Nov. 27, 1928. 1,693,472

W. H. BATTY

HAND SNOWPLOW

Filed Oct. 27, 1925

Fig. 5.

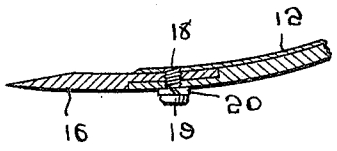


Fig. 1.

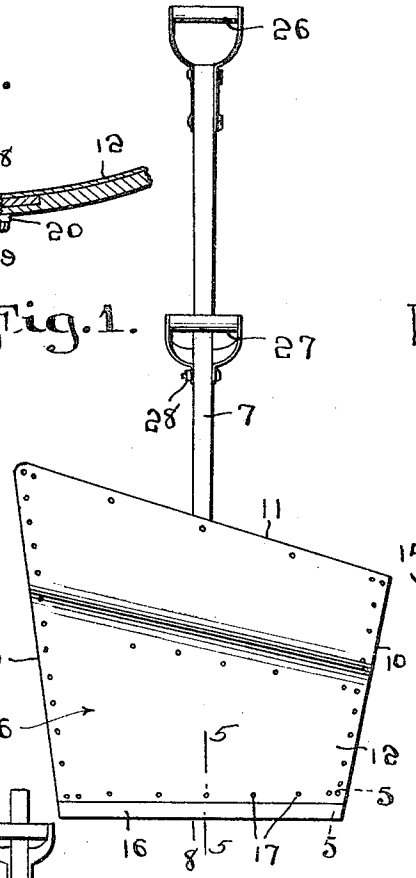


Fig. 2.

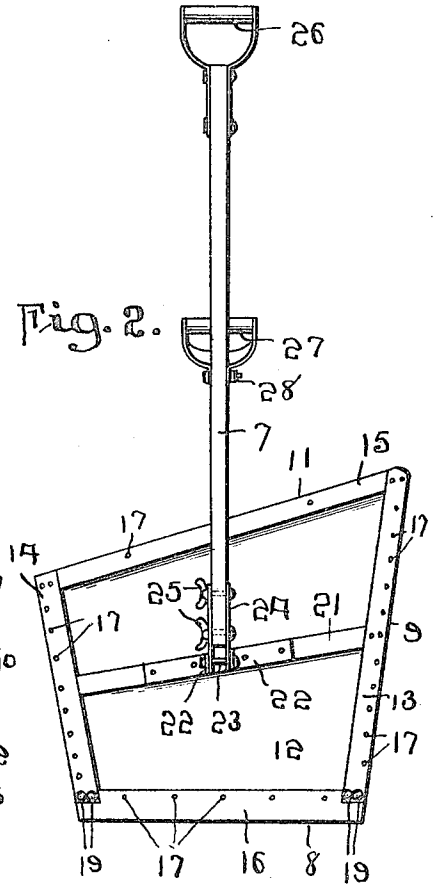


Fig. 4.

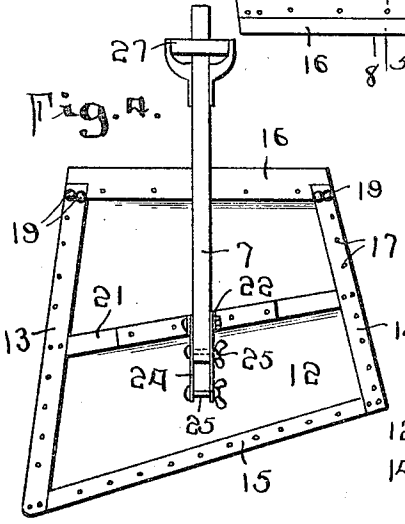
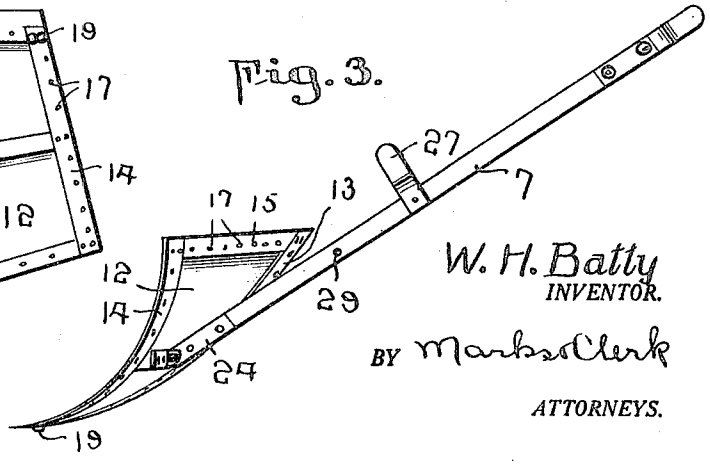


Fig. 3.



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UNITED STATES PATENT OFFICE.

WILLIAM H. BATTY, OF ELMIRA, NEW YORK.

HAND SNOWPLOW.

Application filed October 27, 1925. Serial No. 65,249.

