

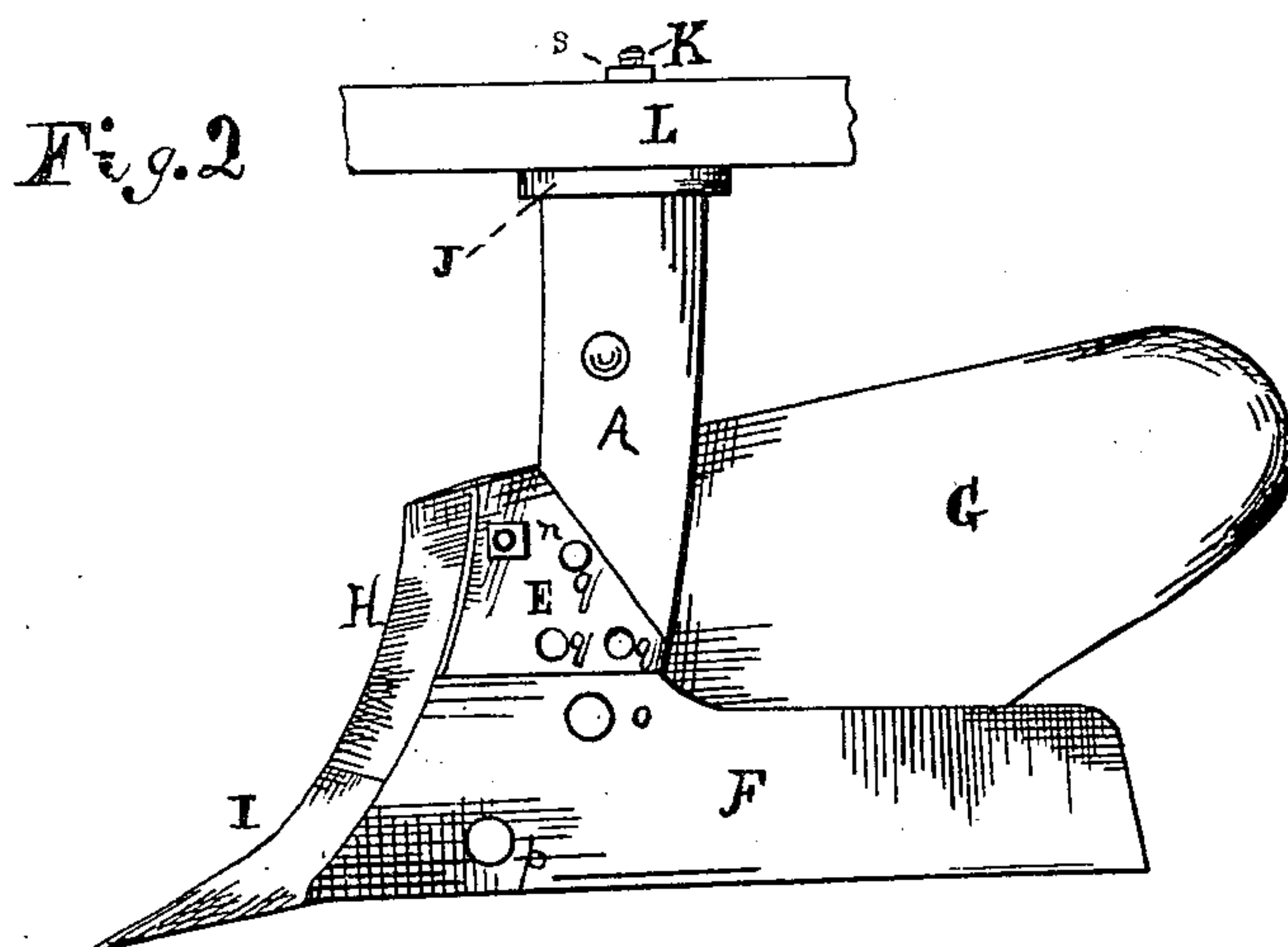
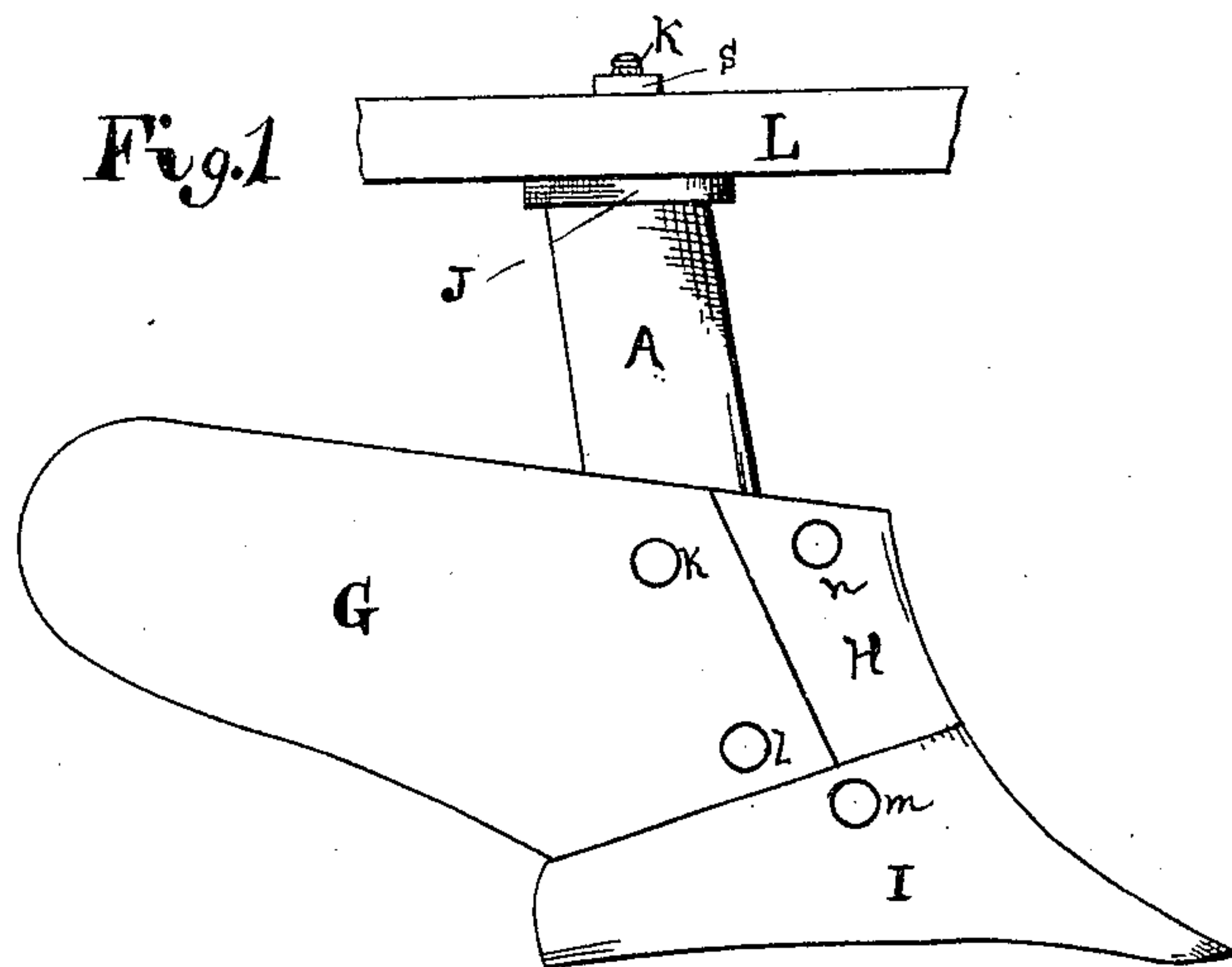
(No Model.)

