

(No Model.)

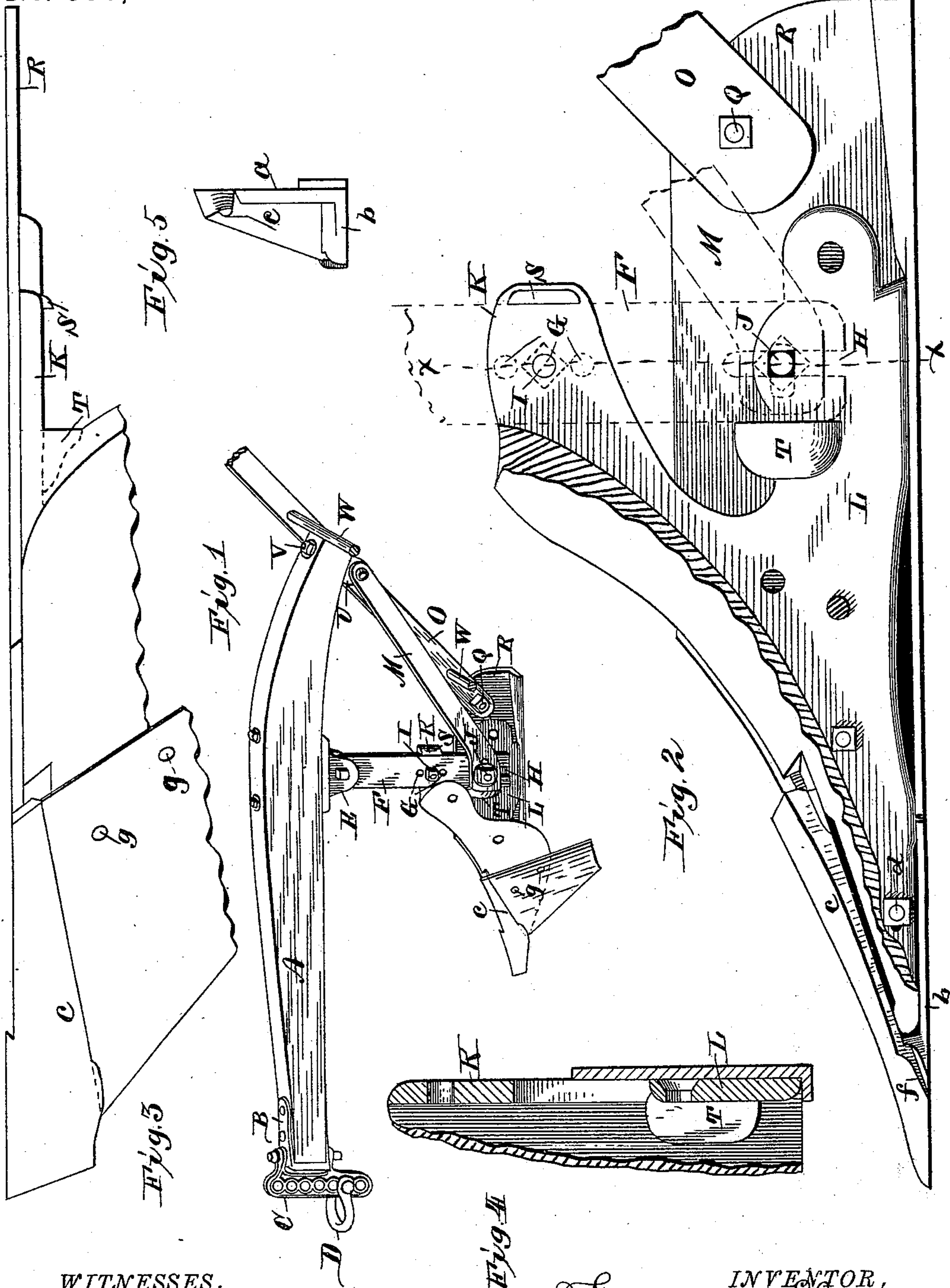
2 Sheets—Sheet 1.

T. W. SHUNK.

PLOW.

