C. MARSHALL.

Snow-Plow.

No. 163,501. Patented May 18, 1875.

Fig: 1:

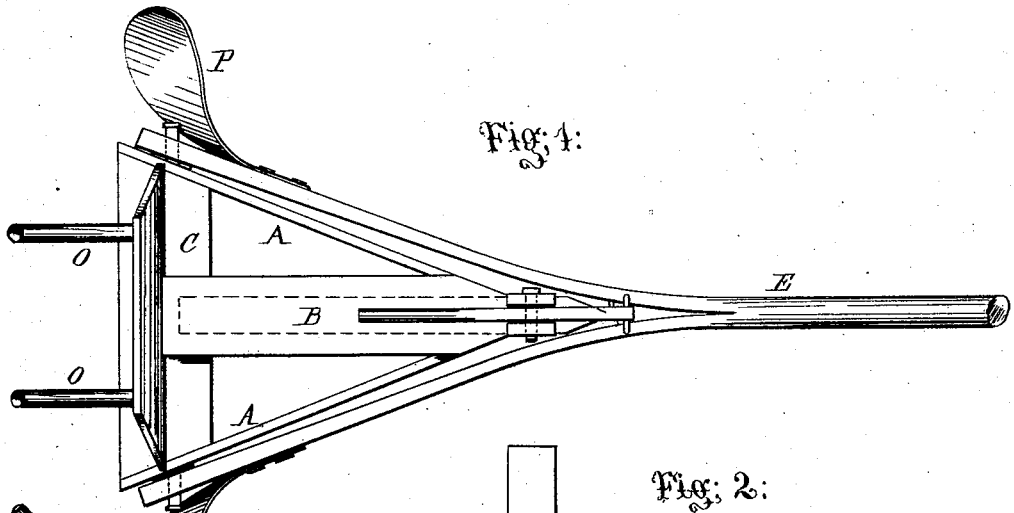


Fig: 2:

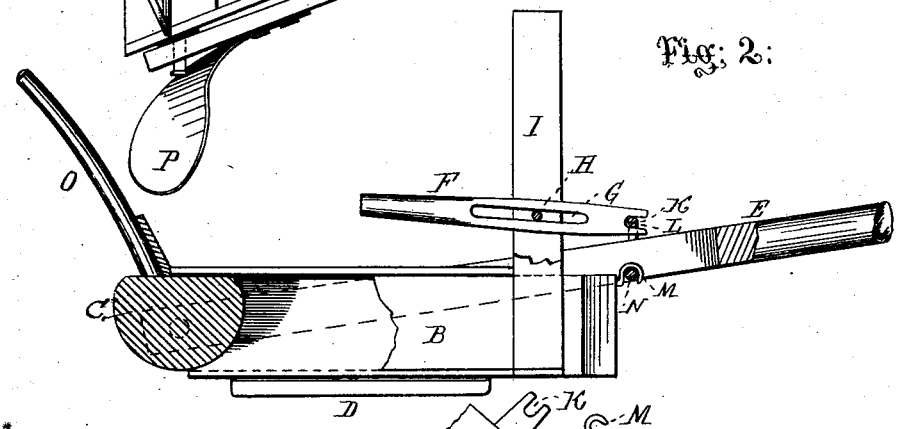
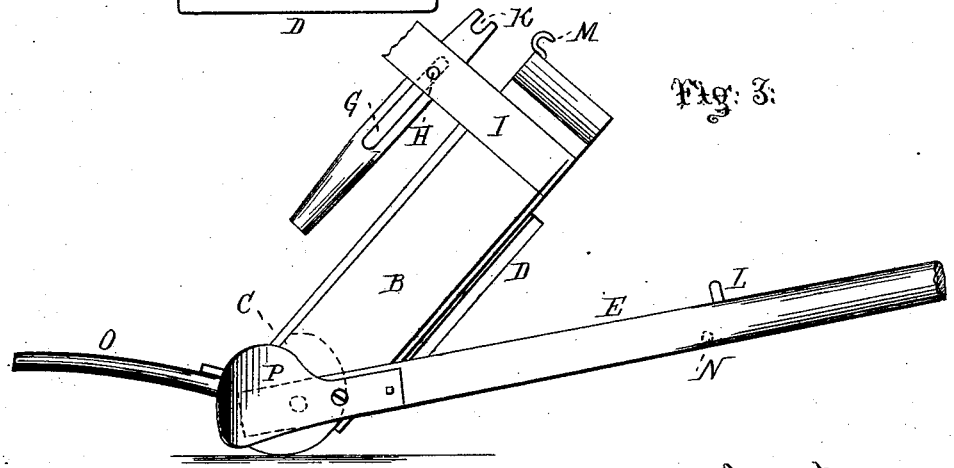


Fig: 3:



Witnesses:

Jno. Wagner,

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Inventor:

Calvin Marshall

By his attorney.

