

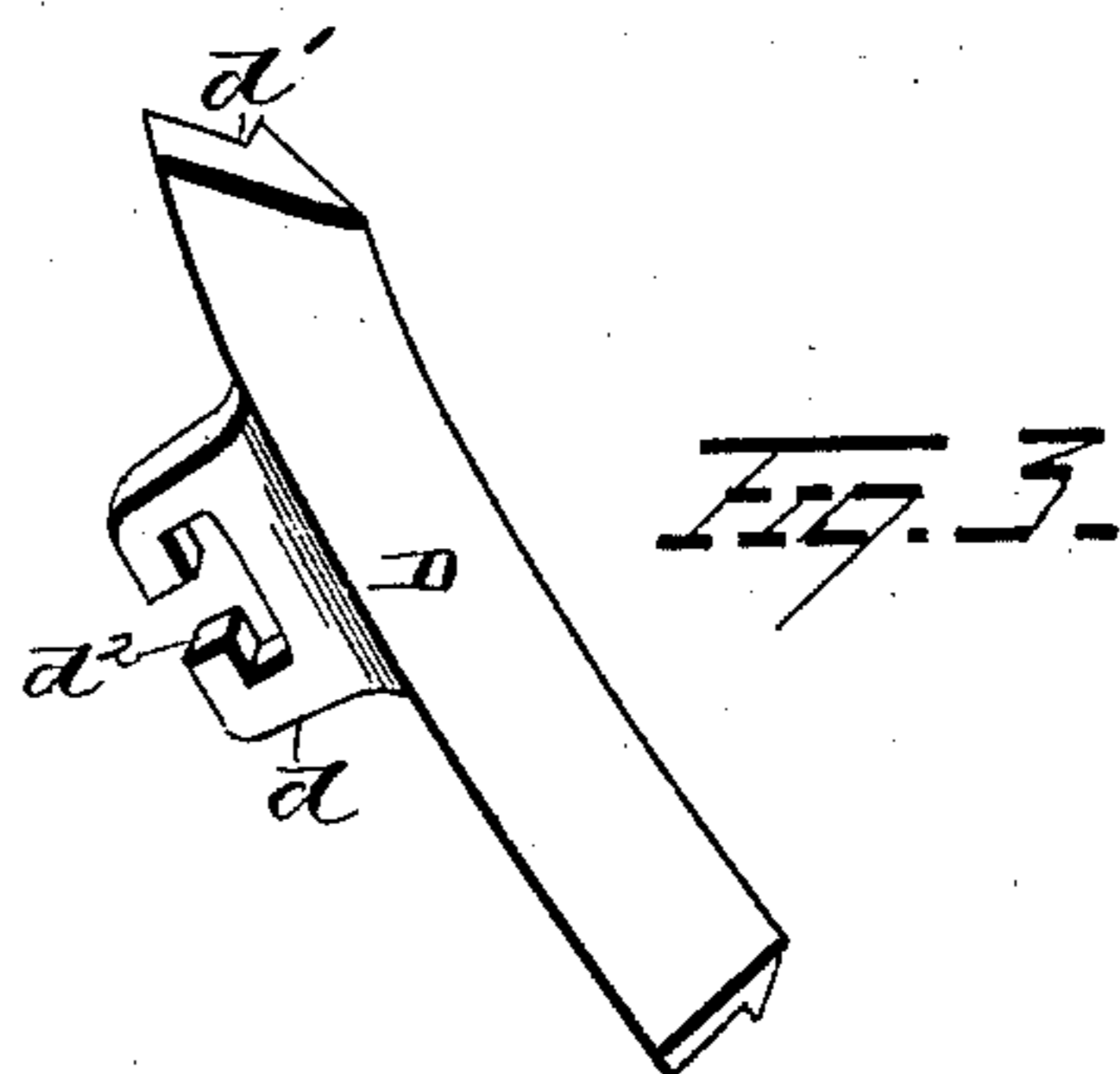
