

N. KLAUS.
 PLANTER SHOE.
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946,845.

Patented Jan. 18, 1910.

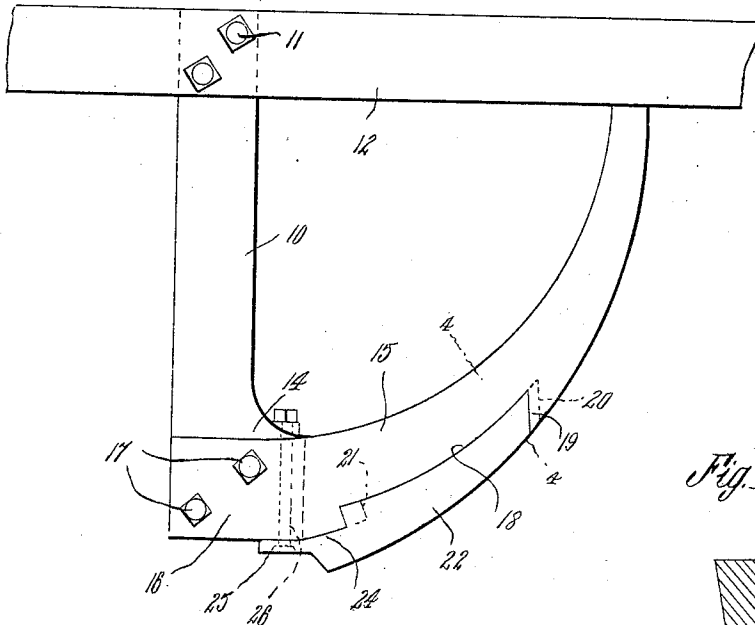


Fig. 1

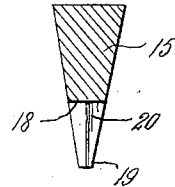


Fig. 4

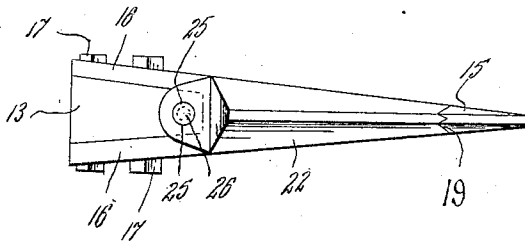
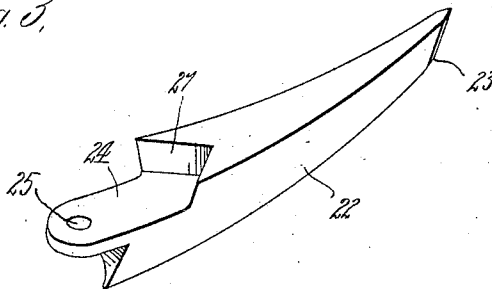


Fig. 2

Fig. 3



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UNITED STATES PATENT OFFICE.

NICHOLAS KLAUS, OF BREDA, IOWA.

PLANTER-SHOE.

946,845.

Specification of Letters Patent.

Patented Jan. 18, 1910.

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To all whom it may concern:

Be it known that I, NICHOLAS KLAUS, a citizen of the United States, residing at Breda, in the county of Carroll, State of Iowa, have invented certain new and useful Improvements in Planter-Shoes; 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.

This invention relates to improvements in corn planters and like implements, more particularly to the furrow opener portions of the implement, and has for one of its objects to provide a simply constructed and easily attached supplemental shoe located in position to receive the major portion of the friction and wear.

With this and other objects in view, the invention consists in certain novel features of construction as hereafter shown and described and then specifically pointed out in the claims, and in the drawings illustrative of the preferred embodiment of the invention, Figure 1 is a side elevation of one of the improved devices. Fig. 2 is a bottom plan view of the same. Fig. 3 is a perspective view of the supplemental shoe, detached. Fig. 4 is a transverse section, enlarged, on the line 4—4 of Fig. 1.

