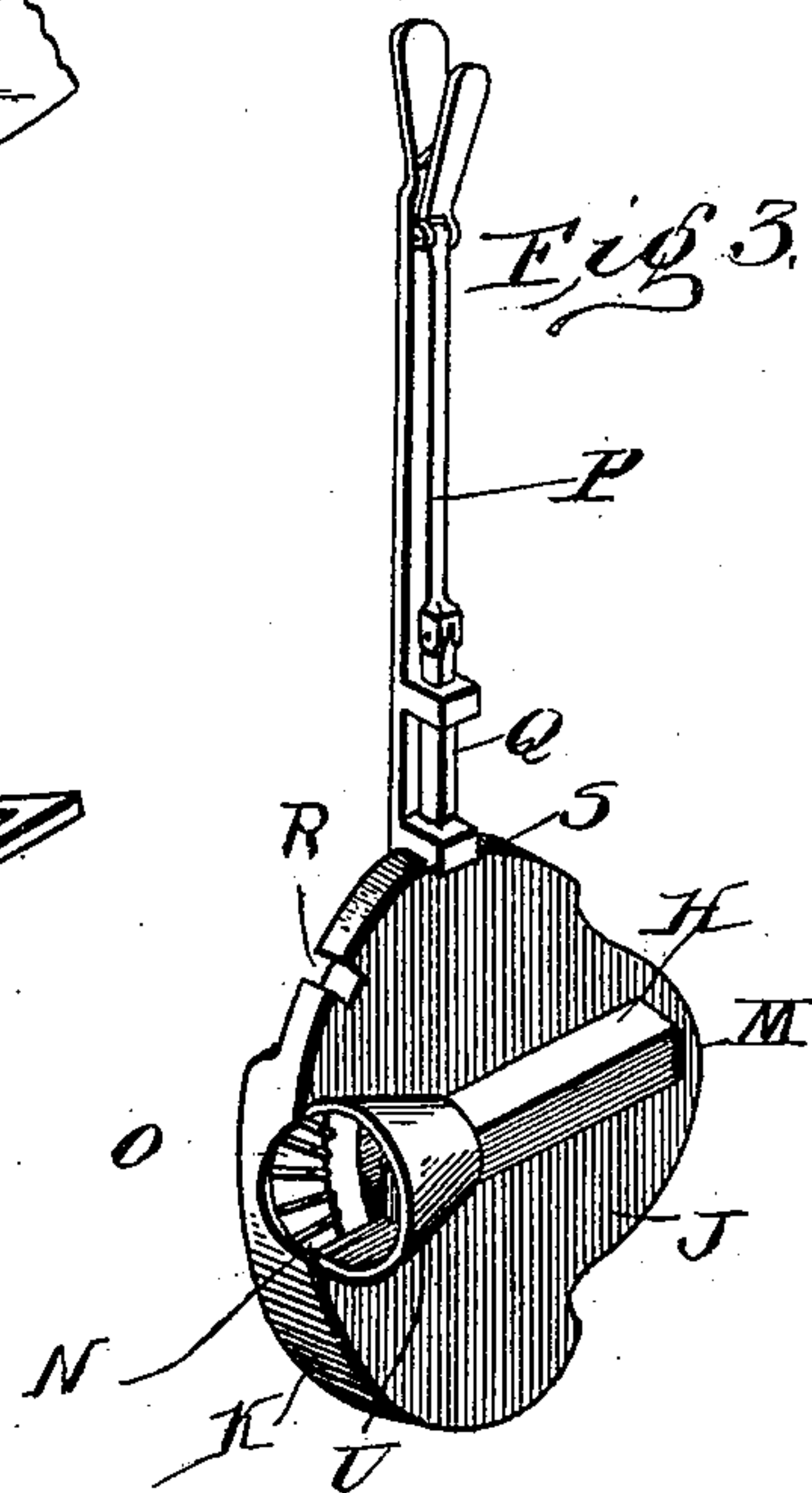
