

E. H. GROSS.
FOLDABLE HAND SNOW PLOW.
APPLICATION FILED JUNE 16, 1909.

956,896.

Patented May 3, 1910.

Fig. 1

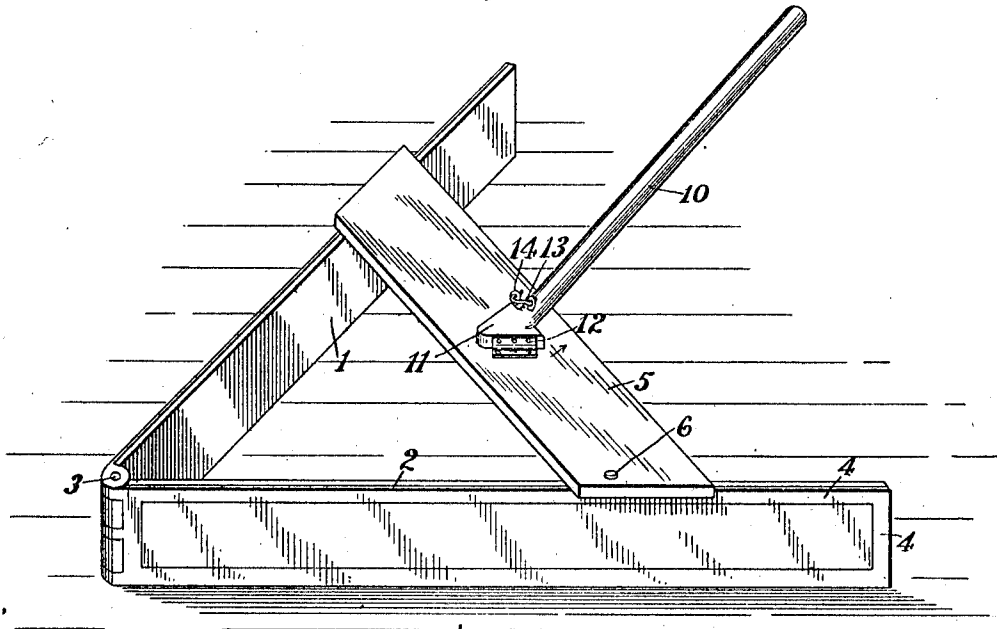


Fig. 2

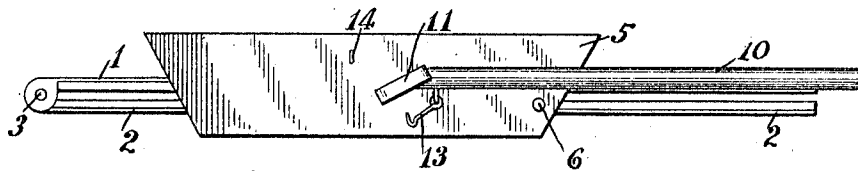


Fig. 3

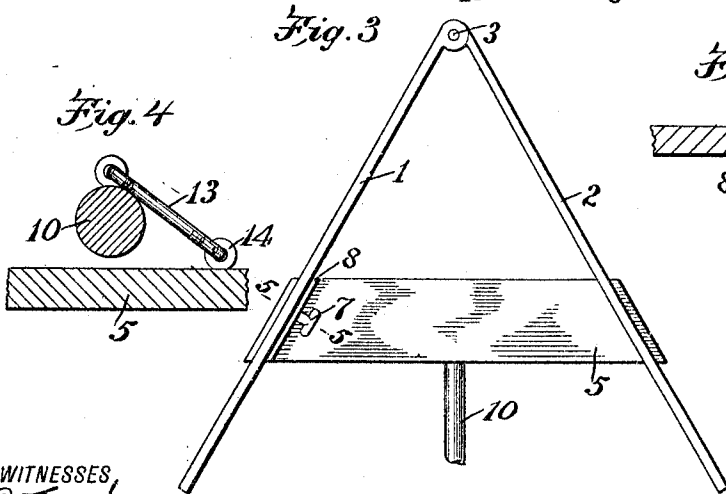


Fig. 4

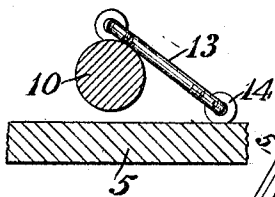
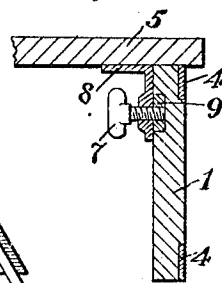


Fig. 5



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FOLDABLE HAND SNOW-PLOW.

956,896.

Specification of Letters Patent.

Patented May 3, 1910.

Application filed June 16, 1909. Serial No. 502,453.

To all whom it may concern:

Be it known that I, EDWARD HENRY GROSS, a citizen of the United States, and a resident of Stamford, in the county of Fairfield and State of Connecticut, have invented a new and Improved Foldable Hand Snow-Plow, of which the following is a full, clear, and exact description.

This invention relates to a snow-plow which is adapted to be folded up into a small compass when not in use, and is also adapted to be adjustably extended when in use.

The object of the invention is to provide a simple and efficient device, which will be strong and durable, and which may be extended to its adjusted position when in use, and stored up in a small space when not in use.

The invention consists in the construction and combination of parts, to be more fully described hereinafter and particularly set forth in the claims.

