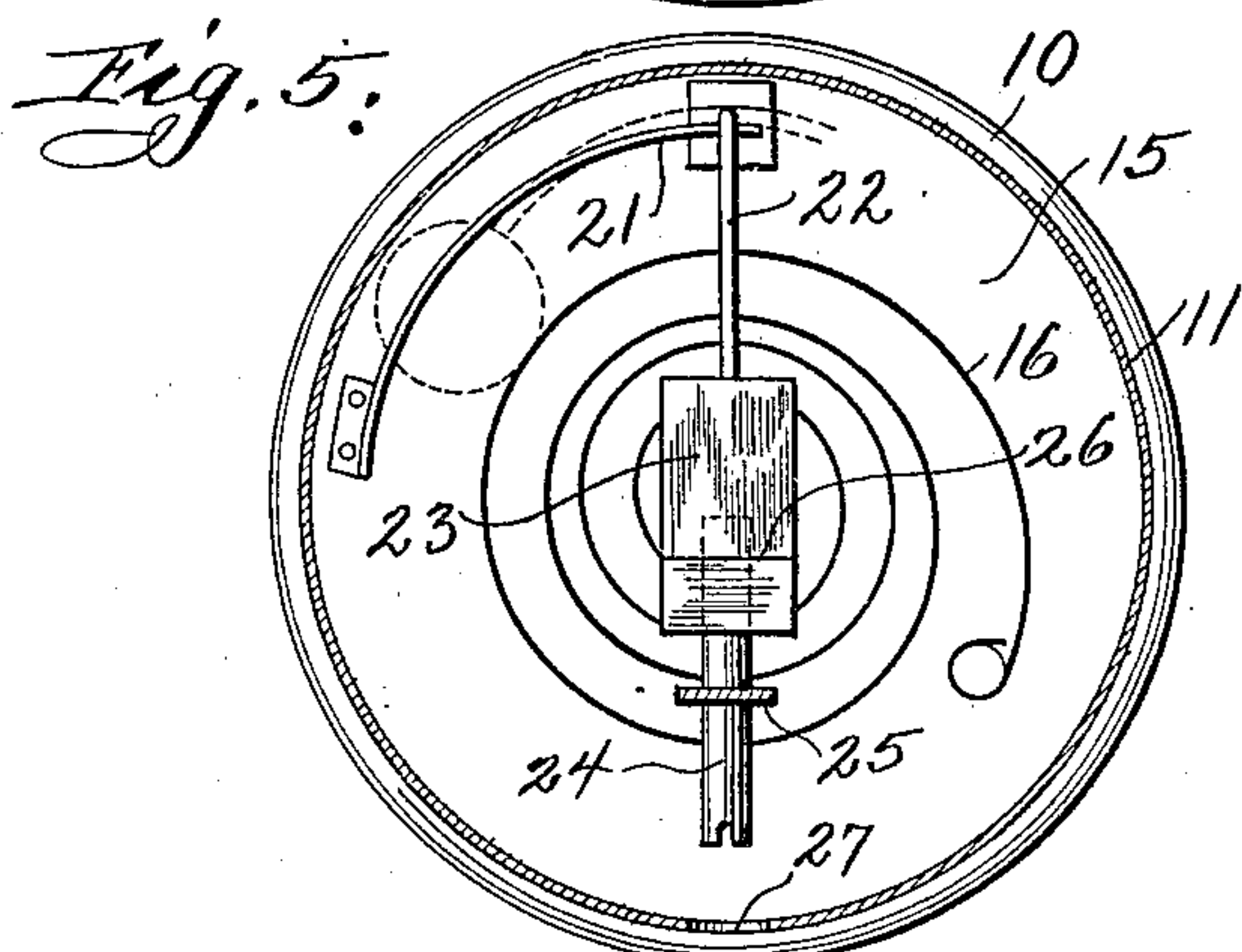
