April 15, 1924.

J. BREWCZYNSKI

1,490,585

SNOWPLOW

Filed March 15, 1923 2 Sheets-Sheet 1

FIG. 1.

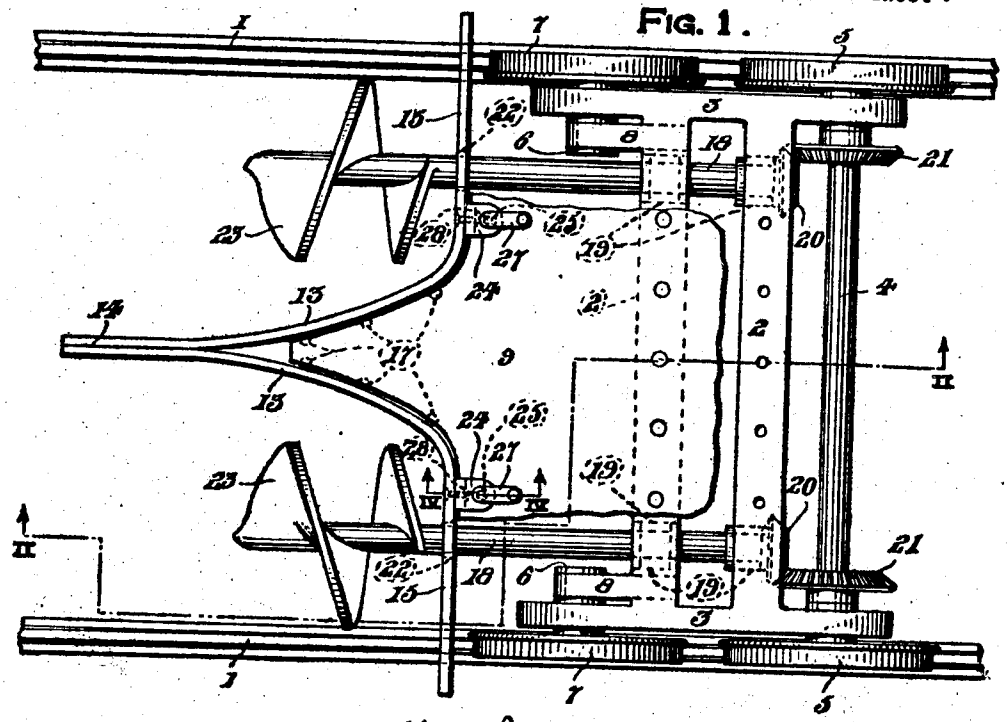
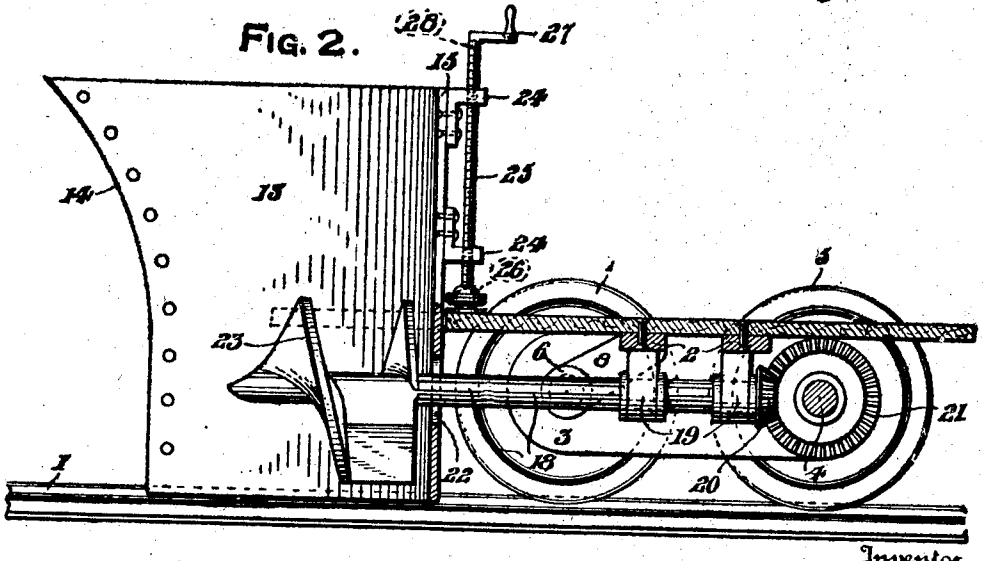


FIG. 2.



