

(No Model.)

D. E. BARTON.
SHOE FOR CULTIVATORS.

No. 465,422.

Patented Dec. 15, 1891.

Fig. 2.

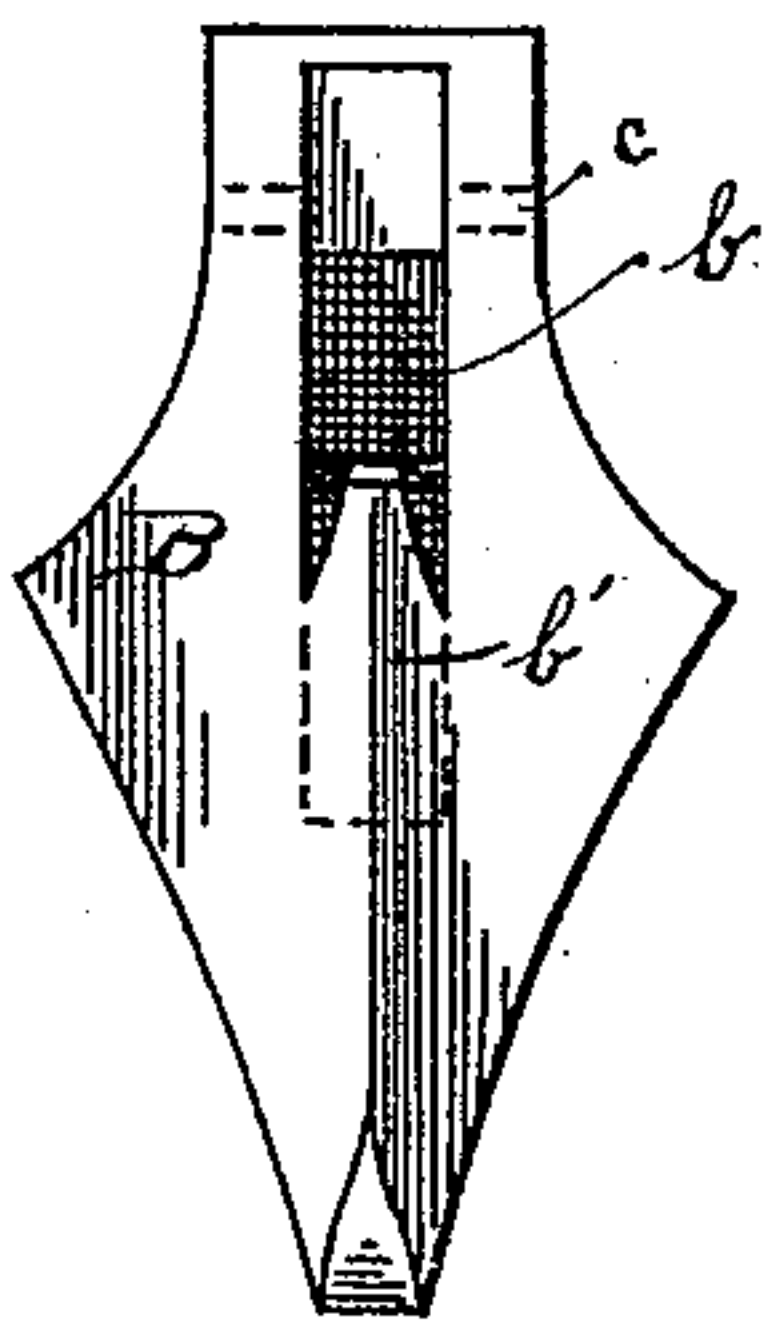


Fig. 1.