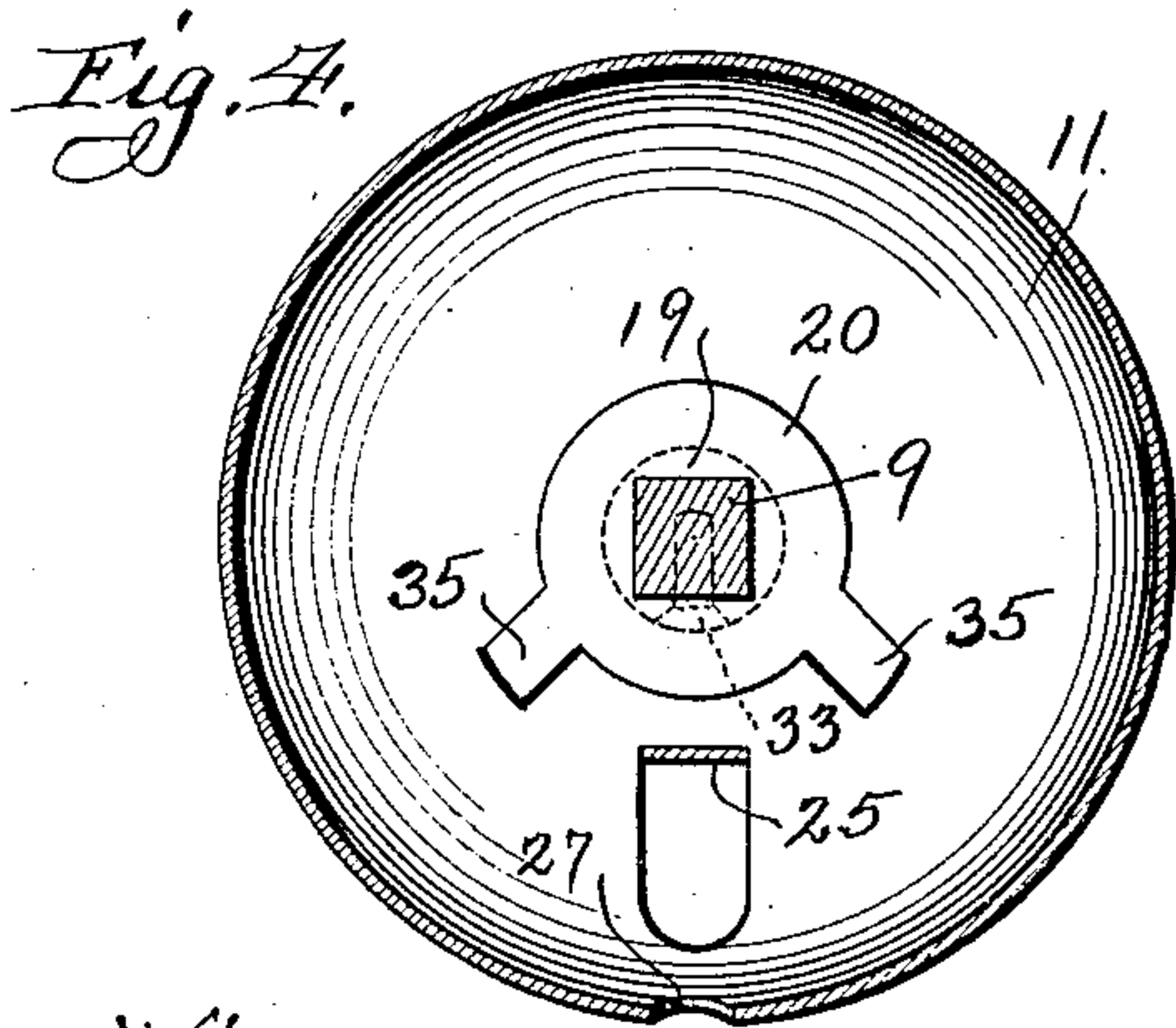
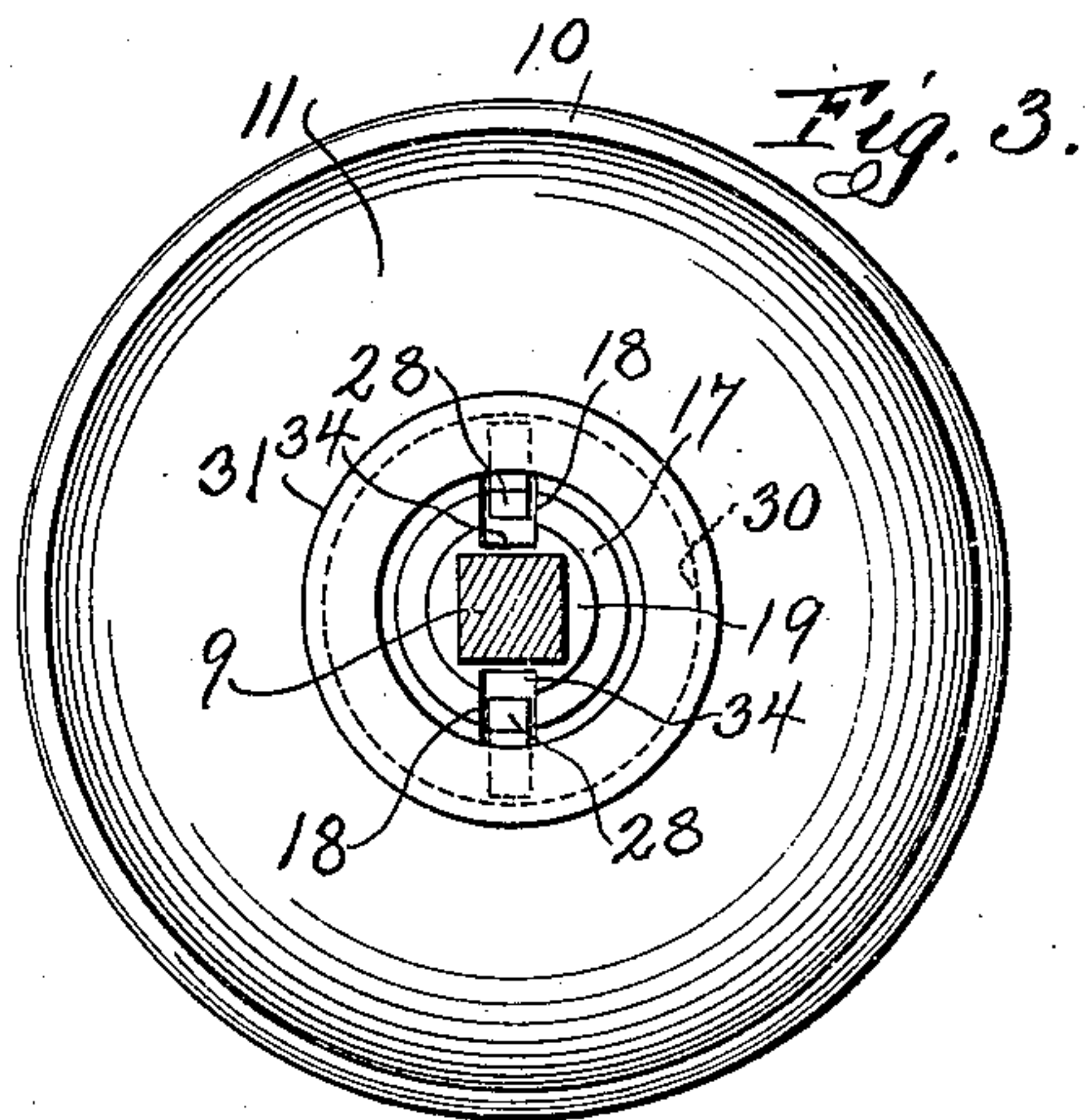