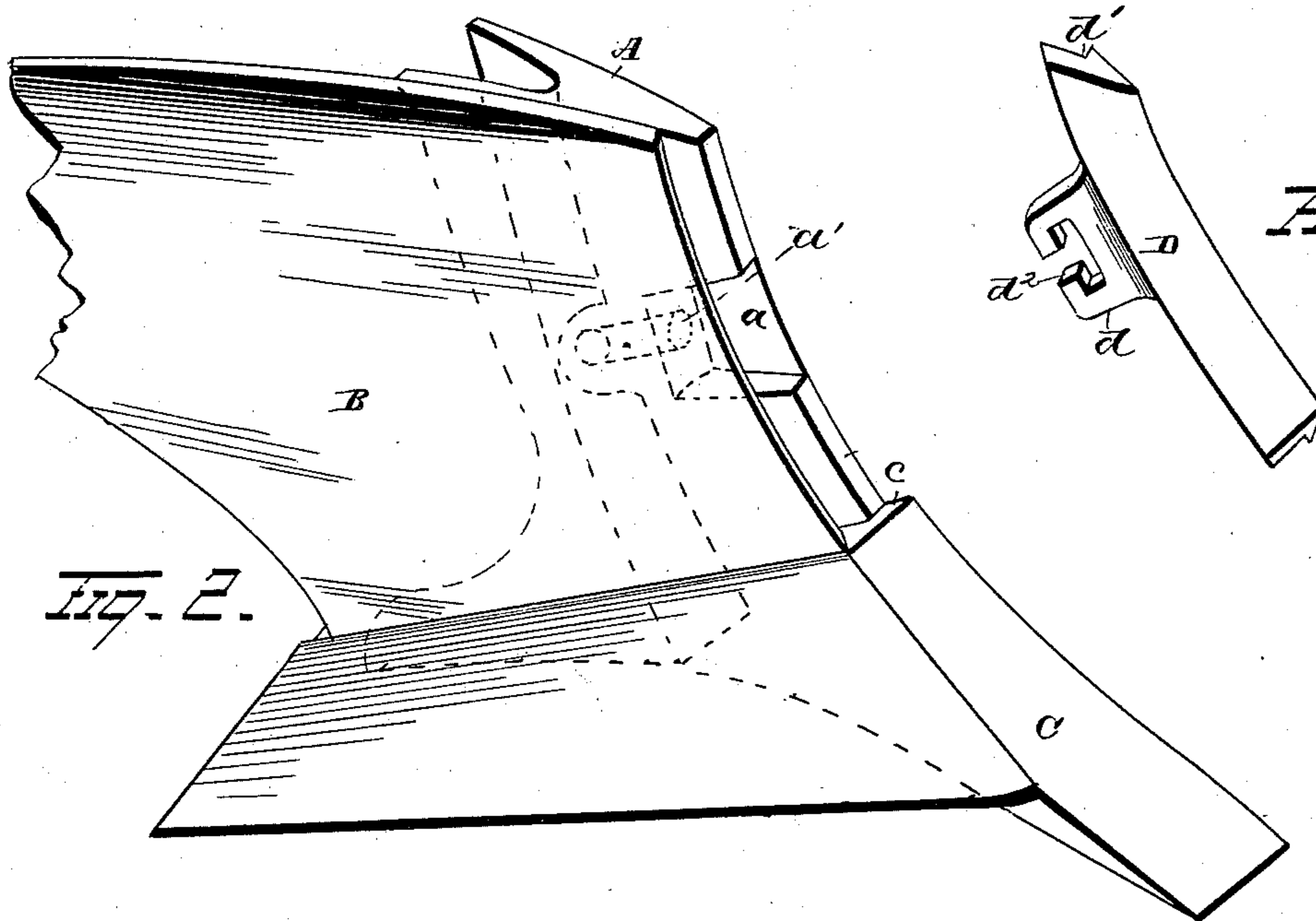
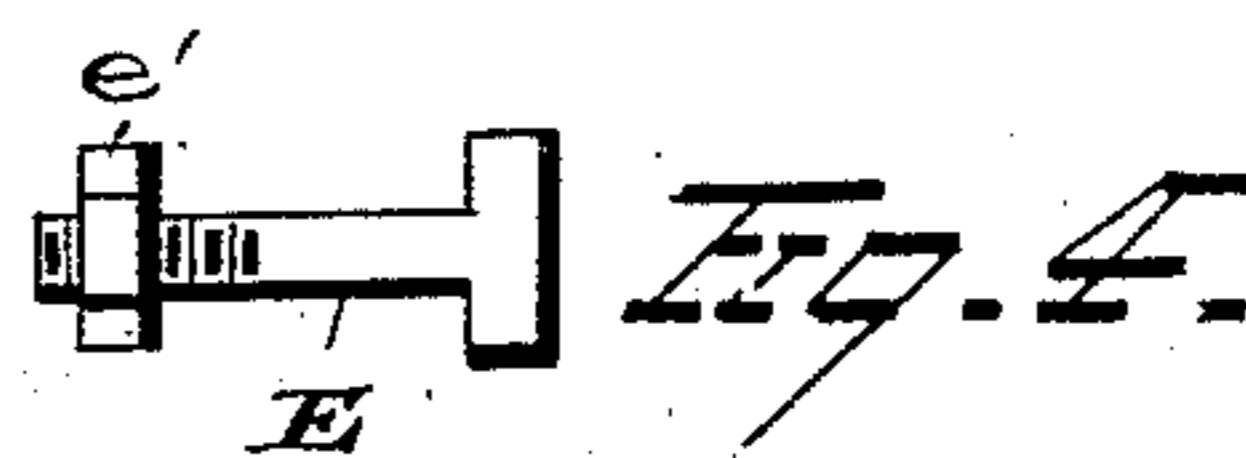