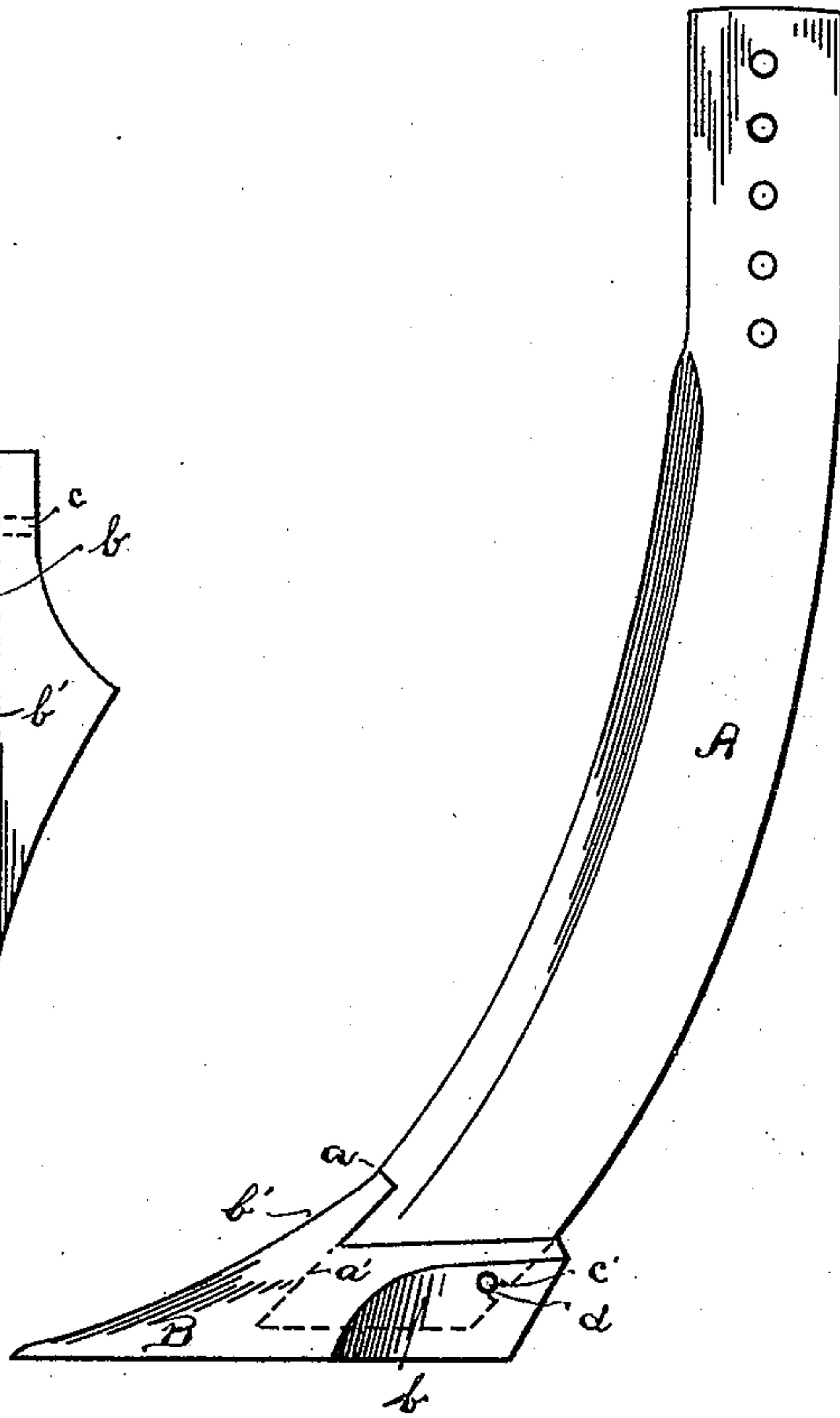


Fig. 3.

