

E. P. KIRBY.

PLOW BEAM.

APPLICATION FILED FEB. 28, 1910.

990,566.

Patented Apr. 25, 1911.

2 SHEETS—SHEET 1.

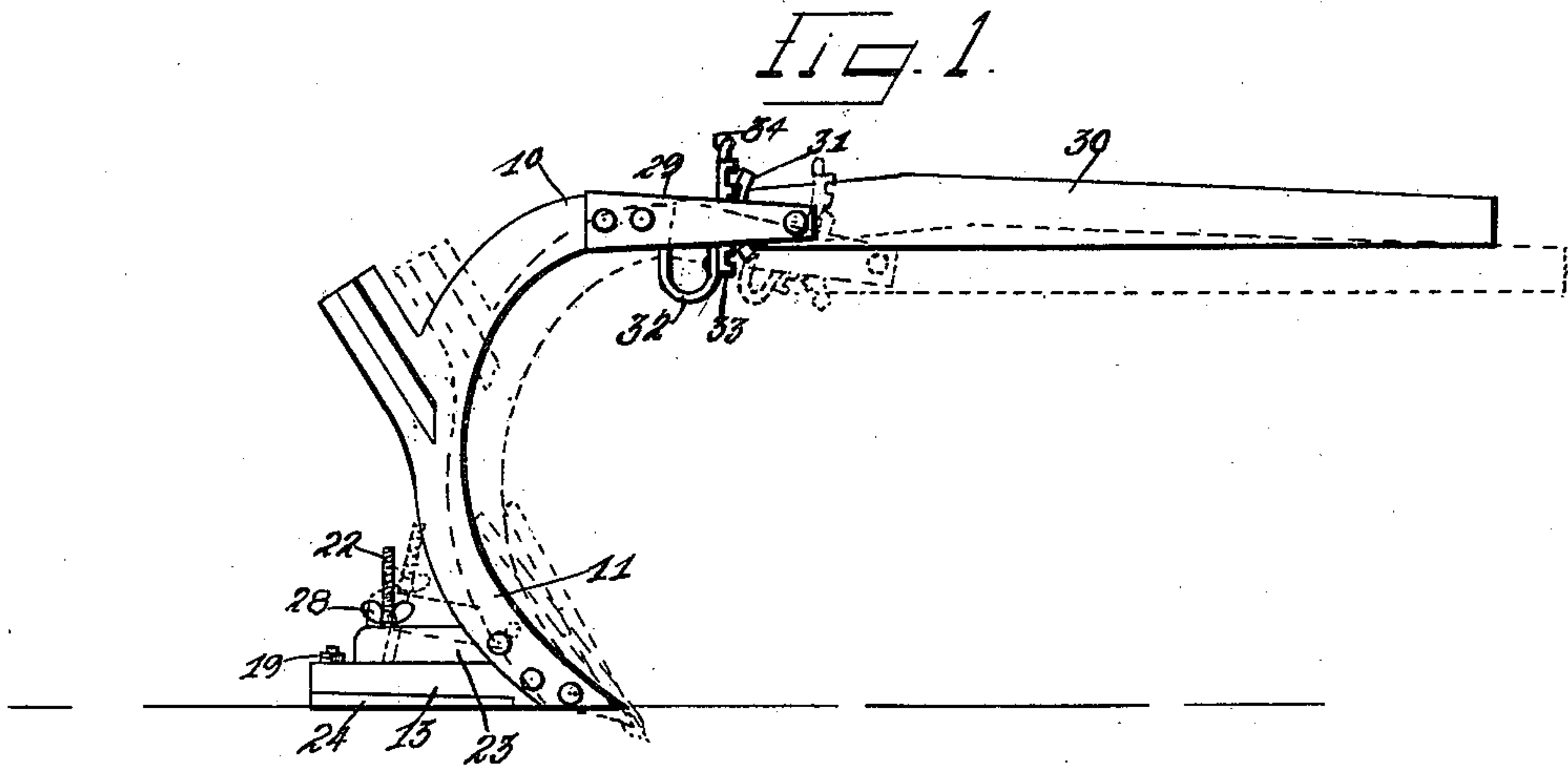


Fig. 2.