No. 396,434.

Patented Jan. 22, 1889.



WITNESSES,  
*Jas. H. Mahan.*  
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(No Model.)

2 Sheets—Sheet 2.

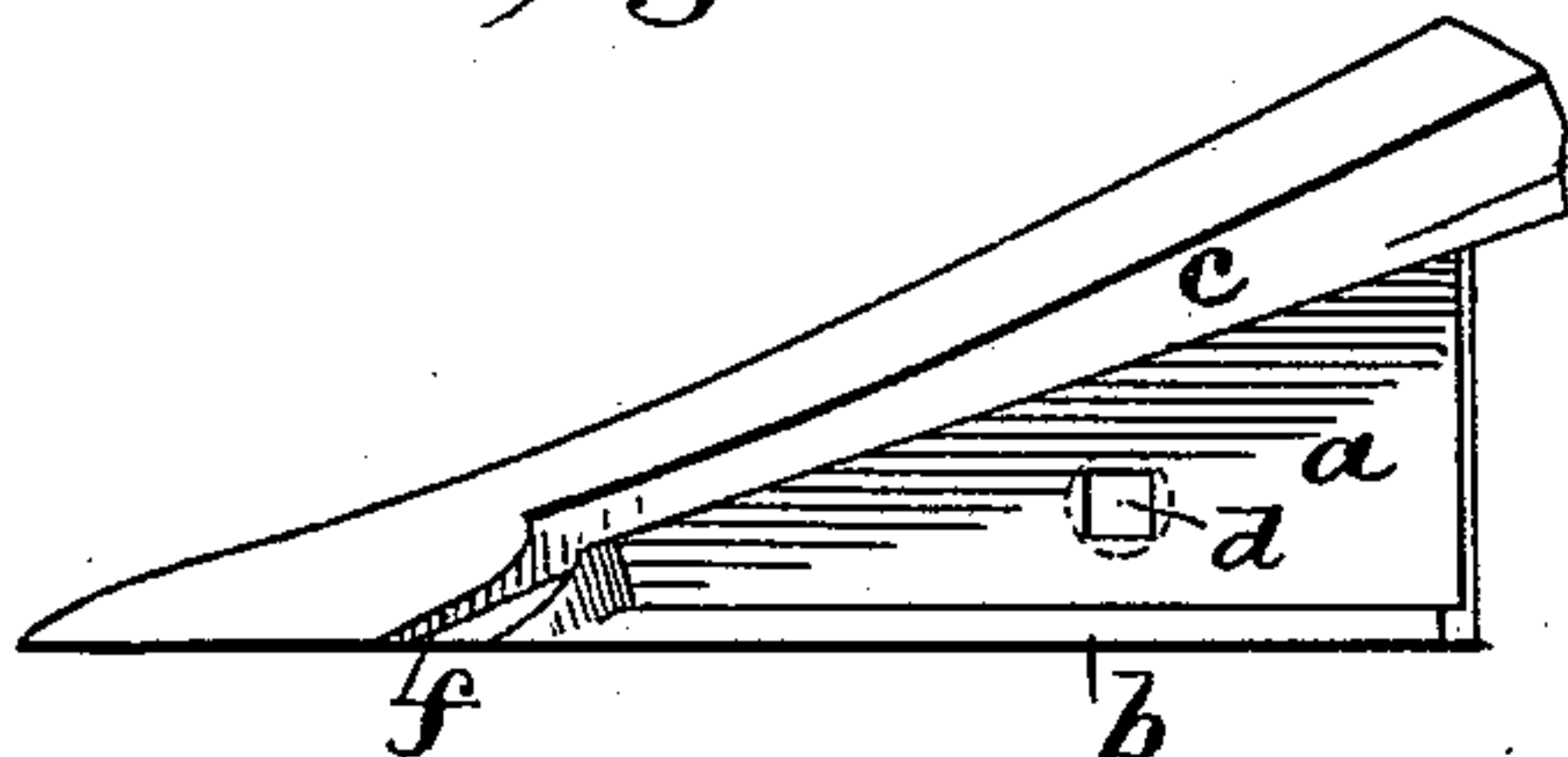
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