2 Sheets—Sheet 1.

B. C. BRADLEY.
COMBINED PLOW STANDARD AND SUPPORT.

No. 270,630.

Patented Jan. 16, 1883.



Witnesses:

Albert H. Adams.
Evelyn Emory.

Inventor.

Bryan C. Bradley.
By West & Bond.
His Atty.

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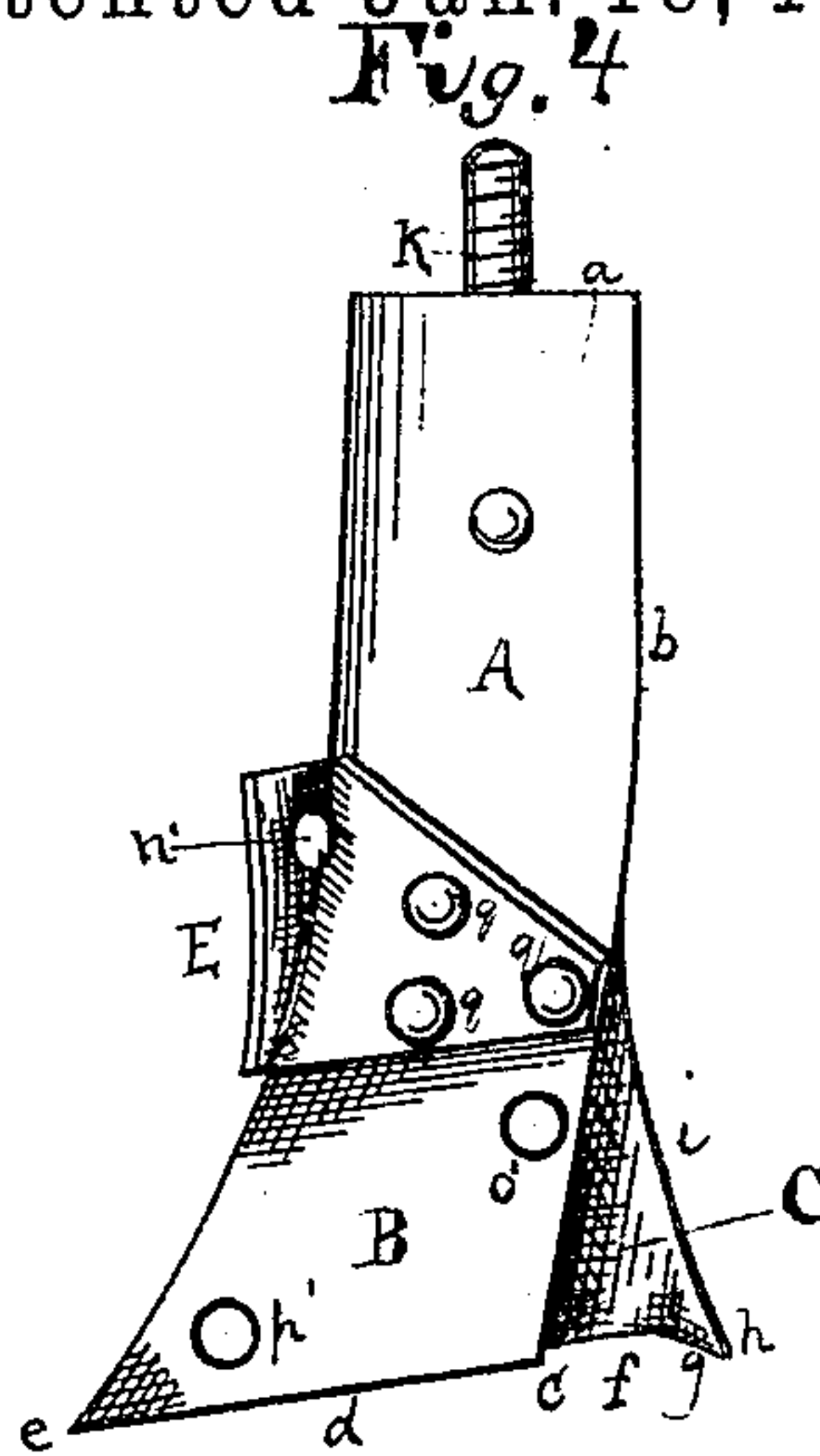
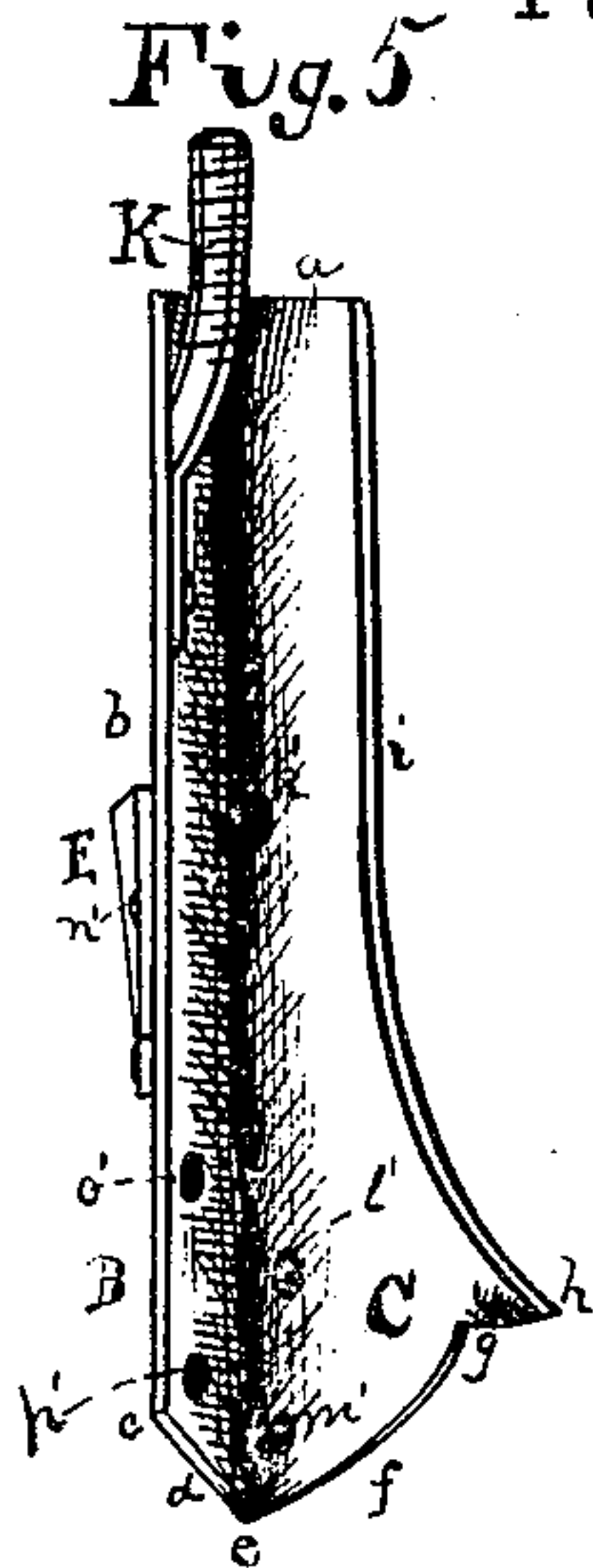
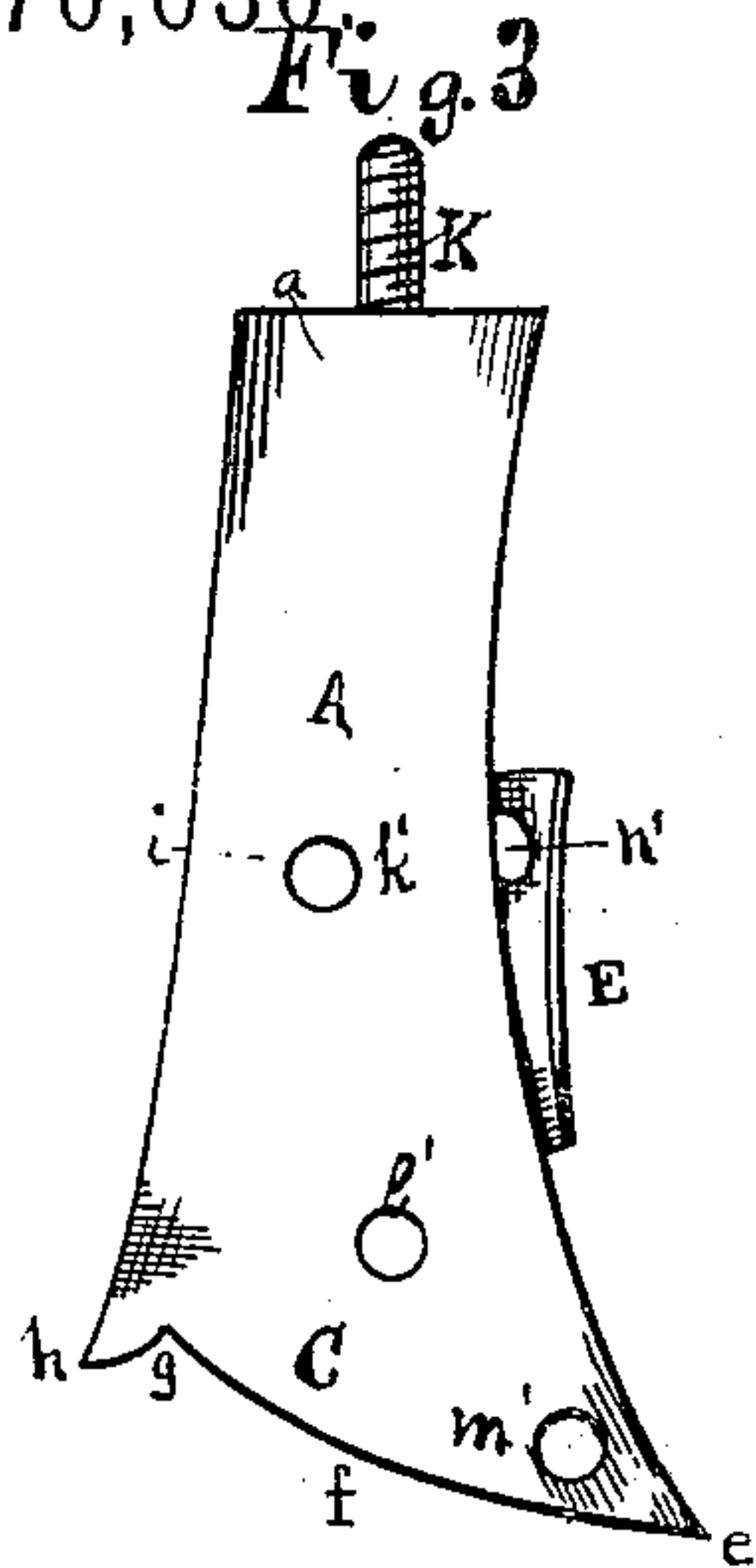


