

June 1, 1926.

1,587,449

D. WANDSCHEER

SNOWPLOW

Filed June 13, 1925

3 Sheets-Sheet 1.

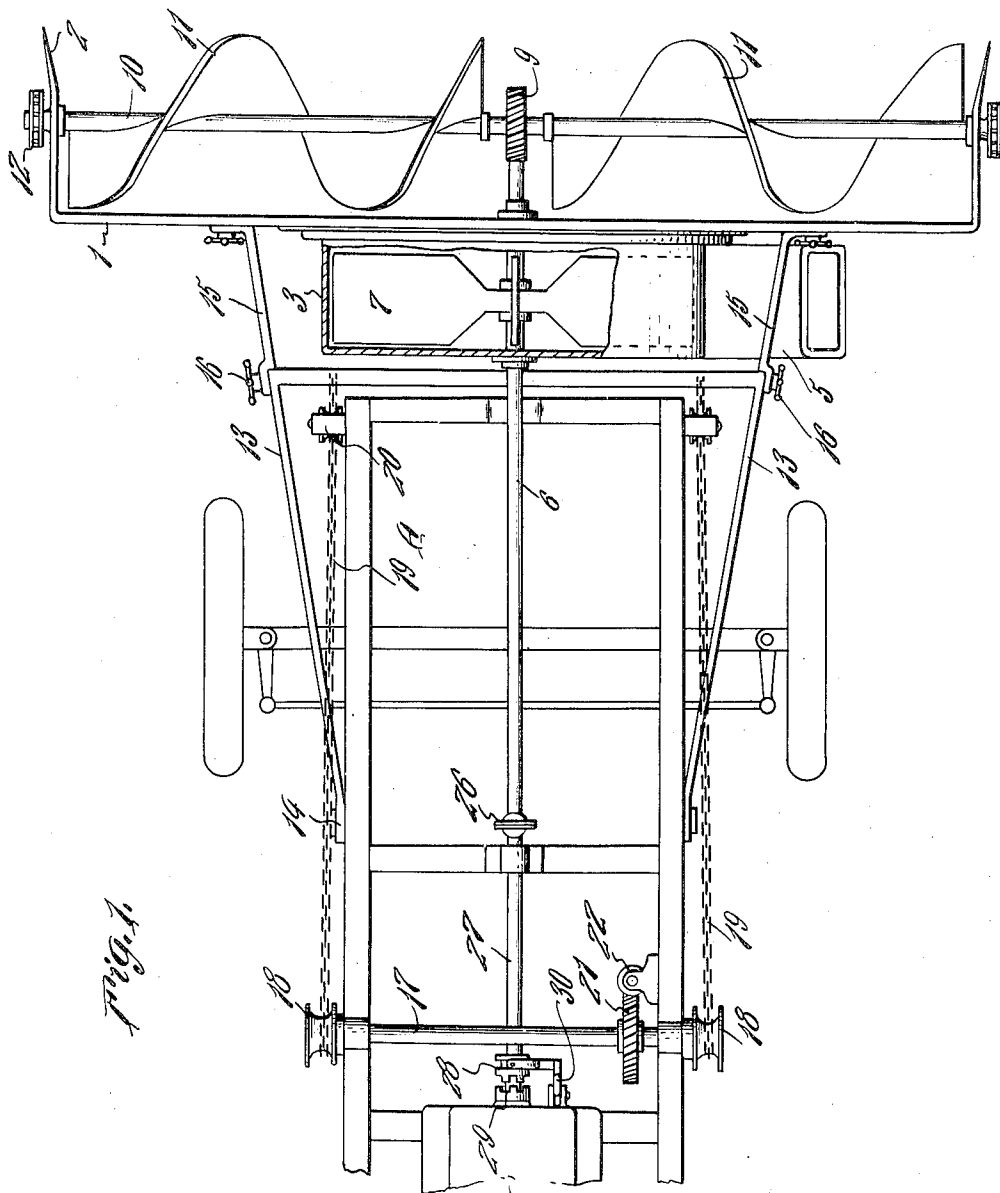


Fig. 1.