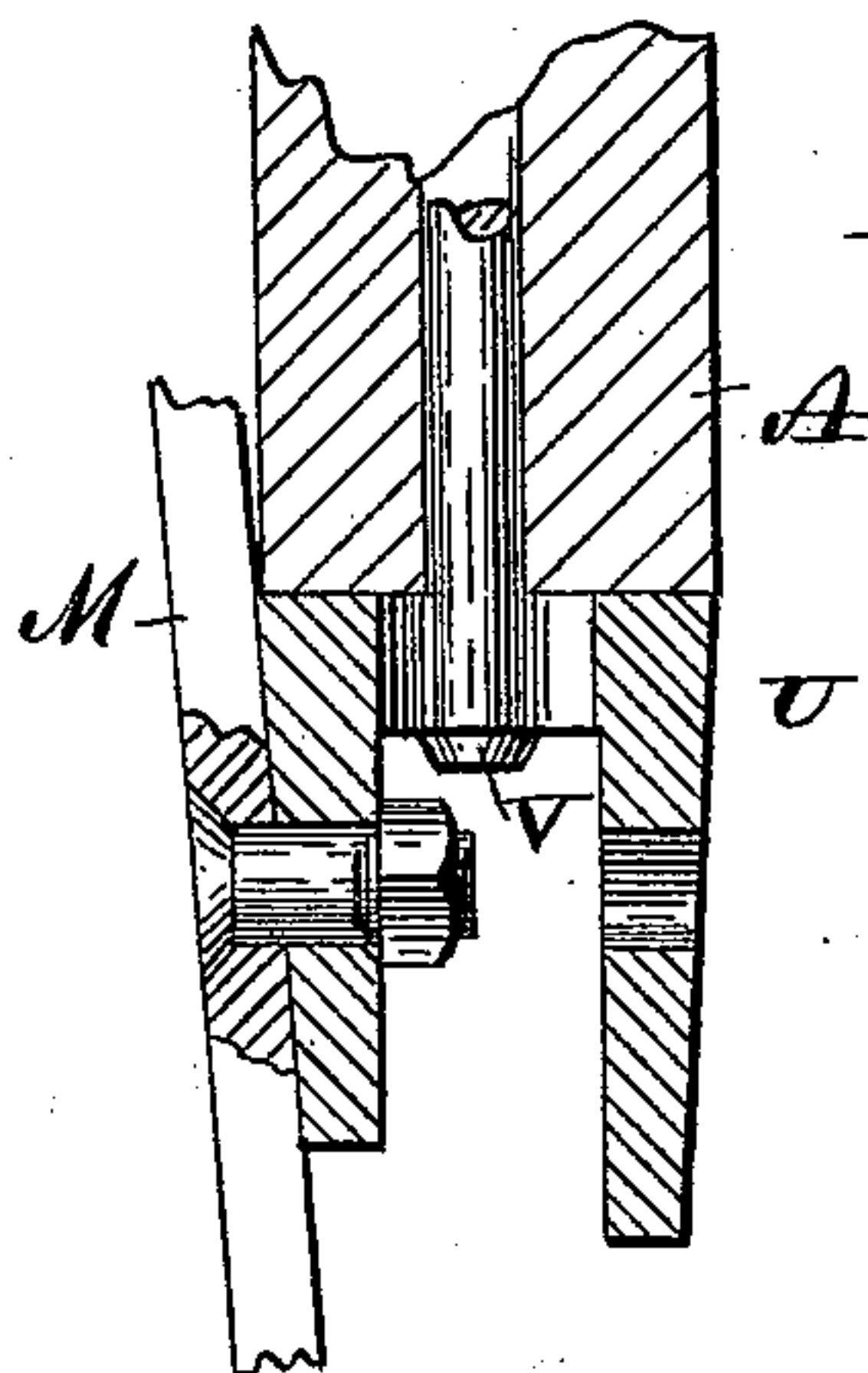
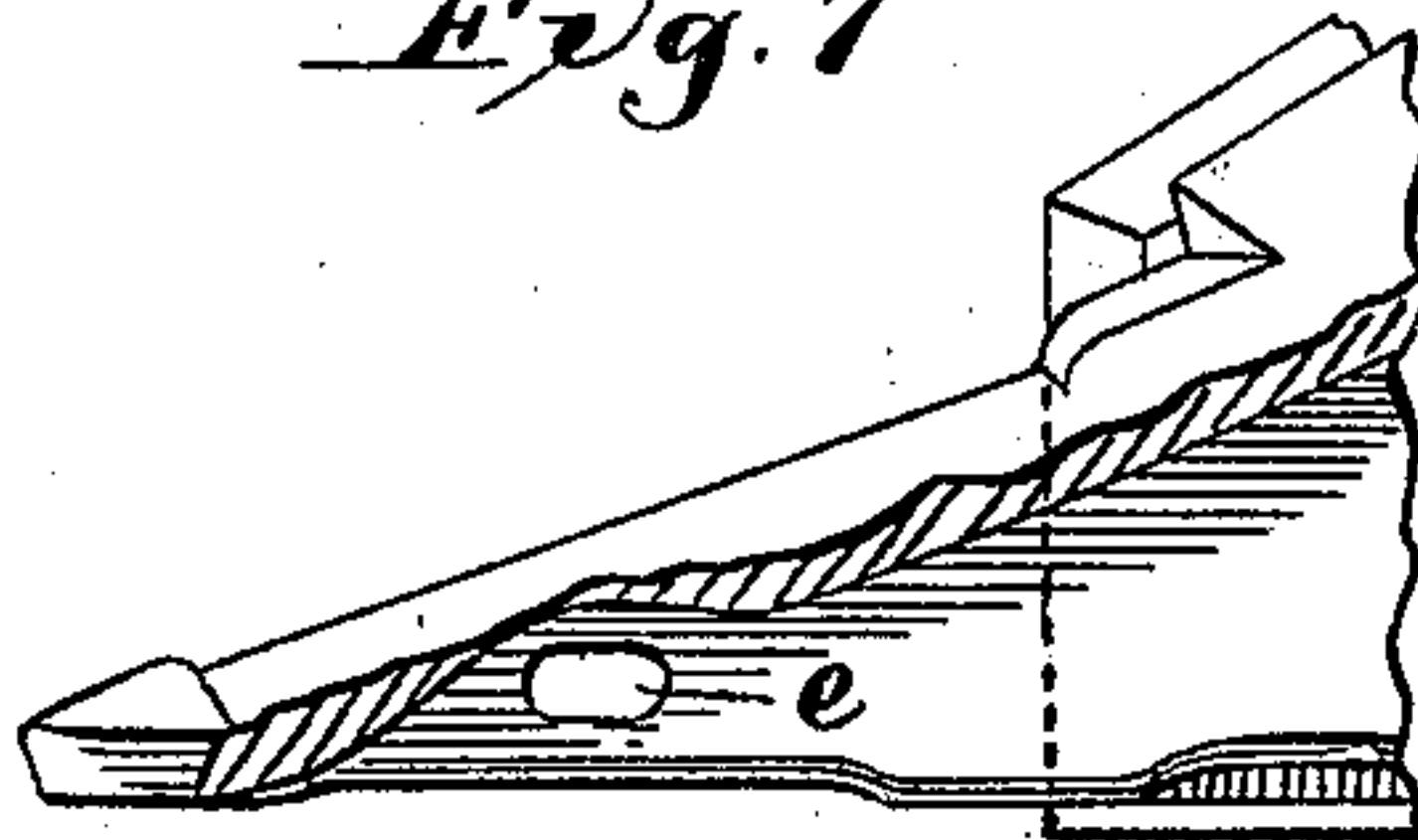
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*Fig. 6*



