No. 690,761. Patented Jan. 7, 1902.

W. R. OYLER.

PLOW.

(Application filed Oct. 31, 1901.)

(No Model.)

Fig. 1.

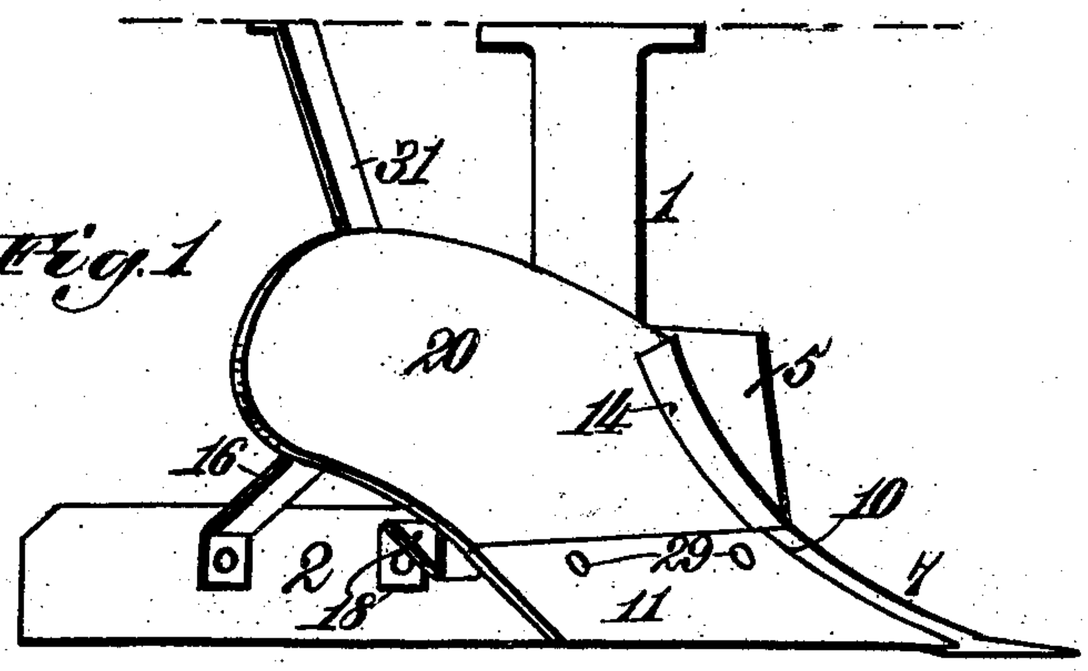


Fig. 2.

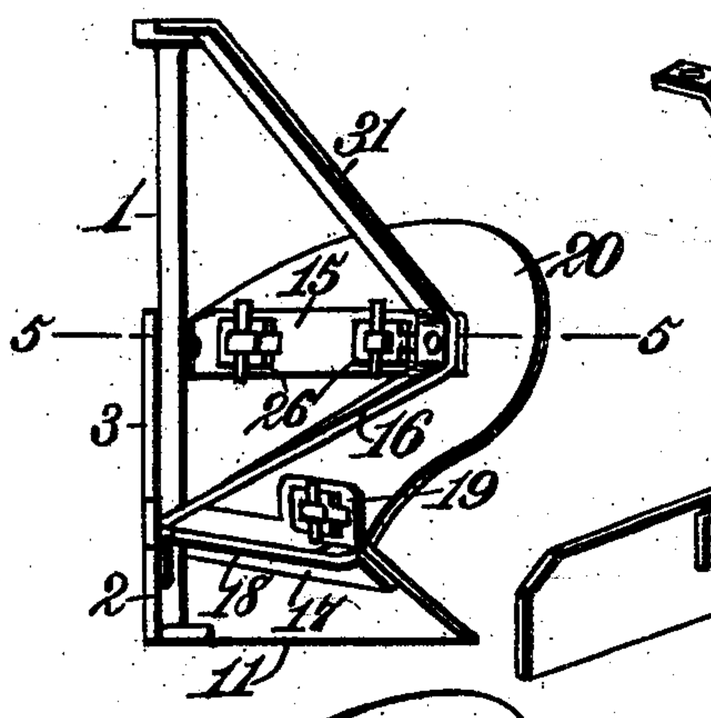


Fig. 3.

