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R. JENKINS

2,197,307

SNOW FLOW

Filed Sept. 22, 1938

Fig. 1.

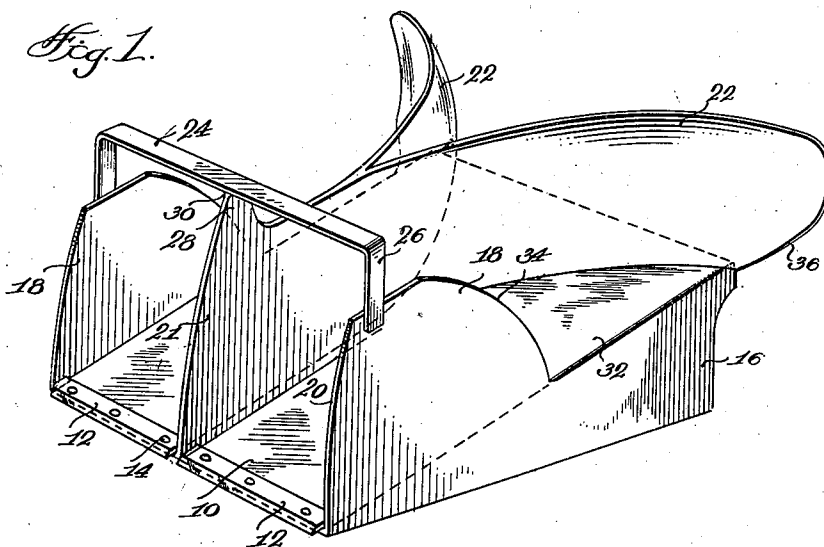


Fig. 2.

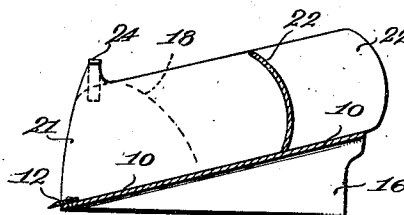
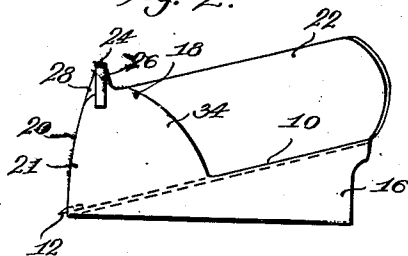


Fig. 4.

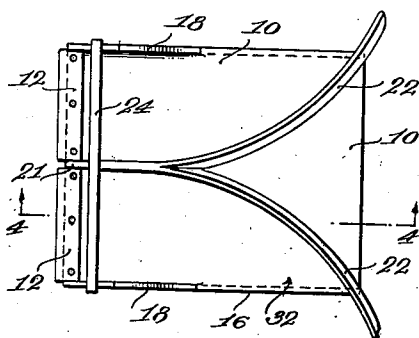


Fig. 3.

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SNOW PLOW

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Application September 22, 1938, Serial No. 231,263

1 Claim. (Cl. 37—49)

My invention relates to apparatus for clearing snow from highways and the like and has among its objects and advantages the provision of an improved snow plow.

5 An object of my invention is to provide a snow plow designed to cut a clear path in combination with means for lifting the snow and discharging it laterally of the snow plow.

Another object is to provide a snow plow 10 shaped to cut a clear path without disturbing the snow immediately adjacent the path together with novel means for elevating the snow removed from the path without interference from the side walls of the path.

15 Another object is to provide a snow plow shaped to remove snow with a minimum of resistance in which the plow is so shaped as to be capable of widening the additional path. The plow is characterized by two vertical walls spaced to define the width of the path together with a 20 central divider. The plow is so shaped as to be devoid of side pressure when trimming the edge of a path for widening purposes. For widening purposes, one side of the plow only is employed but the snow clearing design is such as to cut a vertical wall and lift the snow to a position above the normal snow line and throw the elevated snow laterally of the bank.

