

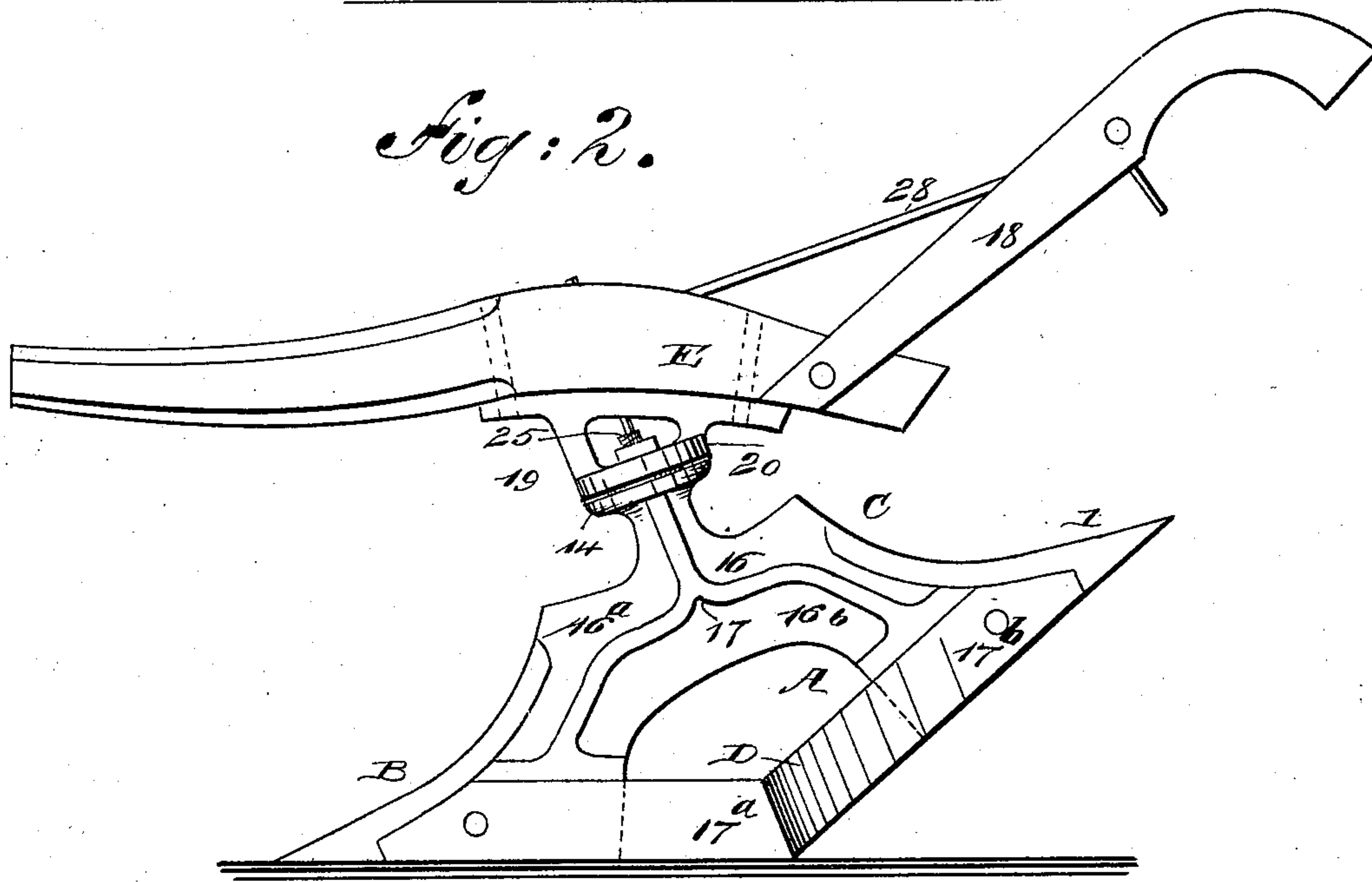
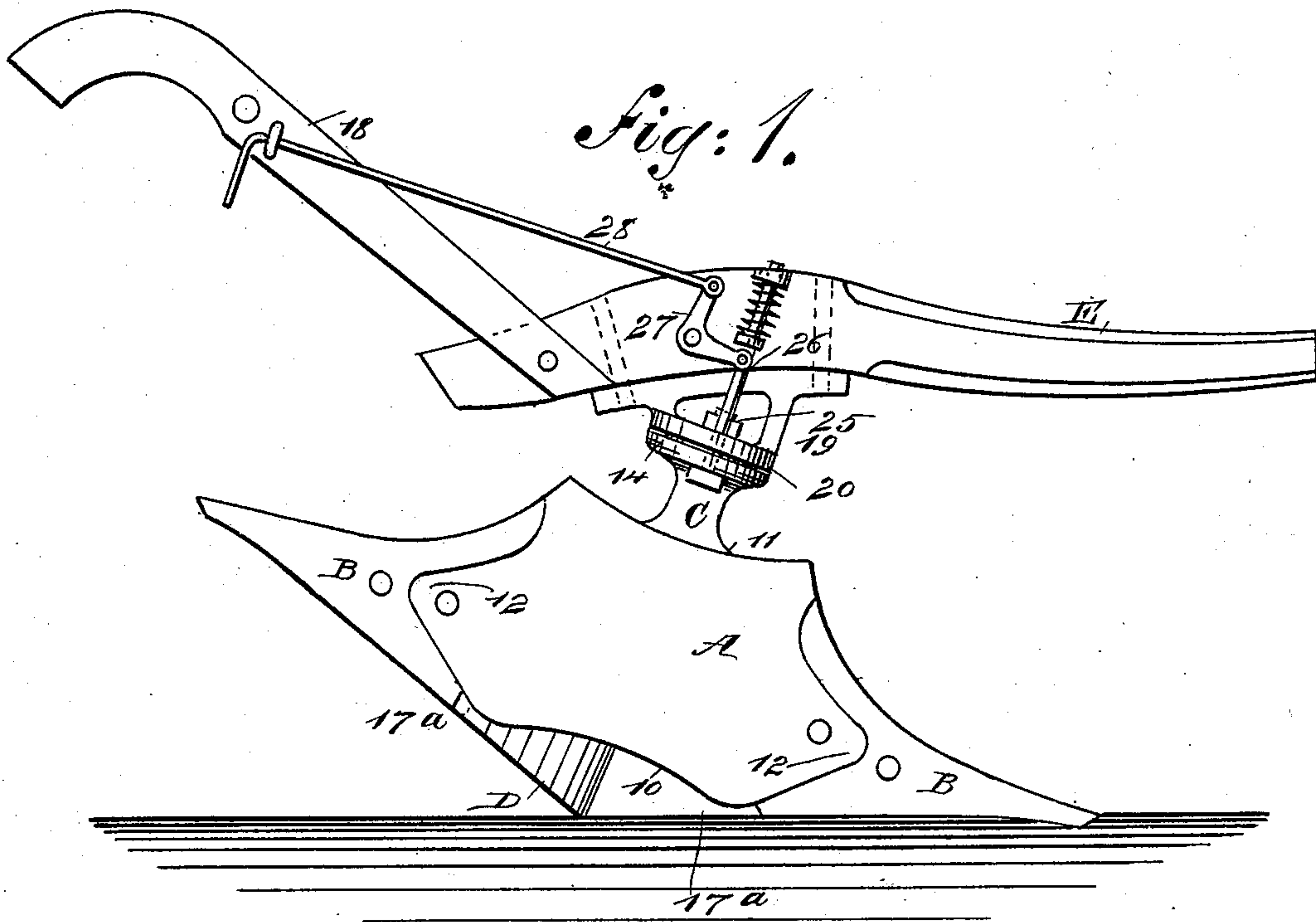
(No Model.)