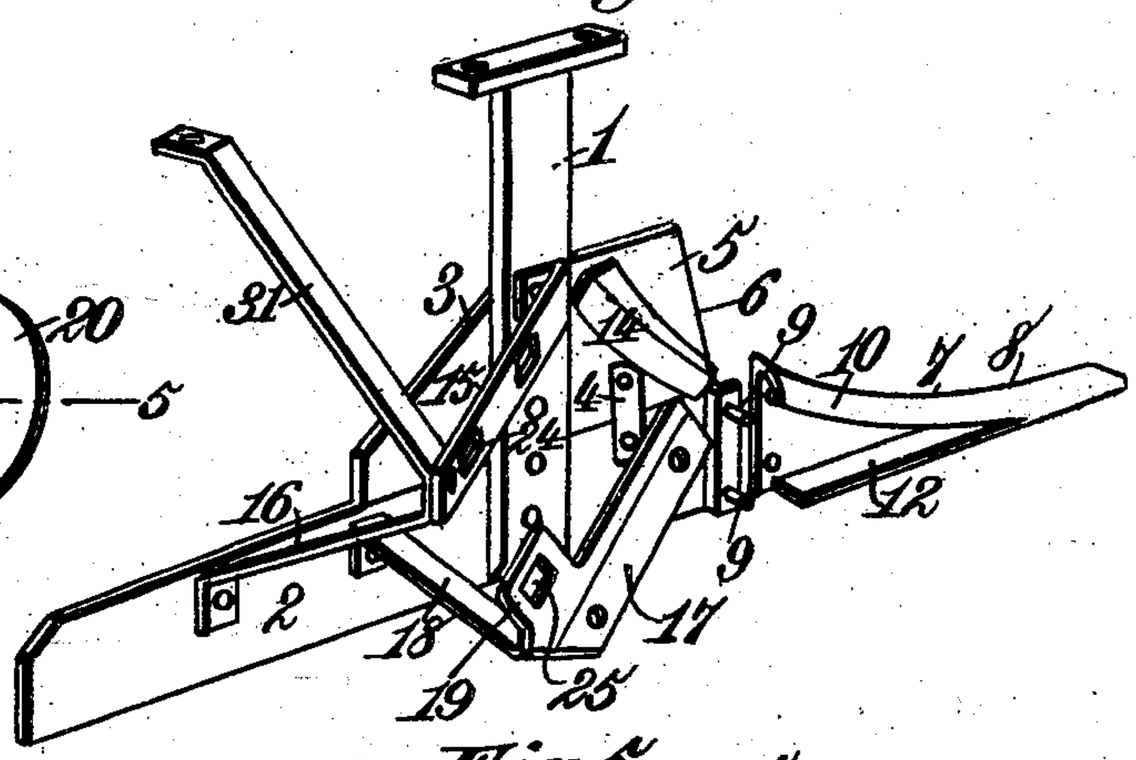


Fig. 4.

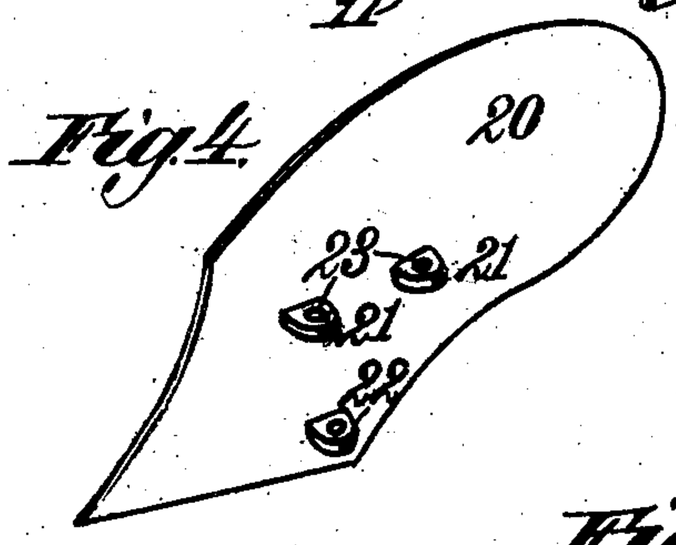


Fig. 5.

