

(No Model.)

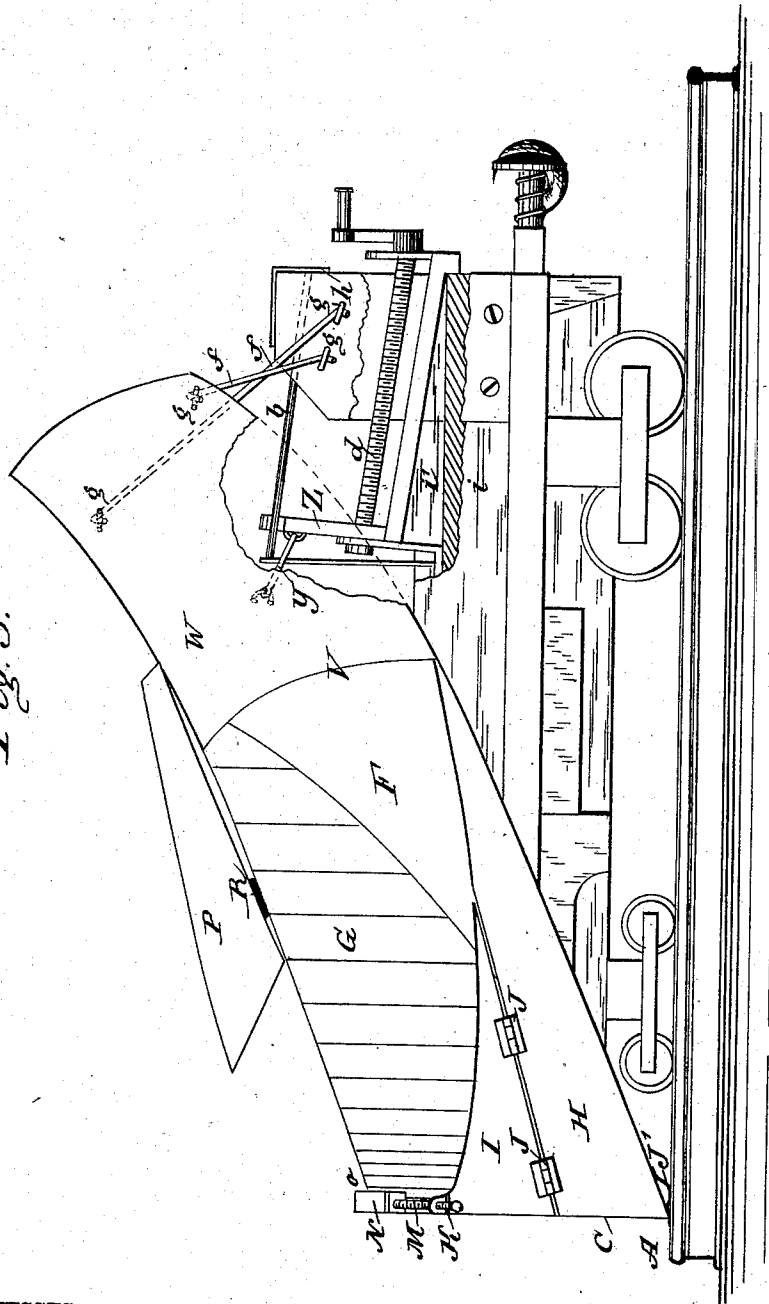
2 Sheets—Sheet 2.

E. M. HESSELBOM.
SNOW PLOW.

No. 263,178.

Patented Aug. 22, 1882.

Fig. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

ERIC M. HESSELBOM, OF RUSHFORD, MINNESOTA.

SNOW-PLOW.

SPECIFICATION forming part of Letters Patent No. 263,178, dated August 22, 1882.

Application filed April 17, 1882. (No model.)

To all whom it may concern:

Be it known that I, ERIC M. HESSELBOM, of Rushford, in the county of Fillmore and State of Minnesota, have invented a new and Improved Steam-Plow, of which the following is a full, clear, and exact description.

This improvement in snow-plows consists of a contrivance of knives for separating the snow into two streams and chutes for conveying the said streams upward and outward and discharging them at the sides of the track and at considerable distance therefrom, the outer plates of the chutes being jointed and provided with adjusting-braces, by which to contract them for passing through narrow places, and the upper extensions of the chutes, being formed of wing-plates, are contrived for being similarly adjusted and provided with devices therefor, as hereinafter described.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of my improved snow-plow. Fig. 2 is a front elevation; and Fig. 3 is a side elevation, with a part shown in section.

