

T. C. CHURCHMAN.
Track-Clearers.

No. 155,007.

Patented Sept. 15, 1874.

Fig. 1.

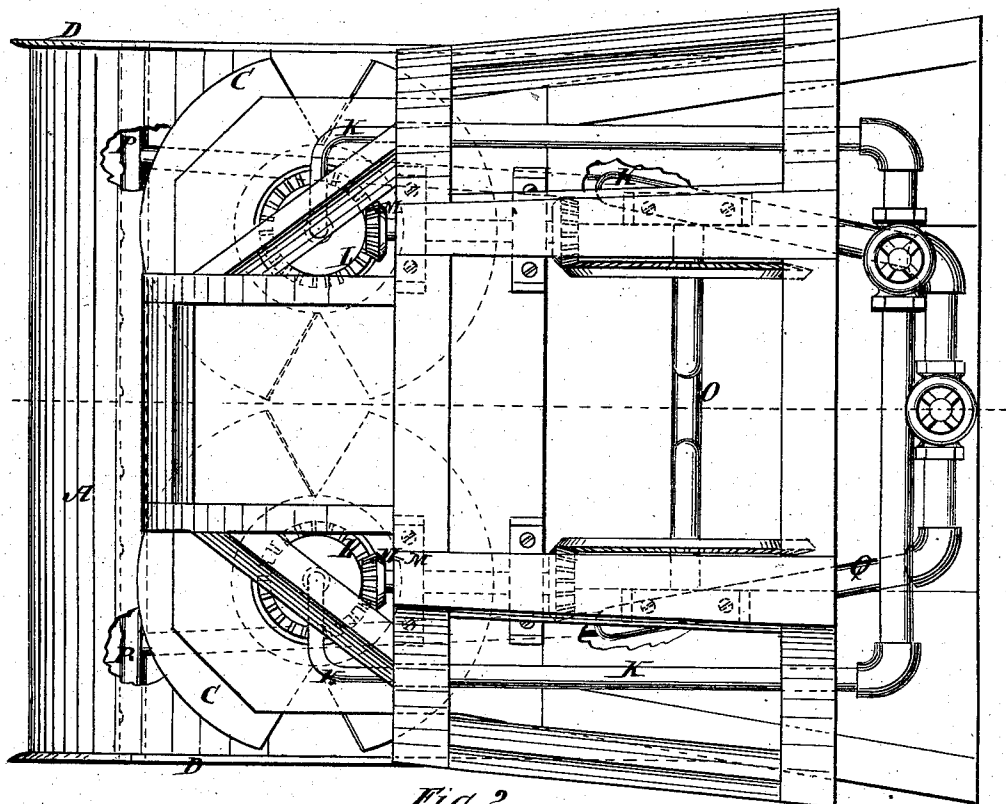
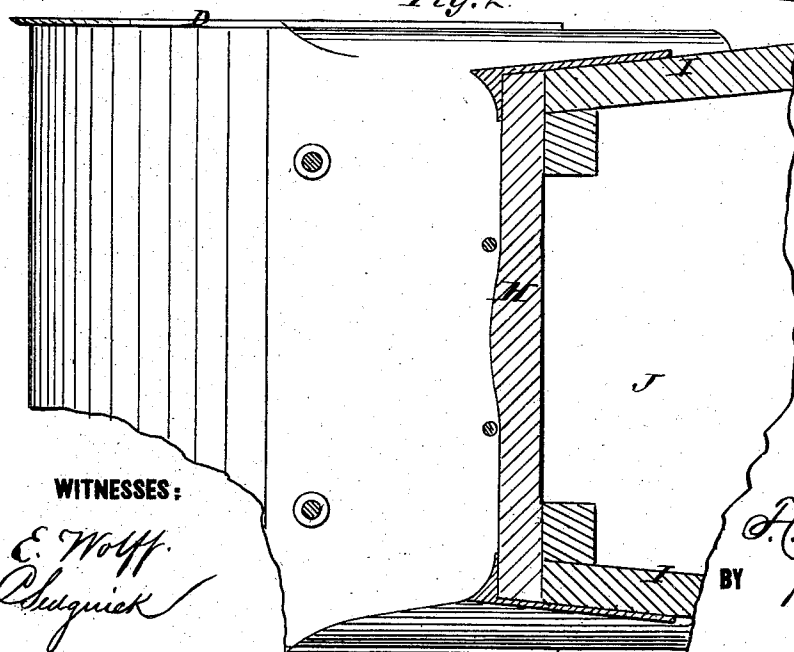


Fig. 2.



WITNESSES:

E. Wolff.
Chesnick

INVENTOR:

T. C. Churchman

BY

Wm. L. ...
ATTORNEYS.

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Fig. 3.

