No. 639,813. Patented Dec. 26, 1899.

M. H. JERDEE.

HARROW TOOTH.

(Application filed Mar. 7, 1899.)

(No Model.)

Fig. 1.

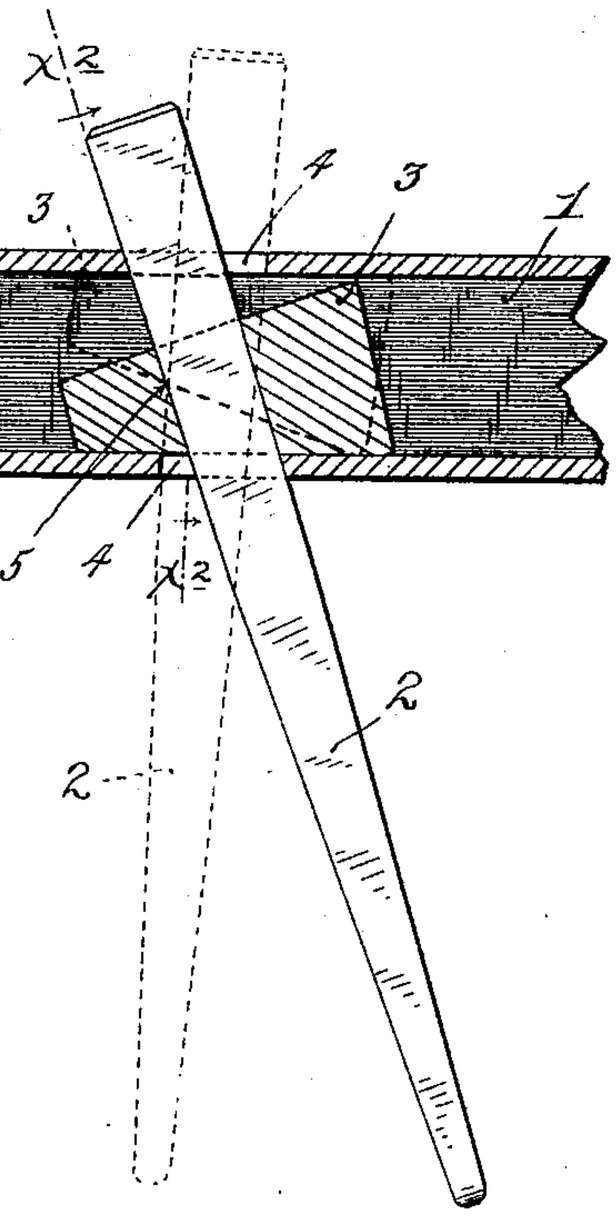


Fig. 2.

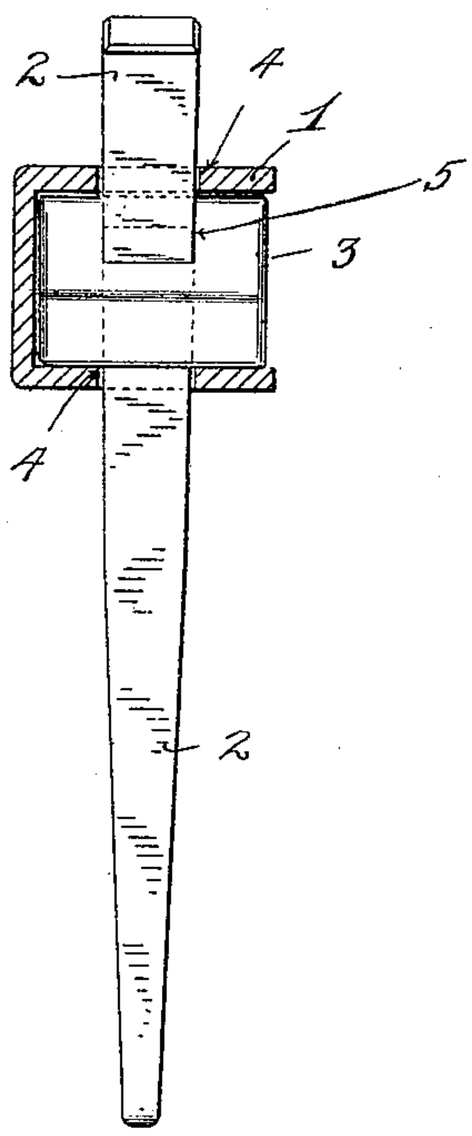
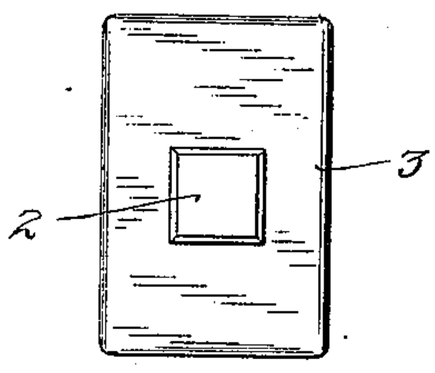


Fig. 3.



