

No. 756,364.

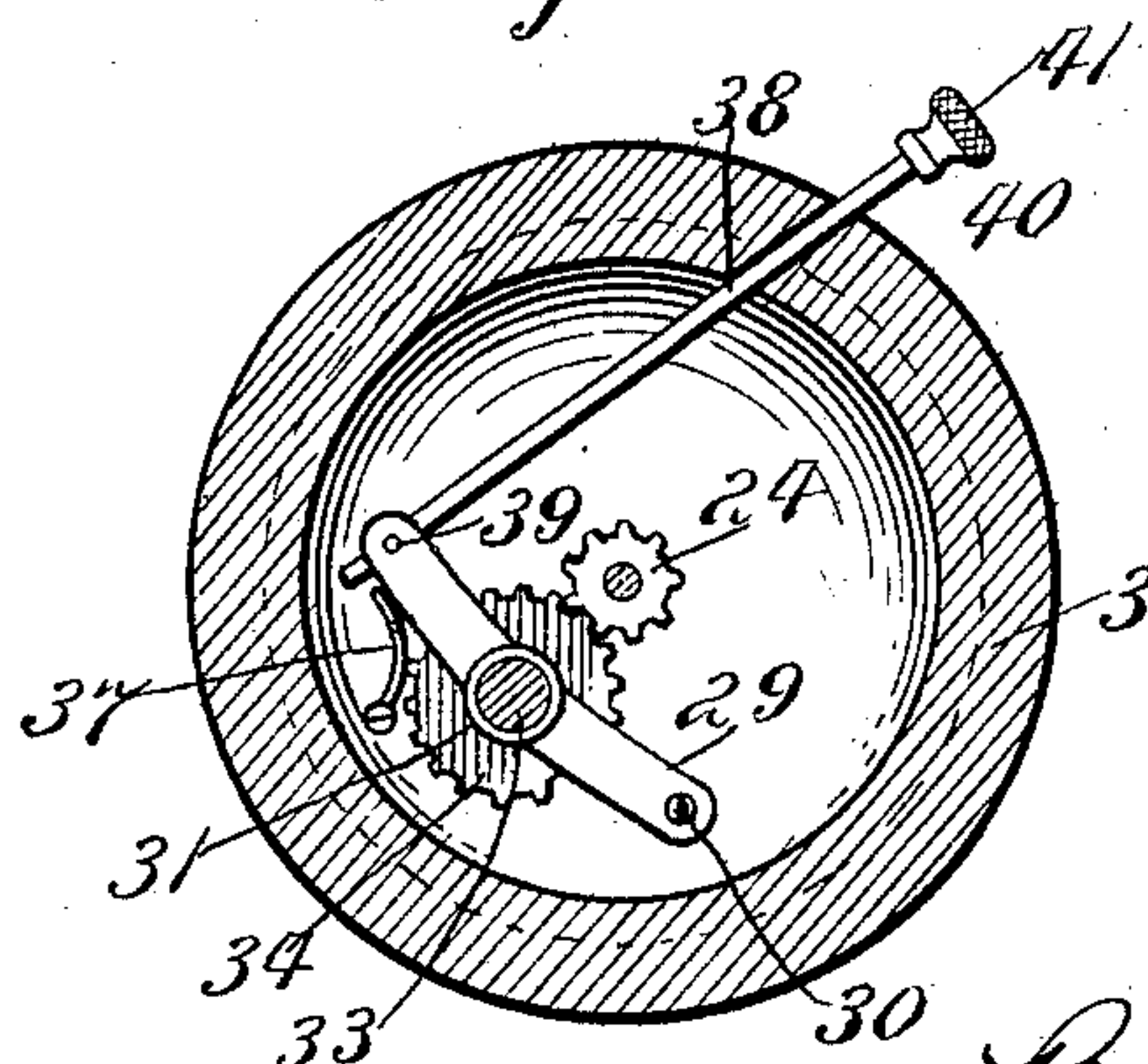