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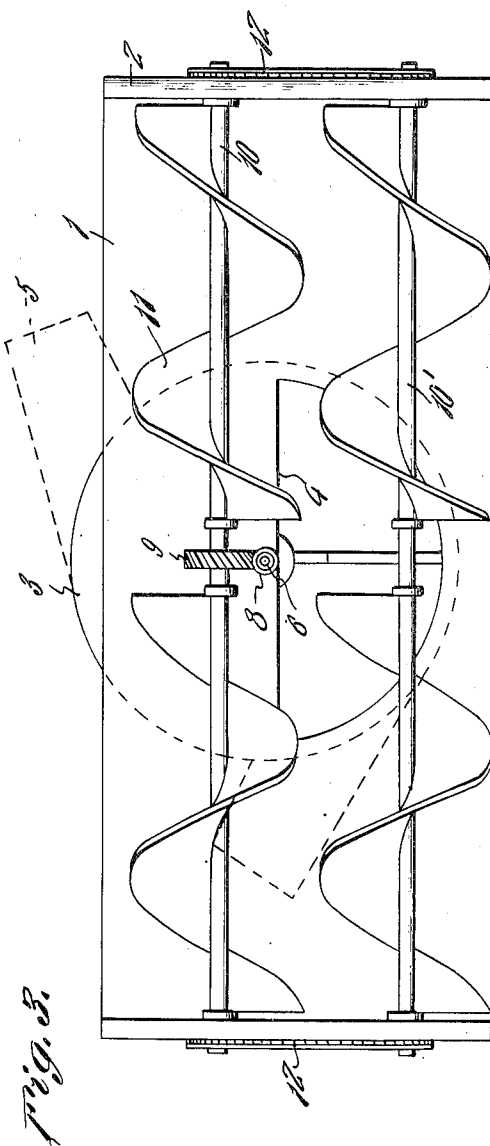
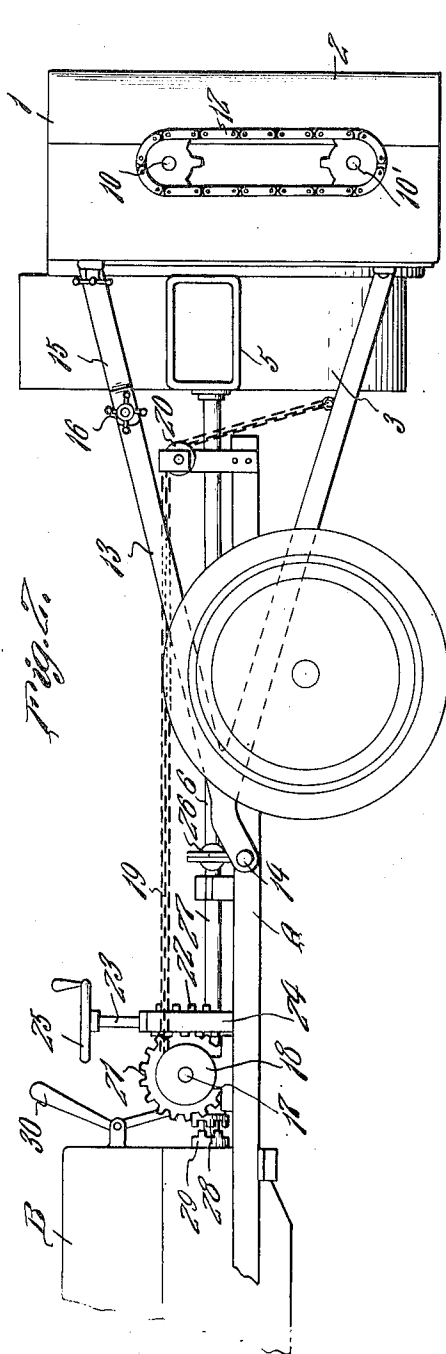
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3 Sheets-Sheet 2



