

C. O. WILDER.

DIES FOR WELDING AND FORMING FROGS FOR PLOWS.

No. 183,093.

Patented Oct. 10, 1876.

Fig. 1.

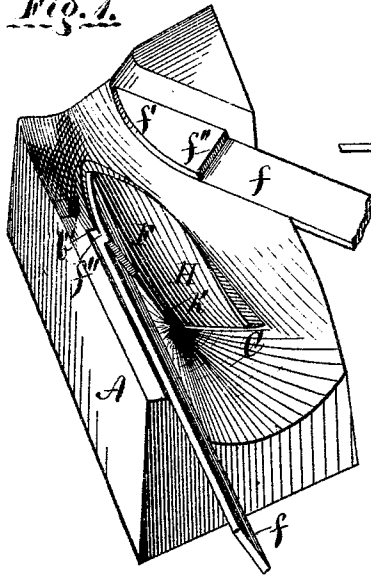


Fig. 3.

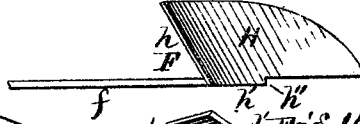


Fig. 4.

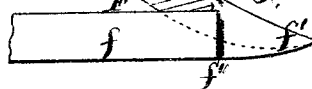


Fig. 5.

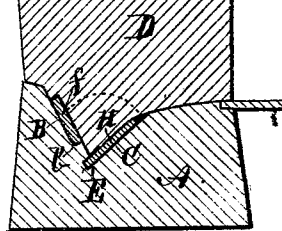


Fig. 2.

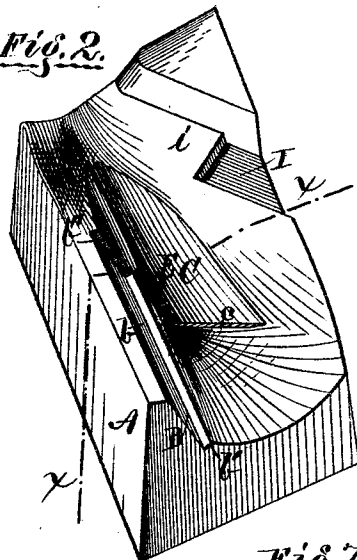


Fig. 6.

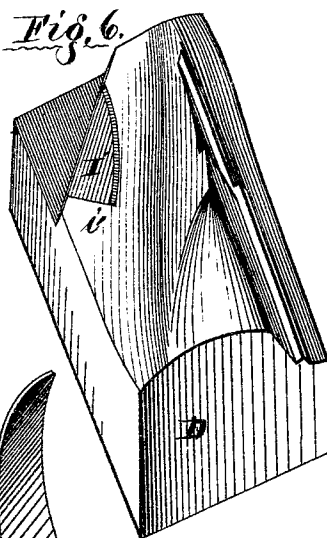
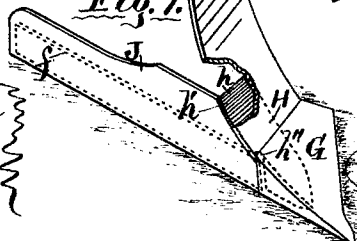


Fig. 7.



Witnesses:

M. A. Banning.
P. Richards

Inventor

Chas. O. Wilder,
By W. D. Richards,
Atty.

UNITED STATES PATENT OFFICE.

CHARLES O. WILDER, OF MONMOUTH, ILLINOIS, ASSIGNOR OF ONE-HALF
HIS RIGHT TO WEIR PLOW COMPANY, OF SAME PLACE.

IMPROVEMENT IN DIES FOR WELDING AND FORMING FROGS FOR PLOWS.

Specification forming part of Letters Patent No. **183,093**, dated October 10, 1876; application filed
September 12, 1876.

To all whom it may concern:

Be it known that I, CHARLES O. WILDER, of Monmouth, in the county of Warren and State of Illinois, have invented certain new and useful Improvements in Dies for Welding and Forming Frogs or Angle-Plates for Plows; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The nature of my invention relates generally to improvements in dies for manufacturing that part of turning-plows commonly known as the "frog" or "angle-plate," and especially to a frog in which a portion of the wing-share brace extends over the land-side bar, to form a brace for the land-side face-plate, all as hereinafter more fully described.

In the accompanying drawings, Figure 1 is a perspective view of the bed-die with a frog in place therein. Fig. 2 is a perspective view of the bed-die alone. Fig. 3 is a top view of a frog of the class made by my dies. Fig. 4 is a side elevation of Fig. 3. Fig. 5 is a transverse sectional view of the upper and lower die and frog between them, in the line *x x* of Fig. 2. Fig. 6 is a perspective view of the upper die inverted. Fig. 7 is a perspective view of part of a plow, showing the use of the class of frog herein described.

Referring to the parts by letters, letter A represents the bed-die or intaglio-die. In the upper side of this die is a recess, with an inclined side, B, in which a depression, *b*, is made, terminating in a shoulder, *b'*, at its lower side, and a shoulder, *b''*, at its forward end. The other side, C, of the recess extends diagonally back at its upper side, from the point of union with the side B, is curved, as shown in the drawings, and terminates in a shoulder, *c*. The lower edge of the face C, from the face *b''* to the shoulder *c*, is extended into the face B, to form a recess, E.

D is the upper or cameo die, and is formed to fit the die A, with the frog F between them. F is the frog, consisting of the land-

side bar *f*, having its forward pointed end *f'* set over at a shoulder, *f''*, to form a brace and a rest for the slip-share G. H is the wing-brace, having an upward and rearwardly extended end, *h*, with a lateral extension, *h'*, which, when the brace H is welded to the bar *f*, extends over the bar *f* flush with its farther side, and extends forward and terminates in a shoulder, *h''*, immediately over the shoulder *f''*.

In addition to the recesses hereinbefore described, the die A has an additional rectangular recess, I, in its upper face at one side, and a flat surface, *i*, extending forward therefrom; and the die D has a recess, I', immediately over the surface *i*, and a flat surface, *i'*, over the recess I. The bar *f* may be, in its blank form, laid on the die A at I, and struck into form by the die D, as shown at Fig. 1. The wing H is then placed thereon, and the two placed in the die A, and there thoroughly welded and finished form given to the frog by blows from the die D. The extension *h'* rests and is given its finished form in the recess E.

Fig. 7 illustrates the special use in a plow of the extension *h'*, (when the frog is seated and bolted in place in the usual manner,) to rest against the upper part of the land-side face-plate, (shown by full line, J,) and prevent its inward displacement in grinding and polishing.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The dies, constructed substantially as shown and described, for welding together the land-side and the wing-brace, and striking the latter into form, as set forth.

2. The dies, constructed substantially as shown and described, for striking the land-side into form preparatory to welding to the wing-brace, as set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

CHARLES O. WILDER.

Witnesses:

FRANK M. WEIR,
JAS. G. MADDEN.