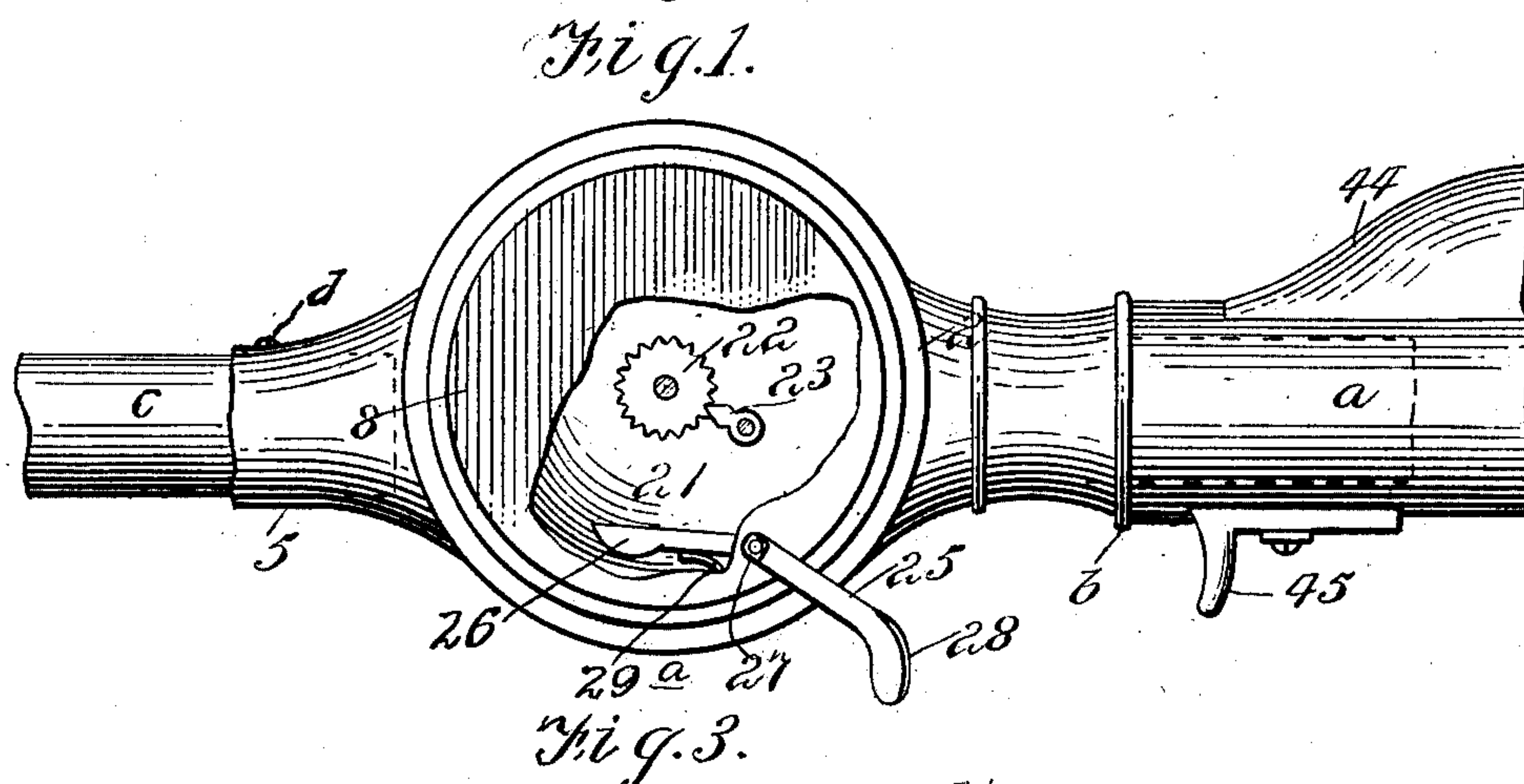