Inventor

J. Brewczynski

By

Attorney

April 15, 1924.

J. BREWCZYNSKI

1,490,585

SNOWPLOW

Filed March 15, 1923 2 Sheets-Sheet 2

FIG. 3.

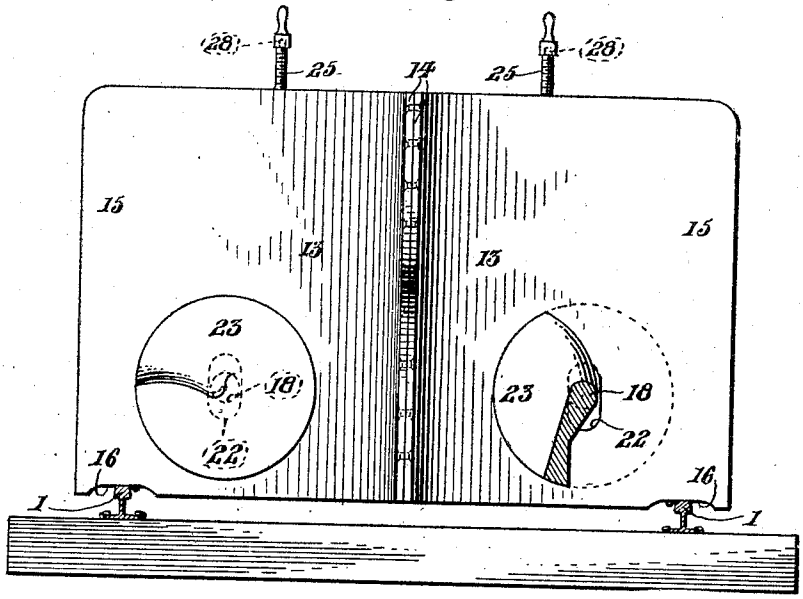


FIG. 4.

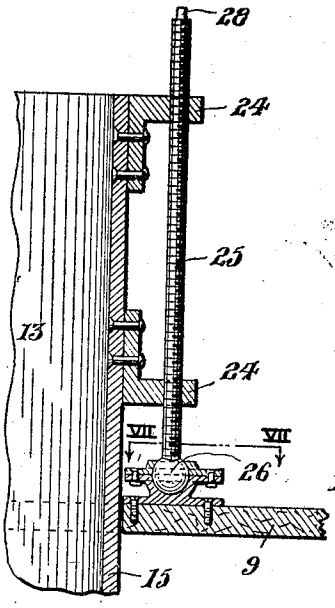


FIG. 5.

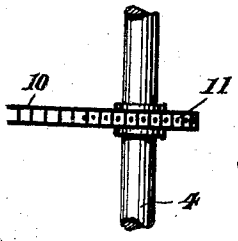


FIG. 7.

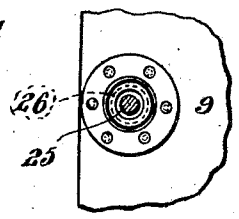
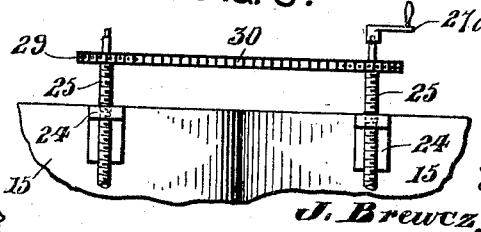


FIG. 6.



Inventor
J. Brewczynski

By

Attorney.

Patented Apr. 15, 1924. 1,490,585

UNITED STATES PATENT OFFICE.

JOHN BREWCZYNSKI, OF BELLEWOOD, ILLINOIS, ASSIGNOR OF ONE-FOURTH TO JOHN KMIEC, OF BELLEWOOD, ILLINOIS.

SNOWPLOW.

Application filed March 15, 1923. Serial No. 625,270.

To all whom it may concern:

Be it known that I, JOHN BREWCZYNSKI, a citizen of Poland, residing at Bellewood, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Snowplows, of which the following is a specification.

This invention relates to certain new and useful improvements in snow plows and has particular reference to that type of plow especially designed for clearing the snow from street and railway tracks, the snow lying on the track being centrally divided and thrown to opposite sides thereof.

