

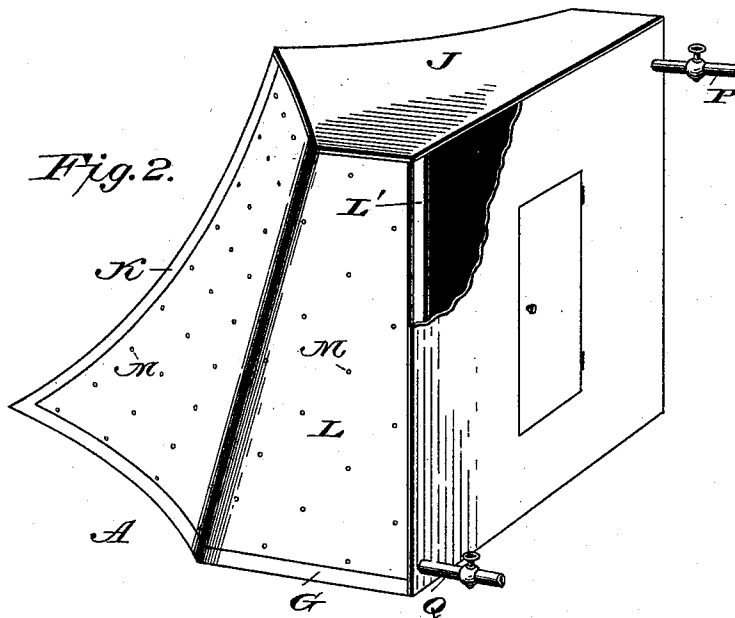
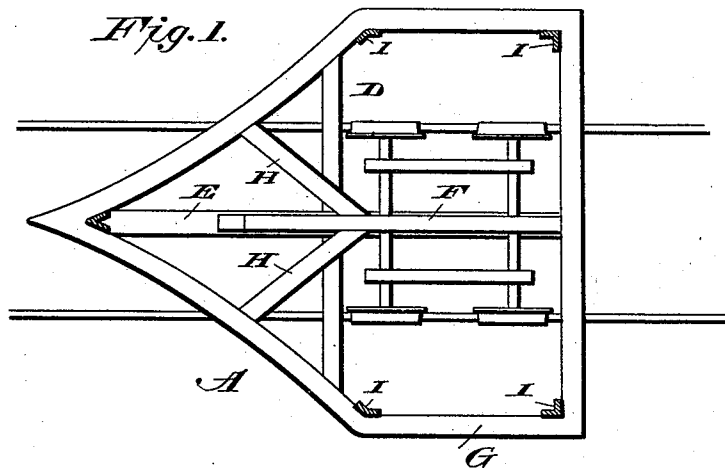
(No Model.)

2 Sheets—Sheet 1.

O. SPIEGEL.
SNOW PLOW.

No. 509,333.

Patented Nov. 21, 1893.



WITNESSES

G. S. Elliott.
W. M. Johnson

Otto Spiegel.
INVENTOR

by *[Signature]* Attorney

(No Model.)

2 Sheets—Sheet 2.

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Fig. 3.

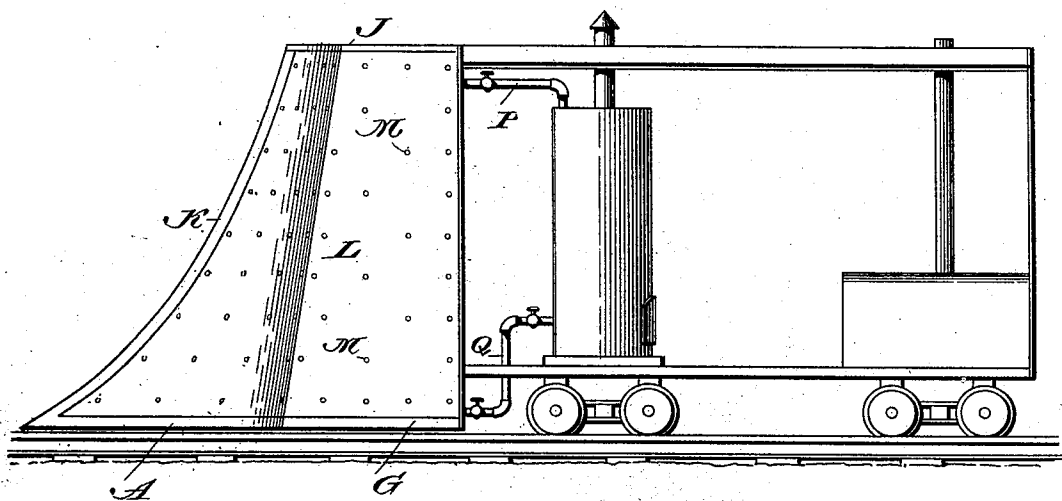
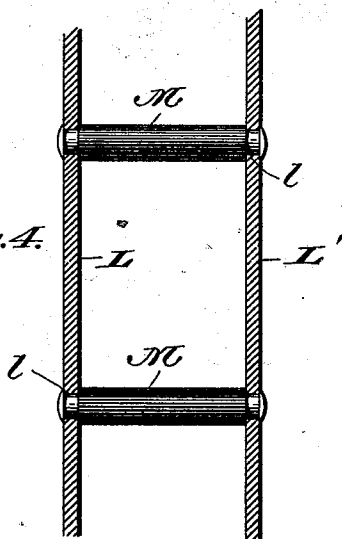