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, and in which—

Figure 1 is a perspective view of my device, showing it in its extended position; Fig. 2 is a plan view of the device, showing it folded up ready to be stored away; Fig. 3 is a bottom view of the device, showing it in extended position; Fig. 4 is a detail cross section showing the method of locking the handle to the cross bar; and Fig. 5 is a detail cross section on the line 5—5 in Fig. 3, showing the method of securing one end of the cross bar to one of the side boards.

Referring more particularly to the separate parts of the device, the plow proper is composed of two side boards 1 and 2, pivoted together by a suitable hinge joint, as at 3. The side boards 1 and 2 are preferably made of wood faced on the edges of the outer surface by a suitable metal wear-strip 4, which preferably extends on all four sides of each side board and forms part of the hinge thereof. The side boards 1 and 2 are adapted to swing toward each other to a close position, as shown in Fig. 2, and are adapted to swing away from each other to form an acute angle, as shown in Figs. 1 and 3. In their extended position, they are kept apart by means of a cross bar 5, which

is made of any suitable material, preferably wood, and is preferably trapezoidal in form, so as to have no projecting edges over the tops of the side boards. The cross bar 5 is pivotally secured at one end to one of the side boards in any suitable manner, as by means of a pivot-pin 6. At the other end, it is adjustably secured to the other side board by means of a screw-bolt 7, which engages a screw-threaded opening in an angle-member 8, which is secured in any suitable manner to the under side of the side board, said screw-bolt also engaging a screw-threaded piece 9, inset at the inner face of the side board.

In order to shove the plow along over the ground, there is provided a suitable handle 10, which has secured at an angle thereto an attaching portion 11, which is adapted to be secured to a hinge 12 attached to the top of the cross bar 5, thus forming a suitable pivotal connection of the handle 10 with the cross-bar 5. The handle 10 is adapted to be folded up in the position shown in Fig. 2, and is also adapted to be swung out into its extended position, as shown in Fig. 1, where it is locked to the cross bar 5 by any suitable means, such as a hook 13, suitably secured to the handle 10, and which is adapted to engage a staple 14 secured in any manner to the top of the cross-bar 5.

The method of operating the device may be readily understood from the above description. In order to use the device to clean snow or the like from a street or sidewalk, the side boards 1 and 2 are swung apart from each other into the position shown in Fig. 1, and the cross bar 5 swung about on its pivot 6, so as to form a brace between the side bars, one end being pivotally secured to one of the side bars, and the other fixedly secured to the other side bar. The handle is then swung out into its extended position and locked. By exerting force against the handle, the apex of the plow is forced through the snow, the side boards deflecting the snow to either side.

When it is desired to store the plow when not in use, the cross bar or brace 5 is unlocked from the side board 1 by unscrewing the bolt 7. The cross bar 5 may be then swung around into the position shown in Fig. 2, and the side boards 1 and 2 swung together. The hook 13 is then unlocked, permitting the handle 10 to be swung into

the position shown in Fig. 2, where the side boards, handle and cross bar all assume substantially the same longitudinal direction.

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

1. A collapsible snow plow or scraper comprising a plurality of side-members pivotally connected at one end and adapted, when closed to inoperative position, to lie in approximately parallel relation and, when opened to operative position, to lie at an angle to each other, and a spacing-member shiftably attached to one of said side-members and occupying a position substantially parallel thereto when in inoperative position and engaging with the other side-member when both members are opened to operative position.

2. A collapsible snow plow comprising two side-members hingedly connected at one end to permit them to lie in approximately parallel relation when in one position and adapted to be opened to occupy positions at an angle to each other, and a spacing-member connected to one of said side-members and shiftably to lie substantially parallel to said side-member when positioned in parallel relation to the other side-member, and to lie at angle thereto when said side-members are spread apart.

3. A collapsible snow plow or scraper comprising a plurality of side-members pivotally connected at one end whereby, when closed together in inoperative position, said side-members lie in approximately parallel relation and, when spread apart to inoperative position, said members lie at an angle to each other, a spacing-member shiftably attached to one of said side-members and occupying a position substantially parallel thereto when in inoperative position and movable to engage said other side-member when said members are spread apart to occupy their operative position, and plow-

moving means connecting with said spacing-member and foldable therewith into a position approximately parallel to said side-members.

4. In a snow-plow, the combination with a pair of side boards pivoted together, of a brace-bar pivotally secured to one of said side boards and removably secured to the other of said side boards.

5. In a snow-plow, the combination with a pair of side boards pivoted together, of a brace-bar pivotally secured to one of said side boards and removably secured to the other of said side boards, and a handle pivoted to said cross bar.

6. In a snow-plow, the combination with a pair of side boards pivoted together, of a brace-bar pivotally secured to one of said side boards and removably secured to the other of said side boards, a handle pivoted to said brace-bar, and means for locking said handle in its extended position.

7. In a snow-plow, the combination with a pair of side boards, of metal reinforcing wear-strips for said side boards, means adapted to pivotally join said wear-strips to form a hinge, a cross-bar pivoted to one of said side boards, means for rigidly securing said cross-bar to the other of said side boards, and a handle hinged to said cross bar.

8. In a snow-plow, the combination with a pair of side boards, of a cross-bar, a handle for said cross-bar, and means whereby said parts may be extended into a rigid operative device, and whereby said parts may be folded up so that they will lie in substantially the same direction.

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

EDWARD HENRY GROSS.

Witnesses:

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