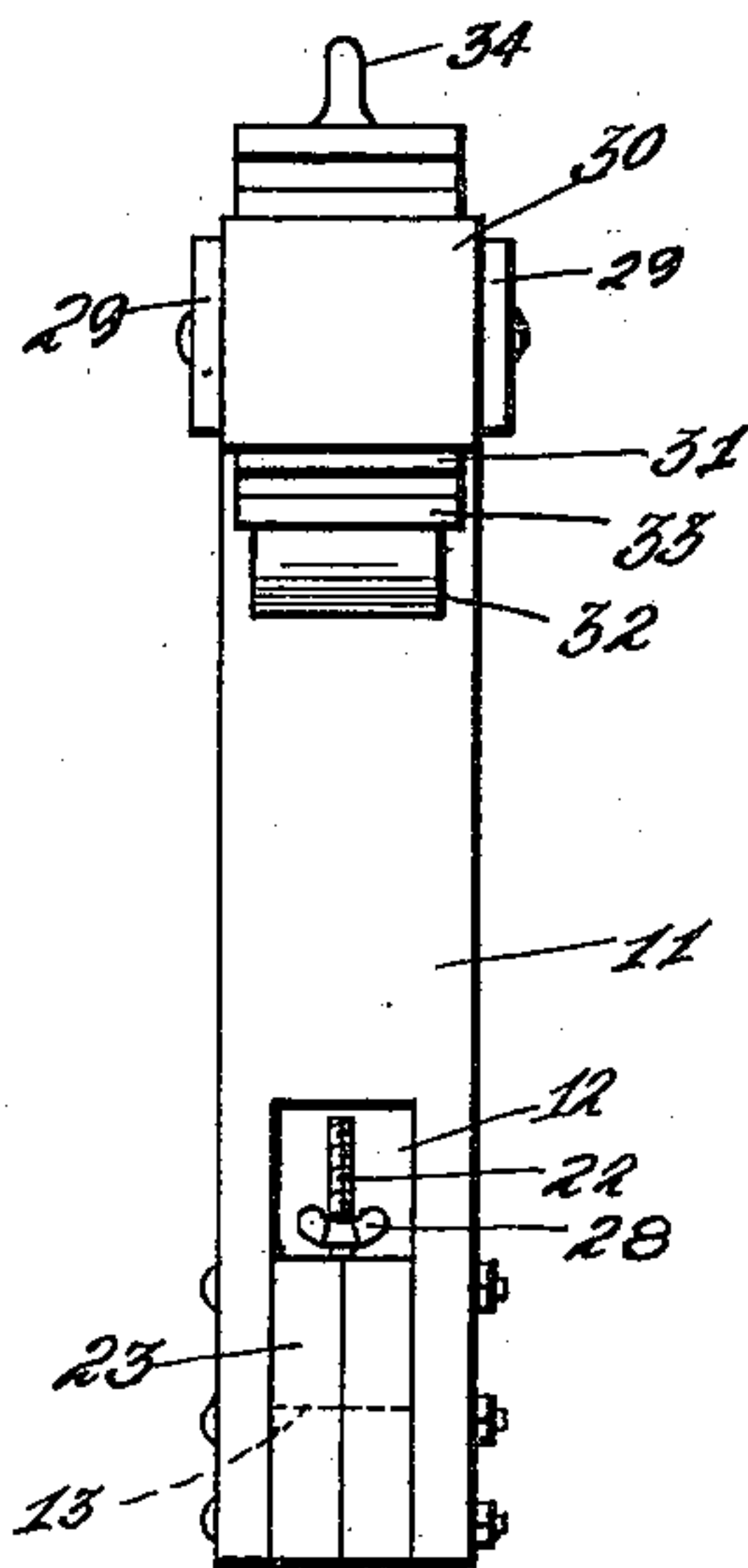
