J. WARCUP.

SNOW ROAD MACHINE.

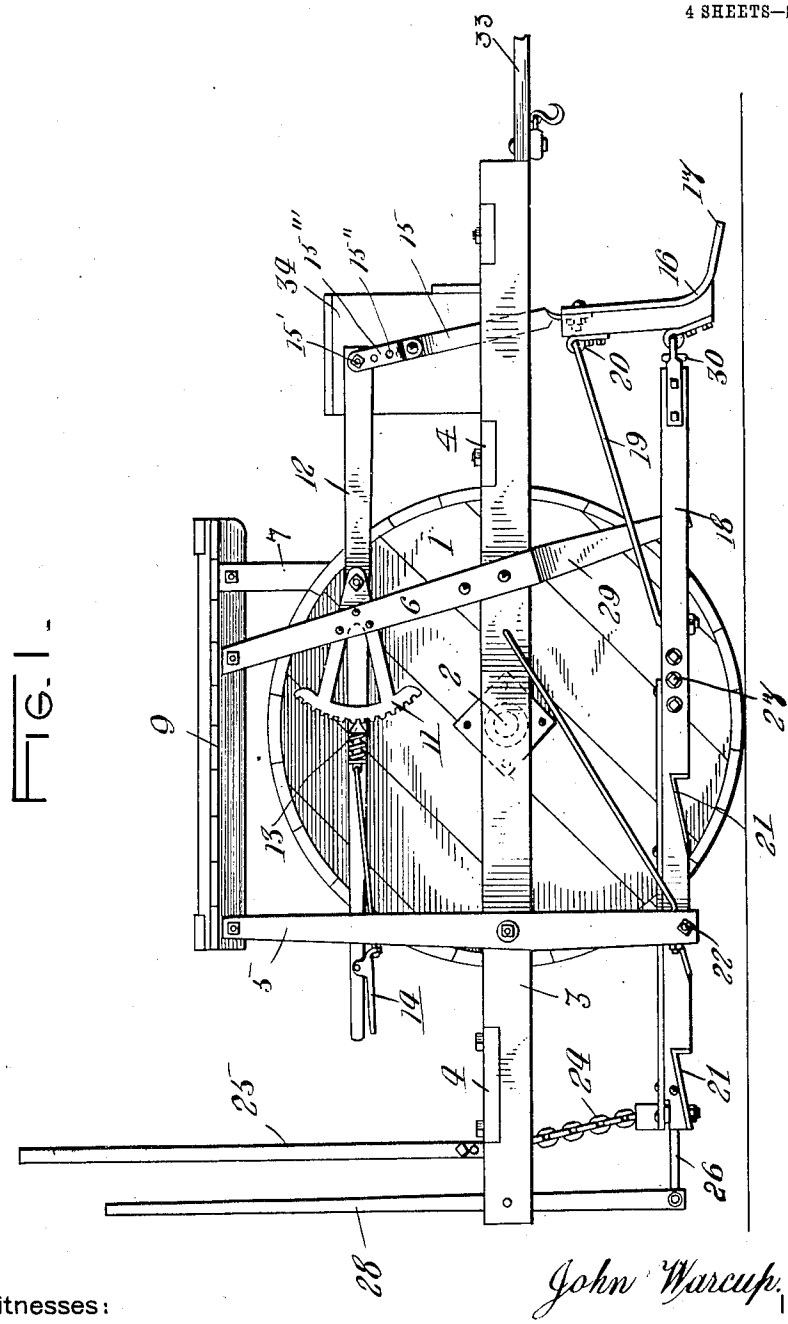
APPLICATION FILED JUNE 15, 1908.

913,788.

Patented Mar. 2, 1909.

4 SHEETS—SHEET 1.

FIG. 1.



Witnesses:

