

J. W. VICKERS.

SNOW PLOW.

APPLICATION FILED OCT. 26, 1910.

993,739.

Patented May 30, 1911.

2 SHEETS—SHEET 1.

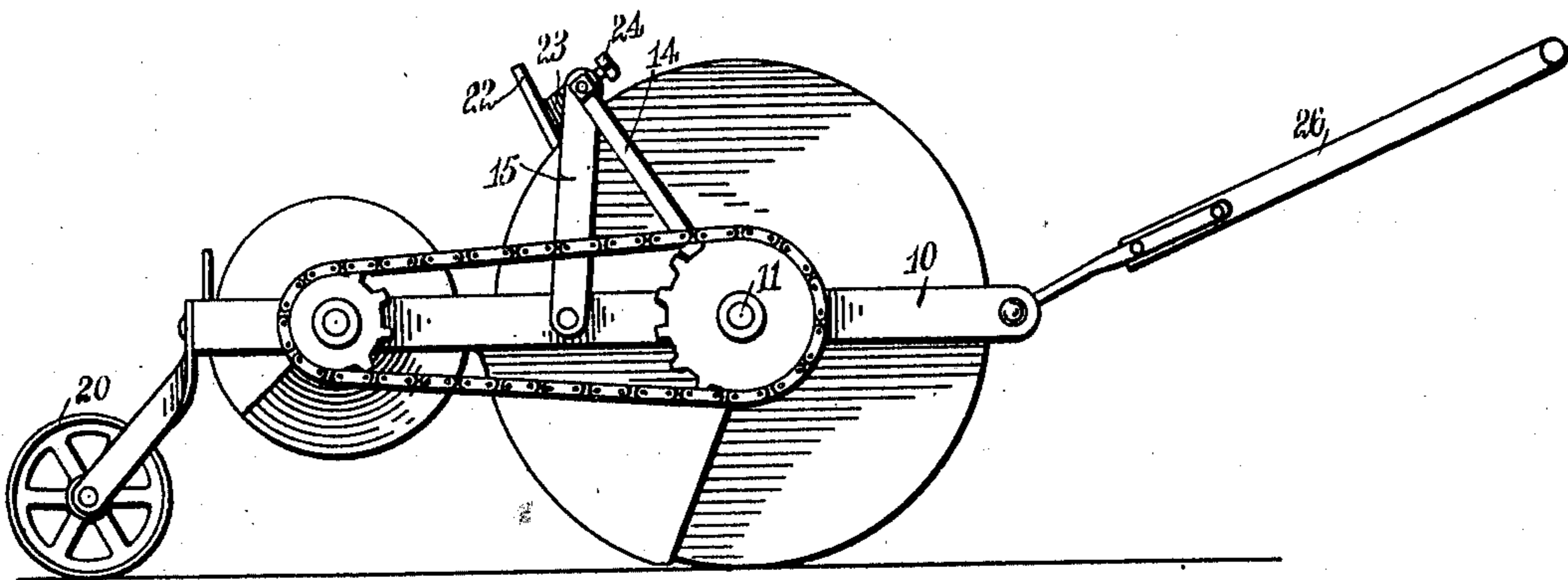
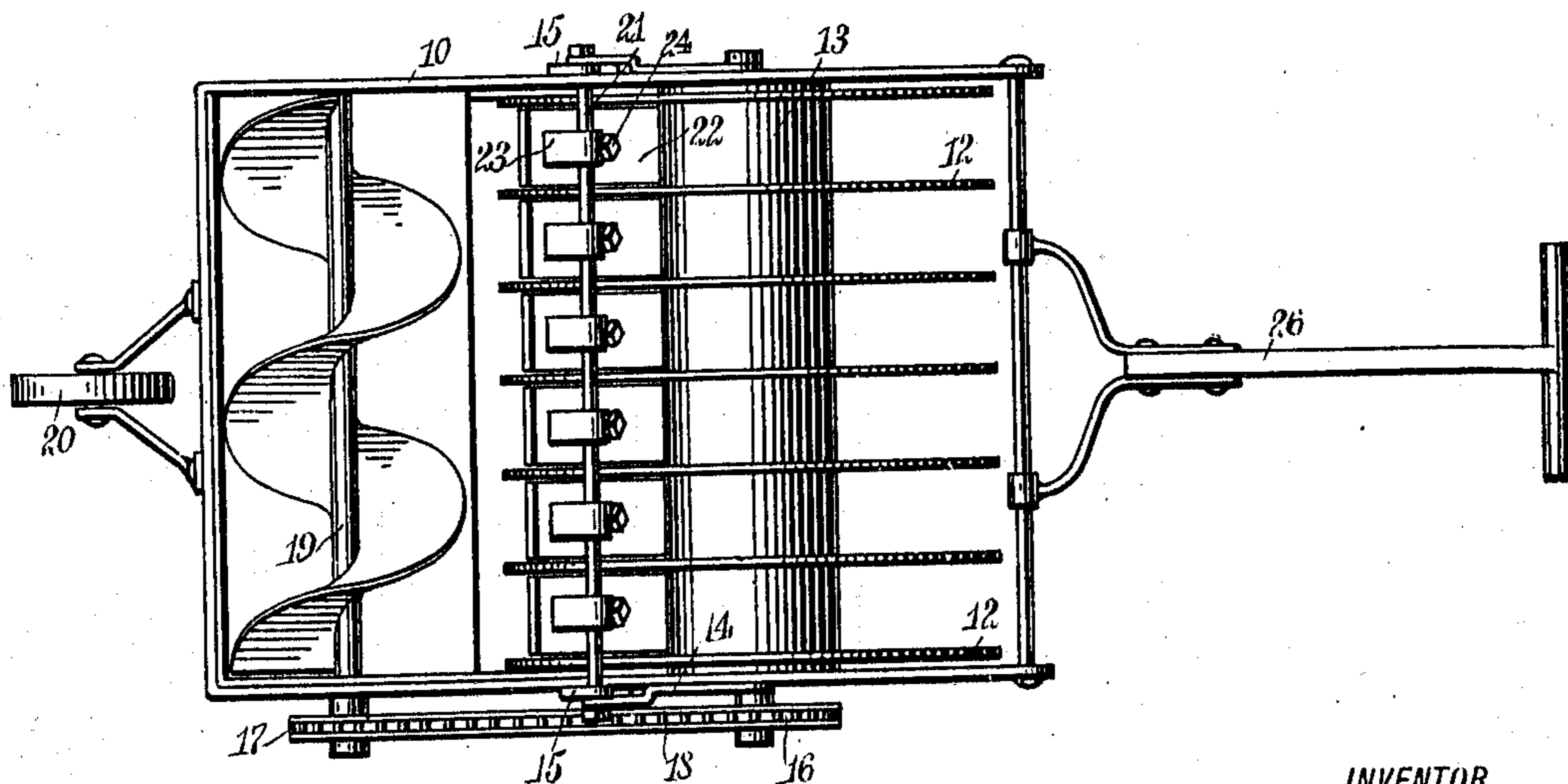