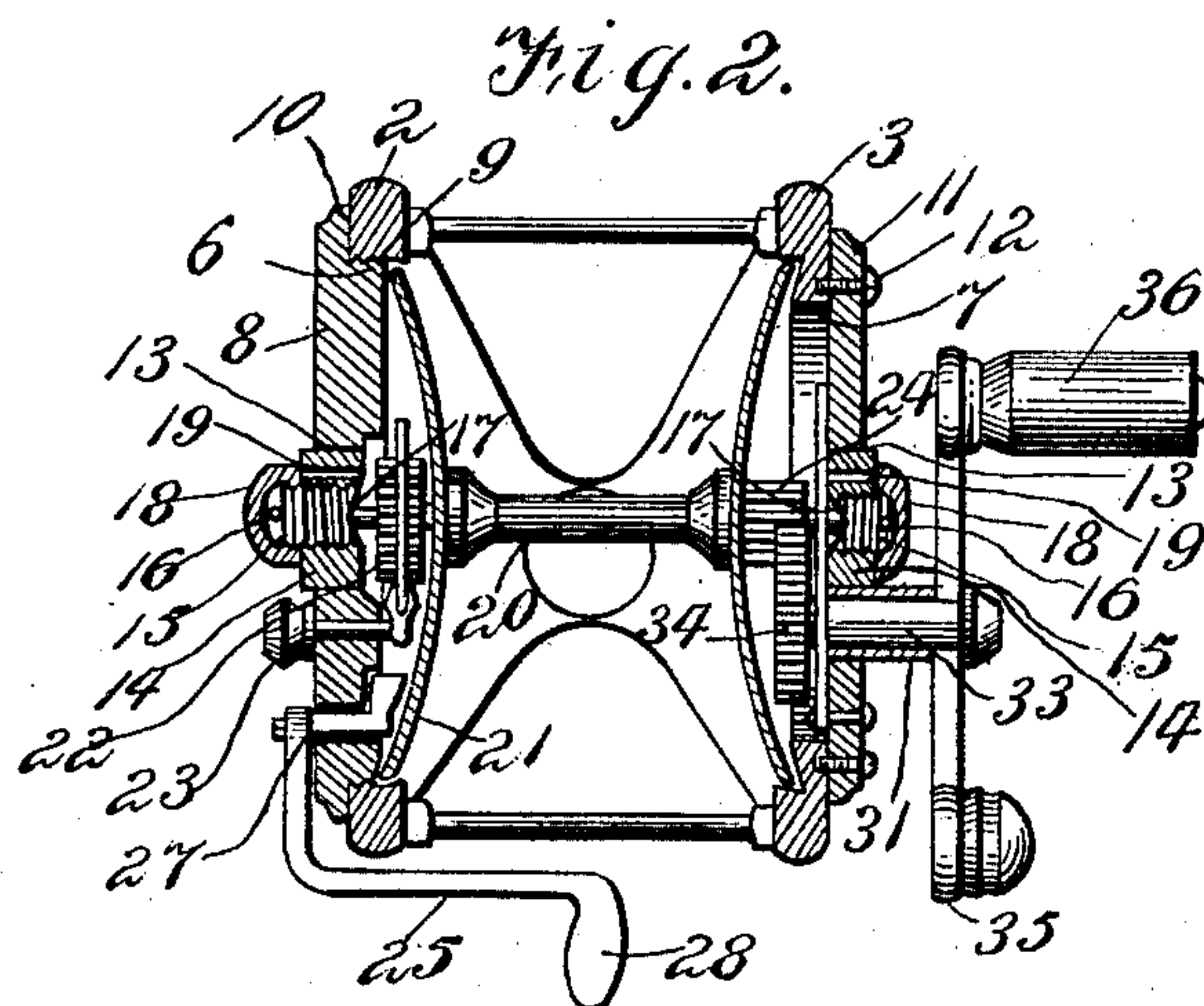
PATENTED APR. 5, 1904.

