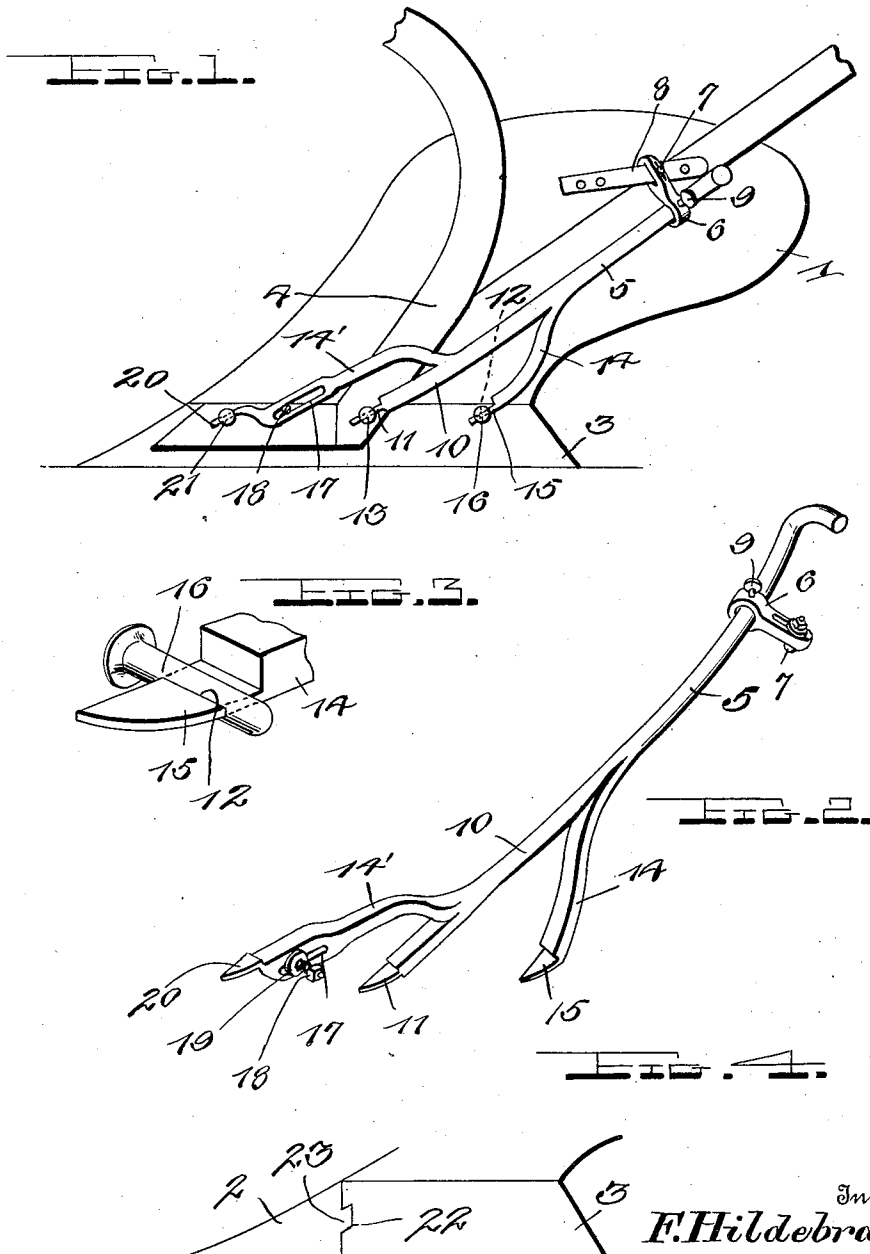


F. HILDEBRAND.
 PLOW ATTACHMENT.
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1,057,645.

Patented Apr. 1, 1913.



Witnesses

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PLOW ATTACHMENT.

1,057,645.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, FREDRICK HILDEBRAND, a citizen of the United States, residing at Sykeston, in the county of Wells and State of North Dakota, have invented certain new and useful Improvements in Plow Attachments, of which the following is a specification, reference being had to the accompanying drawings.

10 This invention relates to an improved attachment whereby the lay or share of the ordinary breaking plow is readily articulated or disarticulated with the mold board and landside and by which, when in place, it is firmly held against accidental displacement. By reason of the fact that the share must be frequently removed and sharpened, or replaced by a share which has previously been sharpened, considerable time is wasted in loosening and detaching the ordinary bolts which are employed to hold it in place. Moreover, the usual bolt which has its head countersunk in the face of the share and a threaded shank extending through to the lower side is frequently battered or otherwise injured by contact with stones and the like so that the nuts are not readily threaded on and off the same. Having these objects in view I provide an attachment having prongs properly placed to correspond to the location of the ordinary bolt holes in the share, said prongs being adapted to enter a longitudinal slot in the shank of the bolt and to exert thereon a wedging action to simultaneously draw all of the bolts tight, said attachment being provided with means for holding the same firmly in adjusted position.

The invention as hereinafter particularly claimed will now be described in detail in connection with the accompanying illustrative drawings, wherein—

Figure 1 is a rear elevation of the mold board and share, the land side being removed; Fig. 2 is a detail of the attachment, removed from the plow; Fig. 3 is a fragmentary detail of one of the wedge points and bolt; and Fig. 4 is an elevation of the land side.