Fig. 6

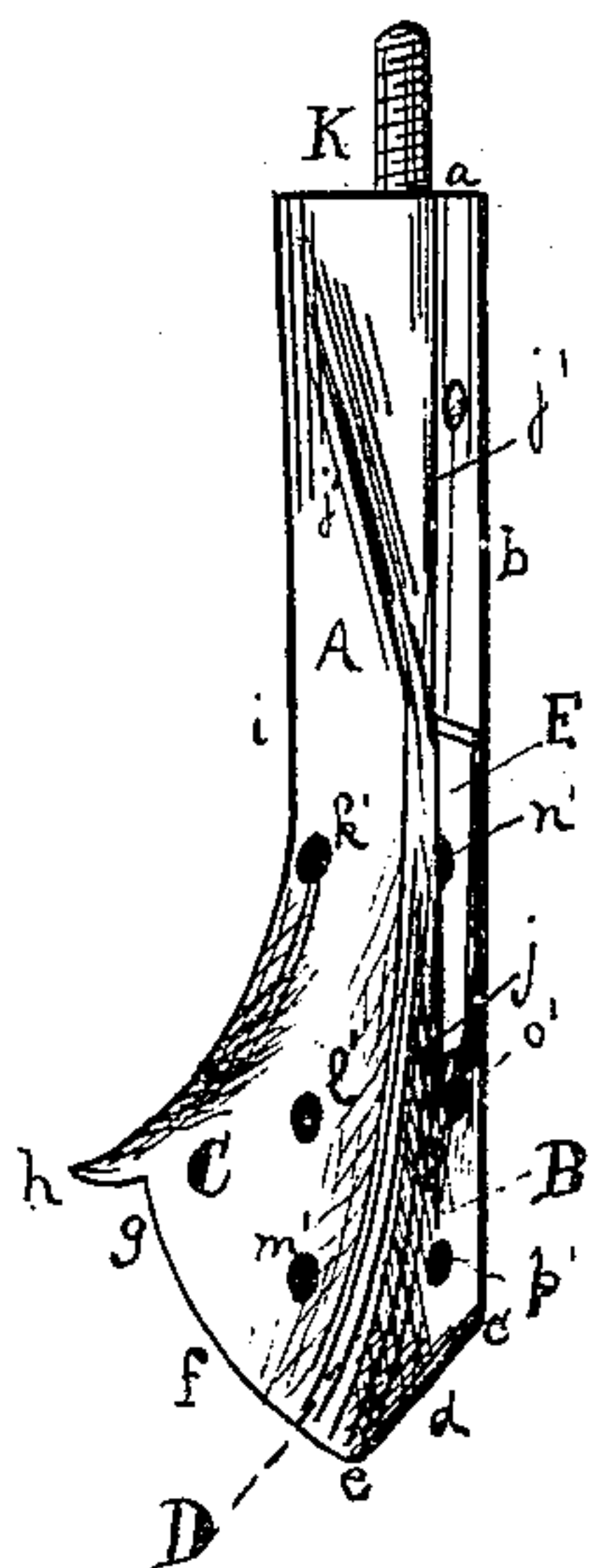


Fig. 8

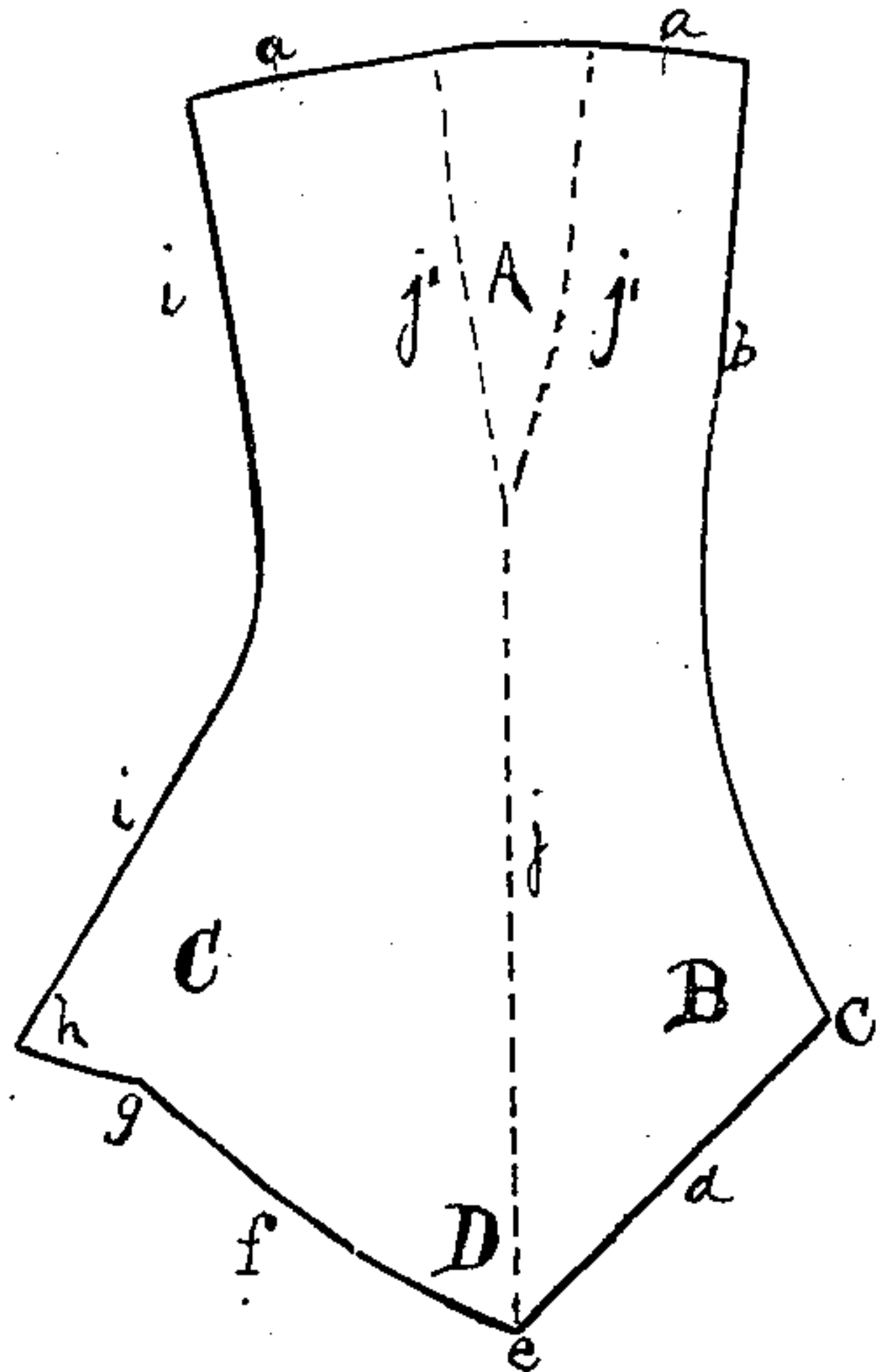


Fig. 7