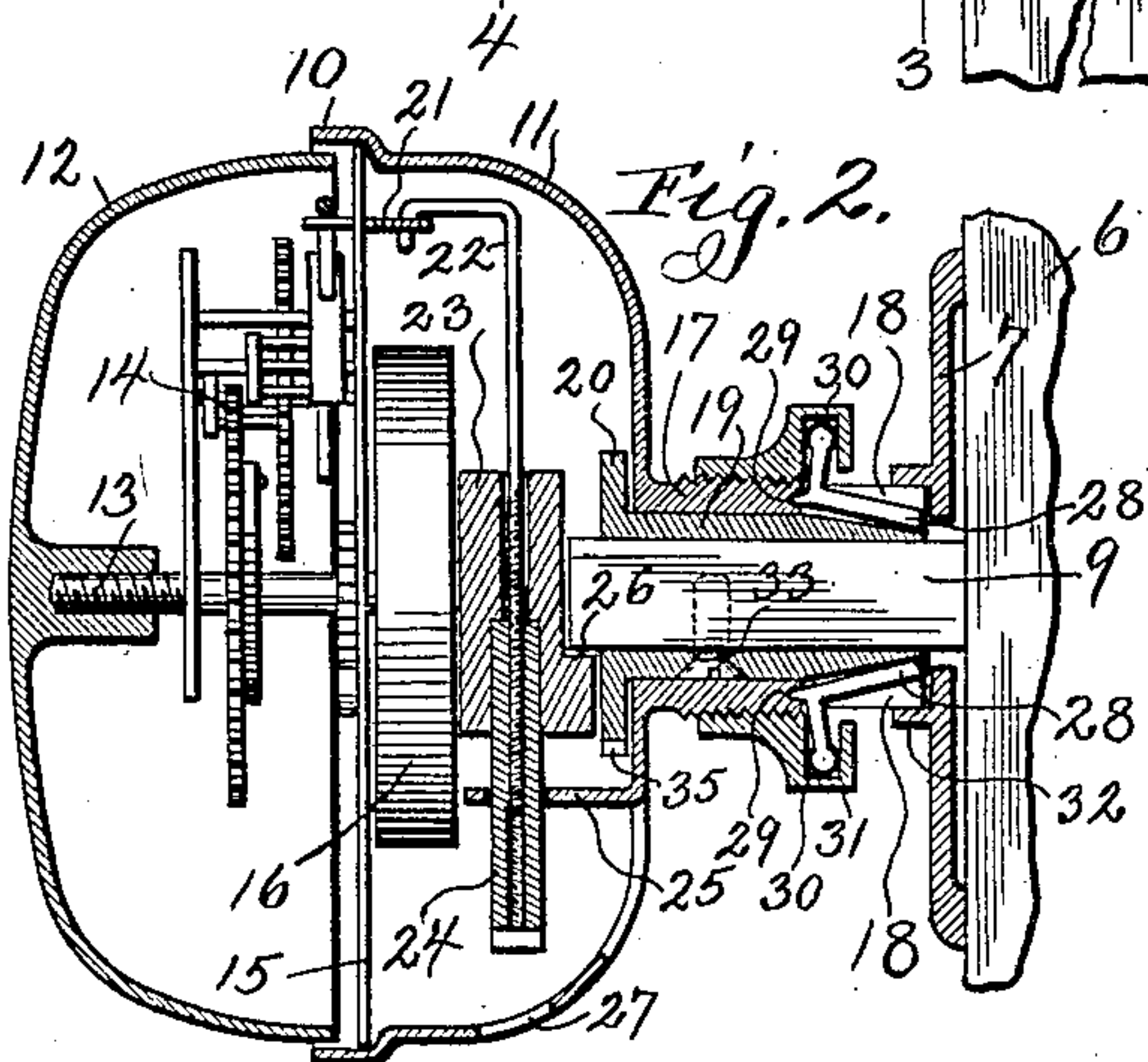
