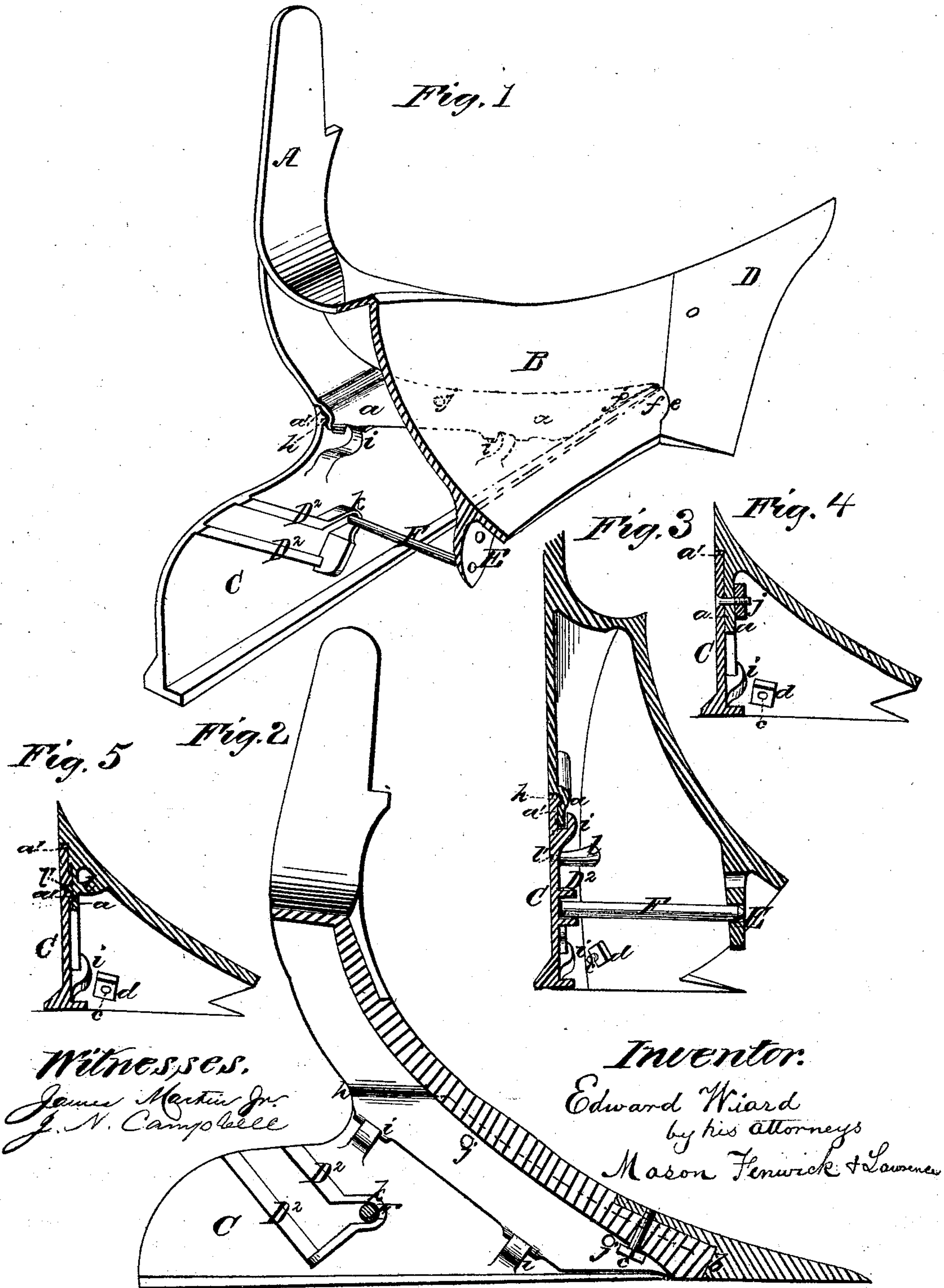


E. WIARD.  
Plows.

No. 152,445.

Patented June 23, 1874.



*Witnesses.*  
James Martin Jr.  
J. N. Campbell

*Inventor.*  
Edward Wiard  
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# UNITED STATES PATENT OFFICE.