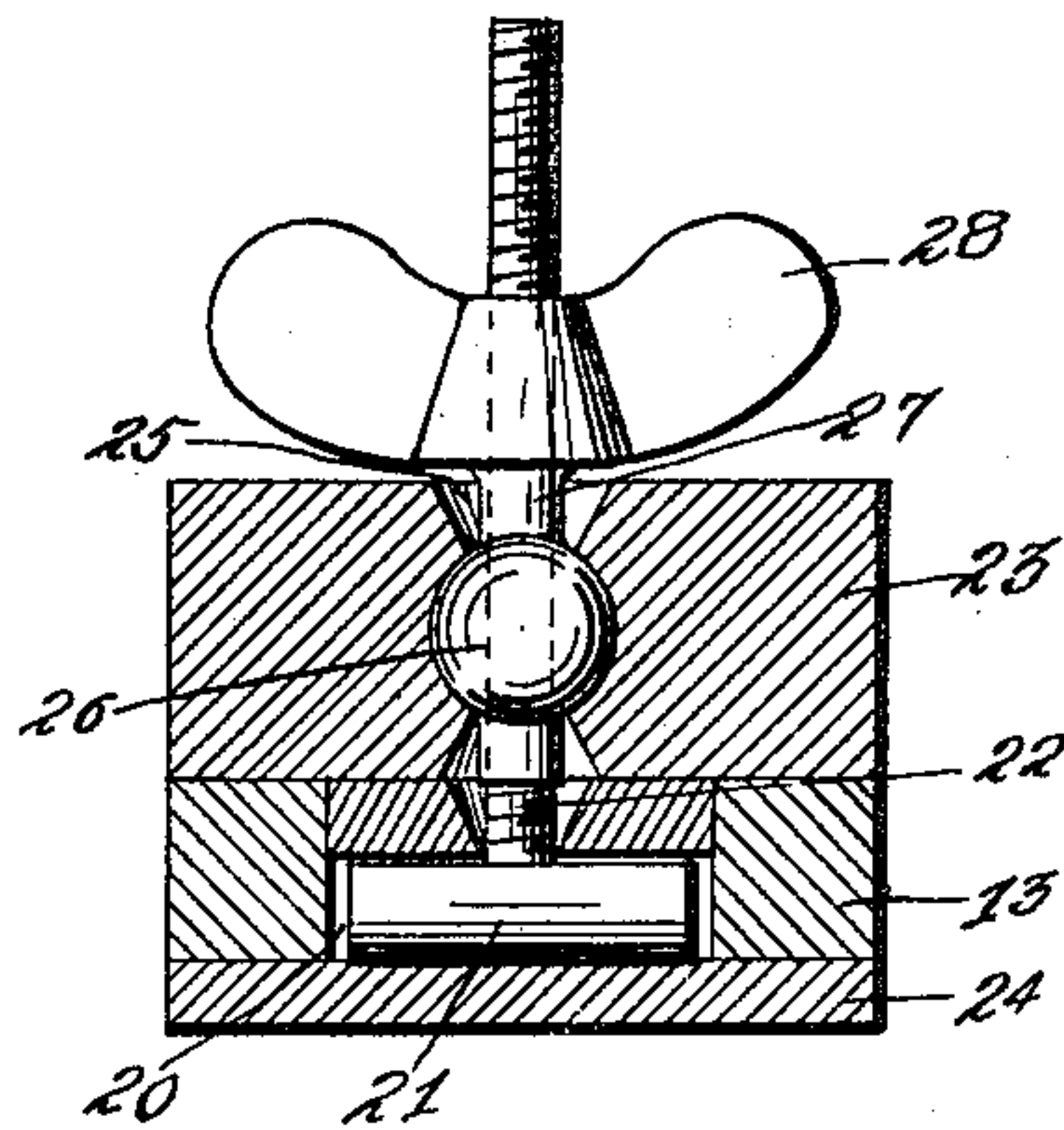