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3 Sheets-Sheet 3

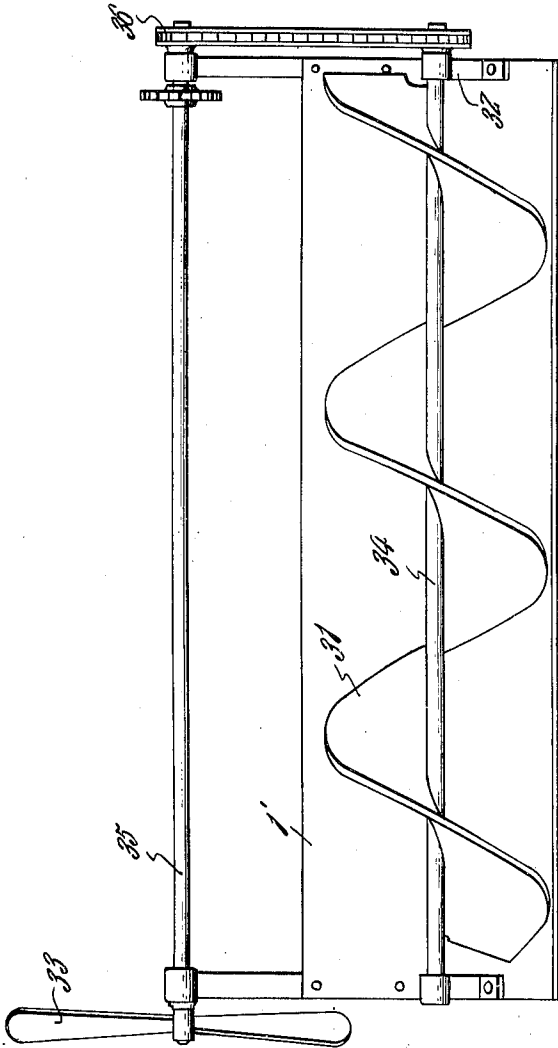


Fig. 4.

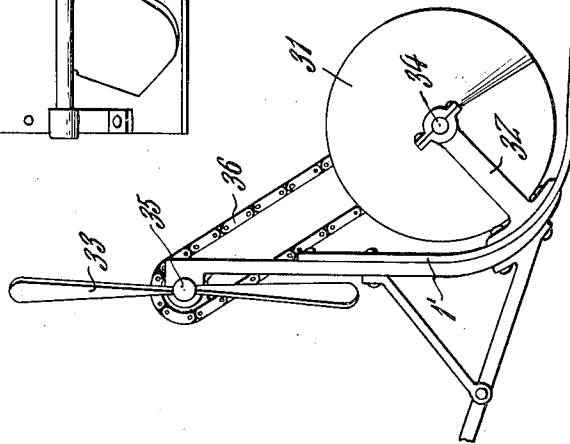


Fig. 5.

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Patented June 1, 1926.

1,587,449

UNITED STATES PATENT OFFICE.

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SNOWFLOW.

Application filed June 13, 1925. Serial No. 36,985.

This invention relates to a snow plow, the general object of the invention being to provide means for placing the plow on a truck or other vehicle at the front thereof, with means for adjusting the plow in relation to the road surface.

Another object of the invention is to make the plow of the auger type with means for throwing the snow to one side of the device.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claims.

In describing my invention in detail, reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which:

Figure 1 is a plan view with parts in section, showing the invention applied to the chassis of a truck.

Figure 2 is a side view of Figure 1.

Figure 3 is a front view.

Figure 4 is a front view showing a modification.

Figure 5 is an end view of part of Figure 4.

In these views, 1 indicates the plow casing which is of rectangular shape and has its front and top open and has blades 2 on the front parts of the end and bottom portions thereof. These blades will act to cut the snow from the road surface and to separate the snow entering the device from the snow left on the ground. A second casing 3 is arranged at the rear of the casing 1 and is in communication with the same by means of the opening 4 which is of semi-circular form and is arranged at the center of the dividing wall of the casings. This casing 3 is a fan casing and has its discharge 5 arranged at one side thereof. A shaft 6 passes through the two casings and a fan 7 is attached to this shaft and is located in the casing 3 and the end of the shaft carries a worm 8 which is arranged in the casing 1 and meshes with a worm gear 9 at the center of a shaft 10 journaled in the ends of the casing 1. A second shaft 10' is arranged in the casing 1 and each of these shafts carries a pair of screw conveyors 11. These conveyors are so arranged that they will move the snow from each end of the casing 1

to the center thereof so that it will pass through the opening 4 into the casing 3 where it will be acted upon by the fan 7 and forced through the outlet 5 to one side of the street or road being cleared by the plow. The shaft 10' is driven from the shaft 10 through means of the chains and sprockets shown generally at 12, which are arranged on the projecting ends of the shafts. The plow device is attached to the frame of the vehicle, such as shown at A, by means of the frame 13, which is pivoted to the frame of the vehicle, as shown at 14, so that the plow can be adjusted vertically in front of the vehicle. The top part of the frame 13 is of yoke shape and this part is connected with the casing 1 by means of the links 15 which are clamped to the casing and to the frame, as shown at 16. The lower part of the frame 13 is connected directly to the casing 1.

