

D. A. RODERICK.  
BELT THROWER.  
APPLICATION FILED APR. 11, 1908.

904,648.

Patented Nov. 24, 1908.

2 SHEETS—SHEET 1.

Fig. 2.

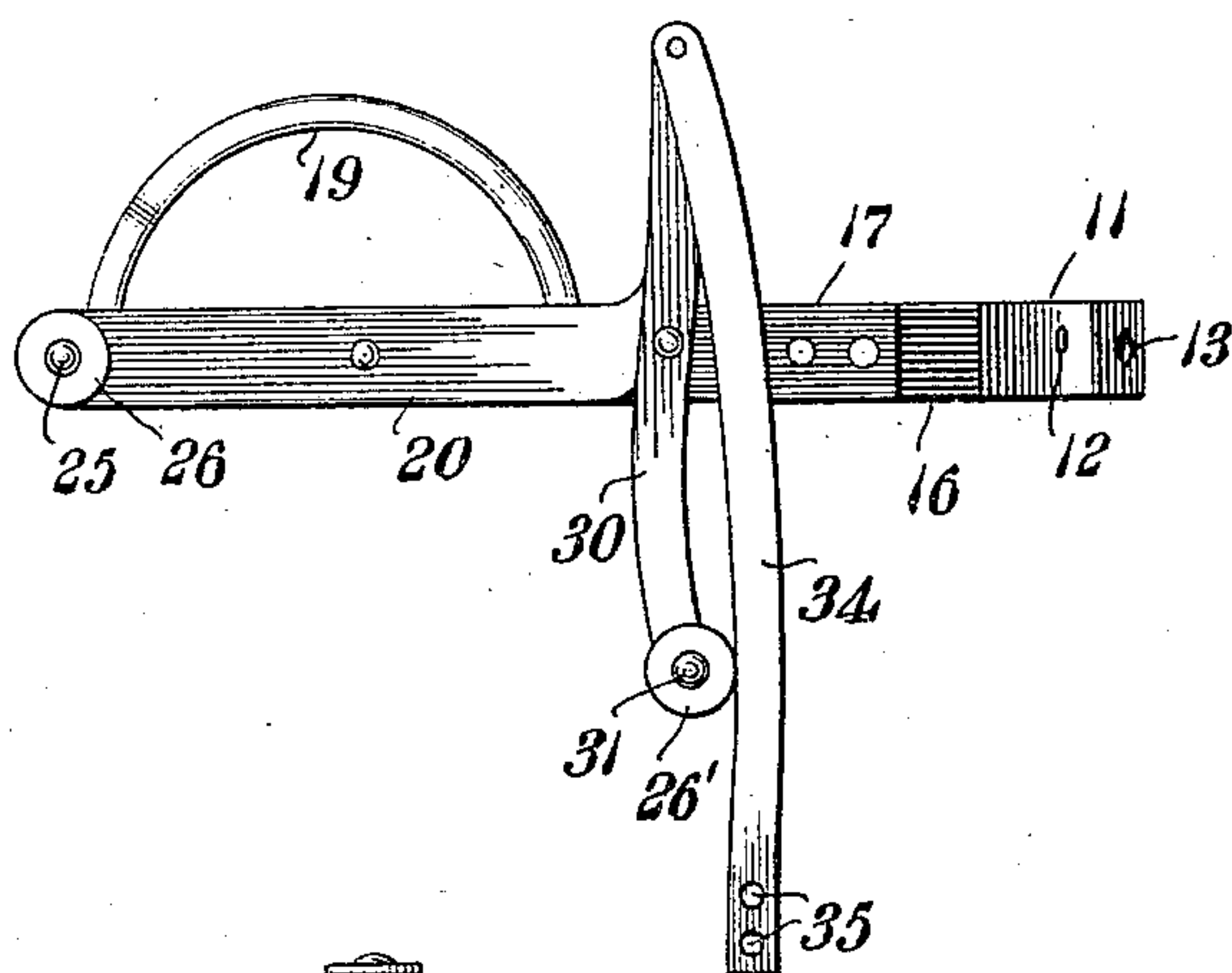
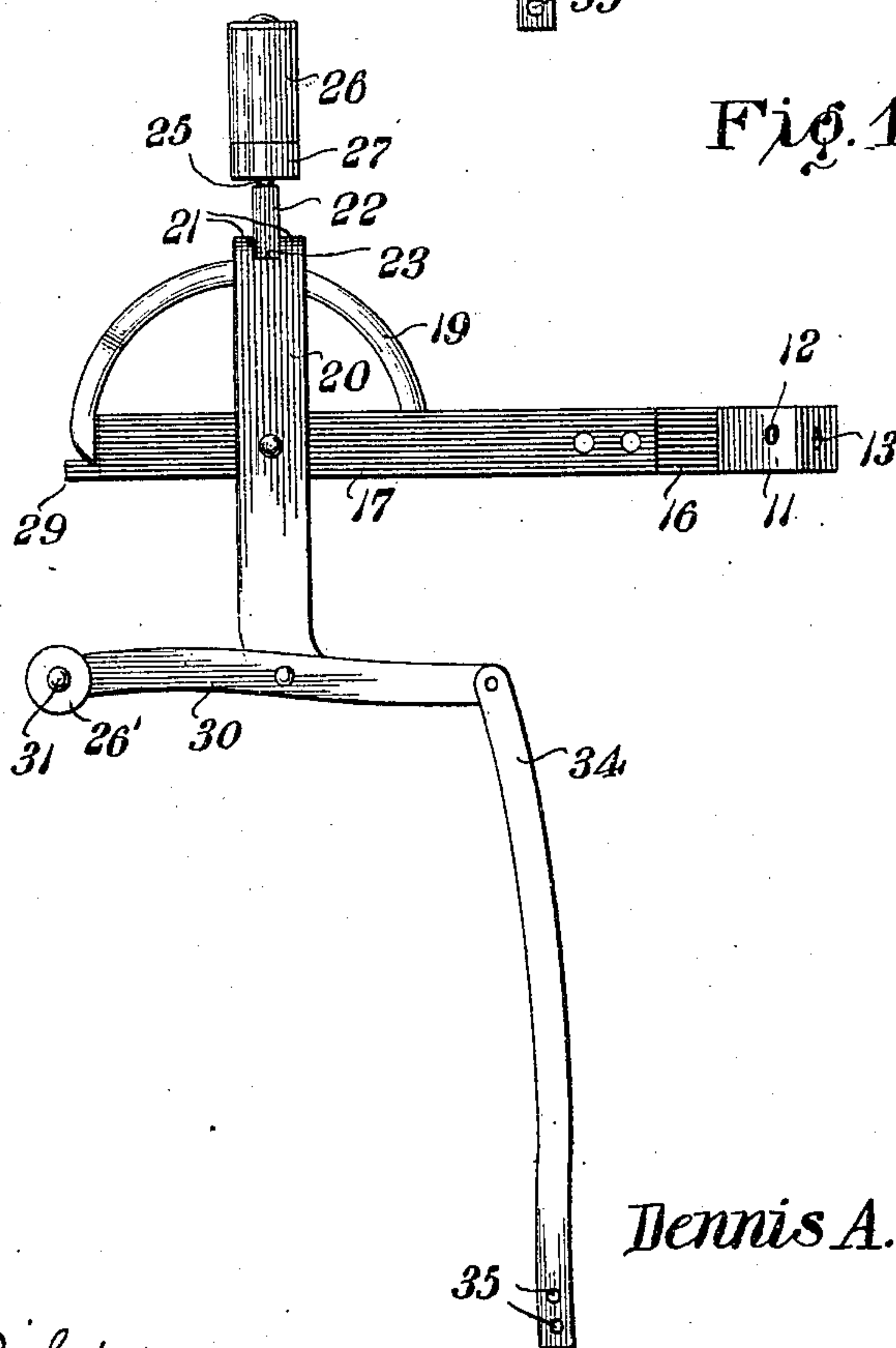


Fig. 1.



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2 SHEETS—SHEET 2.