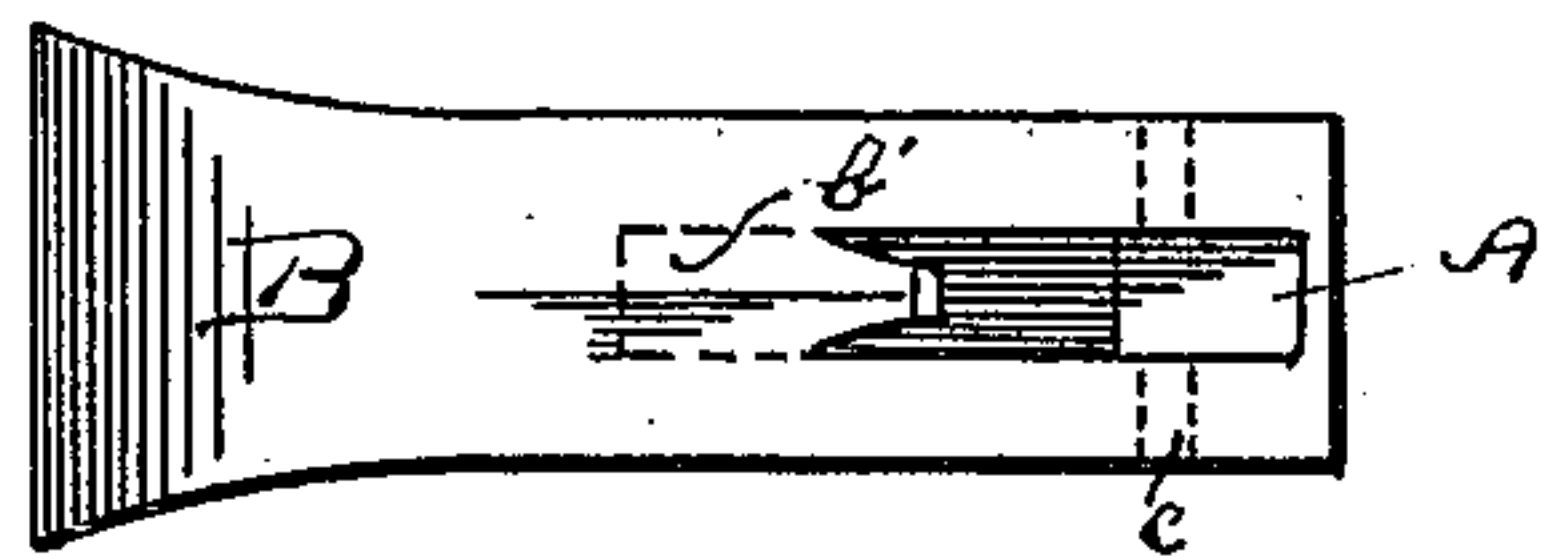
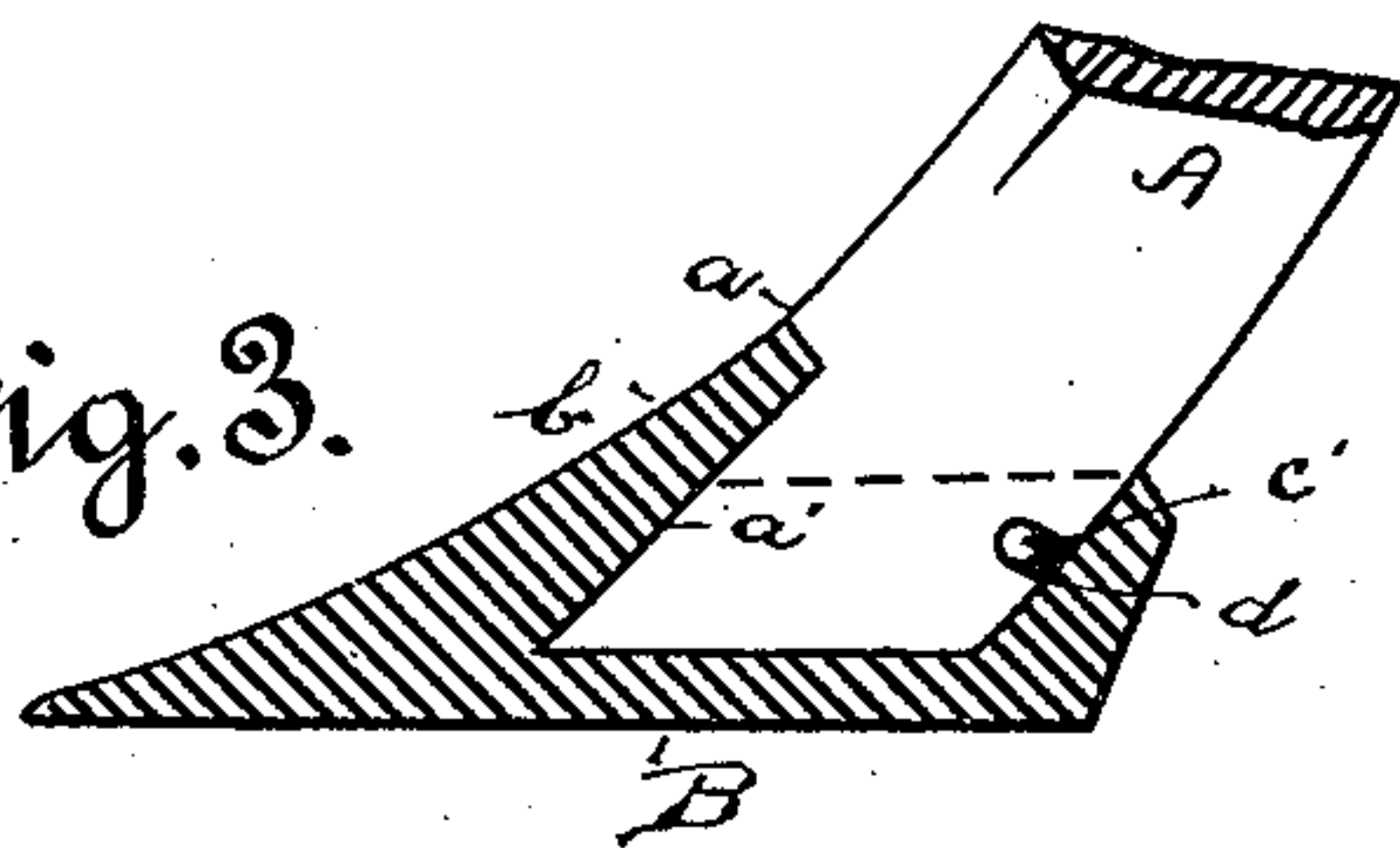


Fig. 4.

