(No Model.)

L. M. MEETER, & H. & W. D. McCLURE.

PLOW SHOVEL.

No. 516,544. Patented Mar. 13, 1894.

Fig. 1.

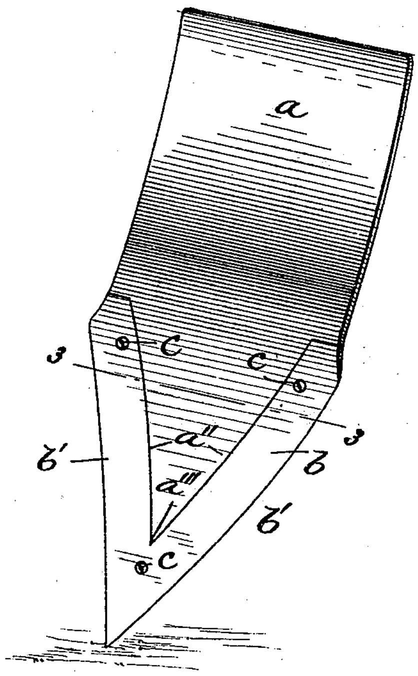


Fig. 2.

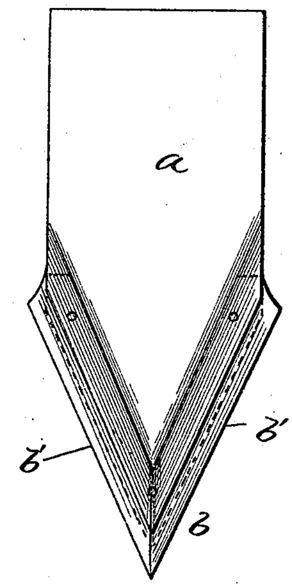


Fig. 3.

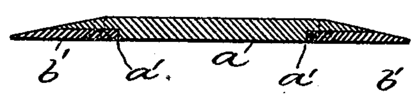


Fig. 4.

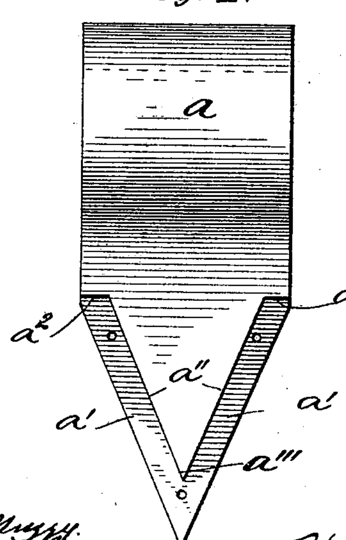
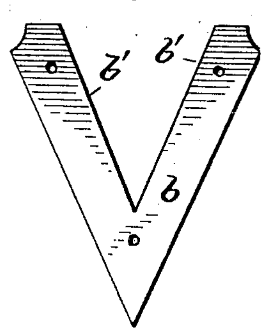


Fig. 5.



Witnesses
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LEWIS M. MEETER, HARRY McCLURE, AND WILLIAM D. McCLURE, OF HAWARDEN, IOWA.

PLOW-SHOVEL.

SPECIFICATION forming part of Letters Patent No. 516,544, dated March 13, 1894.

Application filed December 19, 1892. Renewed February 8, 1894. Serial No. 499,536. (No model.)

To all whom it may concern:

Be it known that we, LEWIS M. MEETER, HARRY McCLURE, and WILLIAM D. McCLURE, citizens of the United States, residing at Hawarden, in the county of Sioux and State of Iowa, have invented certain new and useful Improvements in Plow-Shovels, of which the following is a specification, reference being had therein to the accompanying drawings, in which—

Figure 1 is a perspective view of our improved plow shovel. Fig. 2 is a rear view thereof; Fig. 3 a horizontal sectional view on line 3—3 of Fig. 1. Fig. 4 is a front view of the main portion of the plow blade; and Fig. 5 is a detail of the removable cutting edge.