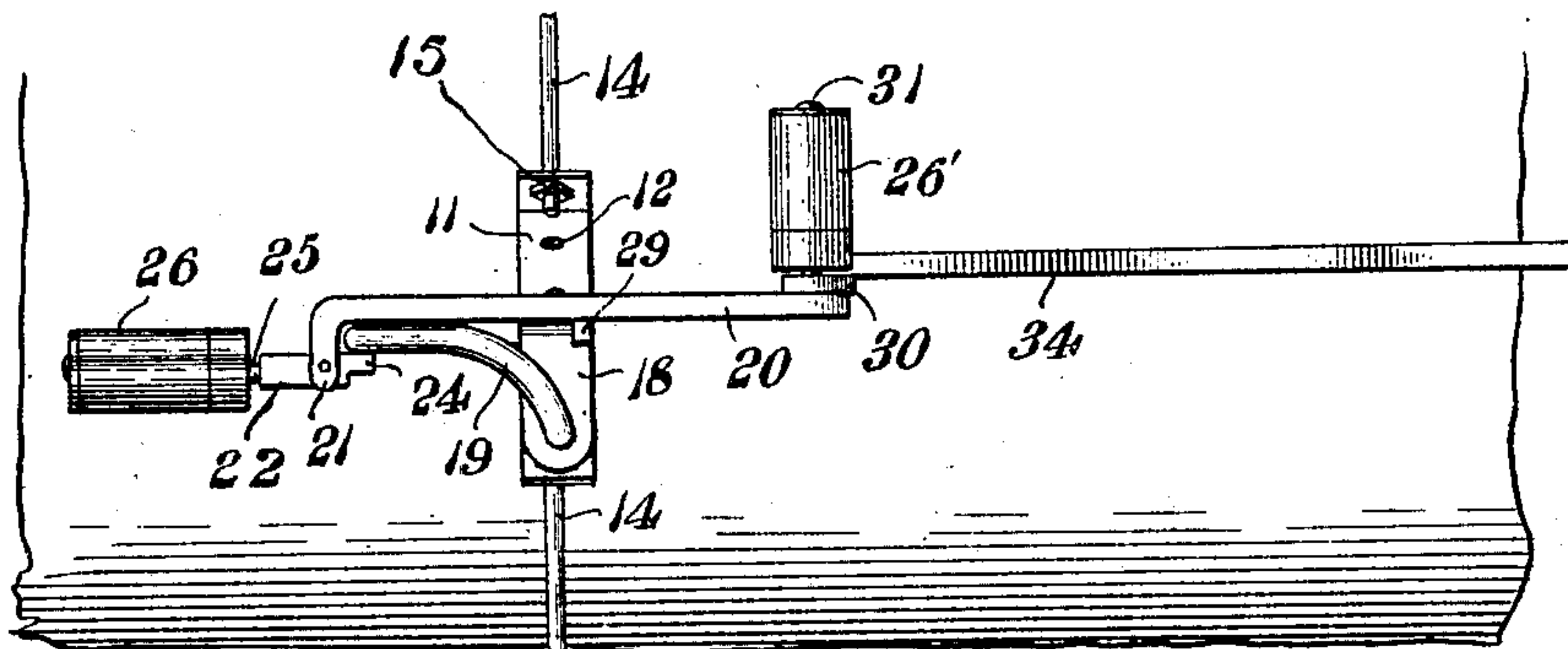


Fig. 4.