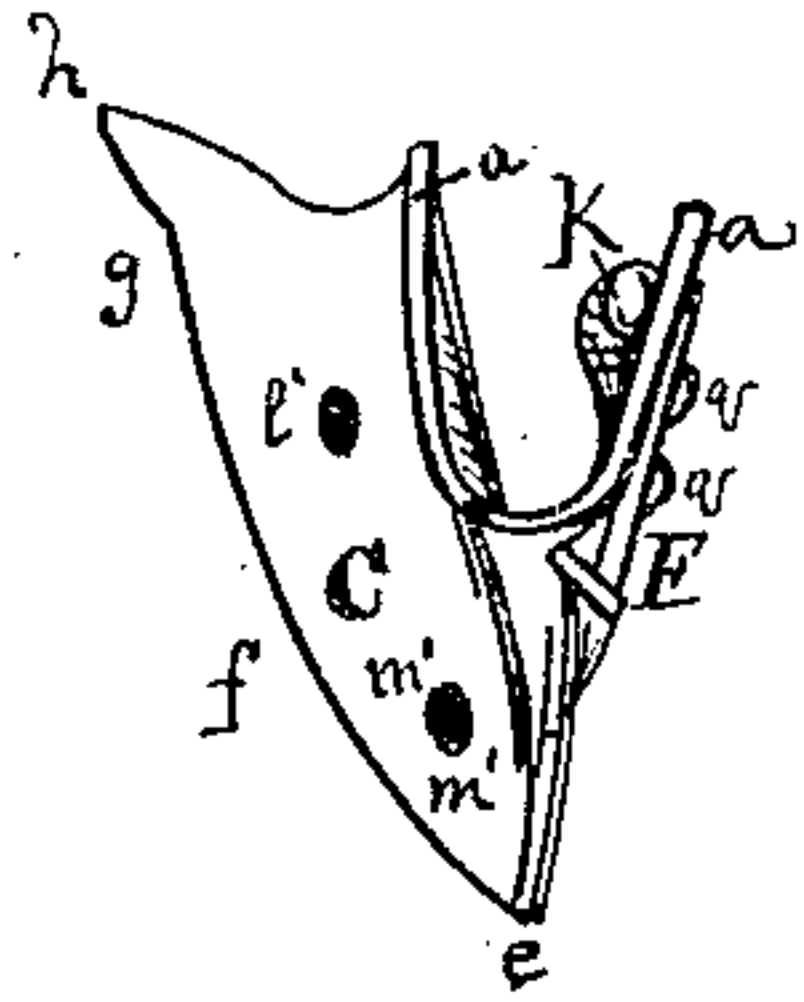


Fig. 9

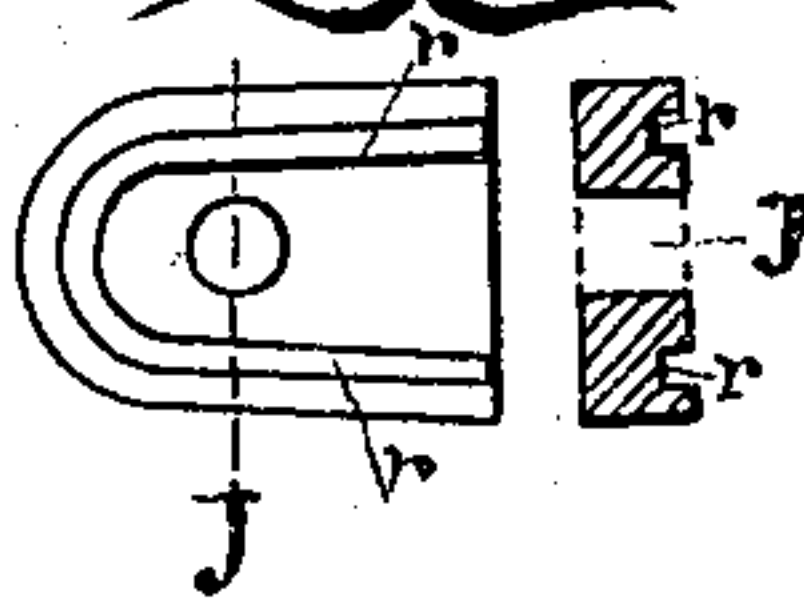
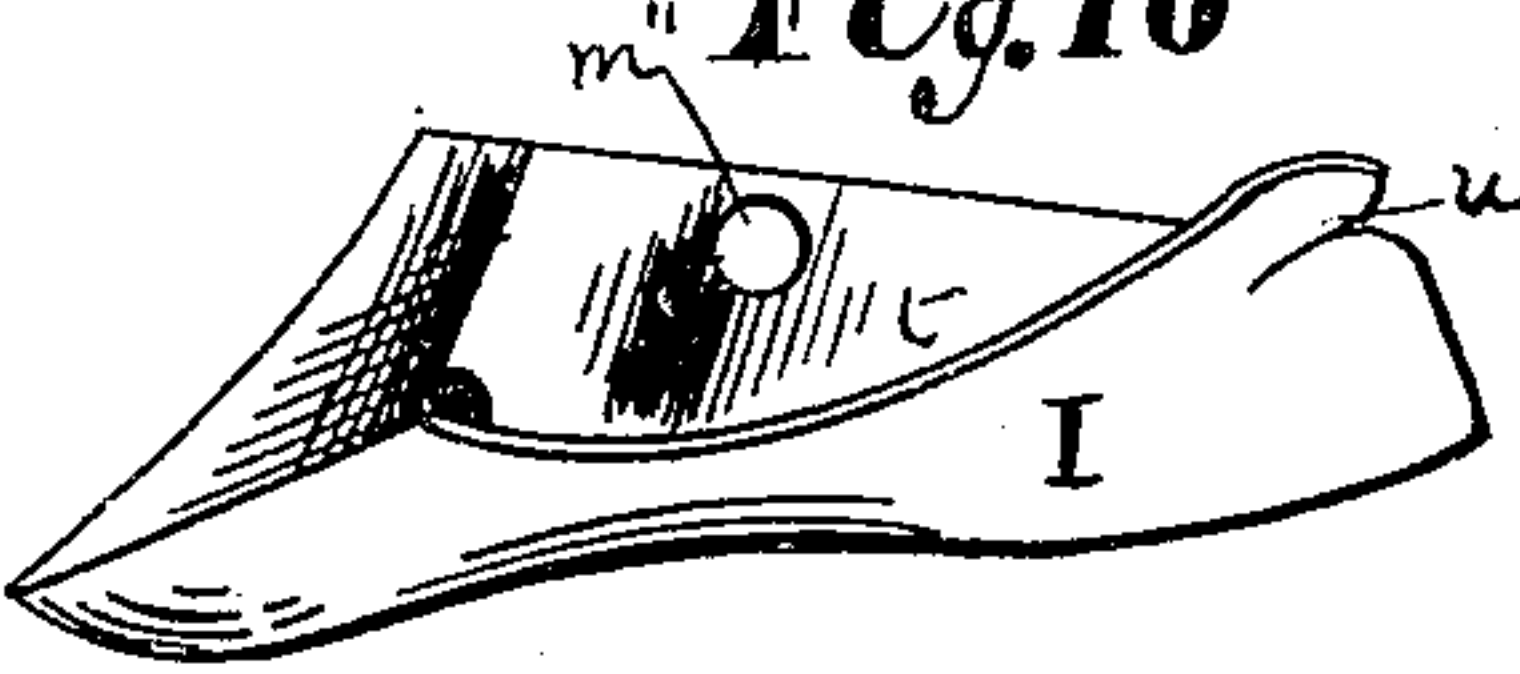


Fig. 10



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UNITED STATES PATENT OFFICE.