L. M. HERMANCÉ.
FISHING REEL.

APPLICATION FILED APR. 11, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses
G. V. Worthington
J. L. Wilson

Inventor
L. M. Hermance
Ray J. Crowl
Attorney

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2 SHEETS—SHEET 2.

Fig. 4.

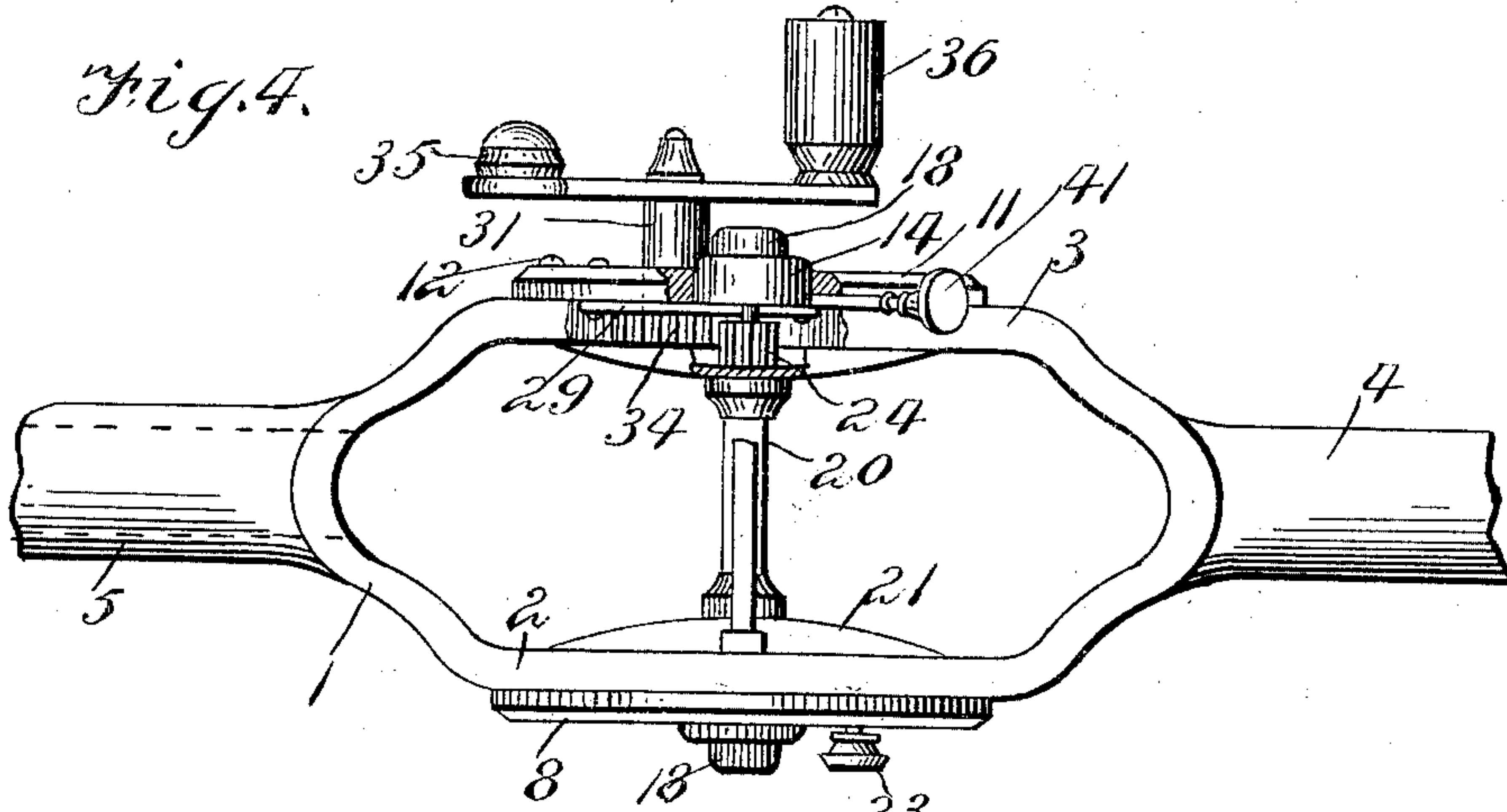


Fig. 5.