2 Sheets—Sheet 1.

W. H. MITCHELL.
PLOW.

No. 540,678.

Patented June 11, 1895.



WITNESSES:

Chas. Nida.
Frederick

INVENTOR

W. H. Mitchell
BY *Munn & Co.*
ATTORNEYS.

(No Model.)

2 Sheets—Sheet 2.

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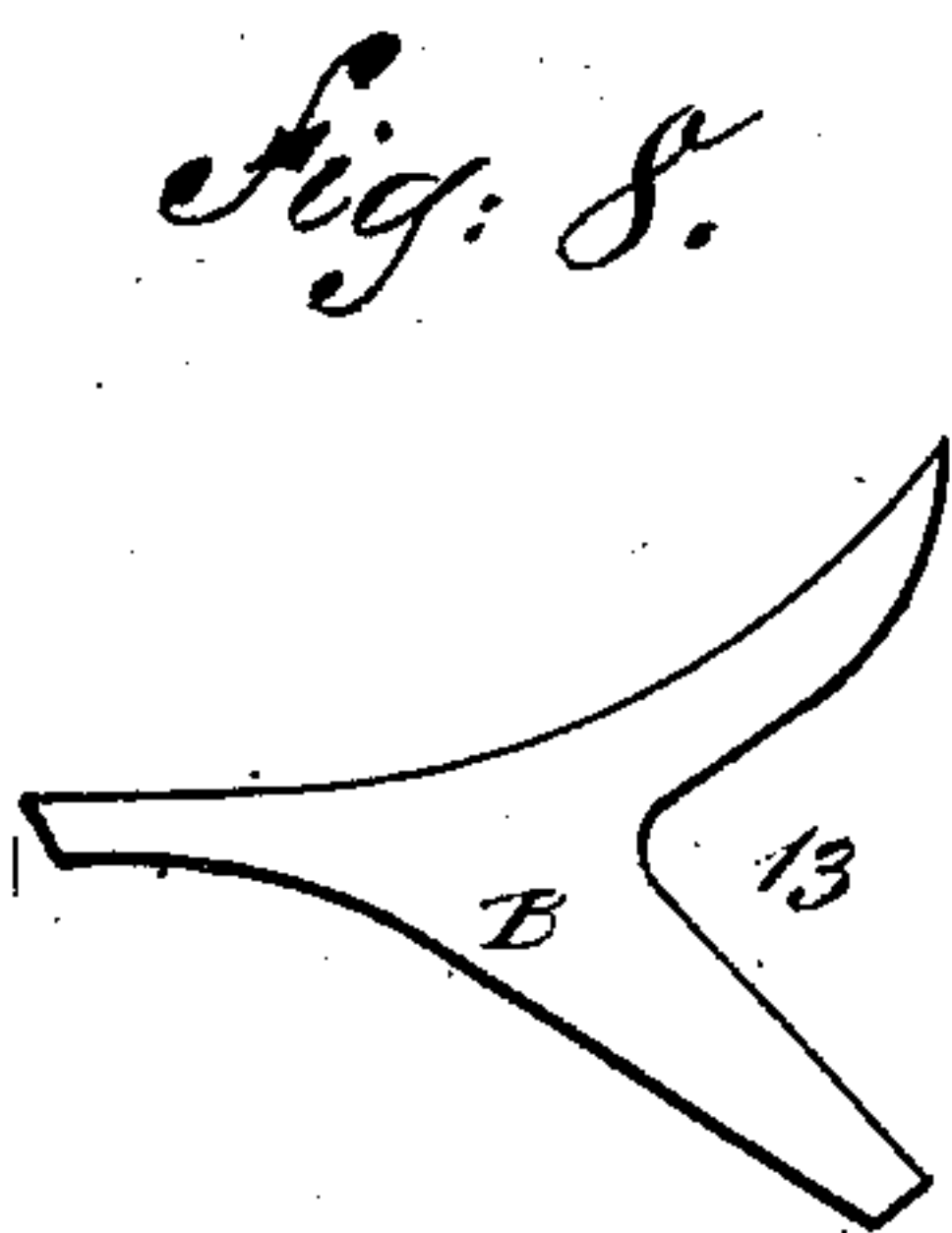