Fig. 4.



Witnesses  
L. E. Strobel.  
L. N. Gillis

Inventor  
E. P. Kirby.

By *Charles C. Chaudler*  
Attorneys.

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2 SHEETS—SHEET 2.

Fig. 5.

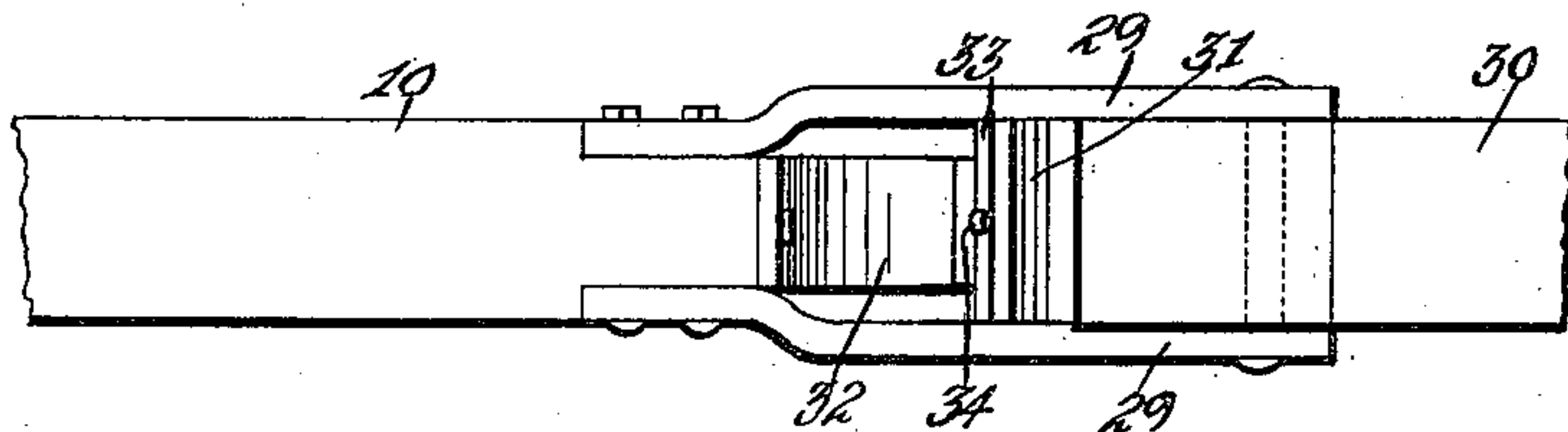


Fig. 6.

