May 6, 1924. 1,492,771

C. W. ADSIT

SNOWPLOW

Filed May 26, 1922

Fig. 1.

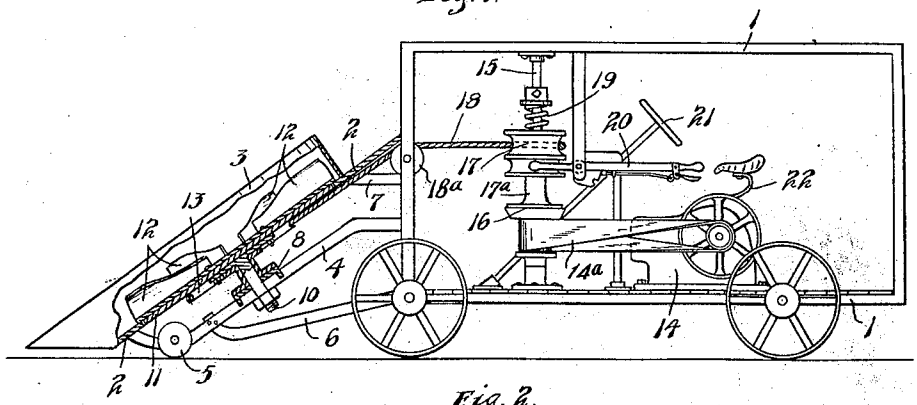


Fig. 2.

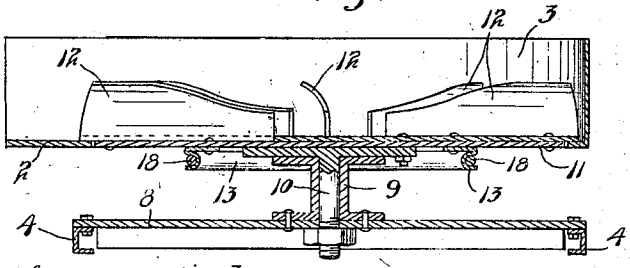
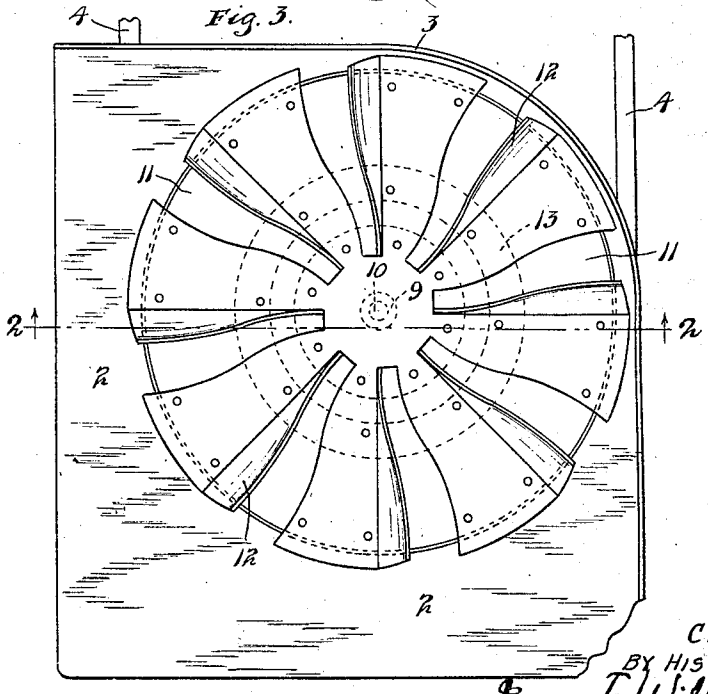


Fig. 3.



INVENTOR.
C. W. ADSIT.
BY HIS ATTORNEY.
James F. Williamson

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UNITED STATES PATENT OFFICE.

CHARLES W. ADSIT, OF OWATONNA, MINNESOTA.

SNOWPLOW.

Application filed May 26, 1922. Serial No. 563,865.

To all whom it may concern:

Be it known that I, CHARLES W. ADSIT, a citizen of the United States, residing at Owatonna, in the county of Steele and State of Minnesota, have invented certain new and useful Improvements in Snowplows; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to a snow plow, and particularly to such a plow designed to travel along paved or other roads where there is no track made of rails. Concrete and other well paved roads are now very numerous and such roads are used for passenger, mail and other trucks maintaining regular service of various kinds. It is quite important to keep these roads open and this is quite a task in portions of the country where there is considerable snow.

It is an object of this invention, therefore, to provide a snow plow which can be efficiently used on such roads to quickly clear the same of snow.

It is a further object of the invention to provide such a plow comprising a propelled frame or vehicle having an inclined platform or snow gathering scoop at the forward portion thereof, said platform or scoop having a rotating means therein for discharging the snow.