*Fig. 7*



*Fig. 8*

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# UNITED STATES PATENT OFFICE.

THOMAS W. SHUNK, OF BUCYRUS, OHIO.

## PLOW.

SPECIFICATION forming part of Letters Patent No. 396,434, dated January 22, 1889.

Application filed October 1, 1888. Serial No. 286,876. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS W. SHUNK, a citizen of the United States, residing at Bucyrus, in the county of Crawford and State of Ohio, have invented certain new and useful Improvements in Plows, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in plows.

My improvements have reference to the manner of connecting the frog or sheth with the point of the plow by constructing the point with a vertical wall and an upper and lower lateral flange, the wall and flanges constituting a tapering recess into which the frog is fitted, a bolt or similar means being employed to secure the parts together, and to the manner of connecting the point and share-wing together by forming a groove at one side of the point, near the lower end, for the reception of the lower forward point of the share-wing, and by constituting a shoulder of the upper flange of the point, against which the edge of the share-wing is fitted. They also have reference to the manner of adjusting the altitude of the forward end of the beam, so as to regulate the running depth of the plow proper by means of a standard adjustably connected to the frog or sheth and pivoted to the beam, and by further means of braces connecting the rear end of the beam with the said frog or sheth, and to the manner of constructing the form of standards as regards certain holes and slots therein, and to the manner of bracing the standards to the frog or sheth by means of lugs cast on the latter. They also have reference to the manner of constructing the clevis, so far as concerns that part which is permanently secured to the beam, and to certain peculiarities of construction hereinafter more fully pointed out.

In the accompanying drawings, forming a part of this specification, and on which like reference-letters indicate corresponding parts, Figure 1 represents a perspective view of my improved plow entire; Fig. 2, an enlarged partial side elevation and partial sectional view of the plow proper with portions of the standard and braces; Fig. 3, an enlarged plan view of the same parts, omitting the standard

and braces; Fig. 4, a vertical sectional view of the frog or sheth on the line  $xx$  of Fig. 2, with a portion broken away and the standard and braces omitted; Fig. 5, a detail rear view of the point detached; Fig. 6, a detail side elevation of the point; Fig. 7, a view of a portion of the frog or sheth about to be inserted into the point; and Fig. 8, a transverse vertical section of the beam and coupling to which the braces are connected.

The letter A designates a beam, which may be of the ordinary or any approved type, to the forward end of which the clevis is attached. This clevis consists of a malleable-iron band or strap, B, bolted to the upper and lower faces of the beam and embracing the end thereof, at which point the strap is increased in thickness. A coupling-bolt connects to the strap and beam a swinging member, C, of the clevis, which has a vertical series of holes therein to receive the hook D at different heights to regulate the line of draft. The member C is free to swing laterally, which lessens the lateral strain on the parts.

A metallic coupling-block, E, is bolted to the beam and fashioned with two jaws to receive the upper end of the standard F, which is pivoted to the jaws, so as to allow the forward end of the beam to be adjusted up and down and assume different angles to the standard, in the manner presently to appear. This standard, at a suitable location, is provided with a series of bolt-holes, G, and at its lower end with an open slot, H. To either of these holes and within the slot is fitted the respective bolts I and J, the bolts being carried by the rear portions of the frog or sheath of the plow.

The letters M and O designate two braces, one being a brace proper and the other being the lower part of one of the handles, which extend from the rear end of the beam, respectively, to the bolt J and the bolt Q, the latter being carried by the heel of the frog or sheath. The brace M preferably abuts against the lug T. When the nuts of the bolts J and I are screwed tight, the connection with the frog or sheth becomes perfectly rigid, and inasmuch as these braces are separated at their lower ends the two together maintain the rear end of the beam at a fixed and uniform altitude, making any adjustment



of the standard F change the height of the forward and not the rear end of the beam. When the bolt I occupies the middle hole, as in Fig. 1, the forward end of the beam will stand at the mean altitude. When the upper or lower holes G are occupied by the bolt I, the beam will change from mean altitude to minimum and maximum. Thus it will be seen that by the removal of a single bolt, and this only to the extent of the thickness of the standard F, the height of the forward end of the beam may be varied and the line of draft changed so as to affect or regulate the running-depth of the plow. As a means of bracing the standard, I provide the portions K and L of the frog or sheth with lugs S and T, (shown more clearly in Fig. 2,) which lugs fit against the edges of the standard. The manner of connecting the braces M and O with the beam A consists in pivoting them to the jaws of the coupling U, which is itself connected to the beam by a bolt, V. The brace O extends above the beam and forms, as above suggested, one of the handles, while the other handle (not shown) is connected to the mold-board in the usual way and braced to the handle (shown) by a round, W.