FIG. 1.

FIG. 2.



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2 SHEETS—SHEET 2.

FIG. 3.

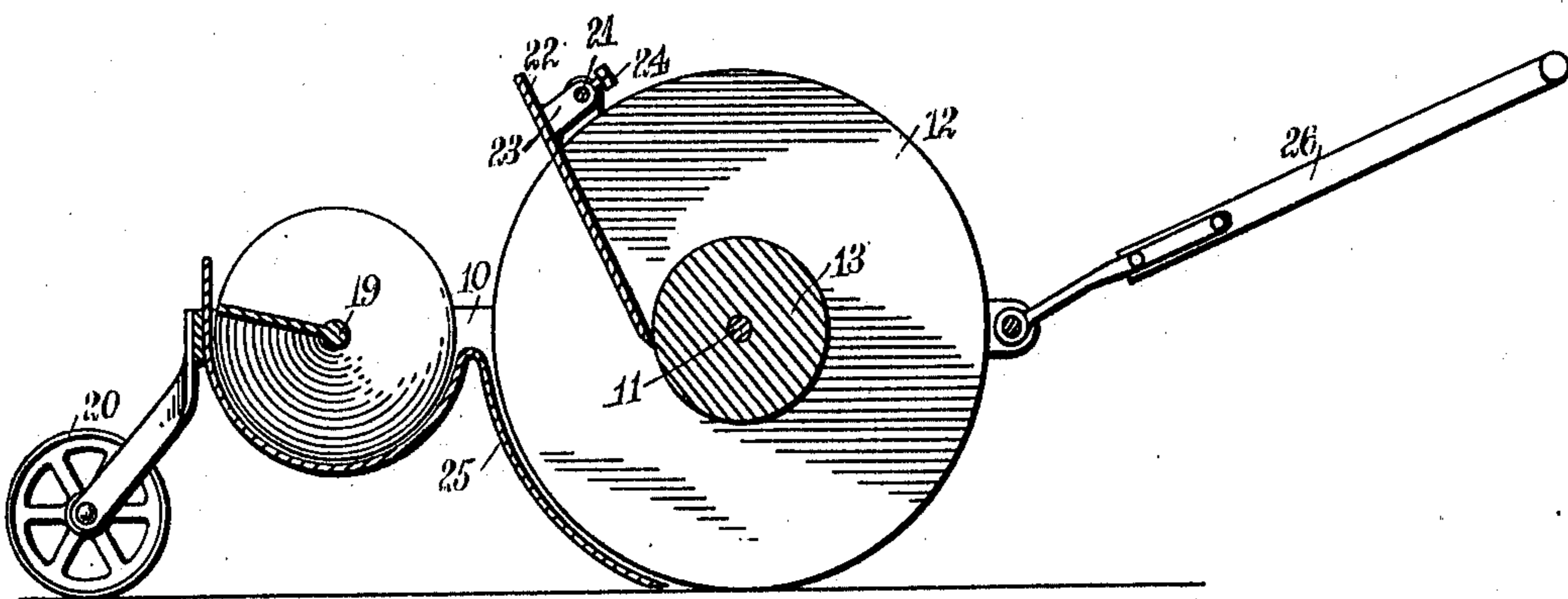


FIG. 4.