James L. Norris.

UNITED STATES PATENT OFFICE.

CALVIN MARSHALL, OF NORTH EASTON, MASSACHUSETTS.

IMPROVEMENT IN SNOW-PLOWS.

Specification forming part of Letters Patent No. **163,501**, dated May 18, 1875; application filed October 7, 1874.

To all whom it may concern:

Be it known that I, CALVIN MARSHALL, of North Easton, in the county of Bristol and State of Massachusetts, have invented certain new and useful Improvements in Snow-Plows, of which the following is a specification:

This invention relates to a snow-plow, which is simple in construction, effective in operation, and convenient in use; and it consists in the employment of a triangular plow, composed of two side boards attached to a central keel, and of a rear traverse roller or log, the various parts being mounted in a draft-frame or bifurcated tongue in such a manner that the plow can be turned from a horizontal or operative position to a vertical position to facilitate the transportation of the plow, and for pressing light snow to form a solid bed or surface, as will be more fully hereinafter described. The invention also consists in connecting to the forward part or apex of the plow a slotted lever, turning on a fulcrum-pin in a vertical post, and provided with a forked front end, which is caused to engage with a staple or other suitable device on the draft-frame, for enabling the plow to be adjusted vertically to conform with the snow-bed; and when said lever is disengaged from the draft-frame the plow is susceptible of being turned to a vertical position.

In the accompanying drawings, Figure 1 is a top or plan view of a snow-plow constructed according to my invention. Fig. 2 is a longitudinal central section of the same. Fig. 3 is a side elevation of the plow, showing the same turned to a vertical position.

The plow proper is composed of two lateral boards, A A, which diverge in a rearward direction, being attached at their forward ends to a central vertical keel-board, B, having a sharp front end or apex to facilitate the penetration of the snow. At the rear end of the plow there is located a transverse log or solid beam, C, which is preferably made of a curved or semi-cylindrical shape, as shown. A metallic supplementary keel, D, is applied to the lower edge of the keel-board B, said keel serving as a runner or cutter to properly guide the movement of the plow by sinking into the snow-bed. The plow, which is arranged within a draft-frame or bifurcated tongue, E, is pivoted or journaled to the latter at its rear end, so as to enable the plow to be adjusted vertically in respect to said frame or tongue to conform with the depth of the snow-bed.

The plow, arranged as shown, is specially adapted for operation upon irregular as well as regular surfaces, and will be equally as effective when following in the immediate track of cattle, or when passing through a snow-bank or over a level surface.

The advantages derived from the use of a cross-log arranged as shown is, that, when it is used in connection with the plow or side boards, it will solidify or render compact the road-bed, and when the snow is light it can be used to press the same without displacing it, the plow being in this instance turned in a vertical position, as shown in Fig. 3.

The vertical adjustment of the plow is effected through the medium of a lever, F, which is provided with an elongated slot, G, through which passes a fulcrum-pin, H, applied to a vertical standard or post, I, attached to the apex of the plow. The forward end of said lever is bifurcated, as shown at K, so that, when caused to engage with a staple, L, or other suitable object on the draft-tongue, the plow can be adjusted vertically by exerting a downward or upward force to the rear end of the lever. M is a hook on the forward end of the plow, which comes in contact with a cross-pin, N, on the draft-tongue, for limiting the downward movement of the plow. By drawing the lever F in a rearward direction its forked end is disengaged from the staple on the frame, and when in this position the plow is capable of being turned to a vertical position for action upon a light snow-bed, or to facilitate the transportation of the plow when not in use. Suitable guide-handles O are combined with the plow proper, as shown. When it is desired to increase the capacity of the plow for displacing a greater quantity of snow I apply to the rear ends of the same, by detachable fastening devices, supplementary wings or mold-boards P, which extend in an outward direction in respect to the side boards of the plow.

A snow-plow constructed according to my invention is more effective and perfect than

others heretofore constructed, and as some of the most important points of advantage there may be cited the compression of the snow-bed by the cross-log and the easy penetration of the snow by means of the metallic keel, in connection with the angular apex of the plow.

Having thus described my invention, what I claim is—

1. In combination with the draft-frame, the pivoted snow-plow, composed of two converging side boards, a rear cross-log, and a central keel, said plow capable of being adjusted in respect to the draft-frame, substantially as and for the purpose set forth.

2. A snow-plow provided with a supplementary metallic keel or cutter extending below the plow proper, substantially as described.

3. In combination with the keel-board and its receiving-frame, the vibrated slotted lever, provided with a forked forward end, adapted to engage with a staple on the draft-frame, as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 26th day of January, 1874.

CALVIN MARSHALL.

Witnesses:

ELLIS DRAKE,

JABEZ TALBOT, Jr.