

(No Model.)

2 Sheets—Sheet 1.

T. C. McADAM.
SNOW PLOW.

No. 505,366.

Patented Sept. 19, 1893.

Fig. 3.

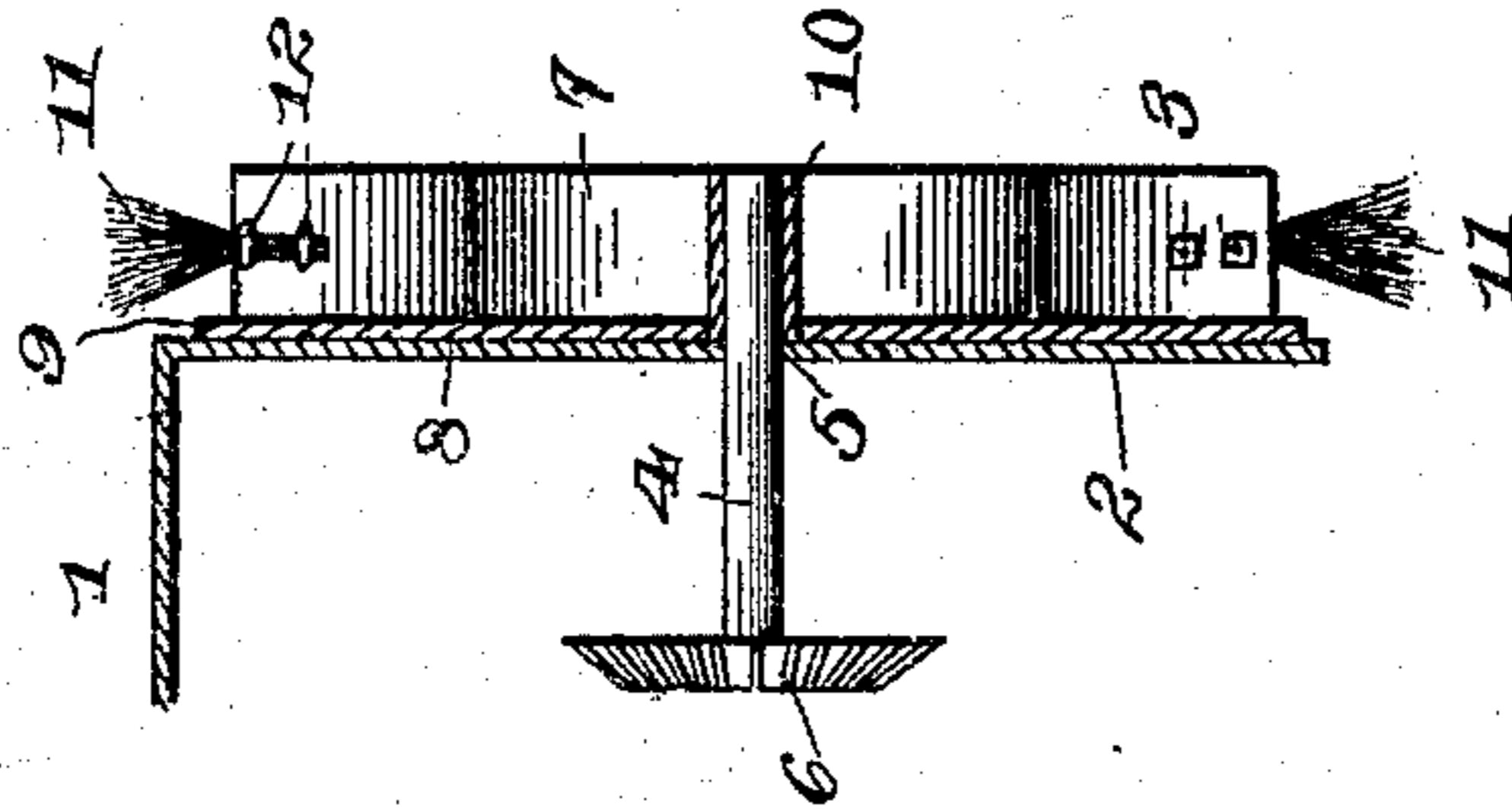
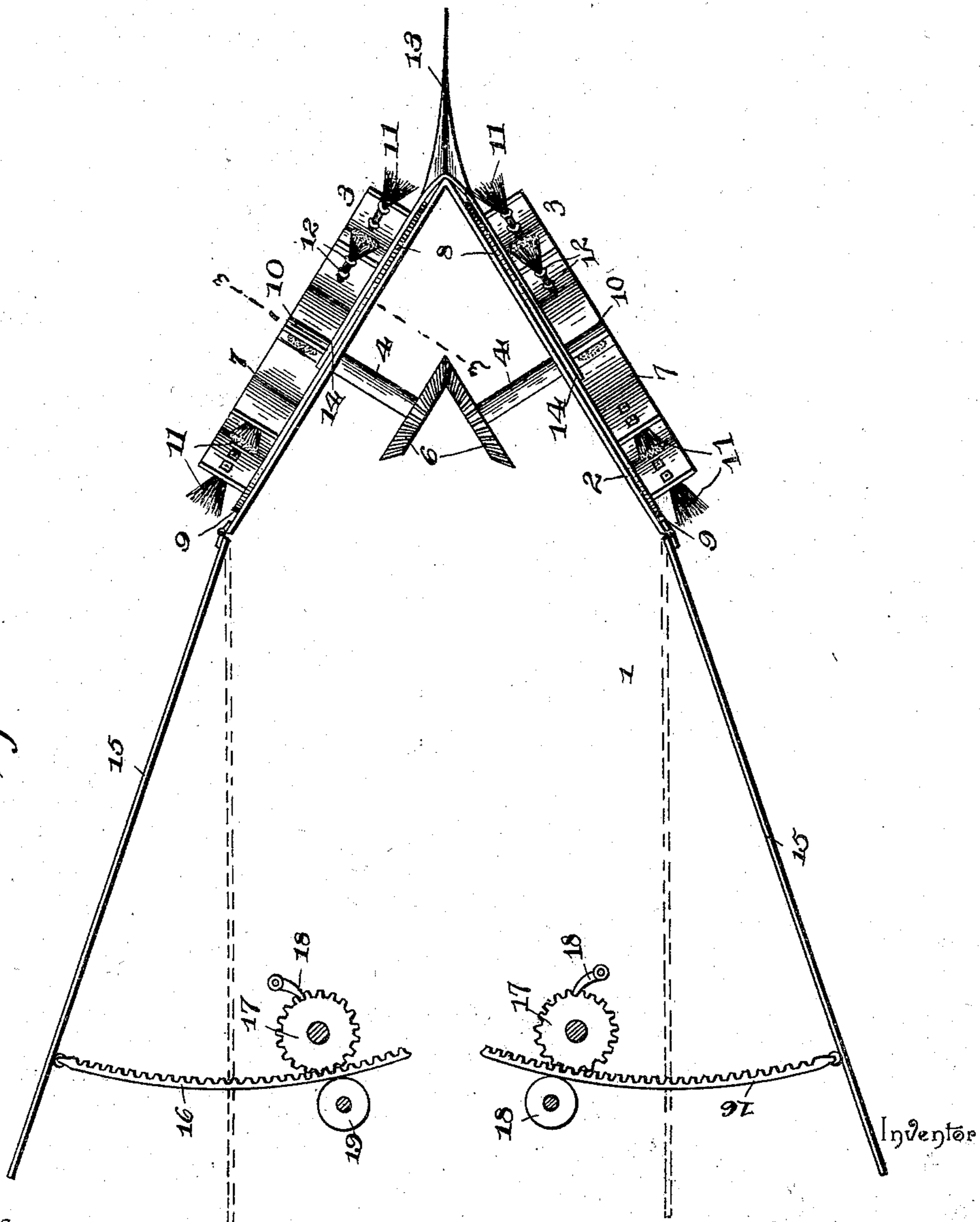