BYRON C. BRADLEY, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE FURST
& BRADLEY MANUFACTURING COMPANY, OF SAME PLACE.

COMBINED PLOW-STANDARD AND SUPPORT.

SPECIFICATION forming part of Letters Patent No. 270,630, dated January 16, 1883.

Application filed March 28, 1882. (No model.)

To all whom it may concern:

Be it known that I, BYRON C. BRADLEY, residing at Chicago, in the county of Cook and State of Illinois, and a citizen of the United States, have invented new and useful Improvements in Combined Plow-Standard and Frame-Work or Support, of which the following is a full description, reference being had to the accompanying drawings, in which—

10 Figure 1 is a side elevation of the mold-board side of the plow; Fig. 2, a side elevation of the landside of the plow; Fig. 3, a side elevation of the standard and framing or support, showing the mold-board side thereof; Fig. 4, a
15 side elevation of the standard and framing or support, showing the landside thereof; Fig. 5, a rear elevation of the standard and framing or support; Fig. 6, a front elevation of the standard and framing or support; Fig. 7, a
20 top or plan view of the standard and framing or support; Fig. 8, a view showing the form or shape of the blank from which the standard and framing or support is made; Fig. 9, a detail, being an under face or bottom view and a
25 side view of the cap on which the plow-beam rests; Fig. 10, an elevation of the inner face of the point and share.

The object of this invention is to construct in a single piece a combined plow-standard and
30 a frame-work or support for the mold-board, point, and landside of a plow, by means of which the several parts named can be readily secured in place and in proper relation to each other and to the standard without requiring
35 much, if any, fitting of the parts, and the plow can be attached to the beam, giving the plow a firm and strong support or backing; and its nature consists in providing a standard and frame-work or support formed by bending a
40 single piece or blank cut to have its upper portion, when bent, form the standard, and its lower portion, when bent, form on one side the frame-work or support for the mold-board and point and on the other side a frame-work or
45 support for the landside, as hereinafter more specifically described; in providing a secondary piece attached to the main portion, and forming a stop and guide for the landside and a frame-work or support for the forward portion
50 of the mold-board; and in providing a cap fit-

ting over the upper end of the standard and forming a rest or support for the beam, and combining therewith a bolt or fastening-rod attached to the standard, by means of which the cap and beam and standard are secured
55 together.

In the drawings, A represents the standard portion; B C D, the frame-work or supporting portion; E, the intermediate piece forming the guide or stop; F, the landside; G, the rear portion or section of the mold-board; H, the front
60 portion or section of the mold-board; I, the share and point; J, the cap for the upper end of the standard; K, the fastening-bolt; L, the plow-beam; *a*, the edge of the blank forming, when bent, the upper end of the standard; *b*,
65 the edge of the blank forming, when bent, the vertical edge of the standard and frame on the land side; *c*, the terminal point; *d*, the edge of the blank forming, when bent, the horizontal edge of the frame on the land side; *e*, the point
70 or juncture of the frame-work; *f*, the edge of the blank forming, when bent, the horizontal edge of the frame-work on the share side; *g*, the terminal point; *h*, the lip or projection forming, when bent, a stop or lock for the
75 share; *i*, the edge of the blank forming, when bent, the edge of the standard and frame on the mold-board side; *j j'*, the lines for bending the blank; *k l m n o p*, fastening-bolts; *k' l' m' n' o' p'*, openings or holes for the passage of the fastening-bolts; *q*, rivets or bolts for attaching the intermediate guide or stop, E; *r*,
80 groove in the under face of the cap J to receive the ends or edge *a* of the standard; *s*, the fastening-nut; *t*, the groove or under-cut on the inner face of the point and share; *u*, the lip or projection on the inner face of the share, at the upper rear edge thereof, for interlocking
90 with the point *h* of the frame or support.

The combined standard and support or frame-work is made from a single piece or blank of steel or other suitable material, which can be formed by the use of proper dies or in
95 some other suitable manner into the desired shape to furnish a standard, by means of which the connection is made with the plow-beam, and a frame or support adapted to receive the landside, mold-board, share, and point and secure them in proper relation to each other, and
100

the form can be varied somewhat from the form shown to suit the style or make of the different parts and furnish the necessary support.

5 The blank or piece from which the combined standard and frame-work is stamped or otherwise formed for the style or make of mold-board, landside, and share and point shown is represented in Fig. 8, the upper portion of this piece
10 or blank, when bent, forming the standard A, and the lower portion, when bent, forming the frame-work or support B C D. The upper edge of this blank or piece is formed slightly curved or diagonal from its center to its extreme point, so as to form, when bent, edges
15 *a* in the same plane. One side or edge, *b*, of this blank is slightly curved from the upper point to the point *c*, and this side or edge, when the blank or piece is bent, forms the rear vertical edge, *b*, of the standard and landside, as shown in Figs. 4 and 5. From the terminal point of the edge *b* a diagonal edge, *d*, is formed, extending to the point *e*, which edge, when the blank or piece is bent, forms the horizontal
20 edge *d* of the landside, and from the point *e* a diagonal edge, *f*, slightly curved, extends to the point *g*, which edge, when the blank or piece is bent, forms the horizontal edge *f* of the mold-board side of the frame or support, and from the point *g* extends a diagonal edge,
25 which, with the terminal end of the edge *i*, forms a point or projection, *h*, when the blank or piece is curved or bent into shape. The edge *i* extends from the upper point of the blank, on the opposite side to the edge *b*, to the point *h*, and is of a diagonal and curved form, and forms, when the blank or piece is bent, the rear edge, *i*, of the standard and mold-board side of the frame, as shown in
30 Figs. 3, 5, and 6.