The improved device comprises a standard 10 having means such as clamp bolts 11 for attachment to the frame work of a corn planter, a portion of which is represented at 12. At its lower end the standard 10 is reduced in thickness with the sides of the reduced portion converging forwardly as represented at 13 in Fig. 2, the reduced portion also extending forwardly to a greater extent than the longitudinal width of the standard, whereby the bearing surface of the reduced portion is increased. The reduction of the lower portion of the standard forms lateral shoulders, one of which is represented at 14.

The main shoe or furrow opener is represented as a whole at 15 and curves upwardly and forwardly in the usual manner, as shown, and is formed with a bifurcated portion 16 bearing upon opposite sides of the reduced portion 13, as shown in Fig. 2, and secured to the reduced portion by suitable fastening means such as clamp bolts

17. The lower curved face of the member 15 is formed with a longitudinal recess 18 with a portion of the member 15 overhanging the forward upper portion of the recess as shown at 19, the overhanging portion having a V-shaped cavity 20 in one of its faces, as shown in Fig. 4. At its inner end the recess 18 is formed V-shaped as shown at 21.

Fitting in the recess 18 is a supplemental shoe 22, conforming at its inner face to the recess 18, and conforming at its outer face to the outer curvature or bearing face of the member 15. The supplemental shoe 22 is formed at its forward upper end to fit the cavity produced by the overhanging portion 19 of the main shoe and likewise provided with a V-shaped ridge or rib indicated at 23 to engage in the recess 20. At its rear end the member 22 extends beneath the body of member 15 as shown at 24 and with the rear terminal perforated as shown at 25 to receive the clamp bolt 26 by which the member 22 is clamped to the reduced portion 13 of the standard 10. The member 22 is also provided with a V-shaped notch 27 fitting over the V-shaped terminal 21 of the member 15. By this means the member 22 is firmly secured in place upon the member 15. The V-shaped notch 27 coacting with the V-shaped terminal 21 and the clamp bolt 26 effectually prevent either lateral or downward movement of the member at its rear end, while the coaction of the overhang 19 and its V-shaped recess serve to effectually support the supplemental shoe at its forward end from both lateral and downward movement. By this means the member 22 is firmly secured to place by one clamp bolt 26, and in position to receive the major portion of the wear and friction incident to its operation or movement through the ground. The member 22 thus receives nearly all of the wear and friction, and when worn can be inexpensively and easily replaced without discarding the more expensive portions of the implement. The rear portion of the member 15 bears beneath the shoulders 14, so that the upward thrust of the member 15 is borne almost entirely by the shoulders, and the clamp bolts 17 relieved from shearing strains, as will be obvious.

The member 15 may be constructed from relatively cheap soft material, while the

member 22 may be of steel, and thus render it capable of bearing the severe strains to which it will be subjected.

What is claimed is:—

- 5 1. In a device of the class described, a main shoe having a longitudinal recess with the body of the main shoe overhanging the recess at one end and having a projection at the other end, a supplemental shoe engaging
10 in said recess with one end reduced to engage beneath the overhanging portion of the main shoe and with a notch engaging over the projection, the rear portion of the supplemental shoe being arranged to extend be-
15 neath the body of the shoe rearwardly of the recess, and a clamp bolt operating through said rear extension of the supplemental shoe.
2. In a device of the class described, a
20 standard having a reduced lower portion with lateral shoulders at the juncture of the reduced portion with the standard, a main shoe having a bifurcated rear end engaging

said reduced portion and beneath said stand-
ard, said main shoe having a longitudinal re- 25
cess with the body of the main shoe over-
hanging the recess at one end and with a
V-shaped projection at the other end, a sup-
plemental shoe engaging in said recess with
one end reduced to engage beneath the over-
hanging portion of the main shoe and with a 30
V-shaped notch engaging over the V-shaped
projection, the rear portion of the supple-
mental shoe being arranged to extend be-
neath the reduced portion of the standard,
and a clamp bolt operating through the said 35
rear extension and the reduced portion of the
standard.

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

NICHOLAS KLAUS.

Witnesses:

FRANK VAN ERDEWYK,
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