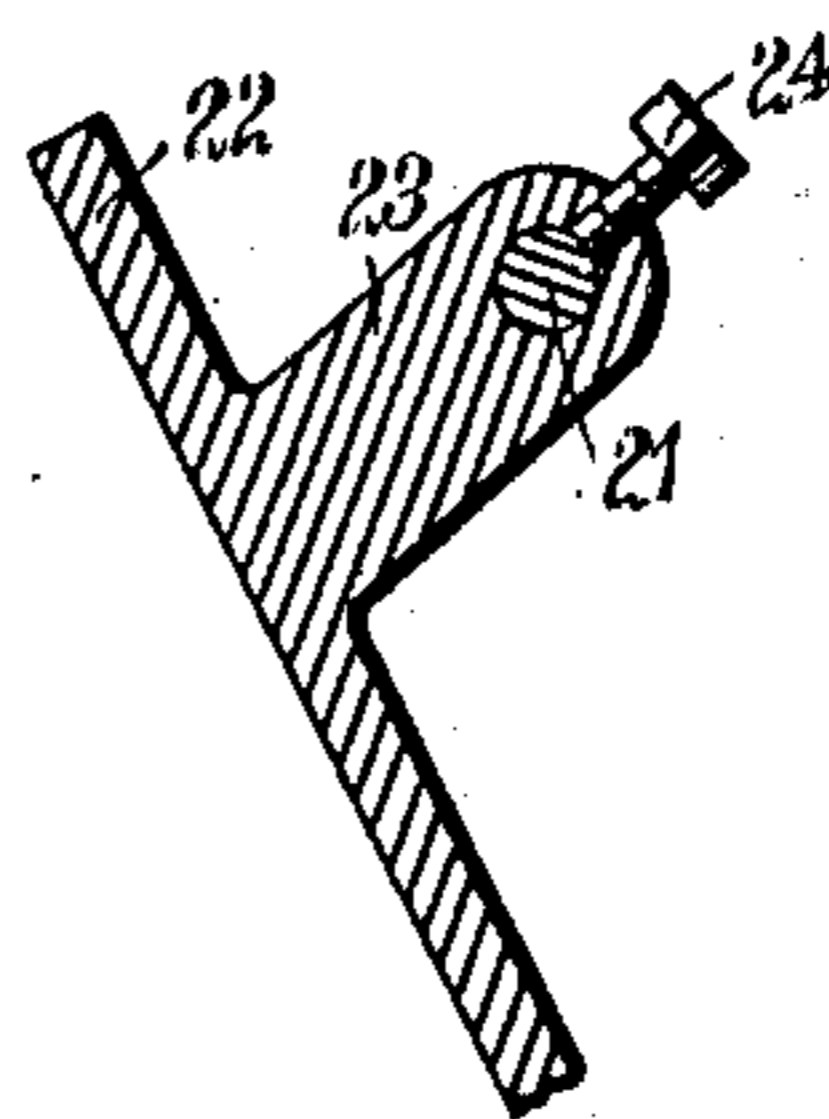
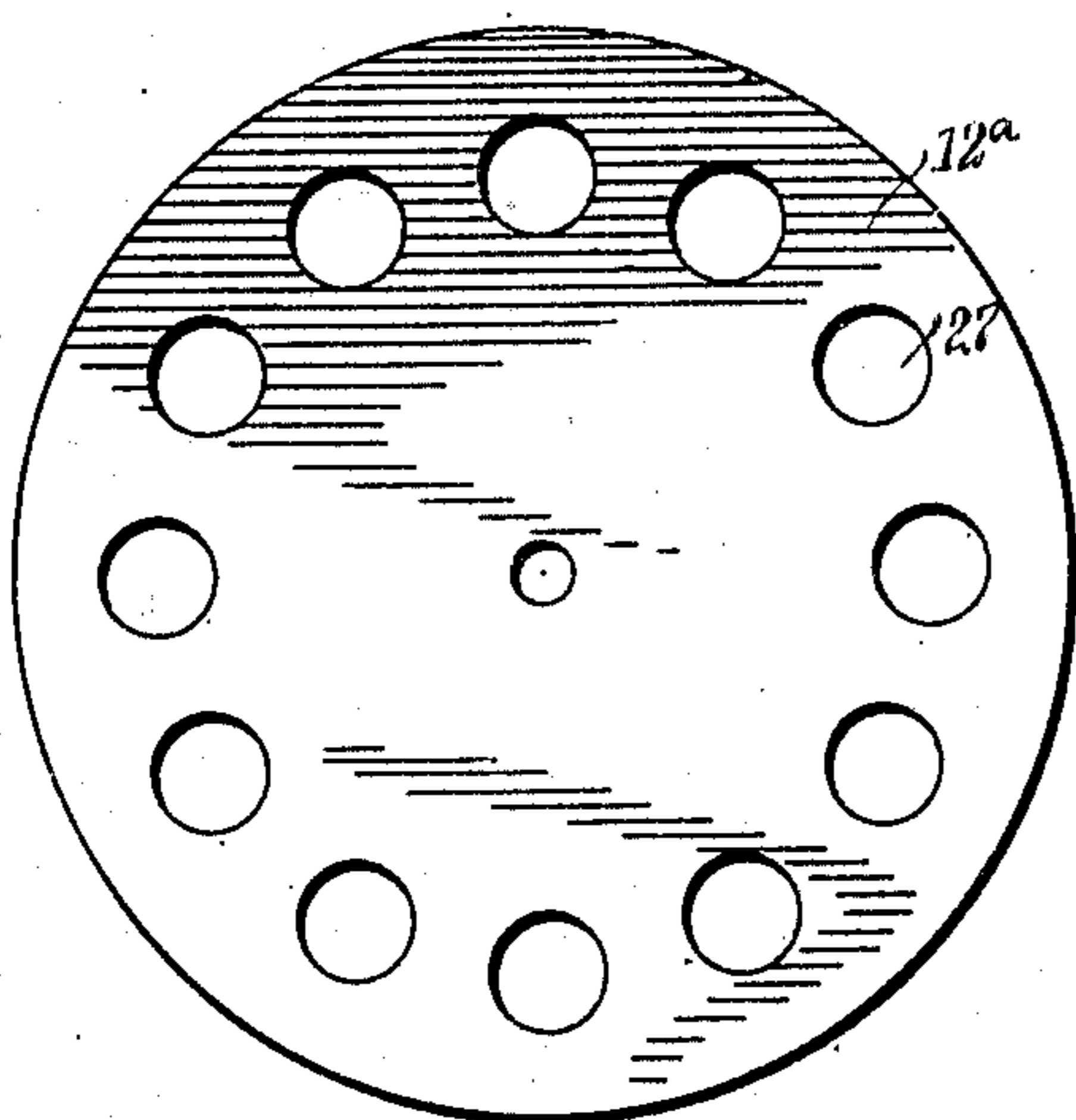


FIG. 5.

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UNITED STATES PATENT OFFICE.

JOHN WYLIE VICKERS, OF JERSEY CITY, NEW JERSEY.

SNOW-PLOW.

993,739.

Specification of Letters Patent.

Patented May 30, 1911.

Application filed October 26, 1910. Serial No. 589,141.

To all whom it may concern:

Be it known that I, JOHN W. VICKERS, a citizen of the United States, and a resident of Jersey City, in the county of Hudson and State of New Jersey, have invented a new and Improved Snow-Plow, of which the following is a full, clear, and exact description.

The invention is an improvement in snow plows, and has in view such an appliance embodying a series of snow-removing and conveying disks secured together in spaced relation, the disks forming a wheel support for the plow and discharging onto the conveyer, which in turn discharges the snow to one or both sides of the machine.

