

W. P. Wentworth,

Shovel.

No. 111,891.

Patented Feb. 14, 1871.

Fig. 1.

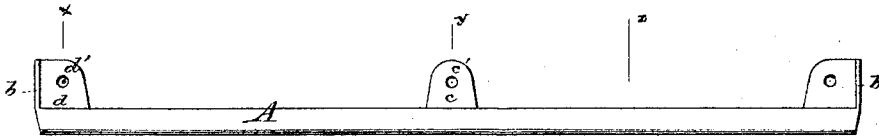


Fig. 2.

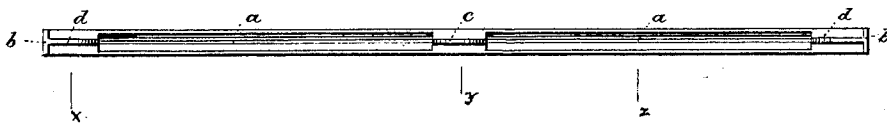


Fig. 3.



Fig. 4.



Fig. 5.



Fig. 6.



Witnesses.

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WILLIAM P. WENTWORTH, OF SENECA FALLS, NEW YORK.

Letters Patent No. 111,891, dated February 14, 1871.

IMPROVEMENT IN TIPS FOR WOODEN SHOVELS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, WILLIAM P. WENTWORTH, of Seneca Falls, in the county of Seneca and in the State of New York, have invented certain new and useful Improvements in Tips for Wooden Shovels; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a side elevation of my device;

Figure 2, a top plan view of the same;

Figures 3, 4, and 5, cross-sections on the lines *x x*, *y y*, and *z z*, respectively, of figs. 1 and 2; and

Figure 6, an end elevation of the device.

Like letters of like kinds denote like parts in each figure.

The object of my invention relates to an improvement in the construction of the metallic tip for wooden shovels described in the Letters Patent No. 107,314, granted me September 13, 1870, for an improvement in snow-shovels, and consists in providing said tip with an interior groove for the reception and retention of the front edge of the blade of a wooden shovel, and with wings or flanges at the ends of the tip which embrace and protect the front sides of the blades of said shovel.

In the drawing—

A represents the tip, which is made of suitable metal, preferably of malleable iron, of a form nearly triangular, upon a cross-section, with one of the angles to the front for a cutting-edge.

This tip has a groove, *a*, extending nearly its entire length, and at either end wings *b*, turned up at right angles with the main body of the tip. These wings are flat upon their outer and inner surfaces.

One or more thin flanges or ears, *c*, rise from the inner center of the tip, and are provided with openings *c'*, and at either end are similar ears *d*, provided with openings *d'*, which latter ears may be joined to the inner centers of the wings *b*.

This tip is applied to a wooden shovel made in suit-

able proportions, having a saw-kerf along a portion of or the entire length of the front of the blade. To this front of the blade the tip is fitted by driving it upon said blade, the ears *c* and *d* penetrating into the saw-kerf their entire length, and being secured to said blade by rivets passing through the blade and through the openings *c'* and *d'* in said ears. The wings *b* will fit closely to the front sides of the blade of the shovel, a portion of which may be cut away so that the outsides of said wings shall be on a line with the outsides of said shovel-blades.

A small portion of the top and bottom of the front edges of the shovel-blade may also be cut away, so that the tip will fit more neatly on its upper and lower inner sides.

The advantage of the groove *a* will be that it receives and holds firmly the front edge of the shovel-blade, and prevents its splitting in continuation of the saw-kerf. It also reduces the weight and cost of the tip itself.

The advantage of the wings *b* consists in the protection that they give to the front sides of the blade of the shovel.

The whole constitutes a light, cheap, and extremely serviceable tip to be applied to wooden shovels, for use in snow, in grain, for stable work, and other proper purposes.

Having thus set out the nature, description, and merits of my invention,

What I claim as new therein, and an improvement upon Letters Patent No. 107,314, above named, is—

1. The combination of the grooves *a* and the ears *c*, substantially as described and shown.

2. The combination of the grooves *a* and the wings *b*, substantially as described and shown.

In testimony that I claim the foregoing I have hereunto set my hand this 7th day of January, 1871.

WILLIAM P. WENTWORTH.

Witnesses:

EDM. F. BROWN,

W. S. MARR.