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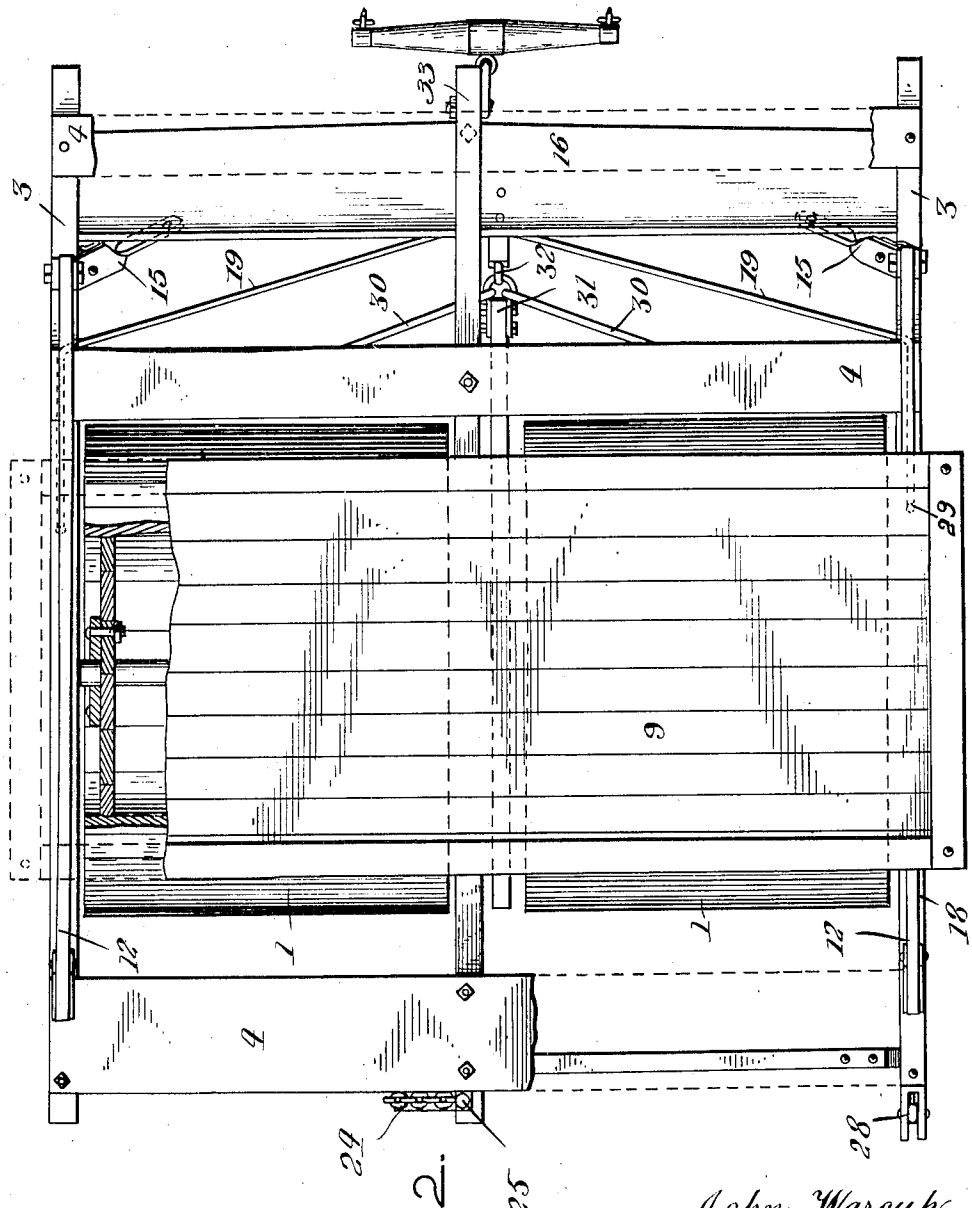


FIG. 2.

Witnesses:

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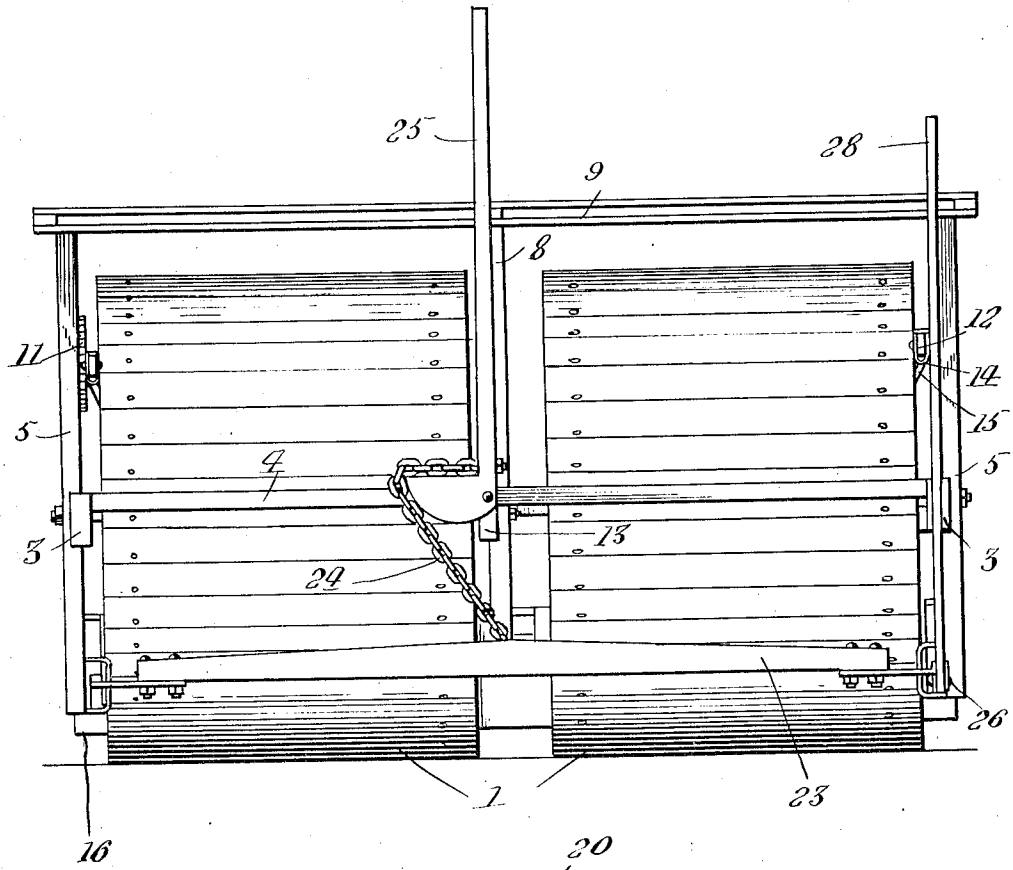
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4 SHEETS—SHEET 3.

FIG. 3.



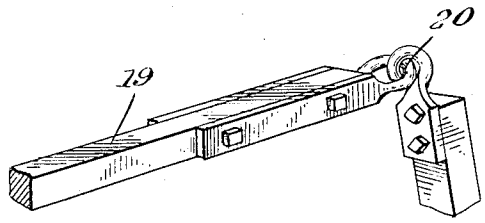


FIG. 5.

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APPLICATION FILED JUNE 15, 1908.

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4 SHEETS—SHEET 4.