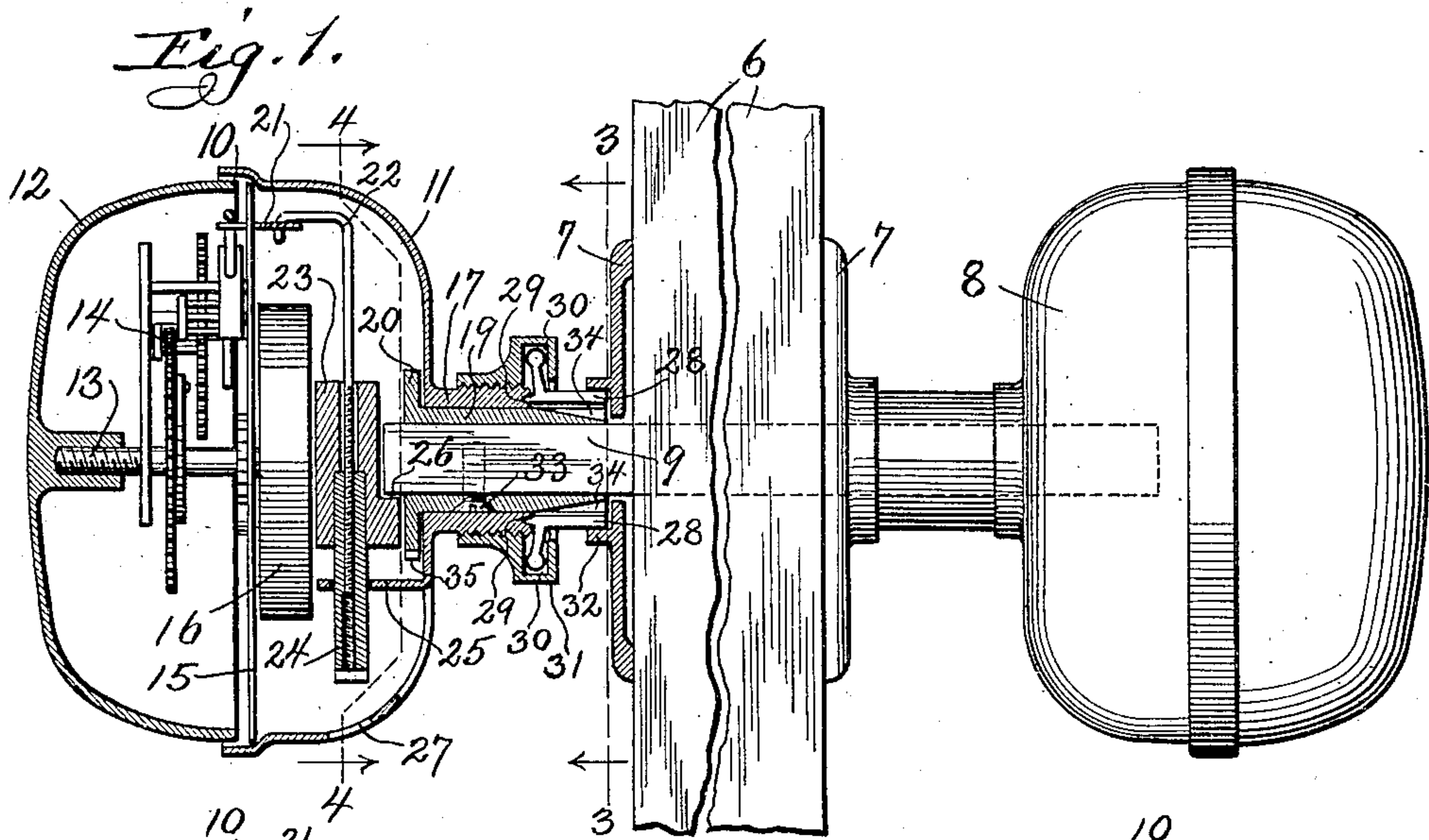


