No. 615,036. Patented Nov. 29, 1898.

M. MULDER.

SNOW SCRAPER.

(Application filed Feb. 9, 1898.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

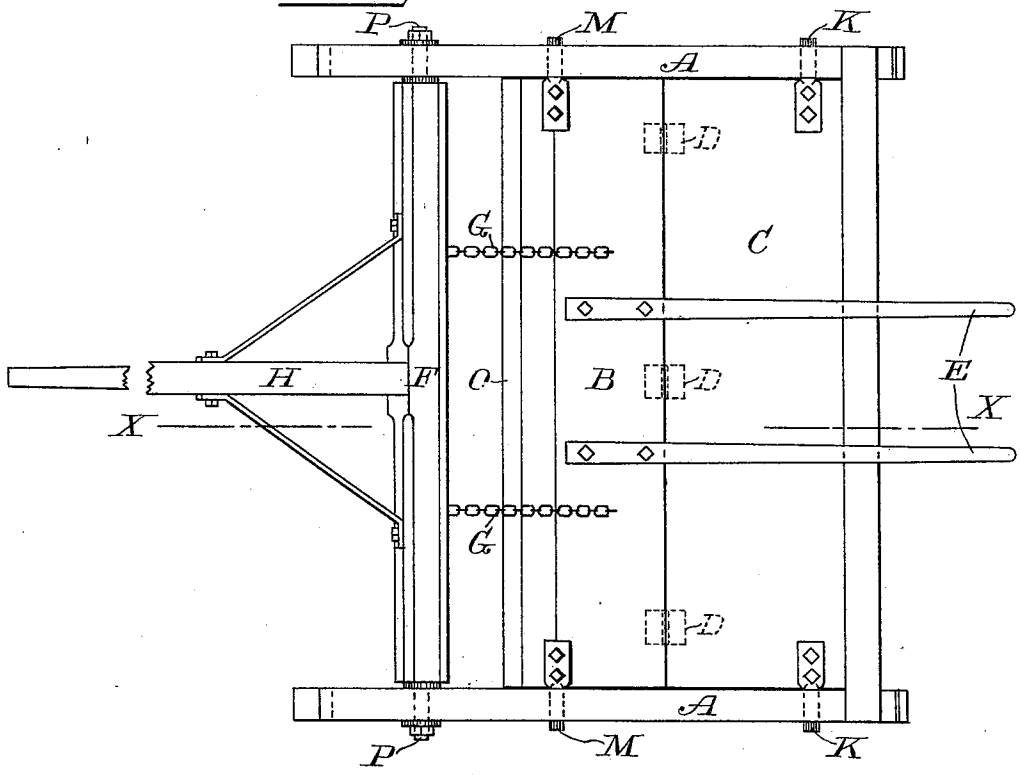
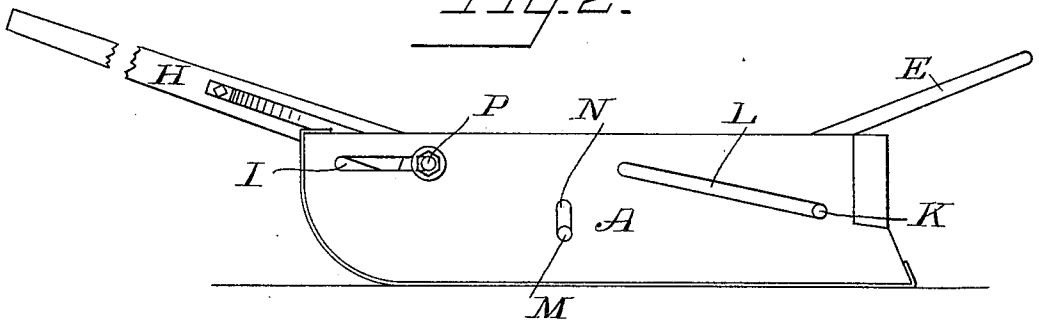


Fig. 2.