Witnesses.

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UNITED STATES PATENT OFFICE.

MIKE H. JERDEE, OF DAWSON, MINNESOTA.

HARROW-TOOTH.

SPECIFICATION forming part of Letters Patent No. 639,813, dated December 26, 1899.

Application filed March 7, 1899. Serial No. 708,090. (No model.)

To all whom it may concern:

Be it known that I, MIKE H. JERDEE, a citizen of the United States, residing at Dawson, in the county of Lac Qui Parle and State of Minnesota, have invented certain new and useful Improvements in Harrow-Teeth; 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.

My invention relates to harrows and similar instruments for dragging or pulverizing broken ground, and has for its object to provide an improved device for securing the harrow-teeth to the frames or supports which carry them, whereby they are permitted to assume different operative positions under different movements of the said frame or support.

To the above ends my invention consists of the novel devices and combinations of devices hereinafter described, and defined in the claim.

My invention in its preferred form is illustrated in the accompanying drawings, wherein like numerals indicate like parts throughout the several views.

Figure 1 is a view, partly in side elevation and partly in vertical longitudinal section, showing a portion of one of the frame-bars or supports, one position of the harrow-tooth being indicated by full lines and the other by dotted lines. Fig. 2 is a transverse vertical section taken on the line x^2 x^2 of Fig. 1, and Fig. 3 is a plan view of the so-called "stop-block" and coöperating harrow-tooth removed from working position.

The numeral 1 indicates a portion of one of the bars which make up the harrow-frame, the same in this preferred construction being in the form of a channel-iron set edgewise or with the channel-opening at one side.

The numeral 2 indicates the harrow-tooth, which, as illustrated, is approximately square in cross-section and is tapered from end to end or approximately from end to end.

The numeral 3 indicates what I term a "stop-block." At its larger end this stop-block 3 fits quite snugly, though loosely, between the flanges of the bar 1; but at its smaller end it is tapered down, in the construction illustrated, to less than one-half the distance between the said flanges, so that it is capable of considerable movement at this smaller end.

The tooth 2 works through elongated slots 4 in the flanges of the bar 1. These slots are of such dimensions that they permit the tooth 2 an angular movement longitudinally of the bar, but prevent movements of the said tooth transversely thereof. The tooth 2 tightly fits a perforation 5 in the stop-block 3, and when driven into operative position, as shown in Figs. 1 and 2, it will be held for movements with the said stop-block 3. With this construction when the bar 1 is drawn toward the left, the tooth, being in contact with the ground, will be permitted to assume the position indicated by full lines in Fig. 1; but when the said bar is drawn toward the right, the tooth being of course in contact with the ground, it will be caused to assume the approximately vertical position indicated by dotted lines in Fig. 1. The stop-block 3, as is obvious, limits the downward movement or position of the tooth, but permits it to assume the different positions indicated when the harrow is drawn in different directions.

It is of course obvious that when the tooth is in its inclined position and the bar 1 is drawn toward the left it will have a greater tendency to ride over the top of the ground, and thus that the harrow may be much more easily drawn than when the harrow is drawn toward the right and the tooth forced into its vertical position. The sedifferent actions of the teeth of a harrow are very desirable for the proper treatment of the ground under various conditions and for different purposes, all of which are well understood by tillers of the soil.

The device above described is extremely simple, strong, and durable. It is of small cost and may be put together and taken apart with the greatest facility. Furthermore, a harrow having its teeth applied in the manner above described is well adapted for the different conditions of work required of an instrument of the above character.

It will of course be understood that my invention above specifically described is capable of considerable modification in the details of construction and arrangement of the parts.

For example, it would be within the scope of my invention, although not the full equivalent of my preferred construction, to provide the so-called "stop-block" with flanges arranged to embrace the bar to which the tooth is applied. Again, the bars which make up the frame of the harrow instead of being of channel form might be solid or otherwise formed, but provided with seats for the so-called "stop-blocks."

What I claim, and desire to secure by Letters Patent of the United States, is as follows:

In a harrow, or similar instrument, the combination with a channel-bar 1, having the elongated perforations 4 in its flanges, of the tooth 2 working through the said perforations 4, and the wedge-shaped stop-block 3 working between the flanges of said bar 1, and having a perforation into which the said tooth 2 is tightly driven, the said parts operating substantially as described.

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

MIKE H. JERDEE.

Witnesses:
O'C. S. BERGAN,
E. E. SKOE.