This invention relates to a new and improved plow-shovel, and it has for its object to provide a plow-shovel with a removable cutting point and edge, and to so construct said shovel that it shall have no recesses or projections to permit the soil to lodge thereon, and the removable cutting edge and point being secured to the blade proper in such manner that it shall be strongly backed or braced throughout its entire length, as more fully hereinafter appears.

In the drawings, a designates the plow-blade proper which is convexed slightly on its front side as usual, and is pointed at its lower end. Along the converging edges of the lower end of the blade on the front side thereof are formed the recesses a'. These recesses or rabbets are approximately parallel with the converging edges of the blade, their inner or longitudinal walls forming square shoulders a'' and the point a'''. A removable cutting edge is secured to the blade at its lower end and it consists of the integral V-shaped piece b (constructed of suitable steel) whose diverging arms b' fit within the recesses or rabbets a', the inner square edges of said arms abutting squarely against the shoulders a'' formed on the blade. The point a''' of the blade fits in the acute angle formed by the junction of the arms b' of the cutting-edge or point b. This point b is removably secured to the blade a by the screws c which are passed through holes in said point and enter threaded holes in the blade a. The heads of these screws are countersunk in order to have a perfectly smooth face to the plow-shovel, and placing them near the edges and point of the pieces b more securely fastens the point to the main blade. The outer edges of the diverging arms b' of the point b project a short distance beyond the outer edges of the adjoining portion of the blade a and this projecting portion of said arm is beveled on its rear side to form the sharp cutting edge of the plow-shovel. The adjoining portion of the blade a is beveled on approximately the same angle or line as the rear sides of the arms b' (shown clearly in Fig. 3) which makes it impossible for any soil to cling to the rear side of the shovel at the joint of the removable point b and the main blade a.

The recesses a' may terminate at their upper ends in any suitable manner, the upper ends of the arms b being formed to correspond to the formation of the recesses. As shown in the drawings they terminate in square shoulders a^2 which extend at right-angles to the parallel side edges of the main blade a and the upper ends of the arms b are squared to fit against said shoulders. The faces of the cutting edge and shovel proper are flush with each other to prevent lodgment of soil.

From the foregoing it will be seen that we provide a plow-shovel having a removable cutting edge and point, said cutting point being seated in a recess formed in the blade proper and of substantially the same shape as the point. The outer edge of the converging edges of the blade a extend under the removable point b and are parallel with the outer edges of the arms of the said point and thereby form a solid backing for said removable point and brace it throughout its entire length. The cutting edge may be readily removed when worn and replaced by a new edge, it being the object of the invention to make said point form such a very inconsiderable portion of the plow-shovel that when worn it may be thrown away without wasting materially more metal than would be necessarily wasted in sharpening an old blade. If desired these cutting edges may be made larger and may be sharpened when worn and again secured to the main blade, and even in this construction they will form a very small portion of the plow-shovel. It will thus be seen that the main portion of the plow shovel may be kept always polished as it will not, under any condition, have its polish destroyed by contact with heat in sharpening, a smooth polished face being absolutely essential to the successful operation of the plow-shovel and to its enduring qualities.

It will be noted that both the main blade and the removable cutting edge and point may be stamped out in manufacture, thus reducing the cost of the plow-shovel to the minimum.

Having thus fully described our invention, what we claim is—

As an improved article of manufacture, a plow shovel consisting of an integral main part *a*, having its side edges brought to an approximately **V**-shaped point, the lower sides of the converging edges being beveled and their upper sides having rabbets *a′* formed in them, said rabbets forming longitudinal shoulders *a″* and a point *a‴*, and a thin **V**-shaped point *b* removably secured in the rabbets *a′* and abutting against the shoulders formed thereby, the upper surface of the point being flush with the surface of the main part and its lower projecting edges being beveled to correspond with the bevel of the main part, as and for the purpose described.

In testimony whereof we affix our signatures in presence of two witnesses.

LEWIS M. MEETER.
HARRY McCLURE.
WILLIAM D. McCLURE.

Witnesses:
O. G. REINIGER,
JAS. WOODSIDE.