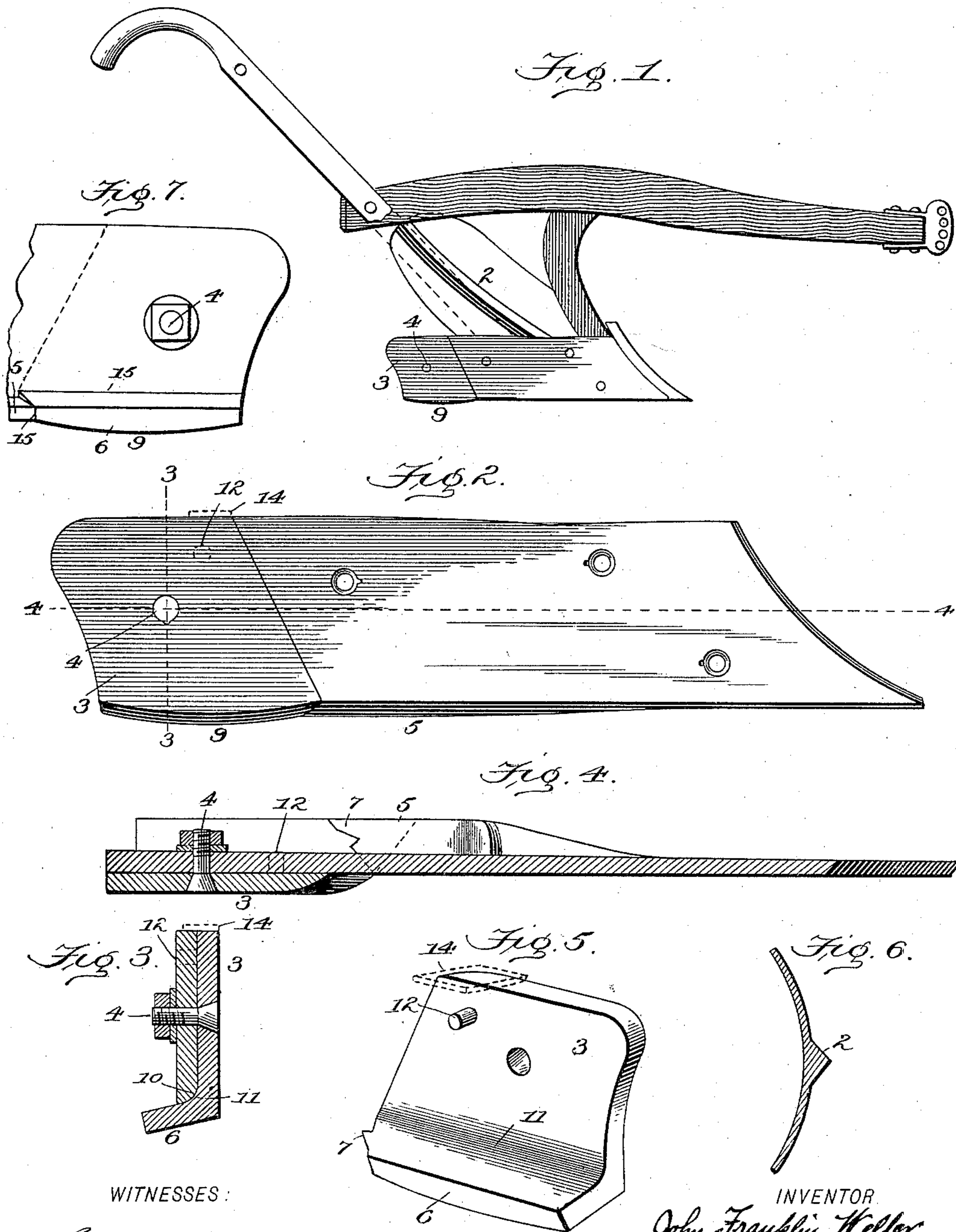


(No Model.)

J. F. WELLER.
PLOW.

No. 598,455.

Patented Feb. 1, 1898.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN FRANKLIN WELLER, OF CHARLESTOWN, WEST VIRGINIA.

PLOW.

SPECIFICATION forming part of Letters Patent No. 598,455, dated February 1, 1898.

Application filed April 23, 1897. Serial No. 633,521. (No model.)

To all whom it may concern:

Be it known that I, JOHN FRANKLIN WELLER, a citizen of the United States, residing at Charlestown, in the county of Jefferson and State of West Virginia, have invented a new and useful Improvement in Plows, of which the following is a specification.

I have improved both the moldboard and the landside of a plow. For the moldboard my improvement is a rib to prevent it from breaking across its upward-curving unsupported end and for the landside my improvement resides in the particular construction of a slip-heel to take the wear from the face and from the lower edge at the heel end of the landside, and the precise features of improvement in these parts are illustrated in the drawings and will be pointed out in the claims.