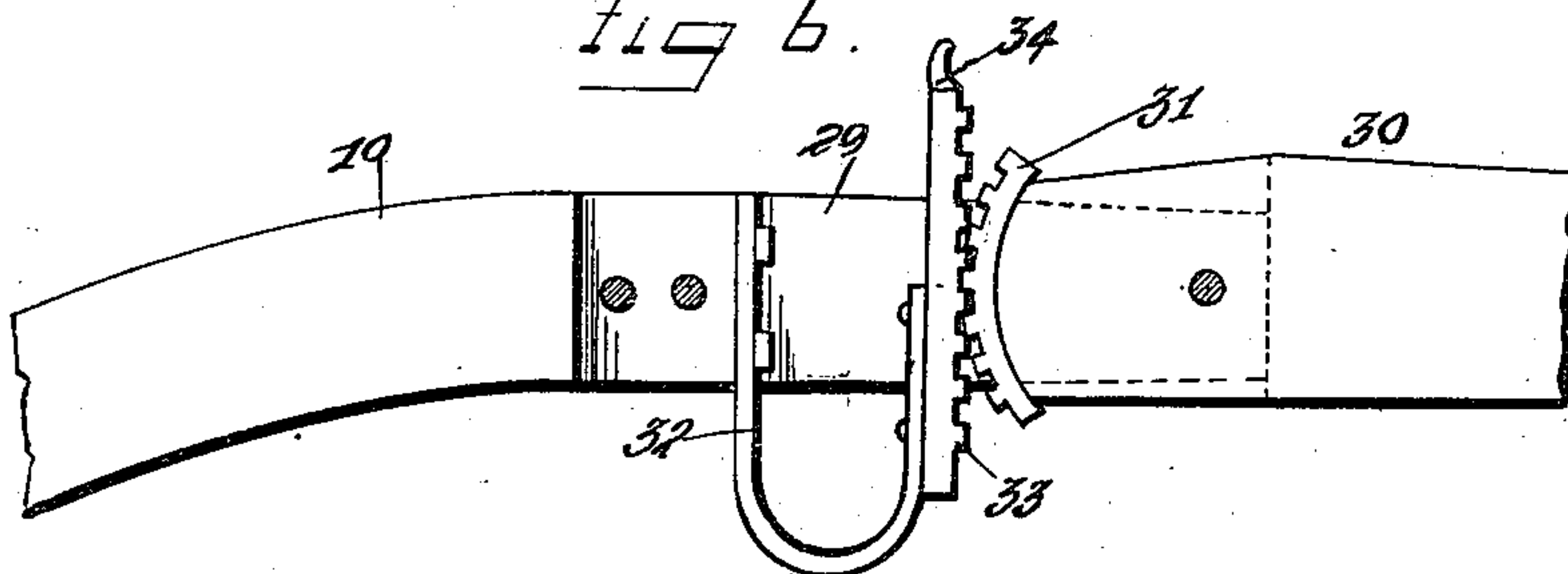
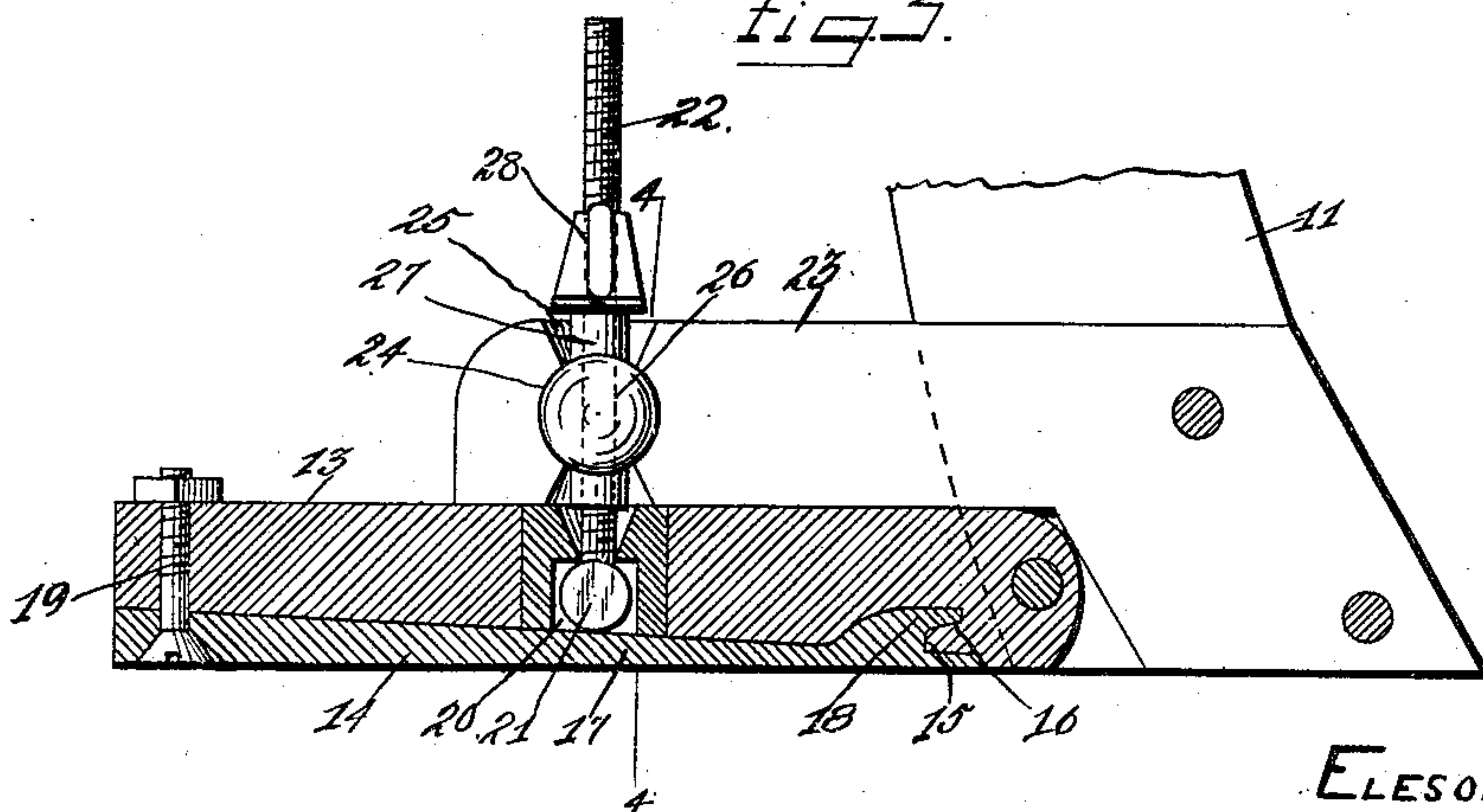


