

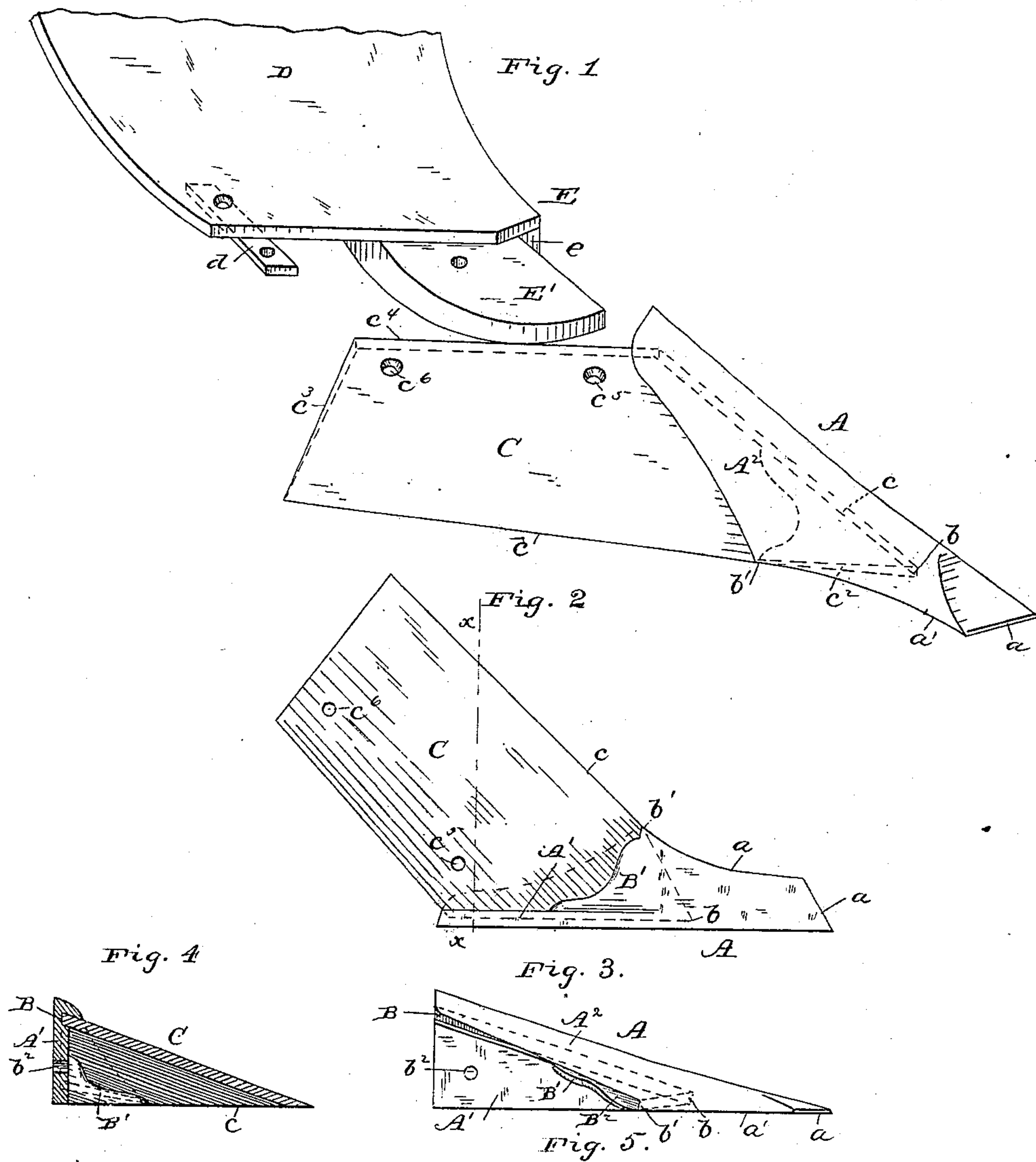
(No Model.)

W. F. BALDWIN.

PLOW POINT.

No. 271,593.

Patented Feb. 6, 1883.



Witnesses:

J. S. Barker.

A. J. Houghton.

Inventor:

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UNITED STATES PATENT OFFICE.

WILLIAM F. BALDWIN, OF GRAYVILLE, ILLINOIS.

FLOW-POINT.

SPECIFICATION forming part of Letters Patent No. 271,593, dated February 6, 1883.

Application filed October 5, 1882. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM F. BALDWIN, a citizen of the United States, residing at Grayville, in the county of White and State of Illinois, have invented certain new and useful Improvements in Plow-Points; and I do declare the following to be a full, clear, and exact description of the invention, such as 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 the letters and figures of reference marked thereon, which form a part of this specification.

Figure 1 is a perspective view of my improved plow point and share fitted together, a portion of the main body of the plow being also shown. Fig. 2 is a bottom plan of the same. Fig. 3 is an elevation of my improved point detached from the share side, the shape of the slot being shown in dotted lines. Fig. 4 is a cross-section of the share and point on line $x x$, Fig. 2.