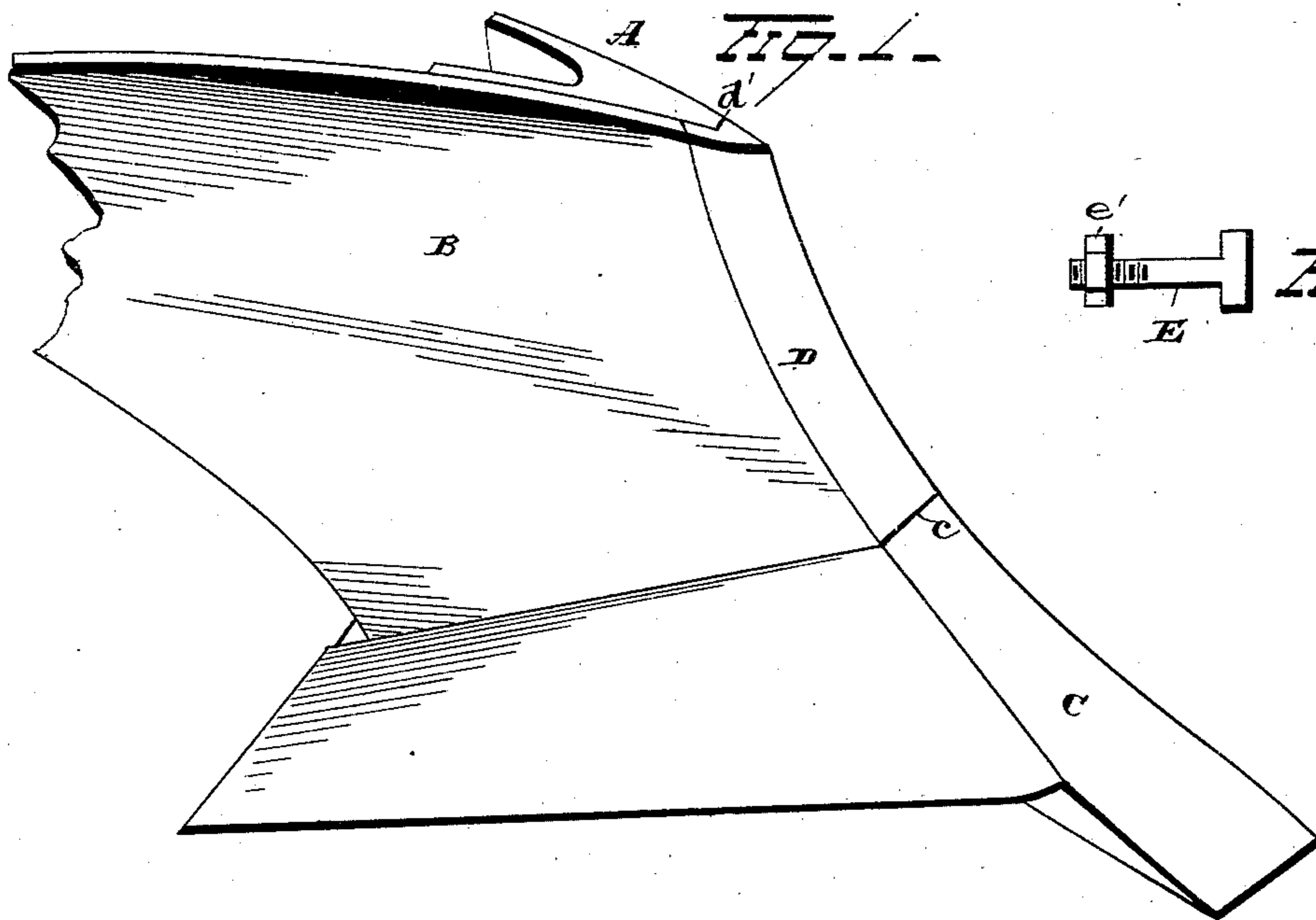
(No Model.)

