

(No Model.)

W. L. CASADAY.

PLow.

No. 345,276.

Patented July 13, 1886.

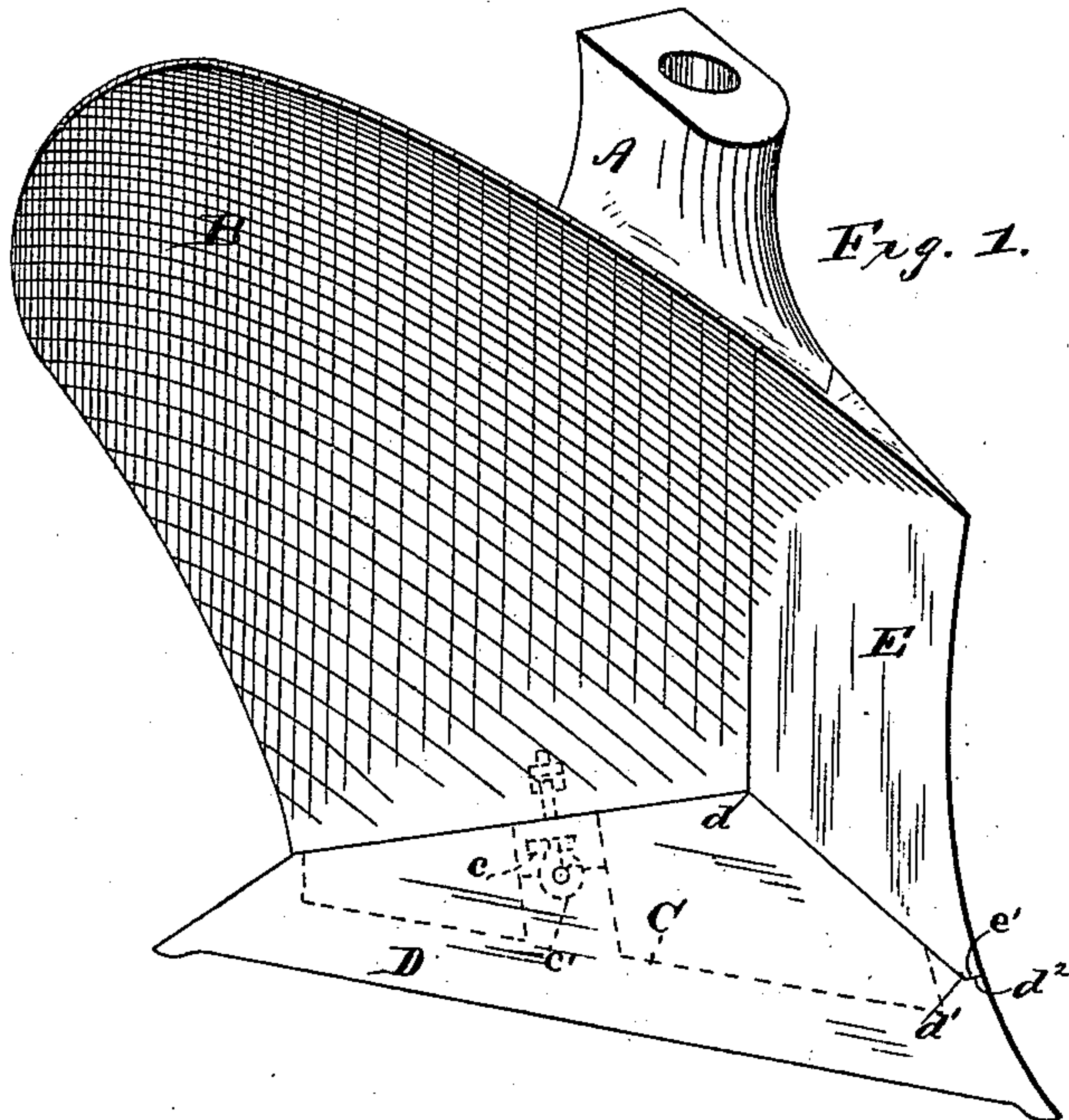


Fig. 1.