This invention relates to improvements in implements for handling snow and more particularly to a device for facilitating the removal of snow from road-ways and the like.

The invention has for its object to provide a shovel-like implement acting in a manner similar to a plow and also handled or operated in a similar manner which, contrary to the usual practice, may be moved backward and forward over the area to be cleaned and in so doing removes the snow from the ground surface and displaces it to the side of the path of the moving plow.

A further object is to so construct the snow plow which in lifting and diverting the snow to the side of the plow will bank it in such manner as to prevent the snow from falling back into the cleared space.

Further objects consist in such structural details as tend to improve the strength and rigidity of the implement without, however, involving high cost of manufacture, and also to provide replaceable lugs located at a point adjacent the front edge of the plow which, moving over the surface of the area to be cleaned prevent engagement of the plow edge with obstructions.

In the accompanying drawing wherein an approved embodiment of the invention is illustrated.

Fig. 1 is a front elevation of the improved hand plow.

Fig. 2 is a rear elevation thereof.

Fig. 3 is a side elevation of the plow illustrating the approximate position of the latter with respect to a horizontal surface.

Fig. 4 is a fragmentary rear elevation of the hand plow showing the handle turned back out of operative position.

Fig. 5 is an enlarged detail section on the line 5—5 of Fig. 1.

Referring to the details in the drawing, the plow is indicated generally at 6 and is provided with a handle 7. The front edge 8 of the plow lies at right angles to the handle 7 and also to the path of movement of the plow during operation while the sides 9 and 10 diverge rearwardly from the front edge 8 while the top or rear edge 11 of the plow extends in an oblique angular relation to the front edge 8. As indicated in Fig. 3 the plow is curved, the curvature of the short side 10 being greater than that of the long side 9 so that incident to the removal of the plow, the snow lifted by the front edge 8 slides upwardly over the top surface of the plow and encountering the curved surface thereof is deflected to the right and to the side of the space cleared. The plow 6 presents, in vertical section, throughout the entire width thereof, a series of constantly diminishing curves. The greater length of the side 9 of the plow is designed to ensure against the snow falling rearwardly over the top edge 11 and to cause it to be deflected in its entirety in the side of the plow.

The shovel 6 consists of a body plate 12 reinforced along its side edges 9 and 10 and its top edge 11 by metallic strips 13, 14 and 15, respectively. The front edge 8 of the plow is constituted by a blade like member 16 extending entirely across the front edge of the body plate 16 and secured thereto by rivets or equivalent fastening devices 17. Rivets 17 are also employed for securing the body plate to the several strips 13, 14, and 15.

At the points where the side strips 13 and 14 overlap the blade 16, registering screw-threaded apertures are formed therein to receive the threaded shanks 18 carrying heads 19 which constitute spacing lugs. Lock washers 20 are preferably employed for preventing accidental removal of the lugs and for convenience in removing and replacing them, they are preferably provided with opposed flat surfaces suitable for engagement with a wrench or like tool.

An intermediate strip 21 extending across the back of the body plate 12 intermediate the strip 15 and the plate 16 is provided with spaced supporting brackets 22 receiving a pivot pin 23 to which the attaching member 24 of the handle 7 is pivotally secured. The attaching member 24 is secured to the end of the handle by removable bolts 25.

As a matter of convenience in transporting or storing the hand plow, the position of the handle 7 may be reversed as suggested in Fig. 4 during which operation the bolts 25 are removed.

The handle 7 is provided at its extremity with a hand hold 26 for use in moving the plow through the snow and an auxiliary hand hold 27 is secured by means of a bolt 28 or the like to the handle at a point intermediate its ends. The handle 27 is of a great advantage in handling the plow and in regulating the position of the blade 16. In order to permit of the adjustment of the handle 27, several apertures 29 selectively engageable by the bolt 28 are preferably provided for the handle 7.

A hand snow plow constructed in accord-

ance with the present invention is extremely easy to handle and is effective in use and in operation it has been found most convenient to move the plow back and forth first in one direction and then in the other over the area to be cleaned, beginning at a point adjacent the center of the area.

What I claim is:

1. A hand snow plow including a plow element having the front face thereof curved from front to rear throughout its entire area, the curvature of one side of the face being greater than that of the other and the medial portion presenting in vertical section throughout the width thereof, a series of constantly diminishing curves, whereby to cause the snow to be deflected to the side of the plow element, a plurality of independently removable and replaceable spacing lugs carried by the ground engaging portions of the plow element, and a handle carried by said plow element.

2. A hand snow plow including a plow element having the front face thereof curved from front to rear throughout its entire area, the curvature of one side of the face being greater than that of the other and the medial portion presenting in vertical section throughout the width thereof, a series of constantly diminishing curves, whereby to cause the snow to be deflected to the side of the plow element, a body plate, marginal and intermediate reenforcing strips secured to the body plate, a removable blade secured to the front edge of the body plate, and a handle carried by said plow element.

In testimony whereof I hereunto affix my signature.

WILLIAM H. BATTY