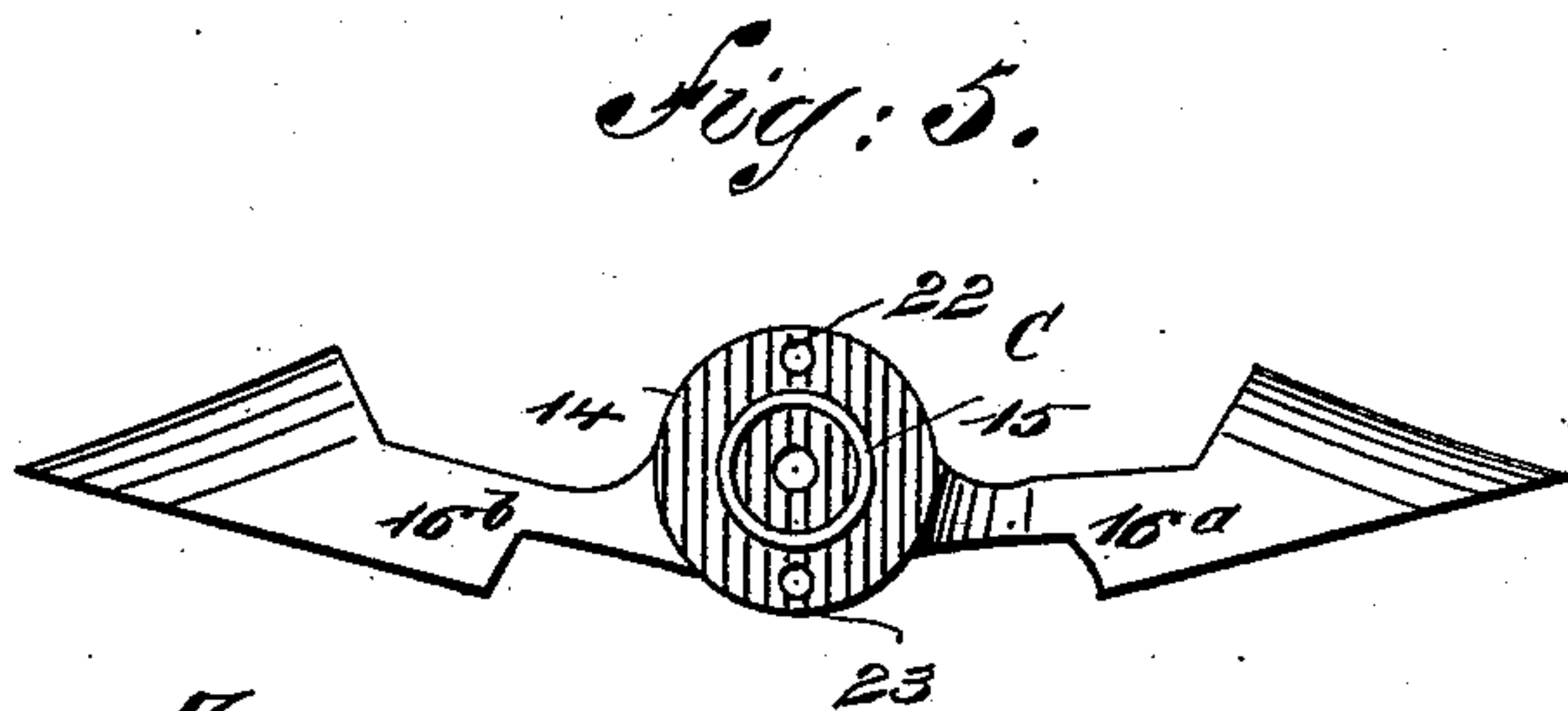
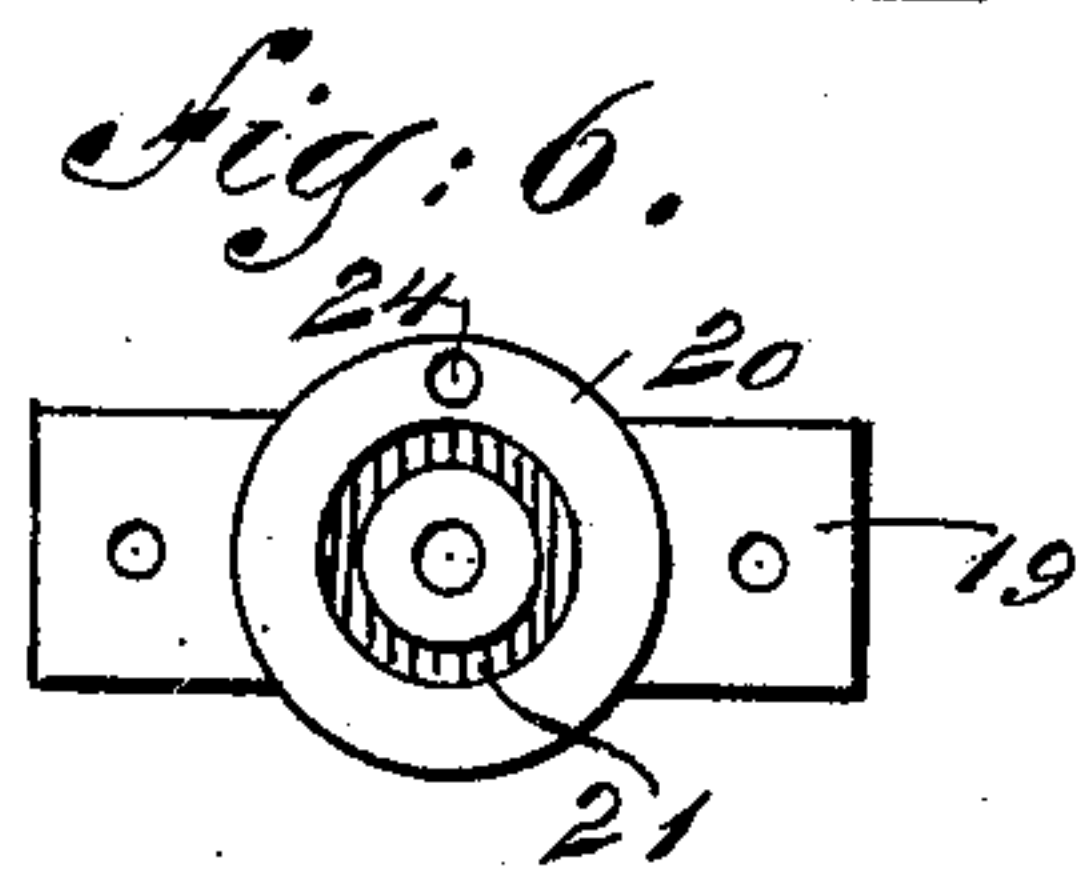
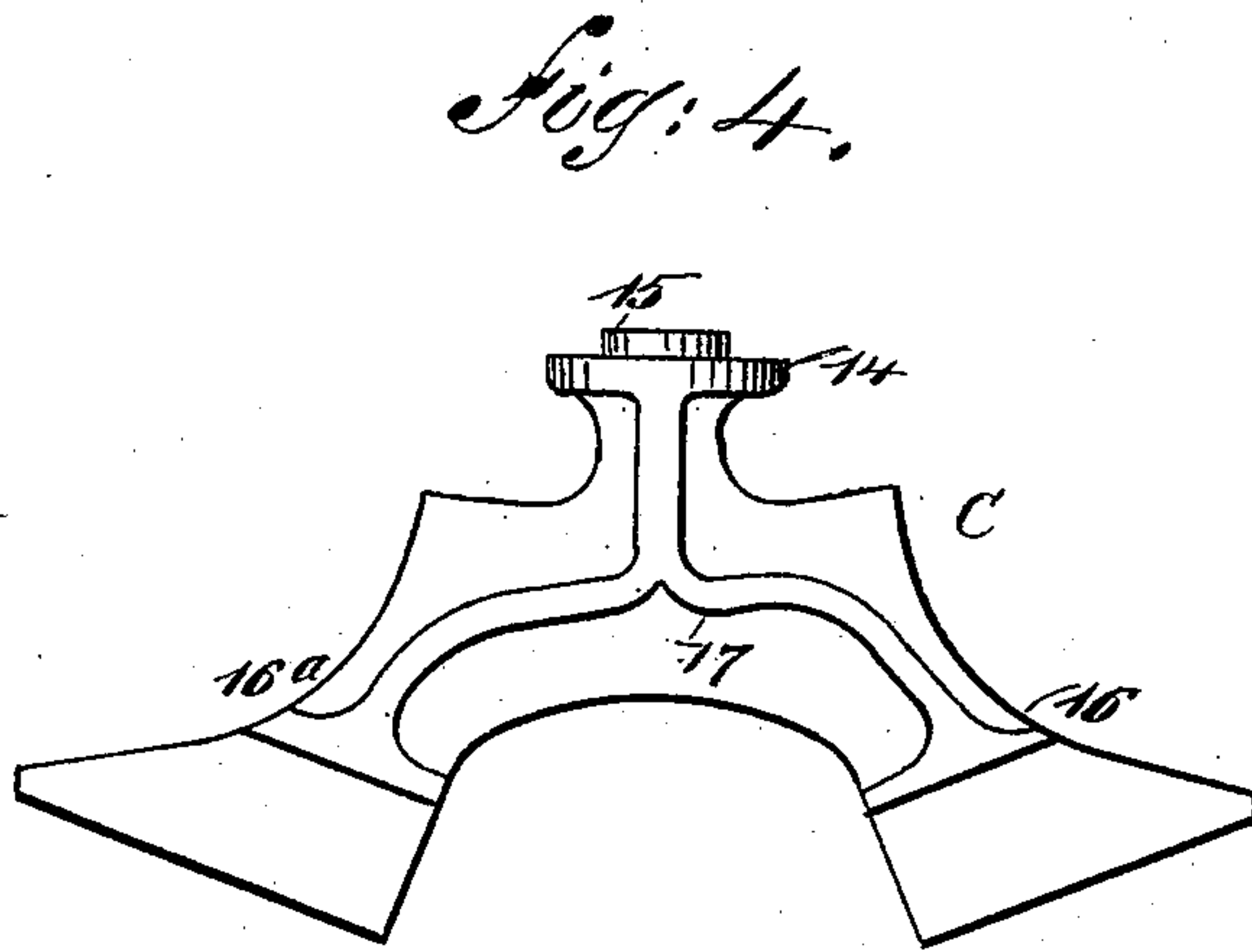
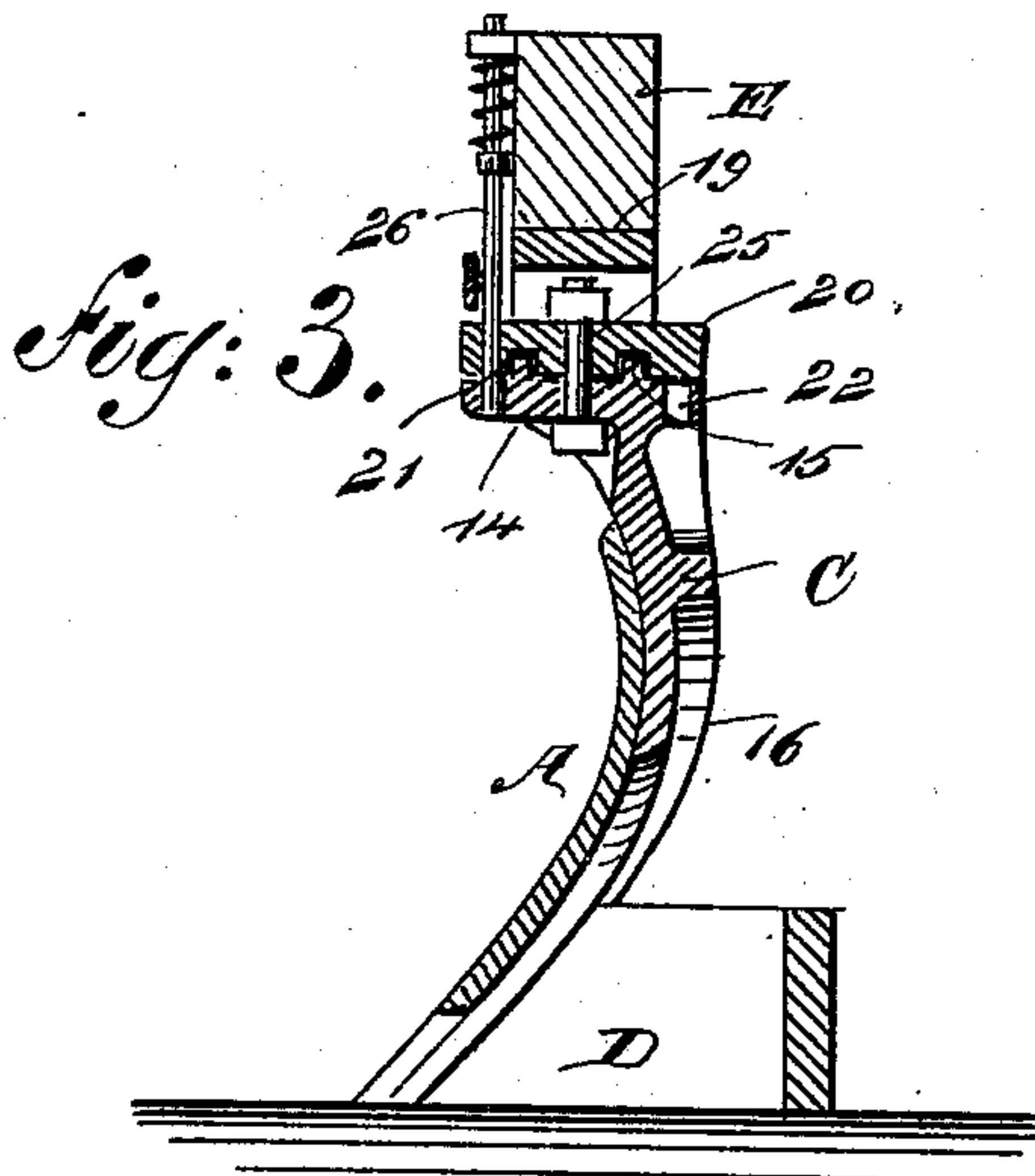