EDWARD WIARD, OF LOUISVILLE, KENTUCKY, ASSIGNOR TO BENJAMIN F. AVERY, OF SAME PLACE.

## IMPROVEMENT IN PLOWS.

Specification forming part of Letters Patent No. **152,445**, dated June 23, 1874; application filed March 16, 1874.

*To all whom it may concern:*

Be it known that I, EDWARD WIARD, of Louisville, in the county of Jefferson and State of Kentucky, have invented a new and useful Improvement in Plows; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings making part of this specification, in which—

Figure 1 is a perspective view of my plow, as seen from the rear. Fig. 2 is a vertical longitudinal section of the same, looking toward the land-side. Fig. 3 is a vertical transverse section of the same. Figs. 4 and 5 show slight modifications.

My invention consists in the combination of lips, pins, and a grooved socketed lug on the land-side bar, in combination with a perforated lug on the under side of the mold-board, and a removable stay-bar or brace, whereby the land-side can be firmly held upon the mold-board, and yet is removable at pleasure in a very convenient manner.

In the construction of plow represented the standard A and mold-board B are cast together in one piece, and the said standard is formed with a narrow web or rib, *a*, which extends down vertically, and is depressed inward, as at *a'*, far enough to permit the land-side to fasten to it, and yet stand flush with the working land-side surface of the standard, as shown. The point D of the plow is constructed with a curved or angular shoulder at *b*, and is fitted and confined to the mold-board by means of a screw-pin, *c*, or screw-pin and nut *d*. To prevent lateral displacement of this point a concave recess is cut in its edge at *e*, and into this recess is fitted a convex projection, *f*, formed on the lower end of the mold-board, as shown. The land-side is constructed to fit upon the shoulder of the point D, and also the web or rib *a*. On its inner side it has a slight rib, *h*, which fits a corresponding gutter in the web *a*, and inward, beyond it, two grooved lugs, *i i*, are cast, and into the grooves of these the web *a* fits, as shown. Two pins, *j j*, which are riveted to or cast upon the land-side, pass loosely

through the web *a*, as shown. These pins prevent the land-side from descending or moving longitudinally after the parts are placed together. D<sup>2</sup> is an open grooved lug, with an open socket, *k*, at its inner corner. E is a perforated wing or lug cast on the under side of the mold-board. Any desired number of holes may be formed in this lug. F is a thrust stay-bar between the land-side and the mold-board. This bar is inserted, by way of the groove of the lug D<sup>2</sup>, into one or the other of the holes of the lug E, and then forcibly driven into the inclined socket *k*, in the manner represented. By this means, the upper portion of the land-side is pressed firmly against the outer side of the web *a*, and the lugs against the inner side thereof, and thus the parts are held firmly together.

By taking out the bar, the land-side can be readily removed for any purpose, or another substituted for it, and confined by reinserting the bar.

On the under side of the part of the mold-board which is cut away in Fig. 1 another lug, as usual, is provided for the inner handle just above the lug E. In order to brace the plow between the web *a* and mold-board a connecting-link, *l*, is cast upon the mold-board, and its end *l'* reduced and extended into a socket on the inner side of the land-side bar, as shown.

When this extension, with the socket of the land-side, is provided, the pin may be dispensed with; but I prefer to use both together, for greater firmness is secured.

In practice, as a modification of my invention, I may construct the land-side, as in Fig. 4, with only one lug; and, instead of the riveted pins, employ a single screw-pin with nut for securing its inner end. The brace, wing, and open-grooved and socketed lug will be employed in combination with this construction.

My mold-boards, from their point to their tip, I prefer to make with a surface which is at all points parallel with a straight edge, moved over the same in the direction that the furrow-slice moves up over the same.

What I claim as new, and desire to secure by Letters Patent, is—

The combination of the land-side with the lug or lugs *i*, pin or pins *j*, and grooved and socketed lug *D*<sup>2</sup> and *k* cast upon it, the mold-board and standard cast in one piece, and having a short perforated web, *a*, and a perforated wing, *E*, cast upon them, and the

thrust-brace *F*, the whole constructed to allow the land-side to be removed without disturbing the point, substantially as set forth.

EDWARD WIARD.

Witnesses:

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W. R. CAMPBELL.