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Fig. 3.

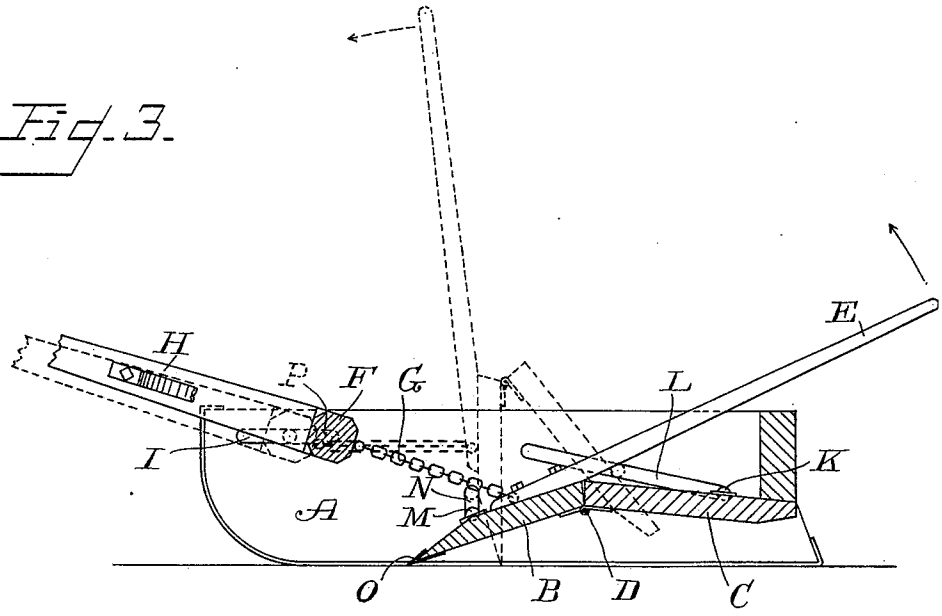
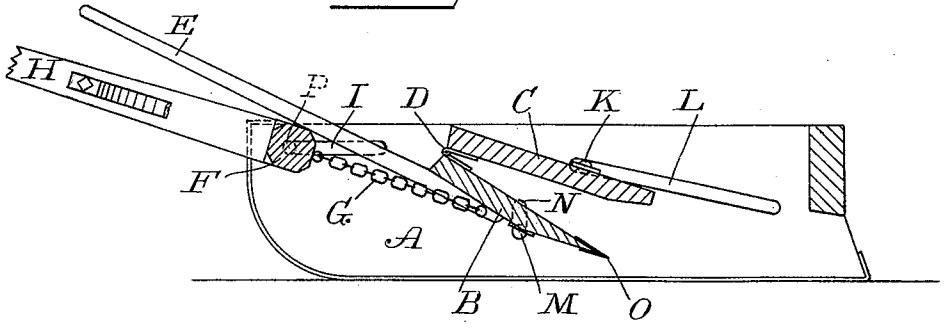


Fig. 4.



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UNITED STATES PATENT OFFICE.

MARTIENUS MULDER, OF NEW BALTIMORE, NEW YORK.

SNOW-SCRAPER.

SPECIFICATION forming part of Letters Patent No. 615,036, dated November 29, 1898.

Application filed February 9, 1898. Serial No. 669,663. (No model.)

To all whom it may concern:

Be it known that I, MARTIENUS MULDER, a citizen of the United States, residing in New Baltimore, in the county of Greene, State of New York, have invented a new and useful Snow-Scraper, of which the following is a specification.