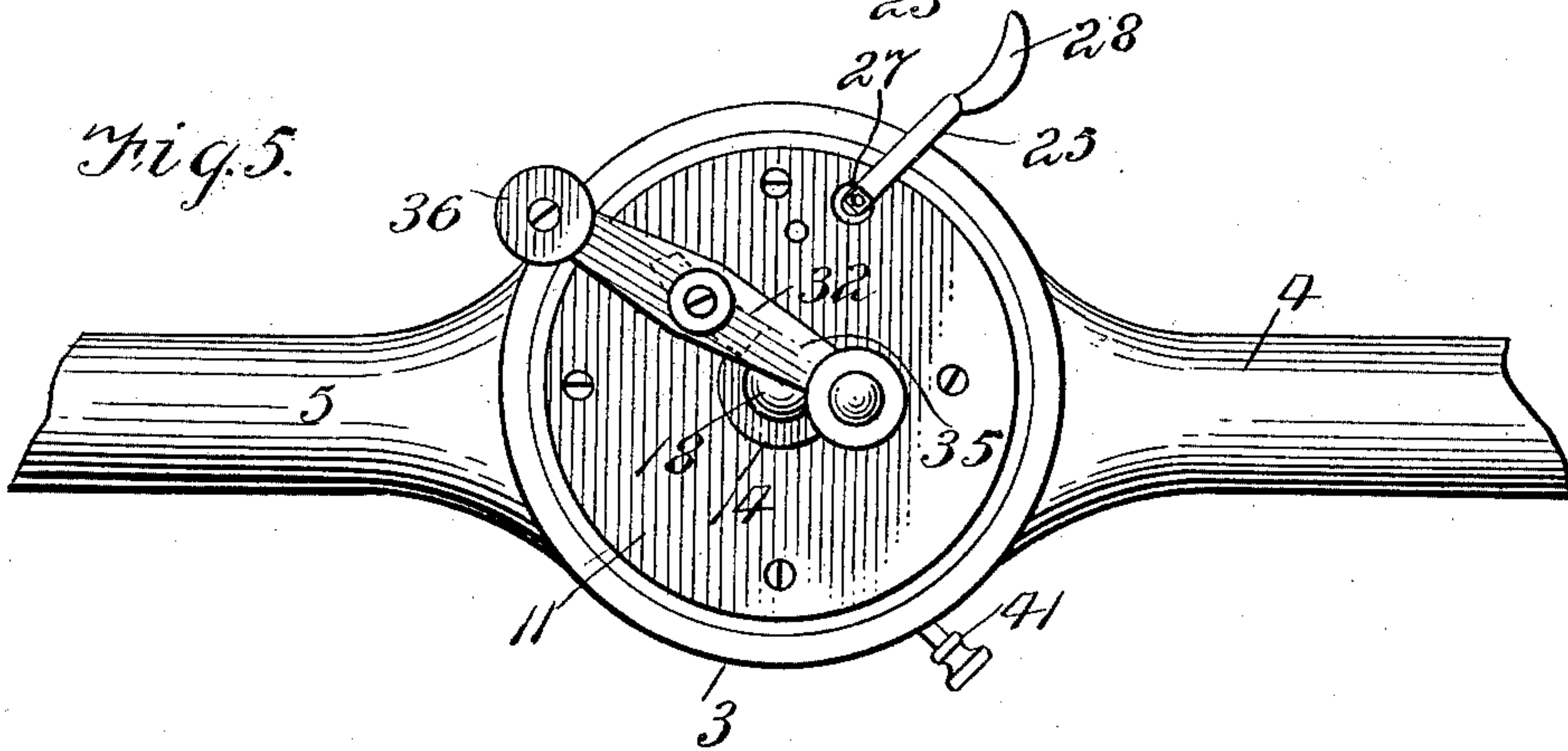