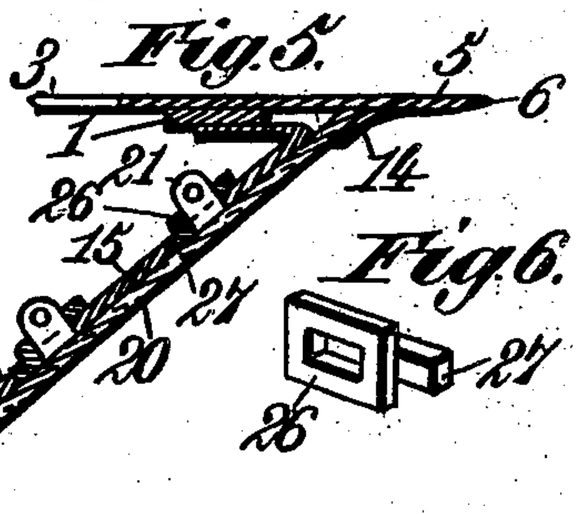
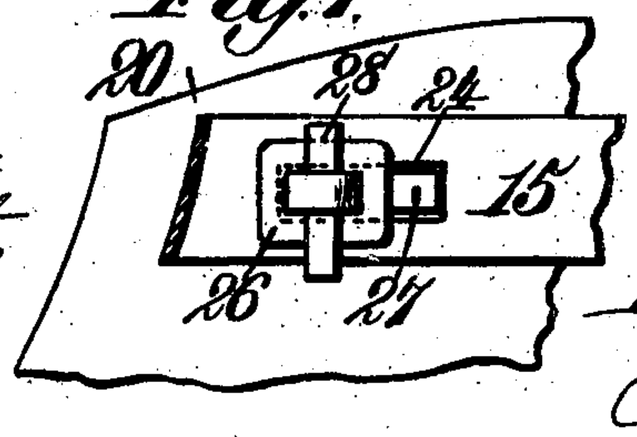


Fig. 6.

Fig. 7.



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UNITED STATES PATENT OFFICE.

WILLIAM R. OYLER, OF AKRON, OHIO, ASSIGNOR TO THE OYLER PLOW COMPANY, OF AKRON, OHIO.

PLOW.

SPECIFICATION forming part of Letters Patent No. 690,761, dated January 7, 1902.

Application filed October 31, 1901. Serial No. 80,660. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM R. OYLER, a citizen of the United States, residing at Akron, in the county of Summit and State of Ohio, have invented new and useful Improvements in Plows, of which the following is a specification.

This invention relates to plows, and especially to plows of that class having glass moldboards, and has for its object to provide such a plow with a high landside, cutter, and a guard-strip or protector for the forward edge of the glass moldboard.

It also has for its object to provide improved means for supporting and holding the glass moldboard in place.

To these ends my invention consists in the features and in the construction, combination, and arrangement of parts hereinafter described, and particularly pointed out in the claims following the description, reference being had to the accompanying drawings, forming a part of this specification, wherein—

Figure 1 is a view in side elevation of my improved plow viewed from the share side. Fig. 2 is a view in rear elevation of the plow. Fig. 3 is a perspective view of the plow, the moldboard and plowshare being removed and the point disengaged from the landside. Fig. 4 is a detail perspective view of the glass moldboard viewed from the inner or rear side. Fig. 5 is a horizontal section taken on the line 5 5 of Fig. 2. Fig. 6 is a detail view of one of the washers and its filling-block, and Fig. 7 is a detail view illustrating the manner of securing the moldboard to the bed-plates.

Referring to the drawings, the numeral 1 indicates the plow-standard, and 2 the low landside bolted to the standard. Disposed above the low landside in the same vertical plane with the latter is the high landside 3, also bolted to the standard 1. The adjacent edges of the low and high landsides match or lie flush with one another, and a short metallic strap 4 is bolted to the inner sides of the forward portions of the two landsides to rigidly hold them together. The high landside is much shorter than the low landside, as shown, and at its rear edge inclines downward to the low landside. The forward portion of the high landside is extended forward to form an integral cutter 5, the front edge of which is sharpened to form a knife-edge 6 and extends nearly vertically.