My invention relates to improvements in machines for removing snow from the ice and from streets and avenues and other places; and the objects of my invention are, first, to provide a scraper which will take up a much larger amount of snow than the scrapers heretofore used; second, to carry the snow onto the dumping-grounds, and, third, to dump the accumulated snow from both the front and rear of the scraper. I attain these objects by a mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a top plan view of my invention. Fig. 2 is a side elevation. Fig. 3 is a section of Fig. 1 at *x x*, showing the position of the parts while at work, the dotted lines showing the position of the several parts while being dumped. Fig. 4 is also a section of Fig. 1 at *x x*, showing the position of the parts after the scraper is dumped and in position to be moved empty.

Similar letters refer to similar parts throughout the several views.

My scraper is made to work between two sleigh-runners, so that when loaded or empty the weight will be upon the runners and snow can be transported with the least power.

A A represent the runners.

B represents the scraper proper, which has the sharp edge O to run upon or next to the ice or ground. The scraper B is hung in the runners A A by means of pivots M M, which work in the slots N N. To the back of the scraper is the shelf or table C, which is hinged to the scraper B by hinges D D. The table C is attached to the runners A A by pivots K K, which work in the slots L L. The slots N N extend toward the bottom of the runners a sufficient distance, so that when the scraper is in position for work the edge O of the scraper will be even with the shoe or bottom of the runners A A.

E E are handles attached to the scraper B of sufficient length that the operator can walk behind the scraper and hold the scraper to its work and, when desired, raise the handles, so as to dump the scraper, and thus discharge the load of snow both from the scraper B and the table C.

G G are chains attached to the cross-bar F, to which the power is applied to propel the scraper. The other ends of the chains G G are attached to the scraper in such a position that when the scraper is at work the force will draw the scraper B and by the pivots M M be exerted against the horizontal sides of the slots N N, and when the handles are slightly raised the ends P P of the cross-bar F will move in the slots I I and so assist in the dumping of the scraper.

The operation of my scraper is as follows: The scraper, as shown in Fig. 1, is ready for work. The power is applied to the cross-bar F as by the tongue H. The edge O of the scraper is held by the handles E E upon the ice or ground from which the snow is to be removed and even with the bottoms of runners A A, as shown in Fig. 3. The ends P P of the cross-bar F, working freely in the slots I I, leave the whole force of the propelling power to be exerted by means of the chains G G upon the scraper B. When the handles E E are in proper position, this force will be exerted against the front of the slots N N. The scraper proceeding forward, the edge O will run under the snow and the snow slide up the inclined side of the scraper B, extend over, and be deposited and heaped upon the table C, as well as the scraper B. When the scraper is sufficiently loaded, it can be driven to the dumping-ground, the entire weight of the snow resting upon the runners A A and so easily transported. When the dumping-ground is reached, by slightly raising the handles E E the force exerted upon the chains G G will assist in dumping the scraper, for the reason that when the handles are raised the power exerted upon the chains will tend to turn the scraper B around the pivots N N until the scraper B and the handles E E take the position shown in the dotted lines in Fig. 3, and the table C will follow it and assume the position indicated in Fig. 3 and the snow drop through the back part of the scraper, the slots L L being elongated sufficiently and arranged properly to allow the pivots K K of the table C to move freely for that purpose.

When the scraper goes back, the handles E E may be moved forward to rest upon the cross-bar F, as shown, and the scraper B and table C take the position shown in Fig. 4, and while in this position the scraper can be readily transported from one place to another as an ordinary sleigh.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A machine for removing snow consisting of a scraper pivoted between two sleigh-runners, a table or shelf also pivoted between the two runners and hinged to the scraper, substantially as described and for the purposes set forth.

2. In a machine for scraping snow, the combination of two sleigh-runners, each provided with one horizontal slot, one vertical slot and one inclined slot, a cross-bar pivoted at its ends in said horizontal slots, a scraper pivoted between said runners in said vertical slots, a shelf or table pivoted between said runners in said inclined slots and hinged to said scraper, handles attached to said scraper and chains connecting said scraper with said cross-bar, all substantially as described and for the purposes set forth.

MARTIENUS MULDER.

Witnesses:
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WILLIAM R. GAY.