C. ANDERSON.

PLOW.

No. 308,727.

Patented Dec. 2, 1884.



WITNESSES

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# UNITED STATES PATENT OFFICE.

CHARLES ANDERSON, OF SOUTH BEND, INDIANA, ASSIGNOR TO THE SOUTH BEND IRON WORKS, OF SAME PLACE.

## PLOW.

SPECIFICATION forming part of Letters Patent No. 308,727, dated December 2, 1884.

Application filed July 5, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES ANDERSON, of South Bend, in the county of St. Joseph and State of Indiana, have invented certain new and useful Improvements in Plows; and I do hereby 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.

My invention relates to an improvement in plows. In plowing where the surface of the ground is covered with a turf or dry grass, coarse manure, stubble, &c., it is very essential that the shin or cutter of the plow should be sharp and smooth. To accomplish this object the shin of the plow has been so constructed that it might be renewed when its cutting-edge had for any reason become rough or dulled, thereby prolonging the usefulness of the plow at a slight expense. Several devices have been resorted to for securing the detachable shin-piece to the standard—as, for example, by bolts having their heads counter-sunk in the surface, and by projecting flanges adapted to slide beneath the upper part of the point and the standard and between the mold-board and standard. Recesses formed for bolt-heads or for any purpose in the faces of the shin have a tendency to retain portions of earth and prevent the shin from scouring, while flanges adapted to be inserted beneath point or mold-board require the removal of those parts for adjusting or removing the shin.

The object of my present invention is to provide a detachable shin-piece or cutter which shall possess none of the objectionable features of those hitherto constructed, and a standard and a bolt of such construction that the shin-piece may be securely locked to the standard by the bolt, and the devices for locking the bolt to the shin-piece be concealed in the standard and not exposed to wear or injury; and with these ends in view my invention consists in a detachable shin-piece or cutter provided with a rearwardly-extending recessed lug and a groove adapted to engage the front edge of the standard, a draw-bolt provided with a head adapted to be locked within the recess in the lug, and a standard provided with a recess in its front portion adapted to

receive the lug on the shin-piece, and a perforation leading from the recess to the rear of the standard for receiving the draw-bolt.

My invention further consists in certain features of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view of a portion of a plow embodying my invention. Fig. 2 is a front view of the same with the shin-piece removed. Fig. 3 is a view of the shin-piece, and Fig. 4 is a view of the draw-bolt.