Fig. 1.



Witnesses

C. A. Ford.

[Signature]

By his Attorneys, Thomas C. McAdam,

C. A. Snow & Co.

(No Model.)

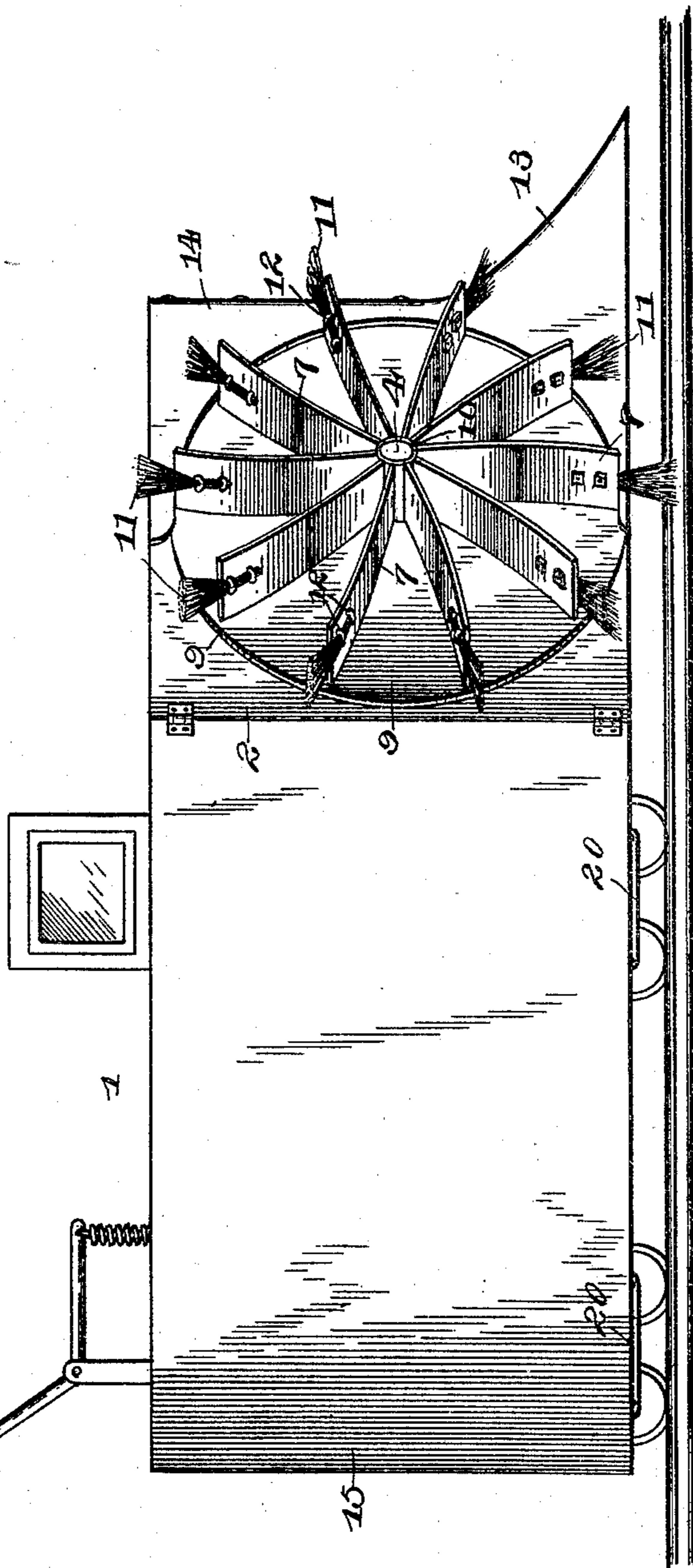
2 Sheets—Sheet 2.

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Fig. 2.



Inventor

Thomas C. McAdam,

By his Attorneys.

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C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

THOMAS C. McADAM, OF FERNDALE, PENNSYLVANIA.

SNOW-PLOW.

SPECIFICATION forming part of Letters Patent No. 505,366, dated September 19, 1893.

Application filed June 16, 1893. Serial No. 477,839. (No model.)

To all whom it may concern:

Be it known that I, THOMAS C. McADAM, a citizen of the United States, residing at Ferndale, in the county of Lehigh and State of Pennsylvania, have invented a new and useful Snow-Plow, of which the following is a specification.

My invention relates to improvements in snow plows, and it has for its object to provide a device adapted to be run by electric or other suitable power to clear the snow from street railway tracks.

My invention consists of a certain novel construction, combination and arrangement of parts which will be fully described hereinafter and particularly pointed out in the claims.