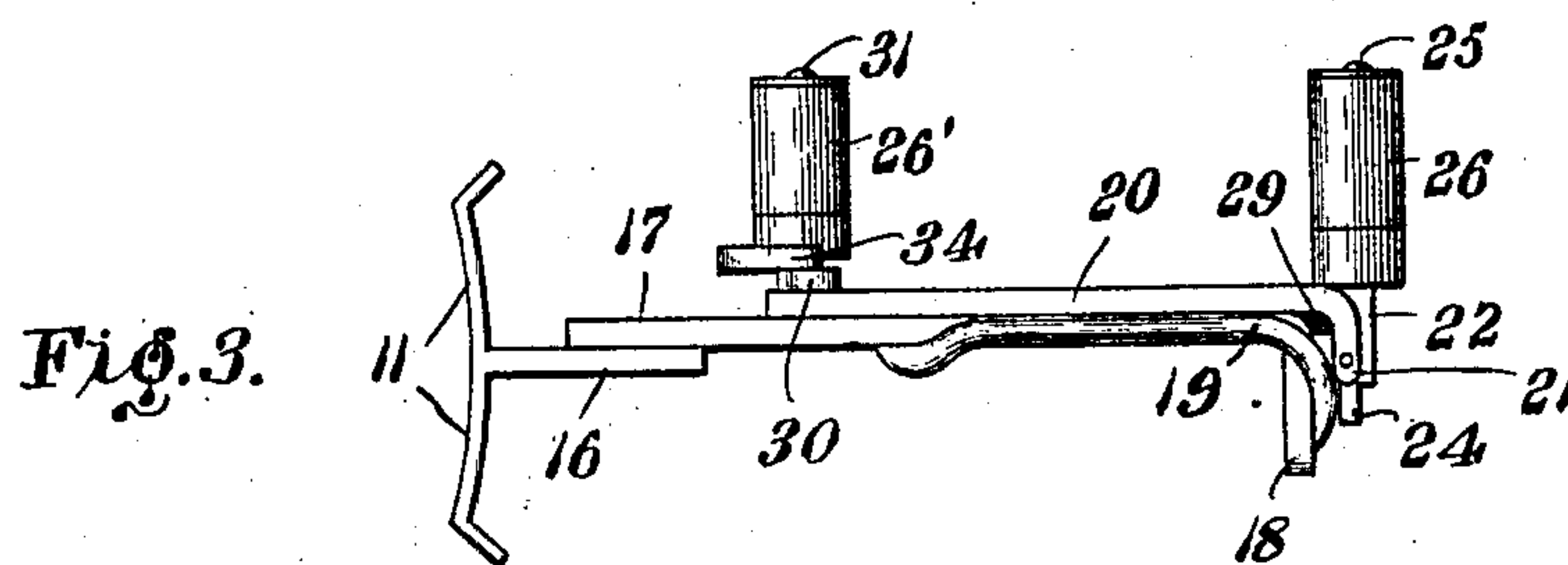


Fig. 3.