Fig. 7.



Witnesses  
L. E. O'Keeffe,

L. N. Rutledge

Inventor  
E. P. KIRBY.

By *Charles* *Charles*

Attorneys



# UNITED STATES PATENT OFFICE.

ELESON P. KIRBY, OF TIMMONSVILLE, SOUTH CAROLINA.

## PLOW-BEAM.

990,566.

Specification of Letters Patent.

Patented Apr. 25, 1911.

Application filed February 28, 1910. Serial No. 546,388.

*To all whom it may concern:*

Be it known that I, ELESON P. KIRBY, a citizen of the United States, residing at Timmonsville, in the county of Florence, State of South Carolina, have invented certain new and useful Improvements in Plow-Beams; 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.

This invention relates to plow stocks and has special reference to runners and tongues therefor.

One object of the invention is to provide a runner pivoted to the standard and means to vary the angular relation between the runner and standard so that the standard may assume varying angles with respect to the ground.

Another object of the invention is to provide an improved form of runner.

A third object of the invention is to provide an improved adjusting means for a runner.

A fourth object of the invention is to provide means whereby the tongue of a plow and the runner may be adjusted so that the tongue will always be kept at the desired angle to the runner, no matter what angle the runner may assume to the standard of the plow.

A fifth object of the invention is to provide improved means for adjusting the angle between the beam and tongue of a plow.

With the above and other objects in view, as will be hereinafter apparent, the invention consists in certain novel details of construction and combinations of parts hereinafter fully described, illustrated in the accompanying drawings, and specifically set forth in the claims.

In the accompanying drawings, like characters of reference indicate like parts in the several views, and:—Figure 1 is a side elevation of a portion of a plow, the parts being shown in one position in full lines and in another position in dotted lines. Fig. 2 is a front elevation of such a plow. Fig. 3 is an enlarged detail longitudinal section through the runner and the adjusting means therefor. Fig. 4 is a section on the line 4—4 of Fig. 3. Fig. 5 is an enlarged detail view of a portion of the tongue and beam. Fig. 6 is a view from the side of Fig. 5, one of

the fork plates being removed the better to show the adjusting mechanism.

The beam and standard are here shown as of the metallic construction in which beam and standard are formed integrally but it is merely intended to typify any standard fixed upon the beam.