The primary object of the invention resides in the provision of a snow plow wherein a double plow share is vertically adjustable upon a supporting carriage with parallel horizontal screw shafts freely extending through each side of the plow share permitting adjustment of the latter, the screw shaft operating to discharge the divided snow laterally of the track.

With the above and other objects in view as the nature of the invention is better understood, the same consists of the novel form, combination and arrangement of parts hereinafter more fully described, shown in the accompanying drawings and claimed.

In the drawings, wherein like reference characters designate corresponding parts throughout the several views,

Figure 1 is a top plan view of a snow plow constructed in accordance with the present invention, the floor board thereof being partially broken away and the plow illustrated as mounted upon a track,

Figure 2 is a vertical longitudinal sectional view taken on line II—II of Fig. 1 showing the guiding devices for the screw shaft and the adjusting screw for regulating the height of the plow share,

Figure 3 is a front elevational view,

Figure 4 is a detail sectional view taken on line IV—IV of Fig. 1 showing the screw adjustment for the plow share,

Figure 5 is a fragmentary detail view of a portion of the main axle of the snow plow carriage showing a chain drive that may be connected to a suitable source of power,

Figure 6 is a fragmentary detail view of a modified form of height adjusting mechanism for the plow shares, and

Figure 7 is a detail sectional view taken on line VII—VII of Fig. 4.

Referring more in detail to the accompanying drawings, there is illustrated a snow plow in the form of a wheeled carriage riding upon the track rails 1, it being intended that the carriage be forwardly positioned relative to a power device, such as a car or train to be operated thereby, or having driving device directly connected thereto for independent operation. The plow carriage embodies a pair of cross bars 2 carrying perpendicular end bearings 3, the rear ends of the bearings 3 rotatably supporting the axle 4 carrying track wheels 5 upon the ends thereof, the forward ends of the bearings 3 carrying stub shafts 6 on which track wheels 7 are journaled, brace bars 8 extending between the stub axles 6 and adjacent cross bar 2. The cross bars 2 support a platform 9, and if desired, when it is intended that the snow plow be self-propelled, a motor mechanism mounted on the platform 9 may have a chain connection 10 with a sprocket wheel 11 secured to the axle 4 as shown in Fig. 5, the track wheels 6 being fixed to the ends of said axle.

The platform 9 carries a forwardly projecting and centrally positioned tapering portion 12 that is disposed between and rearwardly of the side walls 13 of the plow, the forward ends of the side boards abutting as at 14 while the rear ends are transversely disposed as at 15 and extend beyond the track rails 1 as shown in Figs. 1 and 3 with the lower edges thereof cut away as at 16 to provide clearances for the rails. Bearing balls 17 are carried by the tapering portion 12 of the platform and with which the side boards 13 of the plow engage to provide an anti-friction bearing surface.

A pair of screw shafts is associated with the carriage and plow for directing the snow divided by the plow laterally of the tracks, a shaft 18 being journaled in depending bearings 19 carried by the cross bars 2 adjacent each end thereof, the rear end of each shaft carrying a fixed bevel pinion 20 meshing with a bevel gear 21 fixed on the axle 4. The forward end of each shaft 18 projects through a vertical slotted opening 22 formed in the transverse portion 15 of the adjacent plow section 13 and carries upon its forwardly projecting end a spiral screw blade 23 adapted for gathering the divided snow and displacing the same laterally of the tracks.

As shown more clearly in Figs. 2, 4 and 7, adjusting means is associated with the platform 9 and plow for raising and lowering the same, each transverse wall of the plow sections 13 carrying rearwardly directed angle brackets 24 through which a vertically disposed screw shaft 25 is threaded, the lower end of the shaft having a ball and socket mounting 26 upon the platform 9. A crank handle 27 applied to the wrench end 28 of the screw shaft 25 and rotated effects the raising and lowering of the plow.

If desired, the upper ends of the screw shafts 25 may be provided with sprocket wheels 29, as shown in Fig. 6 over which a sprocket chain 30 passes, while a crank handle 27^a applied to one of the screw shafts effects simultaneous operation thereof to raise and lower the plow.