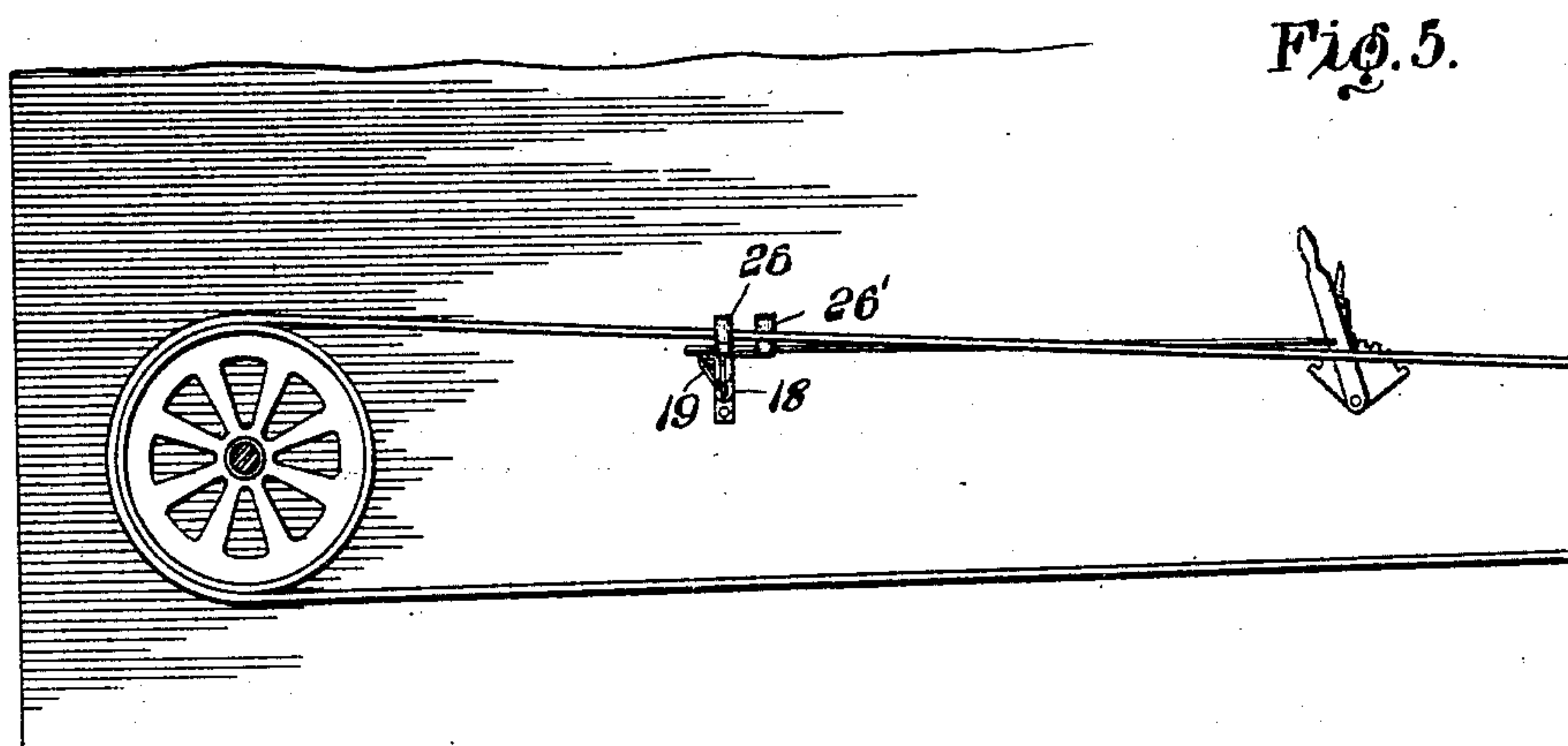


Fig. 5.

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# UNITED STATES PATENT OFFICE.

DENNIS A. RODERICK, OF MASON CITY, IOWA.

## BELT-THROWER.

No. 904,648.

Specification of Letters Patent.

Patented Nov. 24, 1908.

Application filed April 11, 1908. Serial No. 426,561.

*To all whom it may concern:*

Be it known that I, DENNIS A. RODERICK, a citizen of the United States, residing at Mason City, in the county of Cerro Gordo and State of Iowa, have invented certain new and useful Improvements in Belt-Throwers, of which the following is a specification.

This invention relates to power transmission, and more particularly to belt throwers, and has for its object to provide a device of this kind which will be extremely effective in operation and which may be adjusted to operate with any belting of the usual type. It provides a thrower having a pivoted belt engaging standard arranged to fall out of engagement with the belt when the mechanism is operated, and having means for bringing the belt engaging standard into vertical position automatically upon the return of the mechanism to normal operative position.

Another object is to provide such article of few parts which will be easy to manufacture from stock material and at low cost.

Other objects and advantages will be apparent from the following description, and it will be understood that changes in the specific structure shown and described may be made within the scope of the claims, and that any suitable materials may be used without departing from the spirit of the invention.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a top view of the thrower in disengaged position, Fig. 2 is a similar view of the thrower in engaged position, Fig. 3 is a front view of the mechanism in engaged position, Fig. 4 is a side view of the thrower engaged upon a boiler and arranged for operation, Fig. 5 is a view of the mechanism secured upon a wall adjacent to and in engagement with a belt.

Referring to the drawings, there is shown a supporting bracket of malleable iron comprising oppositely extending arms 11 having a series of perforations 12 formed there-through the outer ends of which arms are turned backwardly and provided with perforations 13 as shown. The arms are arranged for engagement with a boiler by means of a rod 14 arranged to be engaged around a boiler and through the perforations 13 and secured therein by means of nuts 15. The arms 11 may be easily arranged for engagement upon a flat surface

as shown in Fig. 5, when desired, being secured thereto by means of screws, bolts, or other suitable means. The bracket is provided with an outwardly extending arm 16 having secured thereto a base portion 17 of the throwing mechanism. The outer end portion 18 of the base piece 17 is turned downwardly, and has engaged outwardly therewith the outer end of a semicircular guide rail 19 extending first upwardly and then horizontally from the base member 17 and being connected therewith adjacent to its inner end. The purpose of the guide rod 19 will be subsequently indicated.