Referring, now, to the point, the letter *a* designates the vertical wall thereof, from which extends the lower lateral and horizontal flange, *b*, and an upper and inclined flange, *c*, the latter flange constituting the top of the point. From Fig. 6 it will be observed that these flanges and this wall constitute a tapering recess, and from each of Figs. 2 and 7 it will be seen that the point of the frog or sheth is adapted to fit into this recess, and that a bolt, *d*, is employed to secure the parts together. As the recess is tapering, the fit between the point and the frog can be made very close and tight, and the hole for the bolt *d* in the frog being in the form of a slot, as seen at *e*, admits of forcing the point back whenever it becomes loose, when the bolt may again be drawn tight. This construction is economical and valuable. It will also be noticed that the point is provided at one edge, near the lower end, with a groove, *f*. The remainder of this edge, running upward, stands above the frog or sheth and forms a shoulder. In this groove the lower forward corner of the share-wing is fitted, and its edge toward the landside is fitted against this shoulder. This constitutes a smooth and strong union of the point and the share-wing, the latter being additionally held in place by the bolts *g*, passed through the frog or sheth. The mold-board is to be fitted upon the frog or sheth and against the upper edge of the share-wing and the upper end of the point; but as this forms no part of the present invention the mold-board is omitted from the illustration.

Thus it will be observed that I have provided for the protection of the forward end of the plow-beam and the freedom of the clevis

to assume the line of draft; for the regulation of the running depth of the plow by an easy and quick mode of adjusting the altitude of the beam; for efficiency and simplicity in the construction and arrangement of the instrumentalities which connect the beam and the plow proper; for a strong connection for the plow-point with the frog or sheth, and one which admits of taking up the loose motion occasioned by wear or strains, and for a simple and effective connection between the point and the share-wing, all of which features unite for the attainment of desirable improvements in plows.

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

1. In a plow, the combination, with the frog or sheth, of a point proper having a vertical wall, *a*, a horizontal lateral flange, *b*, and an inclined lateral flange, *c*, forming a tapering recess in which said frog is fitted, and a bolt or other device to secure the frog and point together.

2. In a plow, the combination, with the frog or sheth, a vertical adjustable standard secured to it, and braces also secured to it, of a beam pivotally connected with the said standard and with said braces.

3. In a plow, the combination, with the frog or sheth, a standard having a slot and a series of holes, bolts carried by the frog or sheth and fitted to said slot and either of said holes, and braces secured, one of them by one of said bolts and the other by another bolt, to the frog or sheth, of a beam pivoted to the standard and to said braces by horizontal bolts.

4. In a plow, the combination, with the frog or sheth having two bolts and integral lugs near one side of one bolt and the opposite side of the other bolt, of a standard adjustably secured by said bolts and fitted between the said lugs.

5. In a plow, the combination, with the frog and the point fitted thereto and constructed in the wall thereof away from the landside, with a groove, *f*, and constituting a shoulder by the remaining upper portion of said wall, of a share-wing secured to the frog and fitted against said shoulder so constituted and into the said groove.

6. In a plow, the combination, with the frog or sheth, of a point proper having a vertical wall, *a*, a horizontal lateral flange, *b*, and an inclined lateral flange, *c*, whereby a tapering recess is formed for the point of the frog, a bolt fitted through the walls of the frog and point, and an elongated bolt-hole to admit of adjusting the point.

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

THOMAS W. SHUNK.

Witnesses:

EDWARD VOLLRATH,  
THOMAS P. HOPLEY.