Fig: 7.

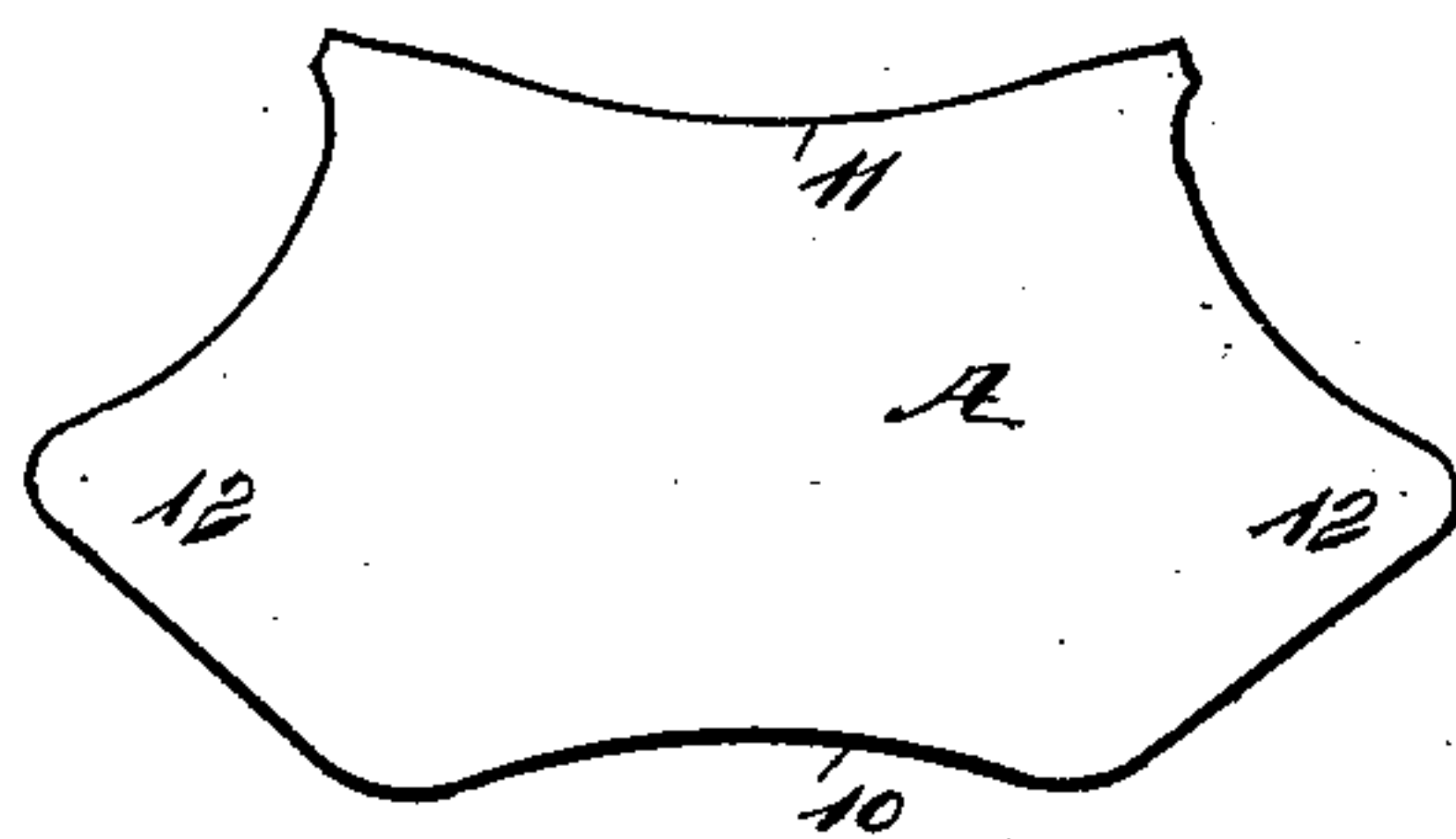


Fig: 9.