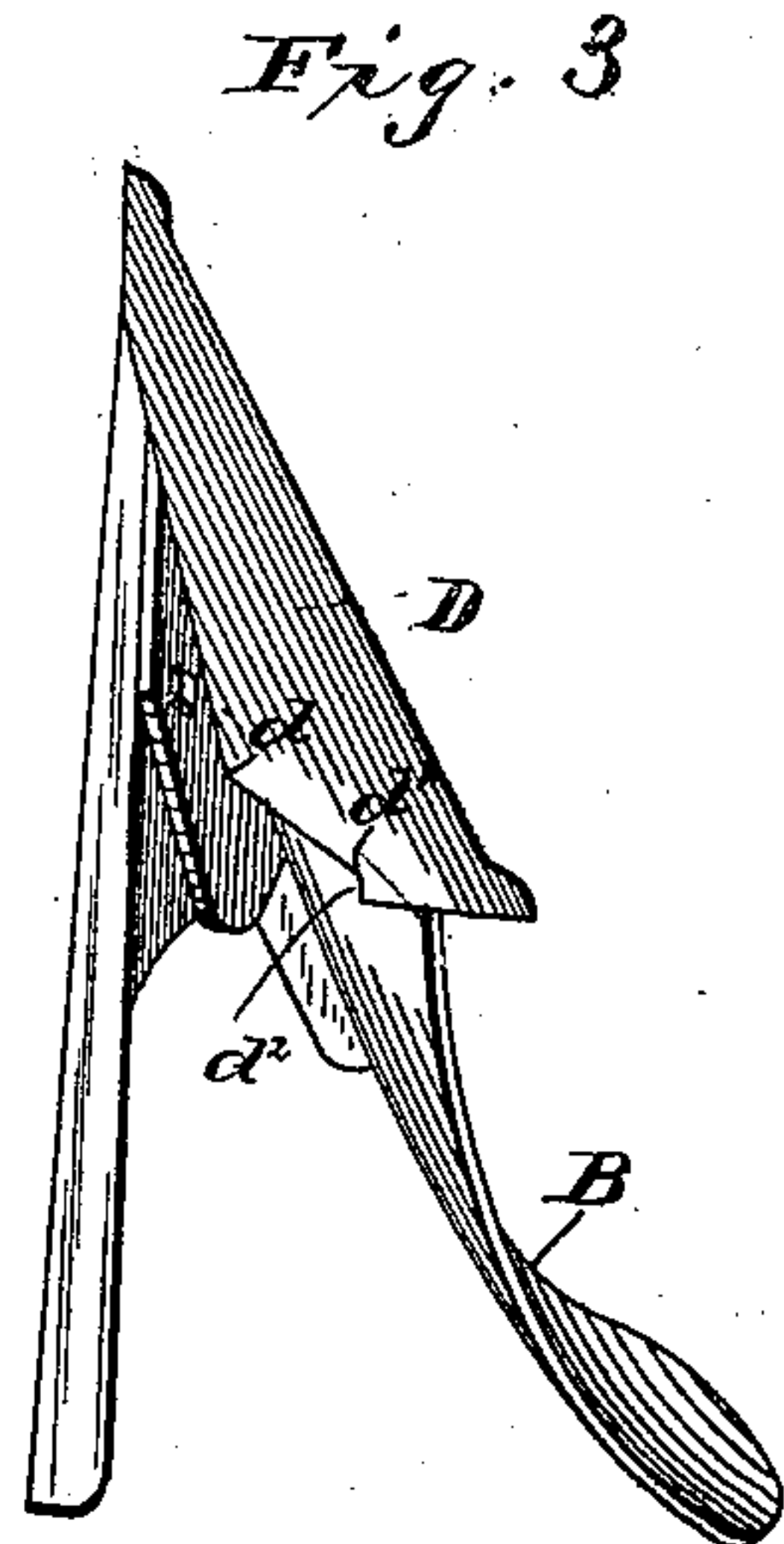


Fig. 3.

Fig. 2.