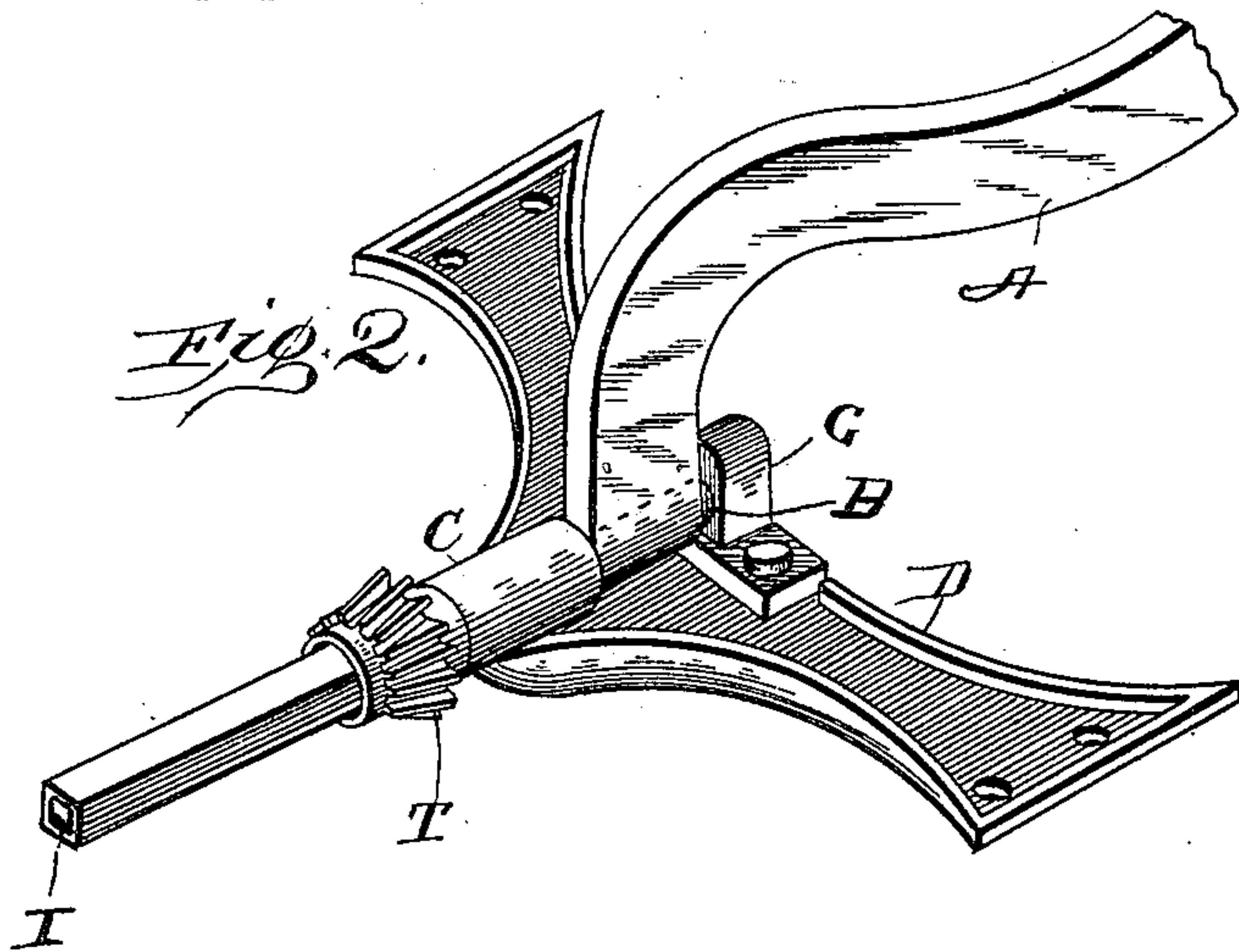
