *a*, which connect them with the driving-pulleys E, rigidly attached to the ends of the shaft G, carrying the gear-wheel H. The wheel H is connected by a suitable train of wheels with the engine J, where the motive-power is generated. K is a scraping and gathering plow rigidly attached at the base of the carrier-frame B. It has flaring sides to gather and press the snow toward the endless carrier C. L is a reel-shaft with a series of radial arms, carrying a series of scrapers, *b b*, designed to scrape and gather the snow upon the carrier C. It has its bearings in the sliding frame M, which is supported by and moving upon the carrier-frame B. N is one of the driving-pulleys, rigidly attached on the ends of the reel-shaft L, and is operated by the crossed belts or chains C transmitting power from the driving-pulleys D. O is a distributing-plow, secured to the sliding frame M in such a manner that it will catch and divide and throw off the column of snow carried upward and against it by the elevating-apron or carrier C. Each side of this plow is shaped similar to the plows formed by the combination of common plow-shares and mold-boards, so that it is in reality a double plow, turning and throwing the snow in opposite directions to the sides of the track as rapidly as the machine is advanced.

When the snow is too deep to be thus thrown off, the plow O may be removed and the snow allowed to rise to the top of the carrier C and drop over its rear end into a suitable box, basin, or receptacle to be carried away and emptied therefrom.

P is the rear wall of a box or basin, designed to receive the snow falling from the carrier C. R is a central partition dividing the box into two (2) equal compartments. S is one of the bent and hinged bottoms of the divided box. Suitable cords or chains connect with the hinged bottoms S, and the driving mechanism can be used to elevate the bottoms to retain the snow, and to drop them at pleasure, to allow the snow to slide out and off to fall on the sides of the track. *d* represents one of a series of steel anchor-shaped hooks suspended from a rod or chain on the under side of the truck A, in such a manner that they will drag and scrape and cut the ice from the rails and track during the moving of the machine. Their curved shape prevents their ends from catching on the ties as they drag over them during the back and forth movements of the machine.

The engine represented by J may be of any suitable form or size desired, and it may be connected with our snow-moving devices by any suitable mechanism that will operate the movable parts advantageously.

The practical operation of our complete machine will be readily understood from the foregoing detailed descriptions of the forms and functions and connections of the various operative parts.

We are aware that endless carriers have been combined with a snow-plow to elevate and deposit snow aside of the track, as in patent of P. Boyden, April 29, 1862, and therefore disclaim the same.

We claim as our invention—

1. The combination of the gathering-plow K, gathering-reel L *b b*, endless carrier C, and double plow O, substantially as and for the purposes set forth.

2. The combination of the gathering-plow K, gathering-reel L *b b*, endless carrier C, and divided box P R, having hinged bottoms S, substantially as and for the purposes set forth.

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