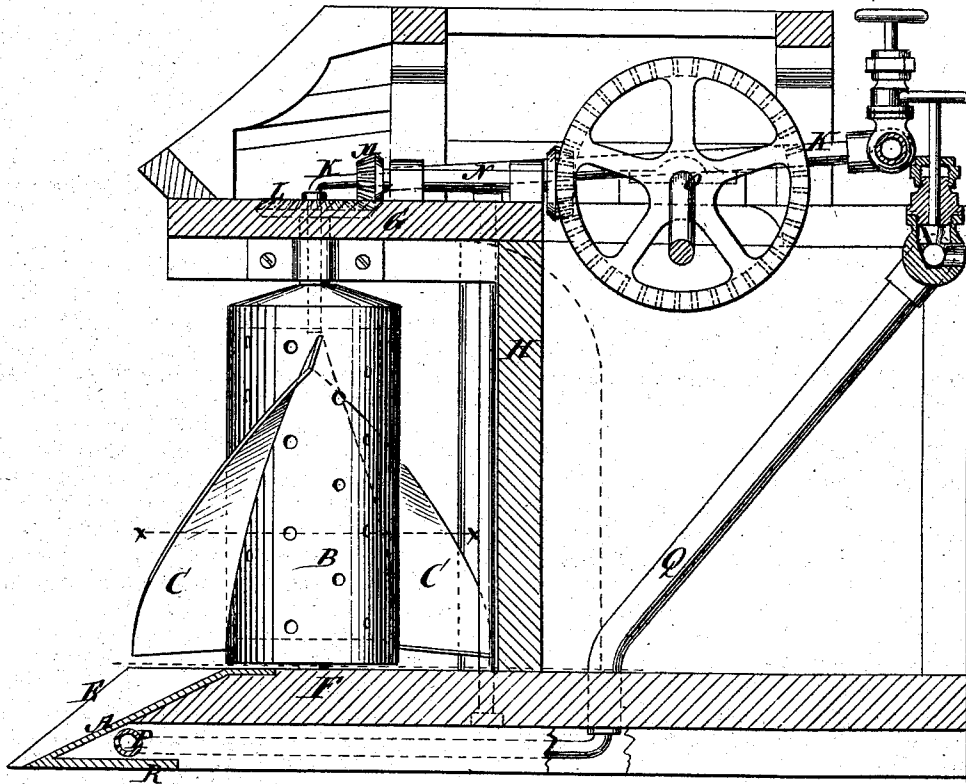
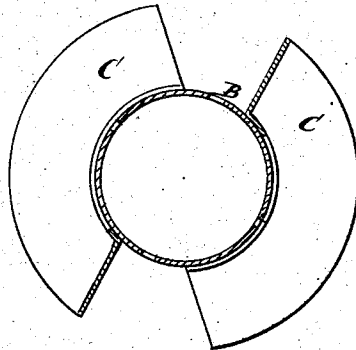


Fig. 4.



WITNESSES:

E. Hoff
Chapman

INVENTOR:

T. C. Churchman

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Wm. H. L.

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UNITED STATES PATENT OFFICE.

THOMAS C. CHURCHMAN, OF SACRAMENTO, CALIFORNIA.

IMPROVEMENT IN TRACK-CLEARERS.

Specification forming part of Letters Patent No. **155,007**, dated September 15, 1874; application filed April 25, 1874.

To all whom it may concern:

Be it known that I, THOMAS C. CHURCHMAN, of Sacramento, in the county of Sacramento and State of California, have invented a new and Improved Snow-Plow, of which the following is a specification:

The invention will first be fully described, and then pointed out in the claims.

The steam-pipes will be supplied from a boiler carried on the plow, and furnishing steam for driving the engine, by which the cylinders will be turned.

Figure 1 is a plan view of my improved snow-plow. Fig. 2 is a horizontal section taken on the line *x x* of Fig. 3. Fig. 3 is a longitudinal sectional elevation taken on the line *y y* of Fig. 1.

Similar letters of reference indicate corresponding parts.

A represents a scraper, extending from side to side of the machine, to raise the snow from directly over the rails and deliver it to the vertical rotary cylinder B, whereon are fixed strong spiral flanges C, which, being turned from the center of the machine outward, beat the snow off at the sides, and at the same time screw it upward, so as to pack it into the sides of the cut when the snow is as deep as the height of the cylinders, or throw it onto the top when not so high. At each side of the scraper is a mold-board, D, which projects a little in advance of the scraper, forming a cutter, E, for cutting down the sides at the bottom a little wider than the scraper, and the sides along which the mold-board extends back of the scraper, the cutters being slightly divergent to prevent friction along the sides. The cylinders are journaled at the lower end in the strong platform F, which also supports the scraper, and at the top they are journaled in the overhanging frame G, which is supported mainly by the strong bulk-head H, and partly

by the sides I, which, together with the bulk-head, inclose the space J, in which the boiler and engine for working the cylinders will be mounted. The cylinders are hollow, perforated in the shell, and have a steam-pipe, K, entering the interior chamber through the top journal, for delivering steam to heat them, and melt the snow when it is required to do so. The cylinders are geared at the top, by a bevel-wheel, L, and pinion M, with a counter-shaft, N, which gears with the crank-shaft O, which is mounted on the top of the frame, to employ upright engines for driving it. Below the scraper A is a perforated pipe, P, receiving steam from the boiler through conducting-pipes Q, to heat the scraper for softening the snow and clearing the scraper; also to discharge steam upon the rails through holes in the bottom plate R, and against the banks through the mold-board, to melt the snow and ice thereat.

In practice the spiral blades will be made in sections, with a flange at the inner edge, by which to bolt them onto the cylinder.

I am aware that hollow perforated cylinders receiving a steam-supply pipe are not new, and form no part of my invention.

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

1. The combination, with hollow perforated cylinders B, having tubular upper journal, of the steam-supply pipe K, as and for the purpose described.

2. The combination, with scraper A, of perforated pipe P and steam-supply pipe Q, as and for the purpose specified.

THOMAS CURTIS CHURCHMAN.

Witnesses:

SAML. POORMAN,
ROB. B. PATTON.