From the above detail description of the device, it is believed that the construction and operation thereof will at once be apparent, it being noted that the carriage may be positioned forwardly of a power device such as a street car or railroad engine and forwardly propelled thereby, or the same may embody its own propulsion mechanism that is connected to the driving axle 4 as indicated in Fig. 5. The jointed ends 14 of the plow sections 13 divide the snow that is gathered by the spiral blades 23 upon the forward ends of the driven shafts 18 to direct the snow laterally of the tracks. The height of the plow relative to the platform 9 and track rails 1 is readily controlled by the screw shafts 25 as above described.

While there are herein shown and described the preferred embodiments of the present invention, it is nevertheless to be understood that minor changes may be made therein without departing from the spirit and scope of the invention as claimed.

What is claimed as new is:—

1. In a device of the class described, a wheeled carriage, embodying cross bars having perpendicular end bearings, transverse shafts journaled in said bearings, wheels on said shafts, and a platform on said cross bars, a vertically adjustable snow plow mounted at the forward end of said carriage, said plow embodying a pair of side boards meeting at their forward ends centrally of the carriage with the rear ends of the boards curved outwardly and extending transversely of the forward end of the carriage, an anti-friction wiping connection between the side boards and the platform, and a screw shaft rotatably extending through each lateral portion of the plow.

2. In a device of the class described, a wheeled carriage, embodying cross bars having perpendicular end bearings, transverse shafts journaled in said bearings, wheels on said shafts, and a platform on said cross bars, a vertically adjustable snow plow mounted at the forward end of said carriage, said plow embodying a pair of side boards meeting at their forward ends centrally of the carriage with the rear ends of the boards curved outwardly and extending transversely of the forward end of the carriage, an anti-friction wiping connection between the side boards and the platform, a screw shaft rotatably extending through each lateral portion of the plow, and cooperating driving means for the shafts carried by the carriage and shafts.

3. In a device of the class described, a wheeled carriage, embodying cross bars having perpendicular end bearings, transverse shafts journaled in said bearings, wheels on said shafts, and a platform on said cross bars, a vertically adjustable snow plow mounted at the forward end of said carriage, said plow embodying a pair of side boards meeting at their forward ends centrally of the carriage with the rear ends of the boards curved outwardly and extending transversely of the forward end of the carriage, an anti-friction wiping connection between the side boards and the platform, a screw shaft rotatably extending through each lateral portion of the plow, a drive axle on the carriage, and gear connections between the axle and shafts.

4. In a device of the class described, a wheeled carriage, embodying cross bars having perpendicular end bearings, transverse shafts journaled in said bearings, wheels on said shafts, and a platform on said cross bars, a vertically adjustable snow plow mounted at the forward end of said carriage, said plow embodying a pair of side boards meeting at their forward ends centrally of the carriage with the rear ends of the boards curved outwardly and extending transversely of the forward end of the carriage, an anti-friction wiping connection between the side boards and the platform, a screw shaft rotatably extending through each lateral portion of the plow, the adjustable mounting for the plow including brackets carried by the plow and screw shafts threaded through the brackets and swivelled at their lower ends on the carriage.

5. In a device of the class described, a wheeled carriage, embodying cross bars having perpendicular end bearings, transverse shafts journaled in said bearings, wheels on said shafts, and a platform on said cross bars, a vertically adjustable snow plow mounted at the forward end of said carriage, said plow embodying a pair of side boards meeting at their forward ends centrally of the carriage with the rear ends of the boards curved outwardly and extending transversely of the forward end of the carriage, an anti-friction wiping connection between the side boards and the platform, a screw shaft rotatably extending through

each lateral portion of the plow, cooperating driving means for the shafts carried by the carriage and shafts, the adjustable mounting for the plow including brackets carried by the plow and screw shafts threaded through the brackets and swivelled at their lower ends on the carriage.

6. In a device of the class described, a wheeled carriage, embodying cross bars having perpendicular end bearings, transverse shafts journaled in said bearings, wheels on said shafts, and a platform on said cross bars, a vertically adjustable snow plow mounted at the forward end of said carriage, said plow embodying a pair of side boards meeting at their forward ends centrally of the carriage with the rear ends of the boards curved outwardly and extending transversely of the forward end of the carriage, an anti-friction wiping connection between the side boards and the platform, a screw shaft rotatably extending through each lateral portion of the plow, a drive axle on the carriage, gear connections between the axle and shafts, the adjustable mounting for the plow including brackets carried by the plow and screw shafts threaded through the brackets and swivelled at their lower ends on the carriage.

In testimony whereof I affix my signature.

JOHN BREWCZYNSKI.