A is the plow-point, cast or forged, of any preferred metal, in the form shown. It is constructed of a vertical wall, A' , having substantially the form of a right-angled triangle, and a top part or web, A^2 , connected with the former along the hypotenuse of the triangle, and forming therewith a solid-pointed extremity, of which $a a'$ are the cutting-edges. The part A^2 also slopes downward toward the share-plate, overlapping it. In the vertical wall A' is formed a slot, B, which is contiguous to and runs along the lower surface of the top part, A^2 . A web, B' , preferably of the triangular shape shown, is cast to the vertical wall along the lower edge of the slot B, near its forward end, and at the end of the slot it unites with the top part, A^2 , closing the forward end of the slot and forming the socket B^2 . The line of its union with the top part and the front wall of the slot, which coincides with this line, slopes backward from b to b' , thus forming, with the wall A, a dovetailed angle, for a purpose to be described.

b^2 is a bolt-hole in the wall A.

C is the share-plate, having a cutting-edge, c' , edge c' , which fits closely in the slot B, forward edge, c^2 , which abuts against the front wall of the socket B^2 , and rear edges, $c^3 c^4$, the latter one of which abuts against the front

edge of the mold-board. $c^5 c^6$ are bolt-holes for securing the share-plate in place.

In Figs. 1 and 4 I have shown a portion of the main body of a plow, to which my share-plate and point are adapted to be fitted, D being the mold-board, and E the land side portion. The part E projects forward from under the mold-board, forming the point E' , and has on its land side the vertical rabbet e . To fit my device to such a plow, I secure the share-plate C to the plow-body by bolting through the hole c^5 to the part E, the hole c^5 being countersunk and the nut placed upon the under side of part E' in the usual manner, (said underside being higher than the cutting-edges.) The share-plate is also connected with the plow-body by a strap, d , upon the under side, which is bolted to the plow-body and to the share-plate at c^6 . The point A is secured by fitting it over the share-plate, the angle formed by edges $c' c^2$ of the latter entering the socket B' , and the edge c^2 fitting in the slot B, and by bolting the wall A' to the side of the part E' at b^2 . It will be readily understood that this bolt b^2 , together with the hold which the socket B^2 has upon the edge c^2 of the share-plate, effectually secures said point in place. It will also be seen that the point A may be secured in place first and the share-plate C afterward, and that either may be removed at pleasure without disturbing the other. Either of these parts may, moreover, be formed integral with or permanently secured to the plow-body and the other part detachably secured in the manner described.

The great strength of my mode of connecting the share-plate and point, which mode consists in the peculiar shape and position of the slot B and socket B^2 , and in the corresponding shape of the share-plate, whereby the full strength of the top web, A^2 , and side wall, A' , are utilized, cannot fail to be perceived. The great difficulty encountered with most of the detachable points in use is their liability to breakage, arising from the manner in which they have been heretofore shaped and attached. This liability is obviated or much lessened by my construction. The general simplicity of my mode of constructing and fitting the parts and the convenience with which they may be detached and replaced are also evident.

I am aware that the plow-point and share-plate have heretofore been made in two parts, separately detachable, and that such share-plate and points have been connected together
5 by openings in the side of the point, and, moreover, that such openings have been made dove-tailed in shape or adapted at their front ends to retain the share-plate, and I do not claim
10 such construction as my invention. The lightness and strength of my device is attained by constructing it virtually of a side wall and top flange. This top flange is thickened at its forward end to make a solid point. If, however,
15 this flange were relied upon for the attachment of the share-plate by bolts or otherwise, the weakness of the structure would be evident. I have entirely obviated this difficulty, however, and retained the necessary strength with
20 the thickness of structure by making a slot of the thickness of the share-plate in the side wall contiguous to the top flange for the reception of said plate, and the forward corner of the plate is seated in the thicker portion of the top flange, which forms the point. It will
25 be seen by attention to the external shape of my point that the pattern can be drawn from the sand, and the casting done without using a core or chill, notwithstanding the fact that the retaining-socket B² has to be formed. The
30 pattern must be drawn on the line of the front wall of said socket which runs diagonally backward from the land side and toward the furrow side, and this could not ordinarily be

done, because of the greater depth of the rear end of the point compared with the forward
35 end; but I have shaped the upper surface of the top flange, sloping it downward toward the furrow side, as shown in Fig. 4, so that on all lines drawn parallel to the front of the retaining-socket the point shall taper and the pattern
40 of my point may be drawn without difficulty, thus cheapening the cost of manufacture.

What I claim is—

1. A detachable plow-point, consisting of the side wall, A', and top flange, A², and having
45 the retaining-socket B² in the point and the slot B in the side wall contiguous to the top flange, in combination with the share-plate, the edges of which are adapted to fit into said point, substantially as set forth. 50

2. A detachable plow-point, consisting of the side wall, A', and top flange, A², and having the slot B in the side wall and the retaining-socket B² in the forward part, the front line of which socket inclines diagonally backward
55 from the land to the furrow side, said point tapering on all lines parallel to the front line of said socket, thus insuring the withdrawal of the pattern, substantially as set forth.

In testimony whereof I affix my signature in
60 presence of two witnesses.

WILLIAM F. BALDWIN.

Witnesses:

J. S. BARKER,
H. H. BLISS.