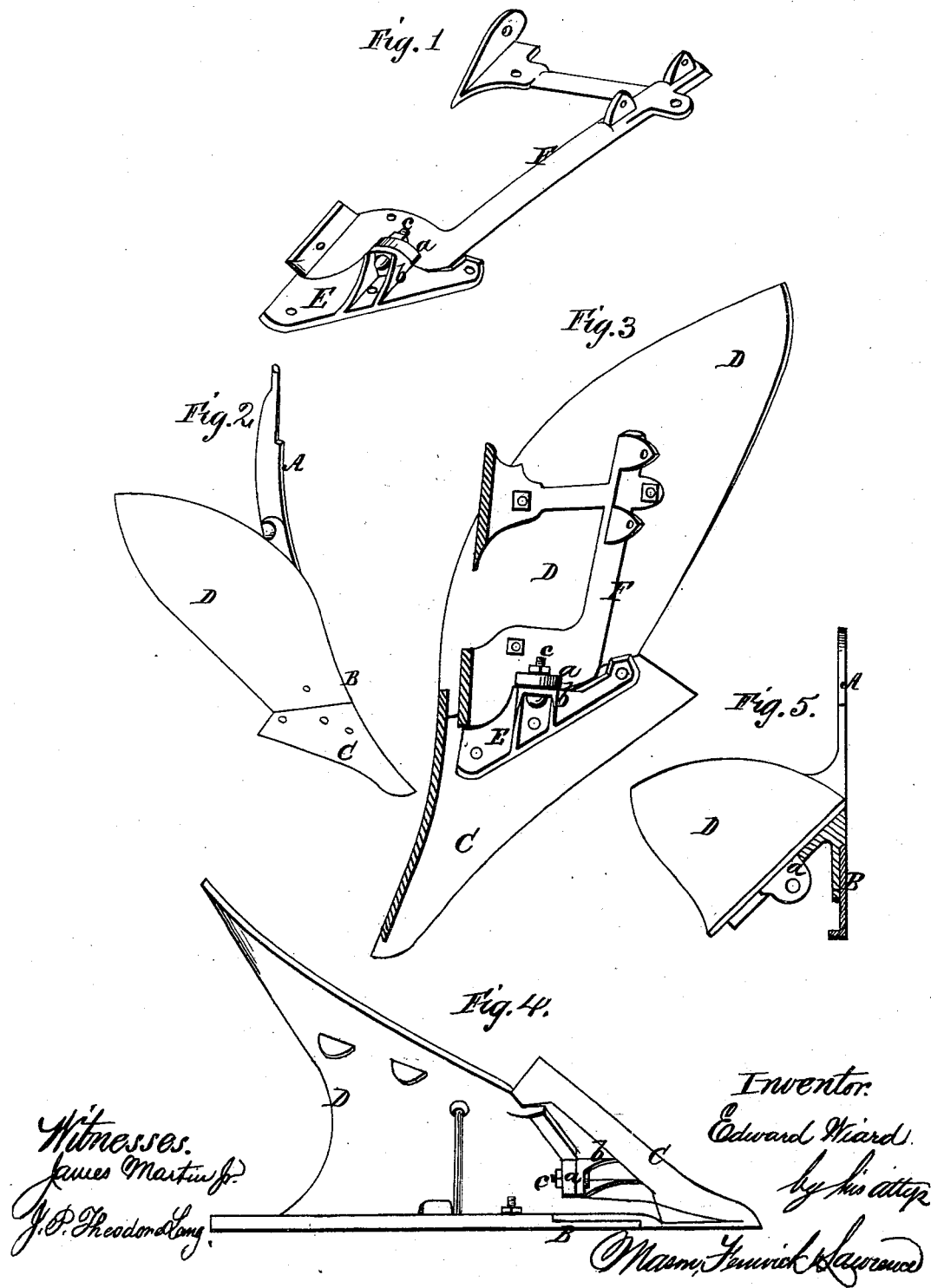


E. WIARD.

PLOW.

No. 188,555.

Patented March 20, 1877.



# 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. 188,555, dated March 20, 1877; application filed February 15, 1877.

*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 of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view of "Wiard's patented frog" with my improvement thereon. Fig. 2 is a perspective view of my improved plow. Fig. 3 is an inverted view of the same, partly in section and partly in elevation. Fig. 4 is an inverted view of the plow with my improvement applied directly thereto, so as to form a part of the plow-castings. Fig. 5 is a vertical transverse section of the same.

The nature of my invention consists in the manner of attaching the point or share by lugs or flanges located beneath or on the under side of both the point and mold-board, and through which lugs or flanges a bolt is passed, for the purpose of fastening the share to the mold-board and to its place on the plow.

In the accompanying drawings I have shown my invention applied to both cast-iron and steel plows, and will first describe it in connection with a steel plow.

A represents the standard; B, the land-side; C, the share or point; D, the mold-board; E F, the "frog" for sustaining in position the above-mentioned parts of the plow after said parts have been bolted to it. This frog is divided into two parts, the part E being riveted to the under side of the share, and the part F to the under side of the mold-board, in such a manner that the rivets are solidly joined to the surrounding metal or steel, and are not liable to work loose by wear. On the part F a vertical lug, *a*, is cast. The part E has a lug, *b*, cast on it. Through the said lugs *a* and *b* a hole is made to receive the bolt *c*, which bolt is secured by a nut or key. The faces of the two lugs are made true,

and when brought together form a close joint. The lug *b* is of U shape and countersunk, so as to receive the head of the bolt *c*. By making the lug *b* of the form shown it will be seen that not only is protection afforded the head of bolt *c*, but at the same time great strength and durability is given to the share C. A portion of the part F of the frog extends beyond the front edge of the mold-board, and affords a support for the upper part of the share.

The invention as used on the cast-iron plow is the same as on the steel plow, except that the lugs *a* and *b* are formed directly on the mold-board and share, as represented in Figs. 4 and 5 of the drawings, and thus the use of the frog is not necessary.

When this invention is used on small plows, but a single bolt, *c*, will be necessary; but in large plows two may be necessary for strength.

The advantages resulting from my invention are greater strength and durability. The bolt for fastening the mold-board and share together is not subject to wear. It serves to hold the point or share firmly in its proper and strongest position, preventing especially the cast point or share from being broken in handling the plow, and also by having, in both cases of steel and cast-iron plows, no obstruction on the face of the plow, and placing the bolt under the mold-board, no wear will take place.

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

A plow provided with the lugs or flanges *a* and *b*, located beneath or on the under side of both the point and mold-board, and having a bolt, *c*, passed through them and fastened by a nut or key, substantially in the manner and for the purpose described.

Witness my hand in the matter of my application for a patent for an improved plow this 25th day of January, 1877.

EDWARD WIARD.

Witnesses:

SAML. J. LOOK,  
D. McPHERSON.