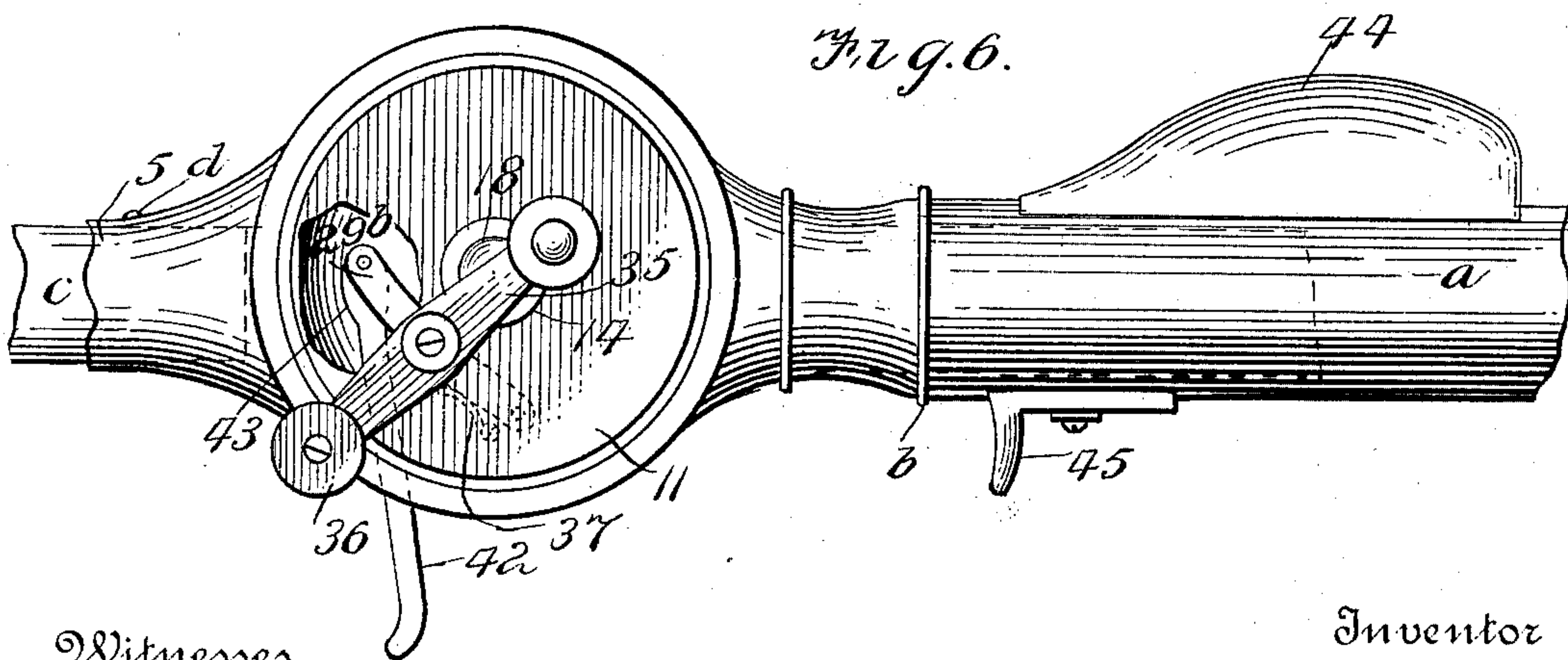