In the drawings wherein similar reference characters indicate corresponding parts throughout 1 designates the mold board of a plow, 2 the lay or share, 3 the landside assembled in the usual operative relation to the standard 4.

Instead of employing as is common, threaded bolts for the connection of the share to the standard, the nut of each of which bolts must be separately removed and replaced when the share or lay is changed, I provide a special attachment by which the share is secured in place, said attachment forming specifically the subject matter of the present application.

The attachment consists, as shown, of a curved bar having a shank portion 5 preferably bent at its upper end and slidably mounted in an eye-strap 6 which is secured by means of the bolt 7 to the brace 8 connecting the mold board with the handle 4'. A set screw 9 is threaded in the eye of this strap and serves to position the shank of the attachment in adjusted relation thereto. In its medial portion the attachment is provided with a laterally extending prong 14 which lies snugly against the under face of the mold board and share in their upper portion and terminated in a narrow wedge-shaped point 15 adapted to enter a longitudinal slot 12 formed in the bolt 13 the head of which is being secured within the face of the share in the usual manner. The lower extremity 10 of the shank 5 terminates in a similar wedge-shaped point 11 adapted to engage the bolt 13 similar to the bolt 16 whose head portion is also secured to the share of the plow adjacent the medial portion thereof. Extending laterally from the shank portion 5 at the opposite side from that of the prong 14 is another prong 14'. This prong 14' is provided with a longitudinally extending slot 17 through which is adapted to operate a bolt 18 having one end thereof being permanently secured within the frog of the plow. Immediately below the slot 17 the prong 14 is provided with an offset portion terminating in a similar wedge shaped point 20 which is adapted to engage a slotted bolt 21 also secured in any preferred or well known manner to the share of the plow adjacent the forward end thereof.

The front edge of the landside is provided with a recess 22 and the meeting edge of the land face of the share is provided with a cooperating tongue 23 adapted to fit therein, as best illustrated in Fig. 4.

When the attachment is put on, it is fastened by the bolt 18 which serves as a guide bolt and holds the device in position, the

points 11, 15 and 20 being then slipped into the slots of the bolts 13, 16 and 21. A blow of the hammer upon the upper end of the attachment will wedge the points into the slots in such manner as to draw the bolts tight. Preferably, the bolt 18 is provided with a spring which rests between the washer 19 and the nut 18 as best illustrated in Fig. 2, whereby the attachment will be held tightly against the mold board and prevented from slipping down until the bolts 13, 16 and 21 are in position. Yet, the spring will not interfere with driving the attachment down, as would be the case if the nut of the bolt 18 were tightened up to a tension where it would hold the bolt 18 in the upper end of its slot. The set screw 9, after the attachment has been driven firmly into place is secured tightly against the shank so that the attachment is held firmly in adjusted position and the plow share locked rigidly to the permanent portions of the plow structure. The attachment may be easily released by a reverse operation and the plow share can be removed and replaced by a mere manipulation of the set screw and the bolt having a slotted connection with the frog.

Having thus described the invention what is claimed is:

1. A plow attachment comprising a bar curved to fit the rear face of the mold board and share and provided with a plurality of wedge-shaped prongs and near its lower end with a longitudinal slot, bolts secured to the share, said bolts having longitudinally slotted shanks to receive the wedge-shaped prongs, a bolt mounted in the lower slot of the bar and engaging the plow frame, an eye-strap secured to the frame and traversed by the upper portion of the bar, and a set screw to clamp the bar in the eye to maintain the same in adjusted relation.

2. A plow attachment comprising a bar, means for adjustably holding the same upon the plow, the lower extremity thereof being provided with a plurality of prongs each of which terminates in a wedge-shaped point, one of said prongs being provided with a longitudinally extending slot, a bolt extending from the frog of the plow and operatively mounted within said slot, a plurality of apertured bolts permanently secured to the share of the plow, the wedge shaped

points of the prongs adapted to fit within the slots formed in said bolts, substantially as and for the purpose described.

3. In a plow attachment comprising a curved bar, means for holding the upper extremity thereof in adjusted relation to the plow, the lower extremity of said bar terminating in wedge-shaped points, prongs extending laterally from each side of the bar, means for slidably connecting one of said prongs to the frog of the plow, the extremities of said prongs terminating in wedge shaped points, apertured bolts permanently secured to the share of the plow for receiving said wedge-shaped points, substantially as and for the purpose described.

4. A plow attachment comprising a bar, means for adjustably holding one end of the same upon the plow, the lower extremity thereof being provided with a plurality of prongs made integral with said bar and lying in the same plane, the extremities of each of said prongs terminating in a point, a plurality of apertured bolts permanently mounted upon the share of the plow for receiving wedge shaped points, one of said prongs having an enlarged portion provided with a longitudinally extending slot, a bolt extending from the frog of the plow within said slot, a coil spring mounted upon said bolt and interposed between the outer face of said prong and a nut adjustably mounted on said bolt, substantially as and for the purpose described.

5. In a plow attachment comprising a curved bar, means for holding the upper extremity thereof in adjusted relation to the plow, prongs extending laterally from each side of the bar and made integral therewith, one of the said prongs extending from the medial portion of the bar, the other said prong extending from the said bar below the first mentioned prong and in opposite direction therefrom and wedge-shaped points formed on the lower extremities of the said bar and said prongs substantially as and for the purpose specified.

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

FREDRICK HILDEBRAND.

In the presence of—
W. B. NALLEY,
C. S. ATKINSON.