Referring to the drawings, Figure 1 is a side view of a plow, looking at the landside. Fig. 2 is an enlarged side view of the landside. Fig. 3 is a cross-section of the same. Fig. 4 is a longitudinal section of the same. Fig. 5 shows the slip-heel in perspective; and Fig. 6 is a cross-section of the moldboard, showing its strengthening-rib. Fig. 7 shows in detail the inner side of the landside and the recess at its lower edge at the heel end to receive the projection of the slip-heel.

It often happens that the moldboard breaks off across its upper curved end, where the pressure is greatest in turning the earth, and to prevent this I form on the convex side of the moldboard a rib 2, extending from the base to the curved end and preferably of V form in cross-section. I prefer to make the rib quite broad and along the middle of the width of the moldboard, although the desired strength may be obtained by several ribs so formed.

To prevent the wear of the landside at its heel, I provide a slip-heel plate 3, fitted upon the face of the landside at its heel end, and secure it by a bolt 4, having its head countersunk in the face of the slip-heel and nutted on the inner side of the landside. At its lower edge, partly along the same, the landside has an inward projection 5, and the slip-heel has a corresponding base projection 6, the meeting ends of which abut and preferably stand obliquely rearward and may in-

terlock by projection 7 and notch to hold and keep the heel-plate true with the base of the landside.

The front edge the slip-heel is made obliquely rearward, and from the edge its surface is made convex to lessen resistance and wear. At its base 9 the slip-heel is made convex, so that the thickest part of the L-shaped projection will be mediate of its length, and thereby very materially increasing its wear capacity and durability.

At its inner surface, at the base-angle 10, the outer edge of the landside is made convex, and the corresponding part 11 of the slip-heel is made concave, which gives to the latter a much greater thickness along its base edge, where the wear is greatest.

As the nut of the fastening-bolt is liable to become loose, the slip-heel would turn upon its fastening-bolt as upon a pivot and sag and stand open at the base oblique joint and fill in with earth, and to prevent this I pin or engage the slip-heel at its upper edge to the landside by means of a pin 12, cast on the inner wall of the landside and passing into or through a corresponding hole in the landside, so that the slip-heel cannot rock or sag at its heaviest corner, while the interlocking at the oblique joining will prevent the slip-heel from opening outward at its front edge from the landside. By using this slip-heel the landside has no wear and the slip-heel can be replaced when worn out. I may prevent the opening of the slip-heel by making the base joining 13 stand obliquely to the front, as shown by dotted lines in Fig. 4, so that the oblique joint itself would form a lateral lock to bind the slip-heel to the face of the landside. I may also prevent the sagging of the slip-heel by providing its upper edge at the front corner with a lip 14, standing inward and resting upon the top edge of the landside, as shown by dotted lines in Figs. 3 and 5.

It will be understood that the landside at its heel end is reduced in vertical width the thickness of the base projection 5, so as to form a recess 15 to allow the base projection 6 of the slip-heel to fit under it and be on the plane of the base of the landside at the oblique meeting; but the convexity 9 of the base of the slip-heel in fact gives a convex termination to the base of the landside. This con-

struction is seen in Fig. 3, wherein the lower edge of the landside is rounded at 10, so that the slip-heel may thereby be made of greater thickness at its base-angle to give it greater wear-body. In this figure also may be seen the base projection 6 of the slip-heel as extending under the rounded edge 10 of the landside, which for that purpose is made of less width at its heel and back of the base-joint 7, so that the base projection of the slip-heel will be on a level with the base of the landside, as seen in Fig. 2.

It is evident, referring to Fig. 4, that the oblique joining 7 of the base projections of the landside and of the slip-heel being on a level give the advantage of interlocking these horizontal parts and bringing them in abutting relation and avoid any projection of the slip-heel below the base of the landside.

I claim—

1. The moldboard of a plow having its convex side formed with a rib medially of its width and extending from its base to its upper curved end for the purpose stated.

2. The combination, with the landside having an inward projection partly along its base, of a slip-heel having a corresponding base

projection, the meeting edges of said base projections, abutting and standing oblique, and a nutted fastening-bolt for said heel-slip.

3. The landside of a plow having the horizontal base projection of less length than the landside in combination with a slip-heel 3 having a base projection on a level with and abutting with the landside projection, said slip-heel projection being convex on its under side at 9 and concave on its inner side at the angle 11 whereby the base of the slip-heel has its greatest thickness medially of its length and through its base-angle, and provided with the tooth 7 for engaging the abutting landside base.

4. The combination, with the landside having an inward projection partly along its base, of a slip-heel having a corresponding base projection, the meeting edges of said base projections abutting, standing oblique and having provision for interlocking at said abutting edges, to prevent the opening of said heel-slip and a nutted fastening-bolt therefor.

JOHN FRANKLIN WELLER.

Witnesses:

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