A bar 20 is pivoted midway of the base member 17, its outer end being turned downwardly and provided with spaced ears 21 having pivotally engaged therebetween a swivel post 22 the recess 23 between the ears 21 being extended inwardly of the ears 21 to allow the swivel post 22 to project vertically upwardly at times. The lower end portion 24 of the swivel post 22 extends downwardly below the ears 21 and is arranged to engage slidably against the outer side of the guide rail 19 upon oscillation of the bar 20.

The upper end portion of the post 22 is reduced and rounded to present a spindle portion 25, upon which is engaged a wooden roller 26 secured thereon in a suitable manner, the lower face of the roller being covered by a metal ring 27 engaged there-around. A stop piece 29 is carried by the downwardly extending portion 18 of the base member 17 and projecting outwardly to engage against the post 22 at the rearward limit of its movement.

The opposite end of the member 20 is bent laterally and has secured thereon a bar 30 extending at right angles with the member 20, and carrying a rigid vertical spindle 31 at one end oppositely of the guide rail 19 upon which spindle there is engaged a roller 26'. The forward end of the bar 30 is offset outwardly and has secured to its extremity a rearwardly extending operating rod 34, the free end of which is to extend rearwardly normally on a line with the spindle 31 and having openings 35 therein for engagement with operative connections extending to any desired point.

It will be seen that the belt thrower may be adjusted with the bar 17 extending at right angles with the belt to be governed, the rollers 26 and 26' being disposed on op-



posite sides of the belt with pivoted member 20 in spaced relation with the bar 17. Upon rearward movement of the lever 34 the bar 20 will be rotated to bring the roller 26' to outward engagement against the belt. The swivel post 22 will be moved forwardly, its lower portion engaging against the guide rail 19 to hold the post upright until it engages with the upwardly extending portion of the rail, which will allow the portion 24 to move inwardly, the upper portion carrying the roller 26 thus falling outwardly and allowing the belt to slide thereover. The portion 24 of the post 22 will continue in engagement with the rail 19 throughout the extent of its movement, the roller 26 being maintained in a horizontal position after disengagement until by reverse action of the lever 34 or other suitable means, the bar 20 is rotated to bring the swivel post 22 back into normal engaged position by engagement against the downwardly turned portion of the guide rail.

What is claimed is:—

1. A belt thrower comprising a bracket arranged for engagement with various supports, said bracket having an outwardly projecting extension, a bar pivoted upon said extension, spaced vertically extending posts carried by said bar and rollers revolvably engaged thereon, arranged to receive a belt slidably therebetween, said bar being arranged normally to lie in spaced relation with the said extension of the bracket, the inner of said spindles being arranged to engage outwardly against a belt upon oscillation of said bar, the outer of

said spindles being pivoted for oscillation on the line of the axis of said pivoted bar, and having a downwardly extending end portion, a guide rail carried by said outward extension, and arranged to engage with said downwardly extending end portion of said spindle to hold said spindle in vertical position until said pivoted bar is oscillated, said spindle being arranged to fall outwardly by action of the belt upon oscillation of said bar, said guide rail being arranged to engage with said downwardly extending end portion of said spindle to force the spindle into upright position upon reverse oscillation of said bar, and means for oscillating the bar.

2. A belt thrower comprising a supporting bracket arranged for engagement with various supports, a bar pivoted to said bracket, spaced vertically extending spindles carried by said bar, and arranged to receive a belt slidably therebetween, one of said spindles being arranged to engage outwardly against a coengaged belt upon oscillation of said bar, the other of said spindles being arranged to yield to outward movement of said belt upon oscillation of said bar, means for returning said last named spindle to operative position upon reverse oscillation of said bar, and means for oscillating said bar.

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

DENNIS A. RODERICK.

Witnesses:

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