The means for adjusting the plow comprises a shaft 17 journaled in the chassis and having drums 18 at its ends which are connected by the chains 19 with the lower part of frame 13, the chains passing over guiding pulleys 20 at the front of the chassis. This shaft 17 carries a gear 21 which meshes with a worm 22 on an upright shaft 23 journaled in a frame 24 on the chassis and which has a hand wheel 25 attached to its upper end so that it can be turned by hand. Thus by turning the shaft 23, the casing 1 can be adjusted in relation to the road surface.

The shaft 6 is connected by a universal joint 26 with a shaft 27 journaled in the chassis and which has a clutch part 28 thereon for engagement with the clutch part 29 on a shaft of the motor B of the vehicle, so that the plow parts can be driven from the motor of the vehicle. The clutch part 28 is shifted by means of the hand lever 30.

From the foregoing, it will be seen that the plow is attached to the front end of a truck or other vehicle and it can be adjusted in relation to the ground. The conveyors 11 will force the snow, picked up by the casing to the center of the casing, where it will pass through the opening into the fan casing, the fan in which will throw the snow to one side of the street or road being cleared by the device.

The fan casing 3 can be rotated on the shaft 6 so as to place the outlet 5 in any desired position to enable the snow to be thrown to either side of the road. Before

the casing can be moved, the links 15 must be removed in order to permit the outlet 5 to pass by. The upper conveyor will act on drifts or deep snow.

5 In the modification shown in Figures 4 and 5, the casing 1' is made in the form of a scoop and a single conveyor 31 is supported in the scoop by the brackets 32 fastened to the ends of the scoop. The snow leaving the
10 discharge end of the scoop is acted on by a fan 33 which will act to scatter the snow. The shaft 34 of the conveyor 31 is connected with the fan shaft 35 by the chain and sprockets 36, and this shaft 35 may be
15 driven in any desired manner from the motor of the vehicle to which the plow is attached.

This construction is cheaper to manufacture than the first form of the invention.

20 It is thought from the foregoing description that the advantages and novel features of my invention will be readily apparent.

I desire it to be understood that I may make changes in the construction and in the combination and arrangement of the
25 several parts, provided that such changes fall within the scope of the appended claims.

What I claim is:—

30 1. In combination with a vehicle, a frame pivotally connected with the front part thereof so that it can be rocked about a horizontal axis, a casing carried by the frame and having its front open, a fan casing at the rear of the first casing, said casings hav-
35 ing a communicating opening between them,

a drive shaft passing through both casings, a fan attached to the shaft and arranged in the fan casing, a transversely arranged shaft in the first casing and geared to the drive shaft, a pair of screw conveyors at-
40 tached to the shaft for feeding the snow entering the casing through the opening in the fan casing, a second conveyor shaft in the casing, means for driving the same from the first shaft, a drum shaft carried by the ve-
45 hicle, flexible means for connecting the same to the pivoted frame, manually operated means for rotating said drum shaft and clutch controlled means for connecting the drive shaft with the motor of the vehicle.
50

2. A snow plow comprising a scoop forming casing, a fan casing rotatably supported at the rear of the first casing, said casings having a communicating opening
55 between them, a shaft passing through the fan casing and projecting into the scoop casing, a fan on the shaft arranged in the fan casing, a conveyor shaft in the scoop casing, means for rotating the same from the first mentioned shaft, spiral conveyor blades
60 on the shaft for causing snow entering the scoop casing to pass through the opening into the fan casing, means for rotating the first mentioned shaft, means for attaching the plow to a vehicle and a discharge spout
65 on the circumference of the fan casing.

In testimony whereof I affix my signature.

DAN WANDSCHEER.