In the drawings: Figure 1 is a plan view partly broken away of a snow plow embodying my invention. Fig. 2 is a side view of the same. Fig. 3 is a transverse sectional view on line 3—3 of Fig. 1, to show the manner of mounting the clearing wheels.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates the body of the plow, which is provided with a wedge-shaped front end or head 2, and 3, 3, designate rotary clearing-wheels, which are arranged respectively parallel with the sides of the wedge-shaped head and are fixed to the projecting ends of the spindles 4, which are mounted in bearings 5, arranged at about the centers of the convergent sides of the head. These spindles project within the body of the plow and are connected for simultaneous rotation by means of bevel gears 6. These wheels are provided with curved blades 7, which incline forward toward their outer ends, or are dishd upon their front sides, as shown clearly in Fig. 2, and they terminate short of the periphery of the circular plate 8, by which they are carried, to form a peripheral flange 9. The inner ends of the blades are fixed to the hub or sleeve 10, and at their outer ends are free to engage the snow upon or near the track. Steel wire brushes 11 are fixed to each blade of the wheels by means of clamps 12, such brushes being preferably arranged upon the rear sides of the blades in order to follow the latter in operation. The said clamps consist

of keepers which are secured to the blades by riveting or by countersunk bolts. A nose or prow 13 is fixed to the front end or apex of the wedge-shaped head, and is provided with angularly disposed rearwardly-extending plates 14, which are provided with concaved rear edges to overlap the peripheral flanges of the wheels, and thus form guards or shields therefor. These guards or shields extend around and protect the front half of each wheel, whereby as the blades descend on the front sides of the wheels they are held from vibration and strengthened by the guards. Furthermore, the prow or nose divides the snow and throws it into the path of the blades to enable the latter to throw it beyond the line of the tracks. The centers of the wheels are preferably arranged vertically above the rails whereby the lowest points of the wheels are directly above the said rails. The brushes preferably extend about two inches below the plane of the treads of the rails in order to remove the snow from the sides of the latter.

Hinged to the rear edges of the sides of the wedge-shaped head are the lateral wings 15, which are adapted to be arranged substantially parallel, respectively, with the sides of the head during operation in order to carry the snow a sufficient distance beyond the line of the track. Either one or both of these wings may be employed, or one may be extended at a greater angle than the other, as may be required. To operate said wings and hold them in their adjusted positions, I employ racks 16 which are pivotally connected to the wings and engage pinions 17, provided with pawls 18, to prevent reverse rotation thereof. Guide rolls 19 are also employed to hold the racks in operative relation to the pinions.

In Fig. 2 of the drawings I have shown a look-out or caboose located upon the top of the plow for the convenience of the operator, and it will be understood that the plow is mounted upon suitable trucks 20.

The operation of the apparatus will be clearly apparent from the foregoing description and it will be understood that various changes in the form, proportion and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having described the invention, what is claimed is—

1. In a snow plow, the wedge-shaped head, in combination with wheels arranged parallel with the sides of said head and provided with curved brush-carrying blades, substantially as specified.
2. The combination with a snow plow having a wedge shaped head, of rotary wheels arranged parallel with the sides of said head and provided with peripheral flanges, and a prow or nose fixed to the apex of said head and provided with rearwardly-divergent guard or shield plates having concaved rear edges to overlap the peripheral flanges of the wheels, substantially as specified.
3. The combination with a snow plow having a wedge shaped head, of brush-carrying wheels arranged parallel with the sides of said head and comprising circular plates and curved or dished blades fixed to said plates and terminating short of their peripheries to form flanges, and brushes secured respectively to the outer ends of the blades upon their rear sides, substantially as specified.

4. In a snow plow, the combination with a wedge-shaped head, and brush-carrying wheels mounted upon opposite sides of the head, of swinging wings arranged in rear of the head, and means for adjusting and locking such wings at any desired deflection, substantially as specified.

5. In a snow plow, the combination with a wedge-shaped head, and brush-carrying wheels arranged parallel with opposite sides thereof, of wings hinged at their front ends adjacent to the rear edges of the sides of the head, and means for adjusting and locking said wings consisting of rack-bars, pinions engaging said rack-bars and pawls to hold the pinions in their adjusted positions, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

THOMAS C. McADAM.

Witnesses:

U. S. LITZENBERG,
E. E. LITZENBERG.