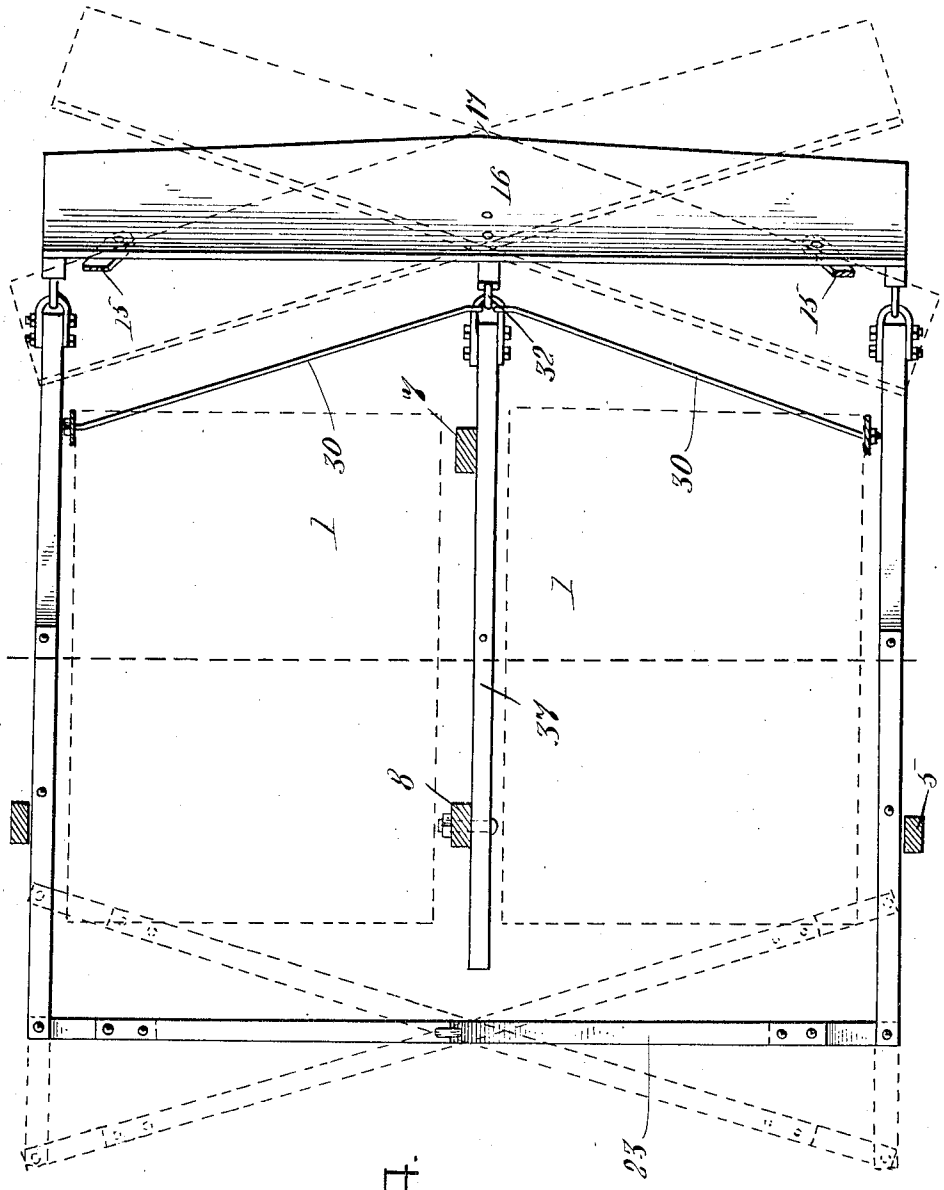


FIG. 4.

Witnesses:

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UNITED STATES PATENT OFFICE.

JOHN WARCUP, OF LEMESURIER, QUEBEC, CANADA.

SNOW-ROAD MACHINE.

No. 913,788. Specification of Letters Patent. Patented March 2, 1909.

Application filed June 15, 1908. Serial No. 438,486.

To all whom it may concern:

Be it known that I, JOHN WARCUP, a subject of the King of Great Britain, residing at Lemesurier, county of Megantic, in the Province of Quebec, Canada, have invented certain new and useful Improvements in Snow-Road Machines; and I do hereby declare that the following is 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.

My invention relates to snow road machines.

The object of my invention is to provide a machine which will remove a portion of the snow and which will compactly roll a road bed following a cutting blade or plow.

A more specific object is to provide a cutting blade or plow which is wider at its center than it is at its ends and to provide means for adjusting the blade or plow vertically from either end.

A further object is to provide means for adjusting the blade or plow laterally and for locking the blade in its adjusted position.

My invention consists of the construction, combination, and arrangement of parts, as herein illustrated, described, and claimed.

In the accompanying drawings forming part of this application, I have illustrated one form of embodiment of my invention, in which drawings, similar reference characters designate corresponding parts, and in which:

Figure 1 is a side elevation; Fig. 2 is a plan view; Fig. 3 is a rear elevation; Fig. 4 is a diagrammatic view showing the plow in three different positions; and, Fig. 5 is a fragmentary detail in perspective showing the pivotal connection of the frame with the center of the plow.

Referring to the drawings, 1 designates a pair of supporting rollers through which is disposed a shaft or spindle 2. Carried by the shaft 2 are longitudinal frame members 3 adapted to lie practically in a horizontal position. The frame members 3 are connected by cross-pieces 4 and support vertical rear standards 5. The inclined standards 6 are also secured on the frame members 3. Carried by the standards 5 and 6 is a platform 9 from which depends the front central standard 7 and the rear central standard 8. Suitable braces extend from the bottom of the standards 5 to the horizontal members 3.

Carried by the inclined standards 6 are segmental racks 11 to which are pivoted the levers 12 provided with pawls 13 adapted to engage the racks and to lock the levers 12 in any desired position. The pawls 13 are controlled by any suitable form of thumb latches 14.

Adjustably secured to the front end of the levers 12 by bolts 15′ passing through perforations 15″ of plates 15‴, are connecting rods 15, having their lower ends secured to the ends of a cutting blade or share 16. This cutting blade or share 16 is slightly broader at the point 17 than at its ends, thus allowing a slightly deeper cut at the center of the machine. By this arrangement of levers and connecting rods, the blade 16 may be raised or lowered at either end, or may be raised while in horizontal position.

Locking bars 18 carrying braces 19, have their front ends on each side of the apparatus connected to the ends of the blades 16 by means of the pivotal connections 20. The under surface of the rear portion of the locking bars 18 are provided with notches 21 which may be suitably reinforced, in which are adapted to engage the bolts 22 carried by the lower ends of the rear vertical standards 5, so that lateral movement of the cutting blade 16 is prevented.

Connecting the rear ends of the locking bars 18 is a cross bar 23, which is slotted to give sufficient play to the connecting members, to which may be secured the lower end of a chain 24, the opposite end of which chain is secured to a lever 25, which lever is pivotally secured on the rearmost cross-piece 4. By means of this construction the rear ends of the bars 18 may be raised to free the bolts 22 from the notches 21 so that the blade 16 may be adjusted axially, toward or away from the rollers 1.

