S. C. HALLOCK.

Snow-Plow.

No. 220,141. Patented Sept. 30, 1879.

Fig. 1.

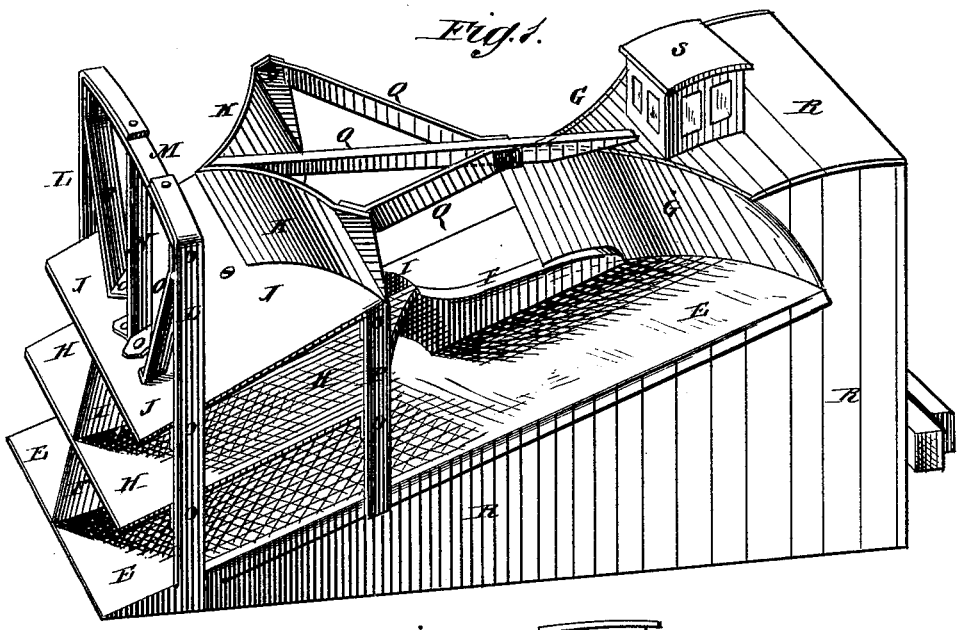

Fig. 2.

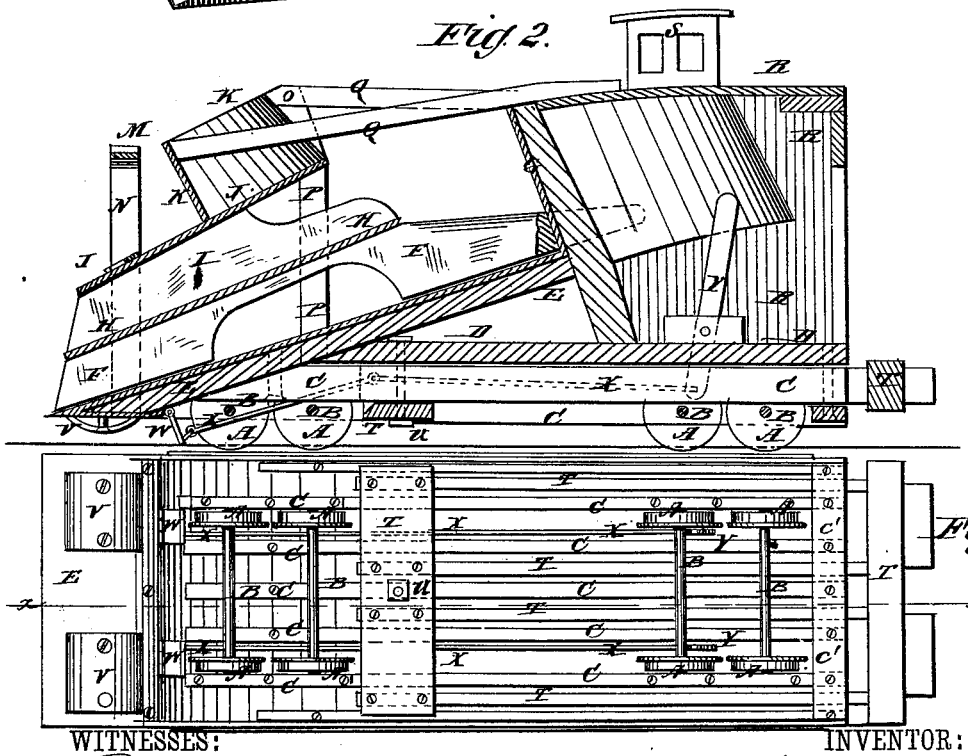

Fig. 3.

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IMPROVEMENT IN SNOW-PLOWS.

Specification forming part of Letters Patent No. **220,141**, dated September 30, 1879; application filed April 7, 1879.

To all whom it may concern:

Be it known that I, STRAFFORD CICERO HALLOCK, of Yaphank, in the county of Suffolk and State of New York, have invented a new and useful Improvement in Snow-Plows, of which the following is a specification.