That portion of the construction which forms the beam is indicated by the numeral 10 while the portion forming the standard is indicated at 11. The lower end of this standard is forked as at 12 and pivoted to this lower end is a runner which comprises a body portion 13 rabbeted on the under side as at 14 and from the forward end of this rabbet there extends upward a recess 15 having an under cut portion 16. Held on this rabbeted portion is a shoe 17 provided with an upstanding curved tongue 18 which fits the recess while the shoe is of such dimensions as to fill the rabbeted portion. The rear end of the shoe and runner body are secured together by a bolt 19. In the runner body is formed an inverted T-shaped opening 20, the lower end of the opening being closed by the shoe 17 when in position. In this opening is held the lower end of a T-bolt, the head whereof is indicated at 21 and the shank at 22. Fixed between the fork 12 and extending back above the runner is an arm which consists of equiform portions 23 each being recessed so that when united the recesses register with each other and form a centrally disposed ball seat 24 from which extend flaring openings 25, the openings leading through the upper and lower sides of the arm formed by the portions 23. In the ball seat 24 is held a ball nut 26 provided with an upwardly projecting stem 27 having grip means 28 on its upper end, here shown as a butterfly head. The threaded portion of the bolt stem 22 extends through this nut and it will be observed that by this construction the arm and runner may be adjusted with respect to their angular relation since the nut is free to rotate and assume any position in the ball socket while the T-slot arrangement of the opening in the runner permits the bolt to have a slight swinging movement with relation to said runner.

Upon each side of the forward end of the beam 10 there is an arm 29 and between these arms is pivoted the rear end of a tongue 30. Upon the rear extremity of this tongue is an arcuate rack 31 while upon the forward



extremity of the beam 10 is secured one arm of a U-shaped spring 32 to the opposite arm of which is affixed an arcuate rack 33 provided at its upper end with a grip member 34.

In the operation of this device if it be desired to vary the angular relation of the plow point, and consequently the standard, with respect to the ground it is merely necessary to properly adjust the ball nut 26 so that the standard and runner assume the proper angle with respect to each other. When this is done it is also essential that the tongue 30 should be kept in proper relation to the draft animals and in order to maintain the proper height of the forward end of this tongue the grip 34 is grasped and the rack 33 sprung out of engagement with the rack 31. The tongue may then be adjusted as desired and when the grip 34 is released said tongue will be held in said adjusted position by the engagement of the racks 31 and 33.

There has thus been provided a simple and efficient device of the kind described and for the purpose specified.

It is obvious that minor changes may be made in the form and construction of this invention without departing from the material principles thereof. It is not therefore desired to confine the invention to the exact form herein shown and described, but is wished to include all such as properly come within the scope of the appended claims.

Having thus described the invention, what is claimed as new, is:—

1. In a plow, a beam having a fixed stand-

ard thereon provided with a forked lower end, a runner pivoted at its forward end in said fork, a rearwardly extending arm fixed to said standard and comprising a pair of members each having mating recesses to form when united a ball seat having flaring openings leading therefrom and opening on the upper and lower sides of said member, a ball nut held in said ball seat and having a stem projecting through the upper opening and terminating in grip means, and a bolt pivoted to the runner and having a stem extending through the nut.

2. In a plow, a beam having a fixed standard thereon provided with a forked lower end, a runner pivoted at its forward end in said fork and having an inverted T-shaped opening therethrough, a closure for the bottom of the opening, a rearwardly extending arm fixed to said standard and comprising a pair of members each having mating recesses to form when united a ball seat having flaring openings leading therefrom and opening on the upper and lower sides of said member, a ball nut held in said ball seat and having a stem projecting through the upper opening and terminating in grip means, and a bolt having a T-head held in the opening in the runner and having a stem extending through the nut.

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

ELESON P. KIRBY.

Witnesses:

PERCY ATKINSON,  
O. T. HOBBS.