A represents the edge of the bottom knife or cutter. B is the edge of the dividing-cutter; C, the outside cutters, the said knives or cutters being set with their sharp edges projected directly ahead in the best arrangement for entering the snow with the least resistance. The plates on which the bottom cutter, A, is formed rise by a long and easy curve to form the bottom F of the two chutes, of which G forms the insides and H I the outsides, G being nearly-vertical plates back of and connected with the plate whereon the middle cutter, B, is formed, and H I being the plates whose front edges form the cutters C, and said plates H I constituting the outsides of the chutes. The bottom cutter, A, is about as wide as the track, and is located as close to it as will allow of its running safely, and it is formed with spring-runners J above the rails to strike upon and slide along them when the bottom descends under the weight of the snow. The sides H I stand outwardly to slope the banks of snow properly, and from the front rearwardly they converge, as shown in Fig. 2, in

order to provide plenty of clearance behind the cutting-edges, to prevent the machine from binding fast in the snow, so as to be able to back out when unable to go ahead. The lower parts, H, of these sides are rigidly attached to the body of the machine; but the upper parts, I, are hinged to parts H at J in order that they may be turned inward to pass between the abutments of bridges over the road and between other structures, as the rails of a bridge and the like. The said hinged parts are also jointed at K to pieces L, connected by screw-threaded rods, which screw into arms N, attached at o to the top of the partition between the chutes. P represents guards attached to the top of the partition back of the front and where the divergent parts of the chutes part from each other and leave an open space rearward, said guards being to arrest the loose flying snow and prevent it from flying back through said space to the locomotive. The said guards are hinged to the top plate, Q, at R, so that they can be laid down flat for passing under low places, and they have a hooked rod, S, and staples T to keep them up. The chutes increase in breadth from the front rearward to allow the snow streams free channels, and they terminate at V, where broad concave wing-plates W are attached to receive the snow from the chutes and deliver it high and wide upon the banks. These wings are jointed at the ends of the chutes by hinges X, and others below not seen, in order that they may be swung back and closed within the dimensions of the rest of the machine to pass through narrow ways, and for this purpose they are connected by rods Y with a slider, Z, fitted in ways a and between guides b, and provided with a screw, d, to be turned by a hand-crank, e, for opening and closing the wings. The said wings are also provided with the stay-braces f, that are detachably connected by hooked ends of the braces and eye-studs g, to enable the braces to be readily put on and taken off when the wings are to be shifted. The said braces are attached to standards h, rising up from the platforms i for their support.

I am aware that adjustable boards hinged to the rear of the chutes of a snow-plow have heretofore been employed, and I therefore lay no claim, broadly, to such construction.

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

- 5 1. The combination, in a snow-plow having two chutes, F G H, whose exterior sides, H, flare outwardly from the bottom upward, of hinged sections I to the sides H, substantially as described.
- 10 2. The combination, in a snow-plow having two chutes, F G H, whose exterior sides, H, flare outwardly from the bottom upward, of jointed sections I to the sides H, and adjusting screw-rods M, connecting said sections with support o, substantially as described.
- 15 3. The combination, with the chutes F G H, of the hinged section I, provided with the piece L, hinged to its upper end, the screw-rods M, and the arms N, substantially as and for the purpose set forth.
- 20 4. The combination, with chutes F G H, of guards P, hinged to the top plate, Q, substantially as described.
5. The combination, with the chutes F G H

and the top plate, Q, of the hinged guards P, the rod S, and staples T, substantially as and 25 for the purpose set forth.

6. The combination, in a snow-plow, of two divergent chutes, F G H, and wings W, jointed at the ends of the chutes, and having the operating slider Z and connecting-rods Y, 30 substantially as described.

7. The combination, in a snow-plow, of two divergent chutes, F G H, wings W, jointed at the ends of the chutes, adjusting-slider Z, connecting-rods Y, and adjusting-screw d, sub- 35 stantially as described.

8. The combination of detachable braces f with the wings W, adjusting-slider Z, connecting-rods Y, and screw d, substantially as described.

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Witnesses:

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