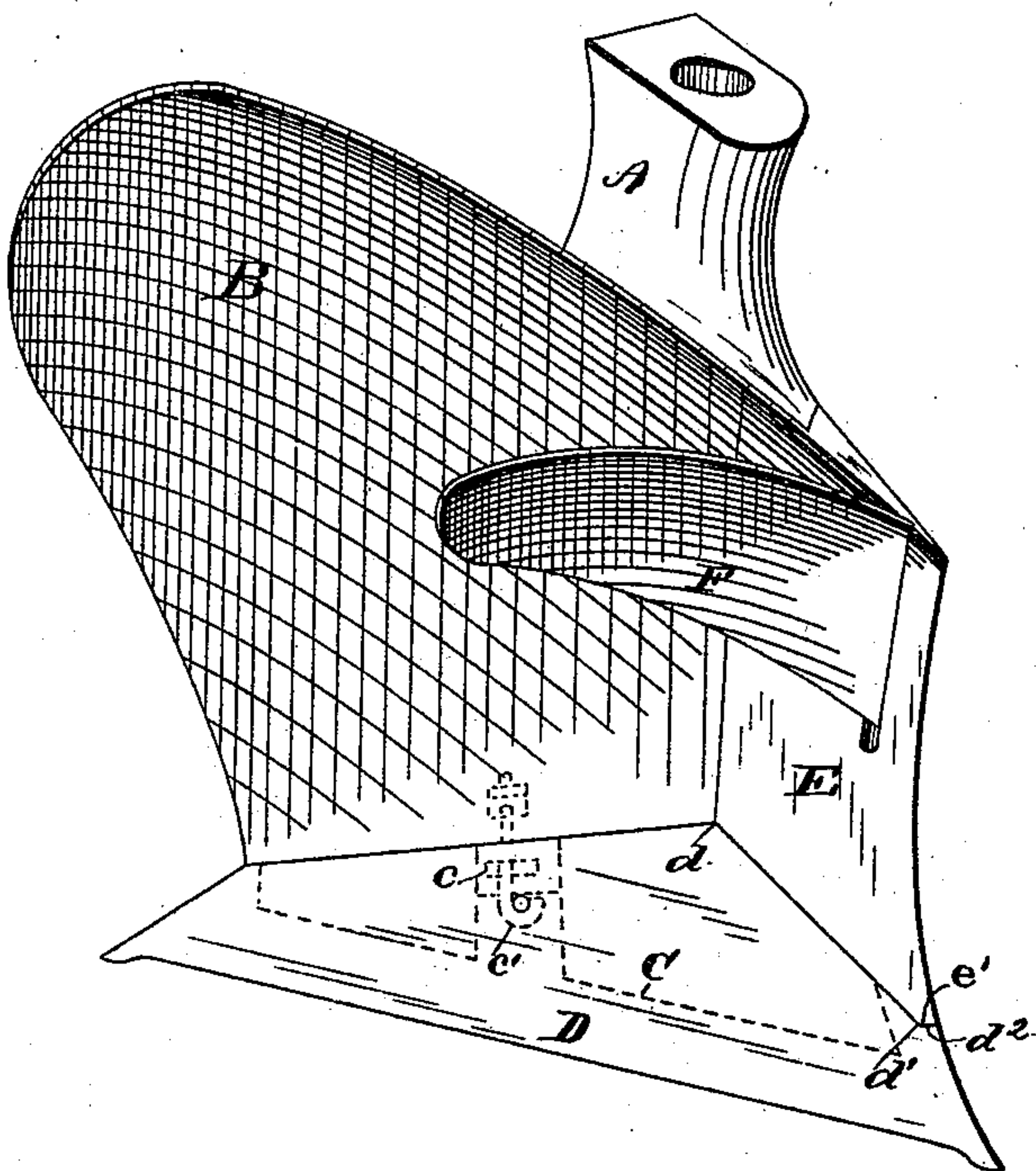


Fig. 4.

Witnesses  
Chas. R. Burr.  
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# UNITED STATES PATENT OFFICE.

WILLIAM LEWIS CASADAY, OF SOUTH BEND, INDIANA.

## PLOW.

SPECIFICATION forming part of Letters Patent No. 345,276, dated July 13, 1886.

Application filed April 7, 1886. Serial No. 193,124. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM LEWIS CASADAY, a citizen of the United States, residing at 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 improvements in plows provided with a reversible combined wing and point adapted to be used in combination with a removable shim or cutter, and is more particularly an improvement on Patent No. 321,189, granted to G. B. Casaday, June 30, 1885. In the reversible combined wing and point described in said patent the upper edges of the wearing-faces of the combined wing and point are formed in straight lines, the upper straight edge of the wearing-face in use fitting against the lower edge of the mold-board and shim or cutter and extending to the landside edge of the plow. The wearing-faces of the combined wing and point are also slightly curved to conform to the lines of the mold-board and cutter. In practice it has been found that the heel of the wearing-face of said combined wing and point which is not in use drags in the bottom of the furrow, and said heel has not sufficient clearance. This is a serious defect, and materially affects the successful operation of the plow. If the heel is raised, it throws the plow too much on the edge of the wing. It is also desirable to have the cutting-edge of the removable shim or cutter commence as near the point of the plow as possible. When used with the wing described in above-referred-to patent, the lower point of the cutting-edge of the shim or cutter is some distance from the point of the plow.

When a jointer is used which is attached directly to the wearing-face of the shim or cutter, it is desirable to have said jointer as far forward and as near the point of the plow as possible; but the inclination of the cutting-edge of the shim or cutter has to conform to the inclination of the landside cutting-edge of the point.

When using a jointer secured to the shim or cutter of a plow constructed as described in

the patent referred to, said jointer has to be located some distance back from the point of the plow.