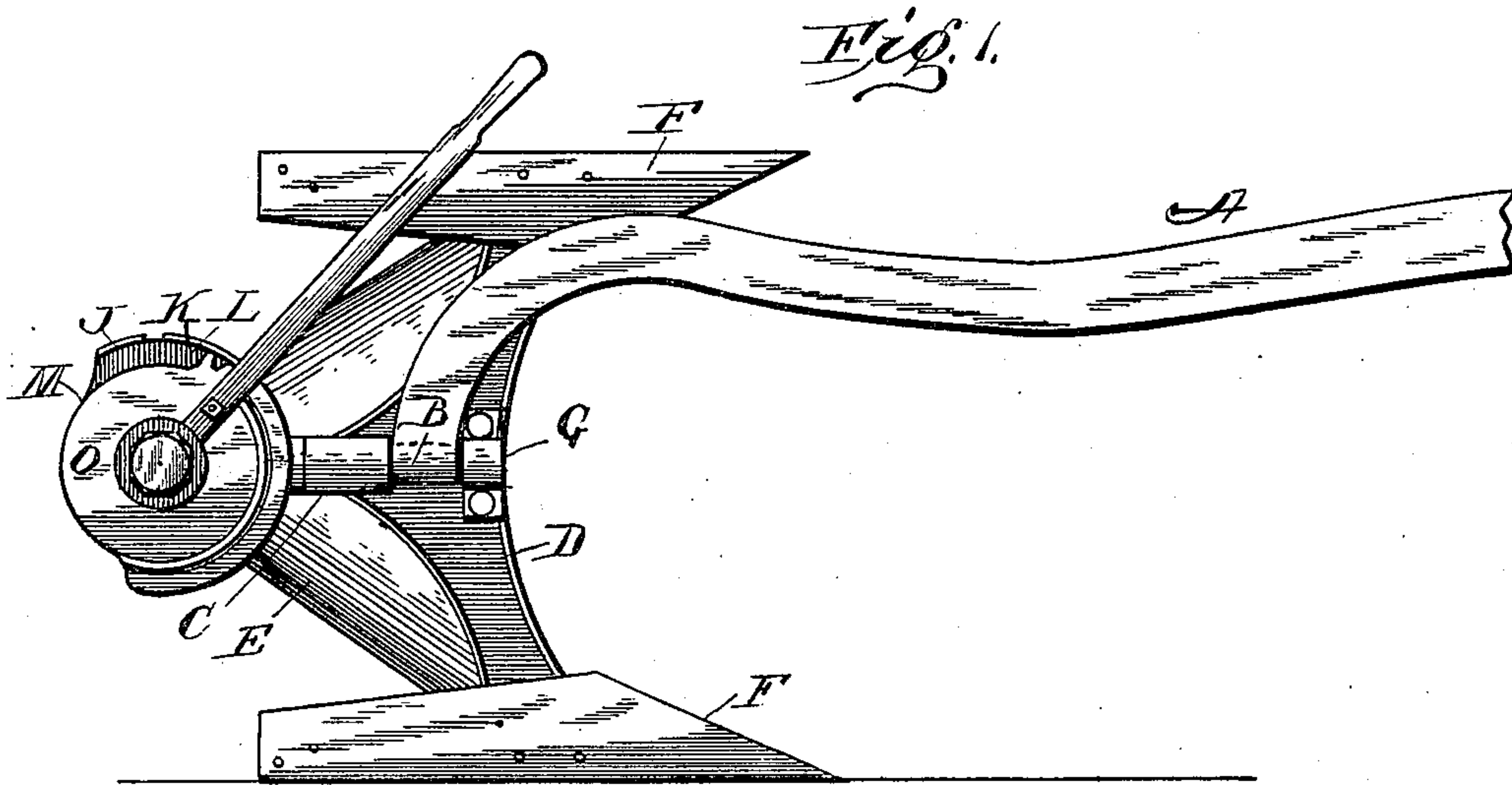