It will be seen from the foregoing description that the lower portion, B C D, forming the frame-work or support, is wider than the upper portion from the extreme points *c* and
45 *h*, and that the portion C is of a greater width than the portion D, measuring from a vertical line on point *e*, this form being necessary in order to give the correct contour for the frame-work or support when the blank or piece is shaped; but the outlines formed by the edges
50 *a*, *b*, *d*, *f*, and *i* with the points *c*, *e*, *g*, and *h* can be varied from that shown to adapt the standard and the frame-work or support to other forms or shapes of landside, mold-board, and shares and point. The blank is to be bent
55 or shaped by means of suitable dies, having a contour or face that will bend the blank into the form shown in Figs. 3, 4, 5, 6, and 7, or other form to suit the shape of the parts which it receives and supports; or it can be formed into the desired shape in some other suitable manner.

As shown, the blank, when in shape, has its portion B straight to receive the landside, its
65 portion C curved and forming an apex for the juncture of the landside and share and point,

and its portion D flaring and somewhat curved to conform to the shape of the mold-board and the share and point, so that when these several parts are secured thereon they will sustain the proper relation one to the other. Suitable holes, *k'*, *l'*, *m'*, *o'*, and *p'*, are made in the blank or piece at the proper points to have them coacting with holes in the landside, mold-board, share, and point for the passage of
75 bolts *k*, *l*, *m*, *o*, and *p*, by means of which the several parts are secured to the frame-work or support, the bolts *k l* securing the mold-board in position, the bolt *m* securing the share and point, and the bolts *o p* securing the landside.
80

The plate or intermediate support, E, may be made of a piece of steel or other suitable material, having its body or main portion left straight, and its forward end or portion slightly bent or curved, as shown, or in some other
85 suitable manner, to receive and fit against the forward portion or continuation of the mold-board. This piece or support E is attached to the land side of the standard and frame by means of suitable rivets or bolts, *q*, or in some
90 other suitable manner, and may be of the form and arrangement shown, or otherwise, and is so located as that its lower edge will be in the proper line for the upper edge of the landside to be in contact therewith when the parts are
95 together, so as to furnish a stop or resistance against the landside when in use. This piece E is provided with an opening, *n'*, for the passage of a bolt, *n*, by means of which the forward portion or continuation of the mold-board
100 is attached in position, and the abutting faces of the plate E and part H of the mold-board have the same form and contour, so that when together they will fit one against the other, and the angle at which the forward portion of
105 the plate E stands in relation to the standard is such as to give the part H the proper inclination to coincide with the part G and the share and point.

The parts represented by the letters F, G, H, I may be of any of the usual and well-known forms of construction, the share and point I having on its inner face an under-cut or ledge, *t*, to receive the edge *f* of the frame or support, and a lip or projection, *u*, which,
115 when the parts are together, passes back of the point *h* and forms a lock therewith to prevent side movement of the share and point, thereby dispensing with the use of a bolt at this point.
120

The cap or plate J may be made of steel or other suitable material, and may be of the form shown or other form, having a groove or recess, *r*, on its under face to receive the upper edge, *a*, of the standard, the groove or recess *r* corresponding in shape to the shape of the upper end of the standard. This plate or cap J has an opening for the passage of a bolt or rod, K, the lower end of which is firmly attached to one side of the standard by riveting or other-
125 wise, the upper end extending above the cap a sufficient distance to pass through the beam,
130

and is screw-threaded for a nut, *s*, by means of which the standard is attached to the plow-beam.

The plow-beam *L* may be of any of the usual and well-known forms of construction.

The landside *F*, the mold-board *G H*, and share and point *I* are attached to the frame or support *B C D* and intermediate support, *E*, by the bolts *k l m n o p*, and the standard, with the plow thereon, is attached to the plow-beam by the bolt or rod *K*, the beam resting on the plate or cap *J* on the upper end of the standard. By this arrangement a combined standard and frame-work or support is provided, which can be readily and easily attached to the plow-beam, and which will furnish a strong support for the several parts of the plow, and at the same time the form of the frame-work or support is such as to enable the parts of the plow to be attached thereto without requiring any special skill in doing the work, or any fitting to make the parts conform one with the other, and when together the plow will be stronger and less liable to have its several parts break or get out of position in use, and will resist a greater strain than when the parts are attached in the usual manner.

The lines *j j'* of Fig. 8 show the lines for bending the blank or piece into shape.

What I claim as new, and desire to secure by Letters Patent, is—

1. A plow-standard and supporting frame-work consisting of the herein-described blank of metal bent at its upper portion to form the standard, and at one side of its lower portion to form the curved and flaring supporting frame-work *D* for the mold-board and the point, and also bent at the other side of its lower portion to form the straight and curved supporting frame-work *B* for the landside, all substantially as shown and set forth.

2. The intermediate piece or plate, *E*, in combination with the combined standard and frame-work or support for furnishing a guide and resistance to the landside and attachment for the forward portion of the mold-board, substantially as specified.

3. The share and point *I*, having the undercut or ledge *t* and projection *u*, in combination with a frame-work or support having a point, *h*, and edge *f* for locking the share and point to the frame-work and forming a support, substantially as specified.

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