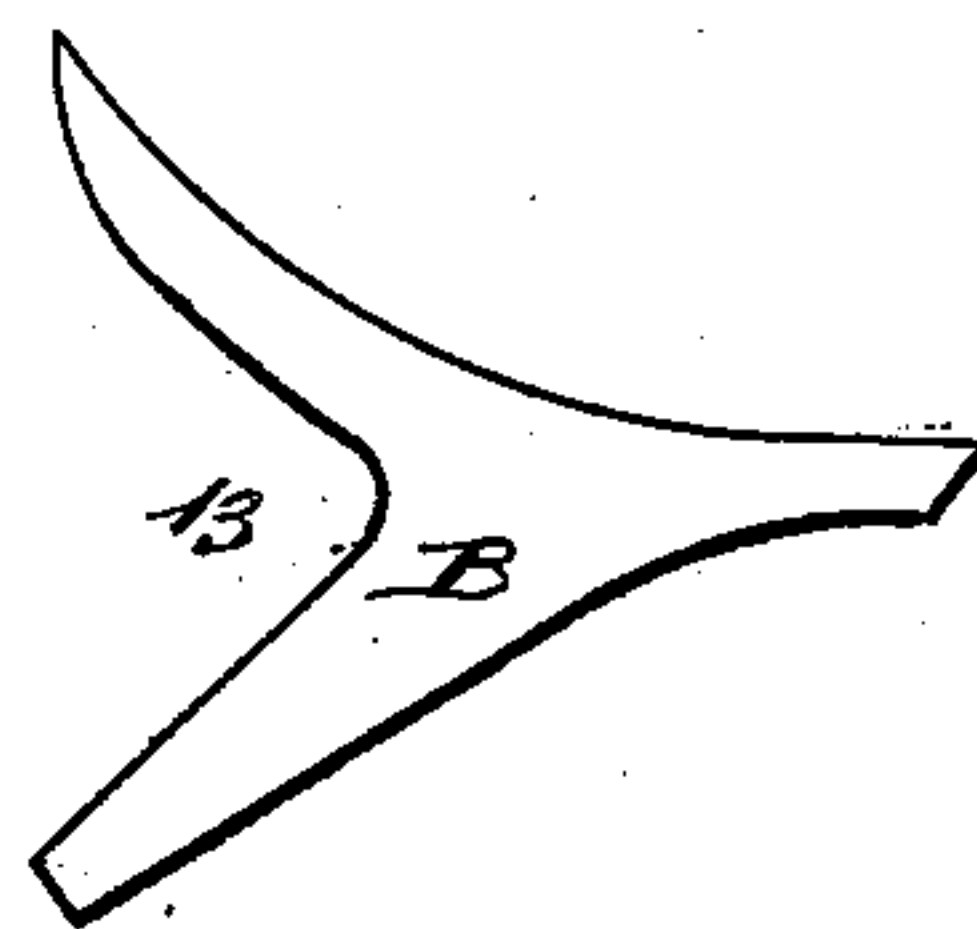
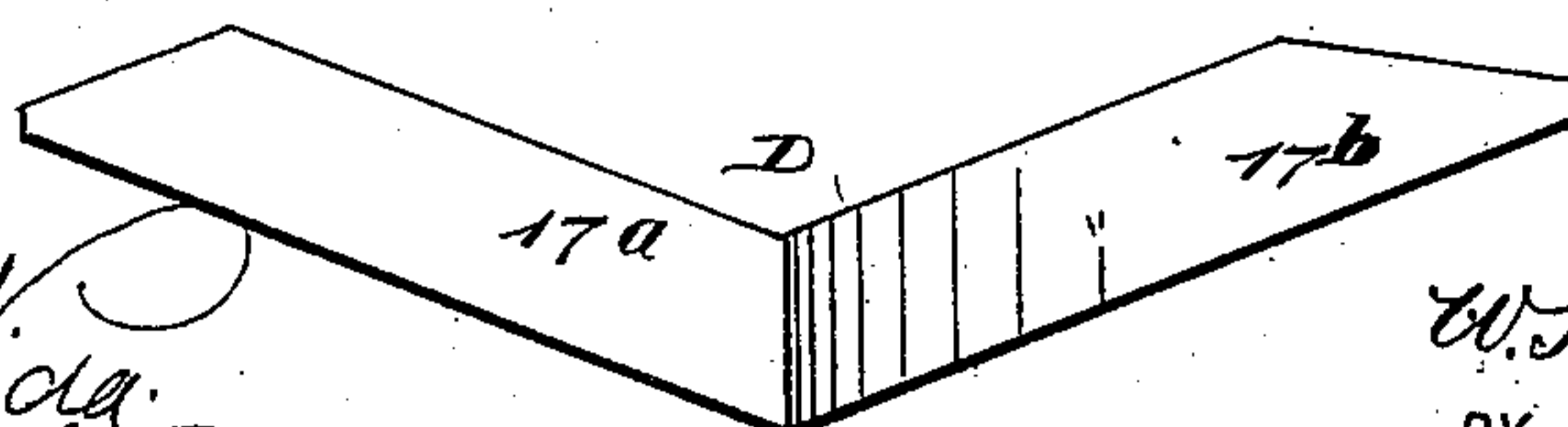