No. 667,515.

Patented Feb. 5, 1901.

C. GABEL.  
REVERSIBLE PLOW.  
(Application filed Aug. 2, 1899.)

(No Model.)



Witnesses:

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# UNITED STATES PATENT OFFICE.

CHARLES GABEL, OF ANDREW, IOWA.

## REVERSIBLE PLOW.

SPECIFICATION forming part of Letters Patent No. 667,515, dated February 5, 1901.

Application filed August 2, 1899. Serial No. 725,899. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES GABEL, a citizen of the United States of America, residing at Andrew, in the county of Jackson and State of Iowa, have invented certain new and useful Improvements in Reversible Plows, of which the following is a specification.

One object of my invention is to provide an ordinary plow-beam with a bar adapted to receive and support a revolving sleeve, controlled and operated by a gear and lever mounted upon the bar, the said sleeve carrying oppositely-disposed right and left plow-shares, adapted to be alternately thrown into and out of position.

Another object of my invention is to provide a reversible plow, such as will enable the same to be easily and quickly reversed, one that will meet an emergency occasioned by the breakage of a point or share and that will possess other advantages and overcome other objections of greater or less importance.

With these objects in view my invention consists in the particular construction of the various parts and in the novel manner of combination and arrangement of said parts, all of which will be more fully described hereinafter and specifically pointed out in the appended claims.

In the drawings forming a part of this specification, Figure 1 is a side elevation of my improved plow complete. Fig. 2 is a perspective view of a portion of the plow-beam, illustrating the bar having the sleeve mounted thereon. Fig. 3 is a detail view of the lever and gear.

Referring by letters to the drawings, A represents an ordinary curved plow-beam, having mounted upon that portion where the standard is usually attached a shaft B, which supports a sleeve C, provided with a flange D, adapted to carry the moldboard E, which is made double and provided with the usual left and right hand shares F. The sleeve is mounted adjacent to the rear end of the plow-beam and is held upon the shaft by a collar G, mounted upon the opposite side of the beam upon the shaft B and bolted to the flange D.

The rear end of the shaft B is square, and mounted thereupon is a square sleeve H, secured in position by a bolt I in the end of the shaft. This sleeve supports a disk J,

which is provided with a flange K, having a groove L, a cut-away portion M, and a notch N, the object of which will be hereinafter explained. Mounted in the center of the disk is a half cog-gear O, the rim of which engages the groove L, the teeth thereon being immediately over the notch N. This gear is provided with and operated by a hand-lever P, which projects up and is adapted to be held in the forward or backward position by the pawl Q, which engages the notches R and S upon the periphery of the flange. The gear upon the disk meshes with the cog-gear T upon the rear end of the sleeve C and is covered by a cup U upon the sleeve H. It will thus be seen that when the lever is thrown forward the left-hand plow is thrown into position, and vice versa.

I desire here to distinctly state and emphasize the fact that although I have shown in the accompanying drawings and described in the specification certain component and co-operative parts which I deem sufficiently improved and operative to carry out the fundamental principles herein incorporated, however I do not confine myself to the exact details of the construction so illustrated and described, since obvious departures may be made without deviating from the inherent and generic features constituting the gist thereof.

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

1. A reversible plow provided with a curved plow-beam, of a longitudinal shaft secured to the rear end of said plow-beam, of a sleeve mounted upon the said shaft, said sleeve having a flange and a cog-gear, of a double moldboard bolted to the said flange, the said moldboard having right and left hand shares, of a sleeve secured to the shaft the said sleeve supporting a disk, of a cog-gear mounted upon the said disk, the said cog-gears adapted to mesh and to be operated by a lever, substantially as shown and described.

2. A reversible plow, provided with a curved plow-beam, of a longitudinal shaft secured to the rear end of the said plow-beam, of a sleeve mounted upon the said shaft, of a flange upon the said sleeve and a cog-gear integral therewith, of a right and left hand plow secured to

the said flange, of a sleeve and disk mounted upon the rear end of the shaft, of a cog-gear mounted upon the said disk adapted to engage the first-mentioned cog-gear and to be operated by a compound hand-lever, substantially as shown and described.

3. In a reversible plow, the combination with a curved plow-beam, of a longitudinal shaft secured to the end thereof, of a sleeve mounted upon the said shaft adjacent to the said beam, said sleeve held thereon by a collar, of a flange upon the said sleeve and a cog-gear integral therewith, of a square sleeve secured upon the rear end of the said shaft, said square sleeve supporting a disk,

said disk having a flange, and a notch, said flange having a groove and a cut-away portion, of a cog-gear mounted upon the said disk, the edges of which engage the said groove, the teeth thereon engaging the first-mentioned cog-gear through the said notch, of a compound hand-lever secured to the last-mentioned cog-gear, said lever projecting up and over the cut-away portion, adapted to reverse the plow and to be held in position by a pawl, substantially as shown and described.

CHARLES GABEL.

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