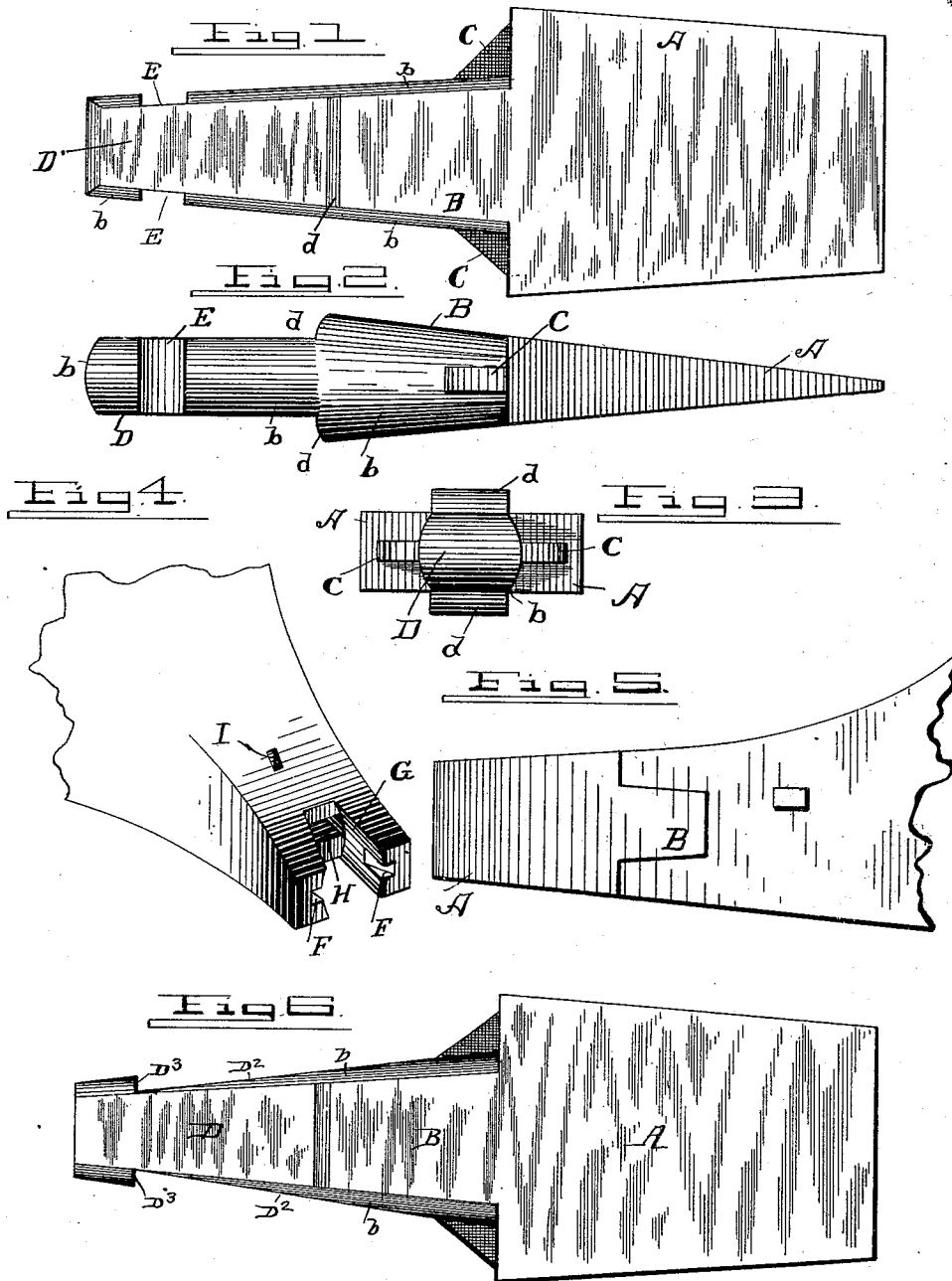


(No Model.)

T. M. BISSELL & J. B. HUBER.
REVERSIBLE PLOW POINT.

No. 479,696.

Patented July 26, 1892.



WITNESSES
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UNITED STATES PATENT OFFICE.

THELUS M. BISSELL AND JOHN B. HUBER, OF SOUTH BEND, INDIANA.

REVERSIBLE PLOW-POINT.

SPECIFICATION forming part of Letters Patent No. 479,696, dated July 26, 1892.