The objects of my invention are to construct a reversible combined wing and point so that the heel of the wearing-surface of said combined wing and point which is not in use will not drag in the bottom of the furrow, and so that the lower point of the cutting-edge of the shim or cutter will be brought nearer the point of the plow, whereby any desired inclination may be given the cutting-edge of said shim or cutter, and when used with a jointer secured directly to the wearing-face of the shim said jointer may be brought farther forward and nearer the point of the plow.

With these objects in view my said invention consists in certain novel construction and arrangement of parts, all of which I will now proceed to point out and describe, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective of a plow embodying my invention. Fig. 2 is a perspective of a plow embodying my invention and provided with a jointer secured to the shim or cutter. Fig. 3 is a plan of the plow inverted, and Fig. 4 is a perspective of the combined wing and point.

Referring to said drawings, A is the standard; B, the mold-board, the lower edge of which forms a shoulder, against which the upper edge of the combined wing and point bears.

C is a wing-bearing formed on the lower portion of the standard.

c is a bolt-hole in the bearing C, extending through to the inner side of the standard.

D is a hollow reversible combined wing and point having two opposite corresponding wearing-faces converging and continued to a common edge, and two opposite and corresponding points. Said combined wing and point fits on the bearing C, and is held in place by a hook-bolt, c', passing through the bolt-hole c and secured by a suitable nut.

The upper edges of the wearing-faces of the combined wing and point, which are adapted to fit against the mold-board, are formed in straight lines, and their diagonally-opposite corners are cut away toward the points from d to d', being that portion of the wearing-face which



is in use which extends beyond the lower edge of the mold-board. As the opposite faces of the combined wing and point correspond, the cut-away portion of the face not in use forms the heel of the same, and said heel, being cut away, is above the plane of the bottom of the plow and cannot drag in the bottom of the furrow, thus giving perfect clearance to the plow, and overcoming the defect in the combined wing and point described in the patent heretofore referred to.

$d^2$  are shoulders formed at the edges of the combined wing and point.

E is a removable shim or cutter secured to a bearing on the standard in any suitable manner, forming a continuation of the mold-board and conforming to the lines of the same. The lower edge,  $e$ , of the shim or cutter is formed in a diagonal line conforming to the line of the cut-away portion of the combined wing and point. When adjusted, said lower edge,  $e$ , fits against the cut-away portion of said combined wing and point, and its lower point,  $e'$ , bears against the shoulder  $d^2$ .

By cutting away the combined wing and point as above described the cutting-edge of the shim or cutter may be commenced very near the point of the plow, and any desired inclination may be given said cutting-edge, and when used with a jointer, F, attached directly to the wearing-face of the shim or cutter, as shown in Fig. 2, said jointer can be located well forward toward the point of the plow.

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

1. In a plow, a hollow reversible combined wing and point having two opposite corresponding points, and two opposite corresponding and converging wearing-faces continued to a common edge, and having their diagonally-opposite corners forming the heel of the face not in use, and the upper forward corner of the face in use cut away, as described, whereby the heel of the face not in use will be above the plane of the bottom of the plow and will not drag in the furrow, substantially as set forth.

2. In a plow, the combination, with the

standard and mold-board, of a hollow reversible combined wing and point fitted on a wing-bearing on the standard, and having two opposite corresponding points and two opposite corresponding and converging wearing-faces continued to a common edge, and having the diagonally-opposite corners of said wearing-faces forming the heel of the face not in use and the upper forward corner of the face in use cut away, as described, whereby the heel of the face not in use will be above the plane of the bottom of the plow and will not drag in the bottom of the furrow.

3. In a plow, the combination, with the standard and mold-board, of a hollow reversible combined wing and point fitted on a wing-bearing on the standard, and having two opposite and corresponding points and two opposite and corresponding wearing-faces continued to a common edge, and having the diagonally-opposite corners of said wearing-faces forming the heel of the face not in use and the upper forward corner of the face in use cut away, as described, and a removable shim or cutter secured to the standard, and having its lower edge conforming to and fitting against the cut-away portion of the wearing-face in use, substantially as and for the purpose set forth.

4. In a plow, the combination, with the standard and mold-board, of the combined reversible wing and the point D, having two opposite and corresponding points and two opposite corresponding and converging wearing-faces continued to a common edge, and having the diagonally-opposite corners of said wearing-faces cut away from  $d$  to  $d'$ , and the removable shim or cutter E, secured to the standard, and having its lower edge,  $e$ , conforming to and fitting against the cut-away portion of the wearing-face in use, substantially as shown and described.

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

WILLIAM LEWIS CASADAY.

Witnesses:

GEO. W. BAKER,

OTTO M. KNOBLOCK.