With these and other objects in view, this invention consists in certain novel features of construction, combination and arrangement of parts to be hereinafter more fully described and 30 claimed.

For a complete understanding of my invention, reference is to be had to the following description and accompanying drawing, in which:

Figure 1 is a perspective view of my snow plow; Figure 2 is a side elevational view; Figure 3 is a top plan view; and 40 Figure 4 is a sectional view along the line 4—4 of Figure 3.

In the embodiment selected to illustrate my invention, I make use of an inclined floor 10 provided with blades 12 at its forward end. Blades 45 12 may be attached to the floor 10 by rivets 14. To the side edges of the floor 10 I connect vertical walls 16. The walls 16 are arranged at right angles to the floor 10 and may be welded thereto. Walls 16 include vertical extensions 18 having 50 leading or cutting edges 20. Extensions 18 are of such height as to extend above the normal snow line.

Midway between the extensions 18 I position a divider 21 which lies on the floor 10 and terminates in two moldboards 22. Moldboards 22 de-

flect the snow laterally of each side of the snow plow. Extensions 18 cut a clear path in the snow, while the inclined bottom 10 elevates the column of snow. The snow column is divided by the divider 21 into two streams which are thrown 5 laterally of the snow plow above the normal snow line. Extensions 18 are interconnected through the medium of a bar 24 which is bent to provide right-angular reaches 26 welded to the extensions 18. Divider 21 includes an extension 28 10 which is welded to the bar 24 as at 30.

In my invention, the snow is forced up a gentle incline to a point above the snow line, at which time the snow is deflected laterally 15 through the medium of the moldboards 22. The snow removing action of my plow is devoid of any lateral pressure on the remaining snow banks. The only snow being moved is that which is being elevated up the inclined floor 10, while the extensions 18 cut vertical walls in the remaining snow. In eliminating side pressure, I provide a plow with a larger removal capacity capable of being drawn with much less power than is necessary in plows having a deflecting 25 action against the walls of the path being cleared. The extensions 18 are of sufficient height to cut evenly through the snow even when several feet deep. The extensions 18 hold the snow on the plow until it is elevated sufficiently far to be discharged above the surface of the snow. 30

The rear edge of the floor 10 between the moldboards 22 serves as a mounting for operating machinery. With the plow travelling at a high speed the snow cleared from the path is thrown a considerable distance to the sides of the cut. 35 In widening the initial cut, one side only of the plow is employed, but in view of the absence of side pressure the plow will operate in an efficient manner. Because of the gentle lifting action of the plow on the snow, the plow may be constructed of lighter material and will handle an exceedingly large amount of snow with a relatively small amount of power. The lifting and deflecting action is such as to be burdened with the snow actually lifted from the cut only. The plow 45 is devoid of any side pressure with the walls of the path being cut.

The extensions 18 are spaced from the moldboards 22 to provide outlets 32. I curve the extensions 18 at 34 to provide a configuration which 50 facilitates lateral throw of the snow. Moldboards 22 are cut away at 36 to provide clearance with respect to the vertical snow banks. The divider 21 as well as the moldboards 22 may be welded to the inclined floor 10 thus lending re- 55

enforcement thereto, in addition to effectively connecting the parts.

I claim:

- 5 A snow plow comprising a flat, inclined lifting floor having its lower end bladed, side walls carried by the lifting floor for supporting the latter in said inclined position, said side walls having vertical extensions lying in a common plane therewith and projecting above the lifting floor
- 10 at its lower end for cutting a clear path in the snow, a divider on said lifting floor comprising a

vertical wall positioned on the lifting floor midway between said extensions and paralleling the latter, said vertical wall terminating in two moldboards curved outwardly and rearwardly of the lifting floor for deflecting the snow laterally of the higher end of the lifting floor, said extensions having convexed rear edges spaced from their respective moldboards to provide outlets for the snow.

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