Application filed April 18, 1892. Serial No. 429,596. (No model.)

To all whom it may concern:

Be it known that we, THELUS M. BISSELL and JOHN B. HUBER, of South Bend, in the county of St. Joseph and State of Indiana, have invented certain new and useful Improvements in Reversible Plow-Points; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification, in which—

Figure 1 is a top view of our improved plow-point. Fig. 2 is an edge view thereof. Fig. 3 is a rear end view. Fig. 4 is a detail perspective view, reduced, of the plowshare, showing the point-receiving socket. Fig. 5 is a top plan view of point as connected to share. Fig. 6 is a top plan view of a preferred modified form of point.

This invention is an improved detachable and reversible plow-point; and it consists in the novel construction of the point and of the share-socket receiving the point and the combination of parts hereinafter described and claimed.

Referring to the drawings by letters, the point has a wedge-shaped head A and a shank B, formed integral therewith and connected centrally to the rear thickest edge of the head. This shank has its side edges *b* convex in cross-section and has its rear end reduced in thickness, forming a tenon D, as shown. Shoulders *d d* are formed at the junction of tenon D with the shank at top and bottom thereof, as shown.

C C are triangular webs uniting the base of the shank with the head at the sides of the shank and being much thinner than the shank or head, as shown in Figs. 1 and 2.

Vertical notches E E are cut in the opposite side edges of tenon D. Preferably, however, the sides of the shank and tenon are tapered from the head to the nearest edge of what would be the notch E, as shown at D², Fig. 6, leaving shoulders D³ on the sides of the tenon near the end thereof.

The plowshare is formed with a recess G in its point of a size to receive neatly the shank B, the sides of said recess being concave, and at the rear of said recess is a mortise H of a size to receive neatly the tenon D

of the point, as indicated in Fig. 5. A vertical opening I is made through the share and intersects mortise H at a point where (when the point is set in the share with the tenon in the mortise) a pin driven through the opening I will also pass in front of one of the shoulders D³ or through one of the notches E in the side of the tenon, and thereby lock the point to the share. Triangular notches F F are formed in the share at the front end of recess G to receive the webs C C of the point. By tapering the sides of the shank and tenon, as in Fig. 6, the lateral thrust on the point is thrown upon the webs and on the end of tenon, holding the point more rigidly, as four distinct bearings for the point are thereby afforded.

When the point is in position as indicated in Fig. 5, it is held therein by the pin, and the mortise and tenon prevent vertical play of the point, the convex sides of the shank and the concave sides of the recess assisting in preventing the point moving vertically, and the webs C C and flat faces of the tenon prevent the point turning, as is evident. The webs C are protected on two sides and are not liable to be chipped or broken, thus destroying the utility of the point, and the convex sides of the shank are not liable to chip, as in the case where the points and share are interlocked by tongues and grooves, and should the point shrink so as to be smaller than the recess, yet it will be rigidly locked therein and effectually held against any lateral, vertical, or longitudinal play. The point will fit the recess no matter which face is uppermost, so that it can be removed and reversed as it wears as often as desired.

Having described our invention, what we claim as new, and desire to secure by Letters Patent thereon, is—

1. A plow-point having a wedge-head, a shank projecting therefrom, and triangular webs uniting said shank and head, and a tenon on the end of the shank, in combination with a plowshare having a recess to receive the shank, a mortise to receive the tenon, and notches in the edges of said recess to receive the webs, substantially as specified.

2. The combination of the share having a recess provided with concave sides and a mortise at its rear ends with a point having a

shank formed with convex sides to fit in a recess, and a tenon to fit the mortise of the share, and a securing-pin, substantially as and for the purpose described.

- 5 3. A plow-point having a wedge-head, a shank projecting therefrom, and webs uniting said shank and head, and a tenon on the end of said shank and having shoulders on its opposite sides, both tenon and shank having tapered sides *s a d*, in combination with
10 a share having a recess in its point and a mortise at the rear end of said recess, both having tapered sides to receive the tenon and

shank of the point, and notches at the front end of the recess to receive the webs of the point, and a securing-pin, all constructed and arranged to operate substantially as and for the purpose specified.

In testimony that we claim the foregoing as our own we affix our signatures in presence of two witnesses.

THELUS M. BISSELL.
JOHN B. HUBER.

Witnesses:

JAMES DUSHANE,
H. H. HUMPHREY.