Figure 1 is a perspective view of my improved snow-plow. Fig. 2 is a vertical longitudinal section of the same, taken through the line *x x*, Fig. 3. Fig. 3 is a bottom view of the same.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved snow-plow, which shall be so constructed as to raise the snow and discharge it at the sides of the track however solid it may be packed, and which shall be simple in construction and effective in use.

The invention consists in the combination of the three shovels placed one above the other, with their rear ends farther apart than their forward ends, the two double chutes, the division-plates, and the supporting and cutting bars with each other and with the frame-work and the wheels and axles; in the combination of the vibrating frame and its king-bolt with the frame-work of the snow-plow, for connecting the said snow-plow with the propelling-engine; and in the combination of the semicylindrical shoes with the lower side of the forward part of the lowest shovel.

A are the wheels, the axles B of which revolve in bearings attached to the base-frame C. The frame C consists of a number of longitudinal bars, connected at their rear ends by a cross-bar or plate, *c'*. To the frame C is attached the horizontal floor D. The forward ends of the frame C and of the floor D are beveled off, and to the said beveled ends is attached the first or lowest inclined plate or shovel, E. To the shovel E along its central line, is attached a vertical division-plate, F, the forward edge of which is made sharp and is inclined to the rearward, so as to divide the slice of snow raised by the said shovel into two parts. At the rear end of the inclined plate or shovel E are formed two curved chutes, G, to guide the two parts of the snow-slice to the opposite sides of the track. The upper parts of the chutes G, toward their outer ends, incline forward, to prevent the snow from dashing over the upper edges of the said chutes.

H is the second inclined plate or shovel, which is placed a little above the first shovel, E, and with its forward edge a little in the rear of the forward edge of the first shovel.

The second shovel, H, is placed at a steeper incline than the first, so that the space between them may gradually increase in depth to the rearward. The shovel H is divided into two parts along its central line by a division-plate, I, so as to divide the snow-slice raised by the said shovel into two parts.

The shovel H does not extend back so far as the first shovel, E, and the chutes G are made sufficiently high to carry off the snow-slices raised by the two shovels E H.

Above the second shovel, H, is placed the third shovel, J, which is placed at a steeper elevation than the shovel H, so that the snow-slice cannot wedge and pack into the space between the two shovels H J. At the rear end of the shovel J are placed two curved chutes, K, the upper outer parts of which incline forward, to prevent the snow from dashing over them.

To the forward parts of the side edges of the three shovels E H J are attached two upright bars, L, which support the said edges, and at the same time serve as knives to separate the snow raised by the plow from the snow at the sides of the track. The upper ends of the side bars, L, rise above the upper shovel, J, and are connected by a cross-bar, M, from the center of which a bar, N, extends down and is secured to the middle part of the shovel J. The bars L M are strengthened by the brace-bars O the upper ends of which are attached to the upper parts of the side bars, L, and their lower ends are attached to the shovel J.

The bars M N O will serve as knives to divide up the snow-slice, so that it will readily pass off. The rear corners of the two shovels H J are supported by the upright bars P, attached to them and to the side edges of the shovel E.

The chute K is supported by the brace-bars Q, extending back to the chute G and its support. The space beneath and at the rear of the lowest shovel, E, is inclosed by a casing, R, to keep out the snow and form a chamber for

the lookout; and upon the top of said casing is framed a small chamber, S, provided with glass plates in its front and sides, to allow him to look out without being exposed to the flying snow.

The snow-plow is placed in front of the engine, and is connected with the said engine by the frame T, which consists of a number of longitudinal bars placed between the longitudinal bars of the base-frame C, and connected at their front and rear ends by cross-bars. The front cross-bar of the frame T is pivoted to the frame-work of the snow-plow by a king-bolt, U, and its rear cross-bar is connected with the engine. With this construction the snow-plow will be pushed forward steadily, the vibration and trembling of the engine acting only upon the frame T, and not upon the plow.

The forward end of the lowest shovel, E, is about six inches above the rails of the track, and to the lower side of the said forward end are attached two semi-cylindrical shoes, V, to serve as guards to support the plow should the wheels A leave the rails. To the lower side of the lower shovel, E, just in front of the forward wheels, A, are hinged two plates, W, to which are pivoted the forward ends of the two jointed rods X, the rear ends of which are pivoted to the lower ends of the levers Y. The levers Y are pivoted to the frame-work of the machine, and their upper ends project into the lookout-chamber, so that they can be operated by the lookout to lower the plates W and scrape off the rails, when desired.

I am aware that it is not new to hinge a section to the rear of plow-chute, so as to throw the snow on either side of track, or to use knives on the front of plows, or to employ scrapers on a rod operated by levers to raise or lower them with respect to the track.

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

1. The combination, with frame C and floor D, beveled at their forward ends, of the inclined divided shovels E H and the undivided shovel J, the curved chutes G K, and the knife-bars L M N O, as shown and described.

2. The combination of the vibrating frame T and its king-bolt U with the frame-work C of the snow-plow, for connecting the said snow-plow with the propelling-engine, substantially as herein shown and described.

3. The combination of the semi-cylindrical shoes V with the lower side of the forward part of the lowest shovel, E, substantially as herein shown and described.

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Witnesses:
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