Fig. 4.



WITNESSES

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UNITED STATES PATENT OFFICE.

OTTO SPIEGEL, OF TARKIO, MISSOURI, ASSIGNOR OF ONE-THIRD TO JAMES M. SHERMAN, OF SAME PLACE.

SNOW-PLOW.

SPECIFICATION forming part of Letters Patent No. 509,333, dated November 21, 1893.

Application filed March 30, 1893. Serial No. 468,352. (No model.)

To all whom it may concern:

Be it known that I, OTTO SPIEGEL, a citizen of the United States of America, residing at Tarkio, in the county of Atchison and State of Missouri, have invented certain new and useful Improvements in Snow-Plows; and I do hereby declare the following to be 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of this invention is to provide a snow plow having double walls which form a steam chamber so that the plow can be heated to readily melt the snow which comes in contact therewith and thereby lubricate the face of the plow so that snow will slide freely therefrom; and the invention consists more especially in the construction of the plow whereby the inner and outer walls are thoroughly braced and better able to resist the usage to which such a device is put.

In the accompanying drawings, forming part of this specification, Figure 1 is a plan view of the frame. Fig. 2 is a perspective view showing the covering applied to a frame. Fig. 3 is a view showing the application of the plow to a car. Fig. 4 is a detail view of the connecting bolts.

A designates the base of the frame, to which are rigidly bolted a central brace E and a brace-bar F. Diagonal braces, H H, connect the side pieces of the frame with the central brace, and a transverse brace-bar D extends across the lower portion of the frame, as shown. This frame is rigidly secured to a truck. At the angles in the side pieces G G are rigidly attached angle-bars I, which are bent to give the desired curvature to the mold-board, said angle-bars being secured to a top piece J and to a central plate K which forms the cutter of the snow plow.

After the frame has been constructed as herein shown and described the inner plates, L', bent to the proper shape, are bolted to the

angle-bars I I and to the side pieces G G of the base of the frame. These inner plates are provided with apertures l to receive the bolts M. These bolts are provided with a central enlarged portion, the reduced ends being adapted to be passed through the apertures in the inner plate L' and through apertures in an outer plate L and be upset upon said plates, the outer plate forming the mold-board of the plow. After the plates L and L' have been bolted to each other as hereinbefore described they are further connected at the sides and top by plates, to form a steam chamber between them.

P designates an inlet pipe which conveys steam from a boiler to the plow, and Q an exit pipe which leads back to the boiler, the pipes being provided with suitable valves.

The rear ends of the plow may be connected by a wall having a doorway.

I am aware that prior to my invention it has been proposed to provide snow plows with double walls and means for heating the exterior of the plow, and I do not claim such construction broadly.

In my construction the plow is shaped to turn the snow to one side, and the heating of the plow is primarily to melt the snow so as to lubricate the surface of what is really the plow share.

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

A snow plow made up of a base frame A having lateral, longitudinal and inclined braces, angle plates I I attached to the base, an inner wall connected to said angle plates, and an outer wall or mold-board attached to the inner wall by bolts, the walls being separated to form a steam space which is provided with inlet and outlet pipes, substantially as shown, and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

OTTO SPIEGEL.

Witnesses:

JAMES M. ROGERS,
A. L. GRAY.