The numeral 7 indicates the plow-point, having a straight side 8, which forms a continuation of the low landside, the adjacent edges of the low landside and straight side 8 of the point overlapping one another and rigidly secured together by bolts 9. The upper edge of the plow-point is provided with a laterally-projecting flange 10, which forms a seat for the reception of or overlaps the forward edge of the plowshare 11. The forward lower edge portion of the plow-point is also provided with a lateral or horizontal flange 12, as usual. The flanges 10 and 12 may be formed integral with the plow-point or may be welded thereto.

The numeral 11 indicates the share, of the usual shape, the forward edge of which is fitted between the straight edge 8 of the point and the flange 10, and its upper edge is bolted to a brace presently to be described. On the inner or land side of the cutter 5 is a rearwardly and upwardly inclined flange 14. The flange 14 preferably consists of a relatively thin metallic plate or strip, which is riveted at its forward edge to the cutter and flares outwardly to form a recess or pocket adapted to receive the forward edge of the glass moldboard.

The numeral 15 indicates a flat metallic bed-plate bolted at its forward end to the plow-standard 1, and from its point of attachment to the standard said bed-plate extends rearwardly and outward at an angle from the standard and landsides. A brace 16 is attached at one end to the rear end of the bed-plate 15 and at its other end is bolted to the low landside. A corresponding bed-plate 17 is disposed beneath the bed-plate 15, parallel with the latter, and at its front end is bolted to the low landside and at its rear end is connected to one end of a brace 18, the other end of the latter being bolted to the low landside. The rear end of the bed-plate 17 is provided with an integral upwardly-projecting extension 19, adapted to be connected to the moldboard.

The numeral 20 indicates the glass moldboard, which is of the usual shape or configura-

tion, and the bed-plates 15 and 17 are shaped to conform to the inner, rear, or convex side of the moldboard. On said inner, rear, or convex side of the moldboard are formed projecting lugs 21 and 22, square in cross-section, and each having formed therein a vertical perforation or pin-hole 23. Elongated slots 24 are formed in the upper brace 15, in which the lugs 21 are adapted to be fitted, and a similar slot 25 is formed in the portion 19 of the lower brace 17 for the reception of the lug 22. To secure the moldboard in place, it is placed against the bed-plates 15 and 17 in such a manner that its lugs 21 and 22 will respectively project through the slots 24 and 25, while the front edge of the glass moldboard will lie in rear of the guard-strip or flange 14 on the cutter. The moldboard is then thrust or moved bodily forward, its lugs moving in the slots and its forward edge sliding under the guard-strip 14 or between the latter and the inner face of the cutter. The moldboard is then rigidly secured in place, as follows: The slots 24 and 25 being longer than the lugs 21 and 22 to permit the latter to move forward in said slots it becomes necessary to fill up the slots in rear of the lugs after the moldboard has been moved forward into place to lock the latter. This I accomplish by fitting washers 26 over each of the lugs 21 and 22, and the rear end of each of said washers is provided with an extension which is offset from the washer and is provided with a rectangular block 27. When the washer is fitted over one of the lugs 21 or 22, the block 27 fits in the end of the slot 24 or 25 in rear of the lug and fills up the slot, thereby preventing the lug from moving rearwardly in the slot, and hence holding the moldboard rigidly in place. Pins 28 are inserted in the pin-holes in the lugs behind the washers and operate to securely lock the lugs in position and hold the washers with their attached blocks in place. It will be understood that there is one such washer provided for each of the lugs on the moldboard. The lower edge of the moldboard overlaps the lower bed-plate 17 and lies flush with the upper edge of the share 11, which latter is bolted to the bed-plate 17 by bolts 29.

A brace 31 is preferably attached at one end to the rear end of the bed-plate 15 and at its other end is bolted to the under side of the plow-beam, the purpose of said brace being to stiffen the moldboard and the bed-plate 15.

Constructed as above described the high landside prevents the earth from falling into the central part of the plow or the furrow being plowed. As set forth, the high landside and cutter are made in one integral plate of steel, and the cutter operates to cut the sod and roots and slice off the earth from the land, while the guard-strip or pocket 14 protects the forward edge of the glass moldboard and prevents stones or the like from engaging and chipping or fracturing the edge of the glass, such stones or similar substances engaging and passing over the steel guard-strip and from the latter glancing off harmlessly over the smooth and polished face of the glass moldboard. Instead of forming the guard-strip separately from and welding, bolting, or riveting it to the cutter it will be manifest that it may be formed integrally with the cutter; but for the sake of convenience and economy of manufacture I prefer to construct the guard-strip in the manner described.