A link or rod 26 is disposed parallel to the locking bars 18 and has its front ends pivot-

ed thereto as at 27. Connected to the rear end of the link 26 is a lever 28, which lever is pivoted to the adjacent frame members 3. By means of this lever 28 the position of the locking bars 18 may be changed so as to adjust the cutting blade 16 laterally.

Carried by the lower end of the inclined standards 6 are projecting arms 29, to which are pivotally secured the ends of rods 30, the opposite ends of which rods are secured pivotally to the front end of a bar 31 carried by the standard 8 and disposed horizontally between the rollers 1. A suitable pivotal connection 32 connects the front end of the bar 31 with the central portion of the blade 16 and its rear side, and forms a pivotal point therefor for its lateral adjustment as graphically illustrated in the diagrammatic view of Fig. 4.

Any suitable draft pole 33 may be secured to the front end of the frame formed by the members 3, and 4 and extended between the rollers to the back side of the frame to give solidity to the structure. A suitable tool box and driver's seat 34 may be carried by the forward end of the frame formed by said members 3 and 4.

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

1. A road making machine comprising a pair of rollers, a frame supported on the rollers, a cutting blade adjustably supported from the frame, and means for adjusting the blade laterally and vertically.

2. A road making machine comprising a pair of rollers, a frame supported on the rollers, a cutting blade adjustably supported from the frame, means for adjusting the blade laterally and vertically, and means for locking the blade in adjusted position.

3. A road making machine comprising a pair of rollers, a frame supported on the rollers, a cutting blade adjustably supported from the frame, and independently operable means for adjusting the blade laterally and vertically, and for locking the blade in adjusted position.

4. A road making machine comprising a pair of rollers, a frame supported on the rollers, a cutting blade having a point centrally thereof and of greater width than the rest of the blade and inclined edges extending from said point, means for pivotally supporting the blade from the frame, and means for adjusting and locking the blade.

5. A road making machine comprising a pair of rollers, frames supported on the rollers, a platform on the frame, a cutting blade adjustably supported from the frame, and means for adjusting the blade laterally and vertically.

6. A road making machine comprising a pair of supporting rollers, a frame supported on the rollers, a pair of standards depending from the frame, a bar carried by the standard, a cutting blade pivotally connected with the bar, and means for rocking the blade in a vertical plane and for locking the blade in any position.

7. A road making machine comprising a pair of supporting rollers, a frame supported on the rollers, a pair of standards depending from the frame, a bar carried by the standard, a cutting blade pivotally connected with the bar, and means for rocking the blade in a vertical plane and for locking the blade in any position, and means for shifting the blade laterally on its pivotal support and for locking the blade in its shifted position.

8. A road making machine comprising a pair of rollers, a frame supported on the rollers, a bar supported centrally of the rollers, a blade pivotally connected to the bar, means for shifting the blade in vertical and horizontal planes on its pivotal support, and braces secured to a portion of the frame having their ends connected to the front end of the bar.

9. A road making machine comprising a pair of rollers, a frame supported from the rollers, a cutting blade, a plurality of adjusting levers supported on the frame, means for locking the levers, connecting members secured to the levers and to the cutting blade, and means for adjusting the blade laterally and for locking the blade in its adjusted position.

10. A road making machine comprising a pair of rollers, a frame supported from the rollers, a cutting blade, segmental racks carried by the frame, a plurality of adjusting levers supported on the segmental racks, locking plates on the levers adapted to engage the racks, connecting members secured to the levers and to the cutting blade for shifting the blade vertically, and means for adjusting the blade laterally in horizontal plane and for locking the blade in its shifted position.

11. A road making machine comprising a pair of rollers, a frame supported from the rollers, locking plates carried by the frame, a cutting blade adjustably supported from the frame, means for adjusting the blade, locking bars connected to the ends of the blades and provided with notches in which are adapted to engage locking bolts, a rod connected to one end of the locking bars, a lever connected to the rod, and means for raising the rear end of the locking bars.

12. A road making machine comprising a pair of rollers, a frame supported from the rollers, locking bolts carried by the frame, a cutting blade adjustably supported from the frame, means for adjusting the blade, locking bars connected to the ends of the

blades and provided with notches which are adapted to engage said bolts, a rod connected to one end of the locking bars, a lever connected to the rod, a lever pivoted to the frame, and a flexible member secured to the lever and to the rear ends of the locking bars.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

JOHN WARCUP.

Witnesses:
A. WATKINS,
E. CARREAU.