Fig. 6.



Witnesses
G. V. Worthington
G. V. Worthington

Inventor
L. M. Hermance
L. M. Hermance
124 B. J. C. Co. Col
Attorney

UNITED STATES PATENT OFFICE.

LOUIS MOSIER HERMANCÉ, OF POUGHKEEPSIE, NEW YORK.

FISHING-REEL.

SPECIFICATION forming part of Letters Patent No. 756,364, dated April 5, 1904.

Application filed April 11, 1903. Serial No. 152,185. (No model.)

To all whom it may concern:

Be it known that I, LOUIS MOSIER HERMANCÉ, a citizen of the United States, residing at Poughkeepsie, in the county of Dutchess
5 and State of New York, have invented certain new and useful Improvements in Fishing-Reels, of which the following is a specification.

My invention relates to improvements in
10 fishing-reels; and it consists in the peculiar construction and combination of devices hereinafter described and claimed.

One object of my invention is to effect improvements in the construction of the frame
15 which carries the reel.

A further object of my invention is to effect improvements in the construction of the axle and bearings for the reel.

A further object of my invention is to effect improvements in the construction of the
20 brake device for the reel.

A further object of my invention is to effect improvements in the construction of the means for rotating the reel and for disengag-
25 ing the reel so that it is adapted to rotate independently of the rotating means therefor.

A further object of my invention is to provide improved means for throwing the reel into and out of gear at will and for automati-
30 cally acting as a brake on the reel when the latter is out of gear.

In the accompanying drawings, Figure 1 is a side elevation, with parts removed to show interior constructions, of a reel embodying
35 my improvements. Fig. 2 is a transverse sectional view of the same, taken on a plane intersecting the axis of the reel. Fig. 3 is a detail longitudinal sectional view showing the gear for operating the reel and for disengag-
40 ing the same at will. Fig. 4 is a top plan view of my improved reel, partly in section. Fig. 5 is a detail elevation of the same, showing the reverse side from that shown in Fig. 1. Fig. 6 is a detail elevation showing a
45 modification.

The frame 1 of my improved reel in the embodiment thereof here shown is provided with sides 2 3 and is formed at one end with

a projection 4, adapted to be coupled to a rod-section *a*, as at *b*, and is formed at its opposite end with a tubular sleeve or socket 5,
50 adapted to receive the inner end of a rod-section *c*, the same being secured in said sleeve or socket by a screw *d* or other suitable device. The sides 2 3 of the frame are pro-
55 vided, respectively, with alined central circular openings 6 7, the former being screw-threaded.

A cap 8, of circular form, which in practice may be made of rubber or other suitable
60 material, is provided on its inner side with a screw-threaded portion 9, adapted to be screwed into the threaded opening 6 to secure the cap to the side 2 of the frame, the said cap being formed also with a flange 10 to bear
65 on the outer side of the frame. A cap 11 forms a closure for the opening 7 and is here shown as secured on the side 3 of the frame by screws 12. Each of said caps is provided with a central circular opening 13. In the
70 said openings are blocks 14, of cylindrical form, which may be either frictionally or otherwise suitably secured therein, and the said blocks are provided with screw-threaded bores, as shown. Said blocks 14 carry ad-
75 justable bearings 15, which are screws engaged with the threaded bores of said blocks and provided with a plurality of radial openings 16, adapted for the insertion of a pointed instrument, by means of which the said
80 screw-bearings may be turned in the threaded bores of the blocks 14 to adjust the said screw-bearings longitudinally toward or from each other, as may be required. Each of the said screw-bearings has a conical bear-
85 ing-socket 17 at its inner end. The outer portions of the screw-bearings protrude beyond the outer sides of the blocks 14, and on the same are screwed cap-nuts 18, which frictionally engage the outer sides of the blocks 14
90 and coact therewith and with the screw-bearings to lock the latter at any desired adjustment, as will be understood. Each of the said blocks 14 is provided also at a point above the screw-bearing therein with an opening 19,
95 through which oil may be introduced for the

purpose of lubricating the bearings of the axle 20 of the reel 21. The outer ends of the said openings 19 are closed normally by the cap-nuts 18. The ends of the axle 20 are of con-
 5 ical form, and the same are engaged and centered in the bearing-openings 17 at the inner ends of the screw-bearings. By this construction and combination of devices the reel is provided with bearings which create very little
 10 friction when the reel is in rotation, and, moreover, said bearings are adjustable to take up wear and for the purpose of truing the reel, so that it may at all times rotate without wobbling or other irregular motion. It will be understood that by first removing the cap 8,
 15 which may be readily done by unscrewing the cap from the frame, the reel may be readily removed from the latter through the opening 6. The sides or heads of the reel are circular
 20 and of concavo-convex form with their convex sides innermost, and the diameter of the reel-heads is such as to enable them to enter and freely rotate in the openings in the sides of the frame. A click-wheel 22 is screwed on
 25 the axle of the reel, and the click device 23, which coacts therewith, has its bearing in the cap 8. Near the opposite end of the reel-axle is a pinion 24. A brake-lever 25, which is preferably of the form shown, is provided at its
 30 inner end with a substantially spoon-shaped shoe 26, which is adapted to engage the concave side of the reel when the said lever is turned on its axis 27 by pressure of the finger applied to the handle 28. This brake-lever has
 35 its bearing in the cap 8, as shown, and a spring 29^a is secured to the said cap and operates to normally move the brake-lever to such position as to cause its shoe to disengage the reel.