It will be apparent that by removing the pins and washers from the lugs 21 and 22 the moldboard may be readily removed, and the plowshare may also be quickly removed by merely taking out the two bolts 29. The plow-point and high landside and cutter may also be quickly removed for repairs and the like by detaching the bolts which secure these parts in place.

Having described my invention, what I claim is—

1. In a plow, the combination with the standard, low landside and share, of the high landside and cutter consisting of a flat metallic plate fastened to the standard, said plate extending rearward of the standard to form the high landside and extending forward of said standard and sharpened on its front edge to form a cutter, substantially as described.

2. In a plow, the combination with the standard, low landside and share, of the high landside and cutter consisting of a flat metallic plate fastened to the standard, said plate extending rearward of the standard to form the high landside and extending forward of said standard and inclined downward and sharpened on its front edge to form a cutter, substantially as described.

3. In a plow, the combination with the standard, low landside and share, of the high landside and cutter consisting of a flat metallic plate fastened to the standard and extending in front and rear of the latter to form respectively the high landside and cutter, said cutter being provided on its share side with an overhanging guard-strip or flange forming a pocket for the reception of the forward edge of the moldboard, substantially as described.

4. In a plow, the combination with the standard, low landside and share, of the high landside and cutter consisting of a flat metallic plate fastened to the standard and extending in front and rear of the latter to form respectively the high landside and cutter, an approximately vertical guard-strip or overhanging flange on the share side of the cutter, and a glass moldboard forming a continuation of the share and seated at its forward edge between said cutter and overhanging flange or guard-strip, substantially as described.

5. In a plow, the combination with the standard and landside, of a plow-point provided on its forward edge with an overhanging and rearwardly-inclined flange and on its under edge with a laterally-projecting flange, said

flanges forming a pocket for the reception of the plowshare, and a plowshare seated at its front edge in said pocket, substantially as described.

6. In a plow, the combination with the standard and the landside attached to the lower end thereof, of two bed-plates, the upper of said bed-plates being bolted at its forward end to the standard and extending outwardly and rearward therefrom, and braced at its rear end to the landside, the lower bed-plate being attached at its forward end to the landside in front of the standard and braced at its rear end to the landside in rear of the standard, a glass moldboard resting against said bed-plates and provided on its rear side with perforated rectangular lugs projecting through slots in the bed-plates, washers fitted over said lugs and provided with blocks fitting in said slots in rear of the lugs, and pins passing through the lugs behind the washers, substantially as described.

7. In a plow, the combination with the standard and low landside, of the high landside and cutter, a guard-strip or overhanging flange on the cutter forming a pocket for the reception of the forward edge of the moldboard, bed-plates rigidly fixed in rear of the moldboard and provided with elongated slots, a glass moldboard provided on its rear side with perforated rectangular lugs projecting through said slots, the forward edge of the moldboard being seated in the said pocket, washers fitted over the lugs and provided with blocks fitted in said slots in rear of the lugs, and pins passing through the lugs behind the washers, substantially as described.

8. In a plow, the combination with the standard and landside, of the plow-point bolted to the landside and provided on its forward edge with an overhanging rearwardly-inclined flange and on its bottom edge with a laterally-projecting flange, said flanges forming a pocket for the reception of the edge of the plowshare, a bed-plate bolted at its forward end to the standard and inclining rearwardly and outward therefrom and braced at its rear end to the landside, and a plowshare seated at its forward edge in said pocket and bolted at its upper edge to said bed-plate, substantially as described.

9. In a plow, the combination with the standard and landside, of the plow-point bolted to the landside and provided on its forward edge with an overhanging rearwardly-inclined flange and on its bottom edge with a laterally-projecting flange, said flanges forming a pocket for the edge of the plowshare, a bed-plate bolted at its forward end to the standard and inclining rearwardly and outwardly therefrom and braced at its rear end to the landside, a plowshare seated at its forward edge in said pocket and bolted at its upper edge to said bed-plate, and a moldboard secured to said bed-plate and resting at its lower edge on the upper edge of the share, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

WILLIAM R. OYLER.

Witnesses:

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ANDREW J. WILHELM.