The invention further resides in the provision of a scraper extending from the conveyer close to the conveying point of the disks with the ground or other surface, and substantially conforming to the curvature of the disks; and also in the provision of scraper blades between the several disks, each blade being forwardly and rearwardly adjustable and adapted to close the space between the disks and bear against the rear side of the hub or spacing member, thus preventing the snow making a complete turn with the disks and insuring the passage of the snow to the conveyer.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of a snow plow constructed in accordance with my invention; Fig. 2 is a plan of the same; Fig. 3 is a longitudinal section of the plow; Fig. 4 is a detail face view of a modified form of the snow-removing and conveying disks; and Fig. 5 is a fragmentary sectional view of one of the scraper blades.

The frame 10 of the plow is of substantially rectangular form, and near the front portion is provided with bearings for an axle 11. On this axle are arranged a number of snow-removing and conveying disks 12, the disks being spaced apart by spacing members or blocks 13 of cylindrical form and suitably clamped together on the axle. All of the disks 12 are arranged within the frame, and the axle is extended slightly therebeyond at each end for securing the lower ends of braces 14, arranged at the opposite sides of the frame, the opposite and upper ends of the braces being attached to

uprights 15 secured to the frame. Outwardly of one of the braces 14 is attached to the extended end of the axle, a sprocket wheel 16, which is connected with a sprocket wheel 17 by a chain 18, the sprocket wheel 17 being secured to the extended end of a conveyer shaft 19, the latter having a spiral conveyer and journaled in suitable bearings of the frame arranged at the rear of the machine. The disks 12, it will be observed, serve as a wheel support for the front of the plow, whereas the rear of the plow is supported by the wheel 20, the latter being journaled in a fork, which is secured centrally at the back of the frame 10. The upright 15 and brace 14 are secured at each side of the machine by a cross rod 21, on which are arranged a number of scraper blades 22, one of these blades being arranged between each pair of disks and adapted to bear on the spacing member, as shown in Fig. 3. The rod 21 passes through a lug 23 formed on the upper portion of the front face of the blade, adapting the blade to be pivotally adjusted forwardly and rearwardly and secured in adjusted position by a set-screw 24.

The spiral conveyer works in a trough, which at the rear, shown in Figs. 1 and 2, extends a substantial distance above the frame, and at the front, at about the height of the frame, has an attached scraper 25, the scraper conforming to the curvature of the disks and reaching to a point near the line of bearing of the disks with the ground or other surface, so that such snow as does not adhere to the disk as the plow passes through, will be forced therebetween by the scraper. For drawing the disks forward, any suitable means may be provided. For the purpose I have shown a handle 26 suitably connected to the front bar of the frame.

The conveyer 19, it will be noted, discharges to the opposite side of the machine from the chain and sprocket or other transmission member, with the frame at the point of discharge outwardly offset to prevent the snow from packing against it, whereby the discharge is not impeded.

In Fig. 4, I have shown a modified form of snow-removing and conveying disk 12^a, being in all respects the same as the disks 12, except that it is provided with a number of openings 27, through which the snow can pass and in this manner be firmly held until removed by the scraper blades.

In the operation of the plow, as it is passed over the surface from which the snow is to be removed, the snow is picked up by the disks and conveyed thereby in whole or in part until the scraper blades 22 are reached. Such snow as may drop from the disks in transit, or which is not picked up thereby, is forced therebetween by the scraper 25, and the entire mass enforced to travel upwardly to the top of the conveyer trough, where it is discharged upon the conveyer. The conveyer in turn discharges the snow to one side of the machine. It will be seen from Fig. 2 that the scraper 25 and scraper blade 22 form in connection with the disks 12, a number of conduits leading to the conveyer.

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

1. In a snow plow, a series of snow-removing and conveying disks secured together in spaced relation and forming a wheel support for the plow.
2. In a snow plow, a conveyer discharging to one side thereof, and a series of snow-removing and conveying disks secured together in spaced relation and discharging onto the said conveyer.
3. In a snow plow, a series of snow-re-

moving and conveying disks secured together in spaced relation, a conveyer arranged at the rear of the disks and discharging at one side of the plow, and a scraper extending about the lower rear edges of the disks and leading to the conveyer.

4. In a snow plow, a supporting wheel having a series of snow-removing and conveying disks spaced apart, a scraper arranged at the lower rear edges of the disks, and scraper blades fitting between the several disks and cutting off the escape of the snow at the top.

5. In a snow plow, a series of snow-removing and conveying disks secured together in spaced relation, and scraper blades fitting between the disks, each scraper blade fulcrumed to swing forwardly and rearwardly and having means for securing it in adjusted position, each blade of a length to bear against the inner face of the spacing member between the disks.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN WYLIE VICKERS.

Witnesses:

A. H. DAVIS,

PHILIP D. ROLLHAUS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