An arm 29 on the inner side of the cap 11
 40 is pivoted at one of its ends thereto, as at 30, and provided with a bearing-sleeve 31, which projects through an opening 32 in said cap, the shape and size of said opening being such as to permit said arm to move pivotally. A
 45 shaft 33 has its bearing in the said sleeve 31 and is provided at its inner end with a spur-gear 34, adapted to engage and disengage the pinion 24, and is provided at its outer end with
 50 a crank 35, having a handle 36, by means of which said wheel may be readily rotated to cause the reel to revolve when said gear 34 is in engagement with the pinion 24. A spring 37 bears against the arm 29, its office being to normally maintain the gear 34 in engagement
 55 with the reel-pinion. For moving said arm 29 to cause the crank-gear to disengage the reel-pinion against the tension of the spring 37 a rod 38 is shown for this purpose, which rod is pivotally attached to the arm 29, as at
 60 39, operates in a guide-opening 40, with which the cap 11 and side 3 of the reel-frame are provided, and is provided at its outer end with a button 41, by means of which it may be readily

moved lengthwise in one direction against the tension of the spring 37 by the pressure of a
 65 finger or thumb.

In the modification shown in Fig. 6 the arm 29^b, which carries the bearing for the crank-gear and also carries the crank, is provided
 70 with a lever-arm 42, by means of which it may be operated, and is provided at its inner end with a substantially spoon-shaped brake-shoe 43, adapted when the gear 34 is entirely
 75 disengaged from the reel-pinion to engage the contiguous head of the reel and serve as a brake to control the rotation of the reel.

The pole-section *a* is provided with a hand-grip 44 on one side and on the other side with an adjustable finger-grip 45.

From the foregoing description, taken in
 80 connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion,
 85 and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

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

1. Apparatus of the class described comprising a frame having sides 2, 3, provided respectively with a threaded opening 6 and an open-
 95 ing 7, a threaded cap 8 to close the opening 6, a cap 11, secured detachably to the side 3 and closing the opening 7, bearings in said caps, a reel journaled in said bearings and removable from the frame through the opening 6,
 100 a brake device for the reel carried by the cap 8, a gear on the reel, adjacent the cap 11, a shiftable element carried by the last-mentioned cap, and a gear mounted in the said
 105 shiftable element, movable by the latter into and out of engagement with the reel-gear, and having a crank by which it may be rotated to revolve the reel.

2. A reel having a pinion, in combination with a movable element having a gear to en-
 110 gage and disengage the pinion, means to operate said gear, and a brake device to operate the movable element, and effective when the pinion is disengaged from the reel-gear, substantially as described.
 115

3. A reel having a pinion, in combination with a movable element, having a gear to en-
 120 gage and disengage the pinion, means to operate said gear, a brake device to operate the movable element, and effective when the pinion is disengaged from the gear, and a spring to counteract the brake device to normally render the latter ineffective and keep the gear in engagement with the reel-pinion.

4. A reel having a pinion, in combination
 125 with a movable element having a gear to en-

gage and disengage the pinion, means to operate the gear, a spring to normally engage the gear with the pinion, and a brake device movable with said movable element into operative position when the gear is disengaged from the pinion.

In testimony whereof I have signed my name

to this specification in presence of two witnesses.

LOUIS MOSIER HERMANCE.

Witnesses:

W. E. HOYSRADT,

L. ALLEN WASHBURN.