It is a still further object of the invention to construct said platform with one open side and to provide a rotating plate forming part of the platform, which plate is positively driven and provided with snow dischargeable blades.

These and other objects and advantages of the invention will be fully set forth in the following description made in connection with the accompanying drawings in which like reference characters refer to the same parts throughout the different views, and in which,

Fig. 1 is a view partly in side elevation and partly in vertical section of the device;

Fig. 2 is a view in central vertical section of the scoop and discharging means taken on the line 2—2 of Fig. 3; and

Fig. 3 is a plan view of the scoop and discharging means.

Referring to the drawings, the device comprises a wheeled or truck frame 1, which, in the embodiment of the invention illustrated, is shown as a closed vehicle body. From the forward part of this body or frame an inclined platform 2 projects forming a snow receiving scoop and said platform is provided along its rear end and one side with a vertical flange 3, the other side of the platform or scoop being left open. A pair of front members 4 extend beneath the member 2 and have their curved lower ends secured thereto and their rear ends connected to the frame 1, said members having pivotally connected thereto by laterally extending pivots, small supporting rollers 5. Additional bracing or supporting members for the platform are shown as 6 and 7 which are connected, respectively, to members 4 and 2. A member 8 extends between the members 4 and has secured thereto a vertical hollow bearing 9 in which is suitably held and journaled a shaft 10 having a plate or flange at its upper end supported on bearing 9, to which flange is riveted or otherwise suitably secured a circular plate 11. This plate 11 is disposed in a circular recess in the platform 2 and is substantially flush therewith. A plurality of curved radially disposed blades 12 are struck up from a plate 11^a which overlies plate 11 and is connected by rivets or other suitable means to the plate 11. A sheave 13 is also bolted to the bottom of the plate 11 surrounding the bearing 9.

On the frame 1 or therein is mounted a motor 14 of any suitable type which is illustrated as an internal combustion motor. A shaft 15 is vertically disposed in the members 1 and suitably journaled in bearings therein and carries a clutch pulley 16 driven from the motor 14 by a suitable belt 14^a. A pulley 17 forms the other clutch member of the clutch pulley 16 and a belt 18 passes over the pulley 17 and the sheave 13 being guided over suitable sheaves 18^a in the front portion of the member 1. The member 17 is formed with a suitable clutch collar 17^a and is normally urged into engagement with the clutch pulley 16 by a spring 19 but can be released therefrom and held in such released position by means of the lever 20. The body 1 will preferably be propelled by the motor 14 and is shown as having the usual steering wheel 21 and a convenient driver's seat 22.

From the above description it will be readily seen that the members 11 and 12

form a rotating means for discharging the snow from the open side of the scoop or platform 2. The member 1 and the said scoop will be propelled and the snow will travel up the scoop 1 and continuously come into engagement with the blades 12 and be discharged at one side of the roadway. The vehicle comprising the body 1 will, of course, be provided with the usual variations in speeds and have the usual reversing mechanism. The plow can thus be advanced at the desired speed according to the amount of snow encountered and the roadway can be quickly and efficiently cleared. The rotating discharge means 11 and 12 may be driven when desired and disconnected readily by the lever 20.

It will, of course, be understood that various changes may be made in the form, details and proportions of the parts without departing from the scope of applicant's invention, which, generally stated, consists in the matter shown and described and set forth in the appended claims.

What is claimed is:

1. A snow plow having in combination a wheeled frame, a forwardly inclined scoop at one end thereof having an open side, and rotating discharging means in said scoop for discharging the snow at said side the axis of said means being substantially normal to the surface of said scoop.

2. A snow plow having in combination, a wheeled frame, means for propelling the same, a forwardly inclined scoop at the front of said frame having an open side, and a driven rotatable vaned wheel for discharging the snow at said side, the lower edges of the vanes of said wheel moving parallel and in close proximity to the surface of said scoop.

3. A snow plow having in combination, a wheeled frame, means for propelling the same, a forwardly inclined platform at one end of said frame forming a scoop, a flange about the rear and one side thereof, the other side being open, a rotatable circular plate in said platform substantially flush with the top thereof adapted to rotate parallel thereto, radial vanes carried by said plate, and means for rotating said plate.

4. A snow plow having in combination, a wheeled propelled vehicle, a forwardly inclined platform projecting from the forward end of the same and forming a scoop, a roller supported frame beneath and supporting said platform, a bearing carried by said frame, a circular plate mounted in said platform, a discharge blade carried by said plate, a shaft secured to said plate and journaled in said bearing having its axis substantially normal to said platform, a sheave secured to the underside of said plate, and means for driving said sheave and plate from said vehicle.

In testimony whereof I affix my signature.

CHARLES W. ADSIT.