Fig: 10.



WITNESSES:

Chas. Nida.
J. Fred. Hester.

INVENTOR

W. H. Mitchell

BY

Munn & Co.
ATTORNEYS.

UNITED STATES PATENT OFFICE.

WILLIAM H. MITCHELL, OF GLASGOW, KENTUCKY.

PLOW.

SPECIFICATION forming part of Letters Patent No. 540,678, dated June 11, 1895.

Application filed August 4, 1894. Serial No. 519,491. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. MITCHELL, of Glasgow, in the county of Barren and State of Kentucky, have invented a new and Improved Plow, of which the following is a full, clear, and exact description.

My invention relates to an improvement in plows, and it has for its object to so construct the plow that it will be a combined right and left-hand implement, and to provide a means whereby a right and left-hand point will be carried by the same mold board upon a single standard, and whereby one land side will be used in connection with both points, the plow being capable of use upon hill sides as well as upon level land. Therefore under such a construction the plow will be a right-hand one going in one direction and a left-hand one when traveling in an opposite direction, the change being brought about quickly by a reversal of the beam; and a further object of the invention is to provide a means whereby the plow beam may be reversed upon the standard expeditiously and conveniently, and held in any position in which it is necessary to place it, by means of a simple locking device under the complete control of the plowman.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures and letters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of the improved plow. Fig. 2 is an elevation of the plow viewed from the opposite side to that shown in Fig. 1. Fig. 3 is a vertical section through the beam, the standard, the moldboard, and landside, the said section being taken about centrally through the standard, landside, and moldboard. Fig. 4 is a rear elevation of the standard. Fig. 5 is a plan view of the standard. Fig. 6 is a bottom plan view of the turntable adapted for attachment to the plow-beam. Fig. 7 is a plan view of the moldboard. Figs. 8 and 9 are plan views of the points separated from the moldboard, and Fig. 10 is a plan view of the landside.

In carrying out the invention the mold

board A is made double; that is to say, the mold board is provided with a concaved lower central edge 10, and a substantially similarly shaped upper edge 11, while the end surfaces of the mold board are provided with a substantially triangular extension or nose 12, located preferably nearer the lower than the upper edge of the mold board, and the upper sideline of each nose instead of being straight is curved in an inwardly direction, the curved lines extending nearly to the upper edge of the share, as shown in Fig. 6. The lower side line of each nose is practically straight, and extends downwardly and inwardly, meeting the ends of the lower concavity 10.

A point B is adapted for attachment to each end of the mold board, and to that end the inner end surfaces of the points are each provided with a recess 13, shaped to receive a nose 12 of the mold board, and the members thus formed at the inner end of each point are fitted to the concaved and straight surfaces at the sides of the nose, whereby the upper inner edges of each point will virtually form a continuation of the upper end surfaces of the mold board; but preferably the lower inner edges of the points are made to stop short of the lower end surfaces proper of the mold board, as shown in Fig. 1. Thus it will be observed that this mold board is a double one, and is provided with a point at each end, one being adapted for right-hand and the other for left-hand plowing.