A represents a plow-standard, B the mold-board, and C the point. The upper end of the point is squared down to the standard, forming the shoulder *c*, and the front edge of the mold-board extends to within a short distance of the front edge of the standard, as shown in Fig. 2. The standard A is provided with a rectangular-shaped recess, *a*, located about midway between the upper end of the point and the top of the mold-board, said recess extending from the front of the standard toward the rear, and with a perforation, *a'*, extending from the rear of the recess *a* through to the rear of the standard. The standard at the point where the recess *a* is formed is strengthened by a boss, lug, or flange formed integral therewith, through which the perforation *a'* passes.

D represents a detachable shin-piece or cutter, the rear face of which conforms to the front of the standard, extending from the upper end of the point to the top of the mold-board. The piece D is provided with a rearwardly-extending lug, *d*, adapted to fit within the recess *a*. The rear land-side edge of the piece D is provided with a sharp groove, *d'*, adapted to receive the front edge of the standard A, and the other rear edge is adapted to form a tight joint with the front edge of the mold-board. The lower end of piece D is squared to rest in close contact with the upper end of the point, and the upper end of D is shaped to conform with the level of the upper end of the standard or mold-board; or it may extend above the mold-board and be shaped in any other desired form. The piece D is V-shaped in cross-section, the front edge being sharp and curved to conform to the

shear of the mold-board and point. The lug *d* is provided with a dovetail or T-shaped slot, *d*<sup>2</sup>, as shown. A bolt, *E*, provided with a head, *e*, adapted to fit the slot in the lug *d*, is constructed to fit the perforation *a*' and extend through the same, projecting at the rear of the standard, and threaded to receive the draw-nut *e*'. When the head of the bolt *E* is in its position in the slot *d*<sup>2</sup>, the sides of the head *e* lie flush with the sides of the lug, and thereby admit of the lug with bolt in position to enter the recess *a*. The axis of the perforation *a*' is in a line with the front edge of the piece *D*, and the perforation is so located in the standard that the bolt *E* will enter it when the head of the bolt is in position in the lug *d* and the lug made to enter the recess *a*. When the nut is turned on and the piece *D* thereby drawn into position, the front edge of the standard engages the sharp groove in *D*, and the piece is thereby locked to the standard independently of the mold-board or point.

From the above construction it will be observed that the shin-piece or cutter *D* may be put on or taken off without disturbing any other part of the plow; that it is held in position by locking devices which are not subject to the action of the point, mold-board, or land-side, and which are not exposed to wear or injury, and that the surface of the said cutter is entirely unbroken by perforations or recesses.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

35 1. In a plow, the combination, with a standard provided with a recess on its front side and a perforation extending rearwardly through the recessed portion, of a removable

cutter or shin-piece provided with a rearwardly-projecting lug that fits within the recess in the standard, said lug formed with an opening, and a bolt constructed with a head adapted to fit within said opening, and adapted to extend through the perforation in the standard, substantially as set forth. 40 45

2. In a plow, the combination, with a standard provided with a recess extending from its front portion rearwardly, and a perforation extending from the recess through the rear of the standard, of a detachable shin-piece or cutter provided with a dovetail slotted lug adapted to fit within the said recess in the standard, and a locking-bolt, whereby the cutter is secured to and removed from the standard independently of the mold-board and point, substantially as set forth. 50 55

3. In a plow, the combination, with a standard provided with a recess extending from its front portion rearwardly, and a perforation extending from the rear of the said recess through the standard, of a detachable shin-piece or cutter adapted to engage the front edge of the plow, and provided with a rearwardly-extending lug adapted to fit the recess in the standard, said lug having a dovetail slot formed therein, and a draw-bolt, the head of which fits the slot in the lug, the bolt passing through the said perforation when the parts are in position, substantially as set forth. 60 65

In testimony whereof I have signed this specification in the presence of two subscribing witnesses. 70

CHARLES ANDERSON.

Witnesses:

F. C. NIPPOLD,  
H. B. SMITH.