Witnesses.
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Inventor.
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By [Signature] atty.

UNITED STATES PATENT OFFICE.

DELBERT E. BARTON, OF SAN FRANCISCO, CALIFORNIA.

SHOE FOR CULTIVATORS.

SPECIFICATION forming part of Letters Patent No. 465,422, dated December 15, 1891.

Application filed July 7, 1891. Serial No. 398,646. (No model.)

To all whom it may concern:

Be it known that I, DELBERT E. BARTON, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented certain new and useful Improvements in Shoes for Cultivators; and I do hereby declare the following to be a full, clear, and exact description of said invention, such as will enable others skilled in the art to which it most nearly appertains to make, use, and practice the same.

This invention has relation to certain new and useful improvements in what I term "removable shoes" for cultivators, plows, and the like, which will be hereinafter more fully set forth in the drawings, and described and pointed out in the specification.

The object of my invention is to provide a shoe or cutting blade or point for cultivators, plows, or the like adapted to be quickly and firmly secured to the standard, so that in case of damage ensuing to either the standard or shoe the same may be readily removed and another inserted in place thereof, thus avoiding the throwing away of the entire standard and shoe, which follows where the same are made integral. My invention, however, I confine more especially to cultivators wherein shallow plowing is desired, although the same may be employed in connection with plows or the like.

Referring to the drawings forming a part of this application, wherein similar letters of reference denote corresponding parts throughout the entire specification, Figure 1 is a perspective view, partly broken away, showing standard secured with the shoe; Fig. 2, a top plan of the shoe; Fig. 3, a longitudinal sectional view of Fig. 1, and Fig. 4 a cross-sectional view on line *x x*, Fig. 3.

The letter A indicates the standard of the cultivator, which has the lower portion of its face cut away, so as to provide the shoulder *a*, and the end thereof formed at an incline, as shown at *a'*.

The removable shoe is represented by the letter B, which is preferably wedge-shaped, and is provided with the inclined opening *b* and guard portion *b'*, which extend upwardly

beyond the shoe proper and abut against shoulder *a* when standard A is secured thereto.

Within the heel of the shoe is formed an opening *c*, within which pin *c'* is secured, and by means of which the standard is firmly held within the shoe, inasmuch as said pin or bolt passes through groove or opening *d*, formed in the rear thereof. The shoe is secured to the standard by inserting the lower end thereof within the inclined opening formed within the shoe until the guard *b'* contacts with shoulder *a*, when the same is firmly locked in position by means of bolt or pin *c'*, which is inserted within opening *c* and groove or opening *d*, formed in the lower rear end of the standard. Inasmuch as the standard is secured within an inclined opening formed in the shoe it is obvious that the greater the resistance is which opposes the travel of the shoe through the soil the tighter will be its binding upon the standard. As the face of the shoe is wedge-shaped, the soil through which it travels will be thoroughly broken before the face of the standard contacts therewith, thus avoiding undue wear thereon. By removing the securing pin or bolt *c'* the shoe may be easily removed from the standard, so that in case of either the shoe or standard becoming damaged the same may quickly be removed and another inserted in place thereof.

Having thus described my invention, what I claim as new, and desire to secure protection in by Letters Patent of the United States, is—

1. The combination of a removable shoe provided with an inclined opening, a standard inserted in said opening, and a locking pin or bolt passing laterally through the sides of the rear of the shoe and through a groove in the rear of the standard registering with the apertures of the sides of the shoe, substantially as set forth.

2. The combination, with a cultivator, plow, or harrow standard having an inclined lower end, projecting shoulder, and a groove in the rear of the lower part of the standard adapted to register with apertures in the rear sides of the removable shoe, of a removable shoe provided with an inclined opening for the inser-

tion of the lower end of the standard and
an upward-extending guard upon which the
outwardly-extending shoulder bears, and a
locking-pin passing laterally through the ap-
5 ertures in the shoe and the groove in the rear
of the standard for securing said standard in
place, substantially as set forth.

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

DELBERT E. BARTON.

Witnesses.

N. A. ACKER,
J. W. KEYS.