The standard C adapted to carry and support the combined double mold board and points, is shown best in Figs. 4 and 5. This standard at its upper end is formed in the nature of a circular table 14, the said table being provided upon its upper face with a concentric rib 15. A short distance below the table the standard is practically straight when viewed from the edge, but is more or less dished when viewed from the side, and the upper portion of the standards meets a bifurcated body 16, the said body being somewhat U-shaped, comprising two members 16^a and 16^b, and one face of this body is decidedly concaved, as shown in Figs. 3 and 5, the concaved surface of the standard being its front face, which face is shown in Fig. 5, and the rear convexed side of the standard shown in Fig. 4, is preferably provided with a strength-

ening rib 17, which extends downward from the table 14 in a comparatively straight line, and is then carried in opposite directions along the central surface of the members 16^a and 16^b, terminating at a point short of the lower edges of the said members; and the ribs at their lower terminations extend transversely across said members forming shoulders and below said shoulders seats, the bottoms and lower lateral edges of said seats being arranged in planes at angles to one another as will be clearly seen from the drawings. The lower edges of the members of the standard are inclined upwardly and outwardly in opposite directions, whereby the said lower edges are at an acute angle to a line drawn vertically through the center of the standard when the standard is held in a true upright position, or is placed as shown in Fig. 4.

The land side D is shown in detail in Fig. 10, and this land side comprises two members 17 and 17^a, which while the land side is preferably in one piece are at angles to one another, forming substantially a wide V in general contour. In assembling these parts the mold board and the points are attached to the front of the concaved face or side of the body portion of the standard, and the members of the land side at their outer ends are secured in the seats at the back of the standard immediately below the transverse terminals of the rib 17, or at an equivalent point. It will be thus observed that when one of the points is in engagement with the ground, a portion of the mold board will be held a considerable distance above the ground, and likewise the opposite point, as shown in Fig. 1; and, as illustrated in Fig. 2, when one land side is in engagement with the ground the other is held free from such engagement. Therefore, in plowing, the dirt in passing over the point and over the double mold board at the lower end will pass off from the mold board at its center, and beneath the upper portion of the mold board and the upper point.

The lower edge of the double mold board is preferably beveled upon its forward face in a downwardly direction, forming a tapering edge at its bottom. This is done in order that the mold board may the more readily clear itself from earth.

A bolt or the equivalent thereof, is passed through each nose portion of the mold board and into the standard; while a single bolt is also preferably used to attach each point to the standard, and the same bolts may be likewise utilized as attaching mediums for the mold board.

The plow beam E, may be of any approved construction and is adapted for attachment to the standard at or near the heel, the heel portion of the beam being provided with the usual handles 18. Since the plow beam must be held in practically a horizontal position, and as the standard will be in either position of the mold board at an acute angle to the

beam, a bracket 19 is secured to the under face of the beam near the heel, the bottom of which bracket terminates in a turn table 20, having an angle corresponding to that of the table 14 of the standard. The bracket 19 is secured to the beam by means of bolts, or the equivalents thereof, and the turn table 20 of the bracket is provided with an annular recess 21, adapted to receive the rib on the standard table 14.

The standard table is provided with two apertures 22 and 23 produced therein outside of the rib 15, the apertures being diametrically opposite, and the bracket turn table 20 is provided with a single aperture 24, which is adapted to register with either of the apertures in the standard turn table; and the two tables are held to turn one upon the other by passing through a central aperture in both a pivot pin 25, as shown in Fig. 3.

Upon one side of the plow beam a spring-controlled bolt 26, is located, adapted to be constantly in the aperture 24 of the bracket turn table and capable of entering either of the apertures 22 or 23 in the standard turn table as the beam is reversed; and this spring-controlled bolt is operated preferably through the medium of an elbow lever 27, fulcrumed upon the beam, and a link 28, which leads through a suitable guide located upon the handle, preferably at the right-hand side thereof.

Thus it will be observed that this plow may be used as a right-hand plow when going in one direction, and a left-hand plow when proceeding in an opposite direction, and that the change from right to left may be accomplished by disengaging the bolt 26 from the standard table, reversing the beam, and throwing the point that was elevated to the ground, and carrying the point that was formerly worked to an upper position; and when the beam has been reversed the bolt is released and will lock the beam firmly to the standard through the medium of its bracket. The upper extensions of the points B are preferably provided with up and down grooves in their back faces to receive edges of the standard C, whereby the points are rendered steady.

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

1. In a plow, a shank having bifurcations provided at points just above their lower ends with transverse shoulders whereby seats are formed below the shoulders, and a land-side comprising two members set at angles to one another, each member having one end secured in the seat in one bifurcation of the shank, substantially as set forth.

2. In a plow, the combination of a shank, a double mold board carried thereby and provided with a point at each end, a land-side of angular construction, a circular table arranged on top of the shank in a plane at right angles to the axis thereof, a plow beam, a bracket secured to the under side thereof and provided with a circular table arranged in a

plane parallel to the table on the shank, said
tables being pivotally connected to each other
at their center, and being provided with cor-
responding perforations, a spring-actuated
5 bolt mounted on the plow-beam with its ends
adapted to engage and pass through the per-
forations in the tables an elbow lever pivoted
on the beam with one arm connected to said
spring-actuated bolt, and a longitudinally
movable link having one end connected to the 10
other arm of the elbow lever and its other
arm, extending down and guided on the han-
dle, substantially as set forth.

WILLIAM H. MITCHELL.

Witnesses:

SETH WILLIAMS,
THOMAS ANDERSON.