No. 829,880.

PATENTED AUG. 28, 1906.

H. MASKE.  
ALARM KNOB.

APPLICATION FILED JAN. 21, 1905.



Witnesses:  
Fred Schad, Jr;  
A. J. Cross.

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# UNITED STATES PATENT OFFICE.

HENRY MASKE, OF CHICAGO, ILLINOIS.

## ALARM-KNOB.

No. 829,880.

Specification of Letters Patent.

Patented Aug. 28, 1906.

Application filed January 21, 1905. Serial No. 242,193.

*To all whom it may concern:*

Be it known that I, HENRY MASKE, a citizen of the United States, residing at Chicago, county of Cook, and State of Illinois, have invented a new and useful Alarm-Knob, of which the following is a specification.

My invention relates to alarm-knobs which are secured to a door-lock in place of the usual knob and is used for the two purposes of opening the door and sounding an alarm when the outer knob is partly rotated; and the objects of my improvements are, first, to construct the knob so that it can be attached to any door without requiring any fitting; second, to provide a switch for turning the alarm mechanism on or off; third, to arrange the device that it can be used for unlatching the door at all times; fourth, to provide a cheap and durable construction, and other objects to become apparent from the description to follow.

This invention is an improvement on the one forming the subject-matter of my application for patent filed February 15, 1904, Serial No. 123,657.

The present invention is preferred to the former, for the reasons that it comprises a much cheaper and simpler construction, it can be used for opening the door when the alarm is set, a simple arrangement is provided for switching the alarm in or out of service, and the knob can be attached to any lock without drilling or filling any part of the rose or escutcheon on the door or lock.

To more fully describe my invention I have illustrated the same on the accompanying sheet of drawings, forming a part of this specification, in which—

Figure 1 is a fragmental view of a door, showing a knob embodying my invention in central cross-section and the remaining knob in elevation. Fig. 2 is a central sectional view of the knob embodying my invention in a different position. Fig. 3 is a section on line 3 3 of Fig. 1 with the rose omitted. Fig. 4 is a section on 4 4 of Fig. 1 viewed in the direction indicated by the arrows, and Fig. 5 is a section on the same line viewed in the opposite direction.

Similar reference characters refer to similar parts throughout the several views.

The door 6 has secured to either side the roses 7 and the ordinary knob 8, with the square spindle 9 passing through the lock. (Not shown.) The knob 8 is secured to one end of the spindle 9, and the knob 10 is se-

cured to the remaining end, adjacent to the door 6.

The head of the knob 10 is formed of the semispherical shell 11 and the bell 12, which is secured concentrically to the winding-stem 13 of the clockwork 14, which is mounted on the disk or partition 15, which is secured to the shell 11, preferably by screws. The spring 16, which is provided for actuating the bell-hammer, is wound by turning the bell 12.

The shank of the knob 10 comprises the preferably integral sleeve 17, screw-threaded on the exterior and provided with the longitudinal slots 18 in its end remote from the shell 11.

Fitted within the sleeve 17 is a sleeve 19, having a longitudinal concentric square opening to receive the spindle 9 and provided on its end within the shell 11 with a collar or radial extension 20 to limit its longitudinal movement in one direction in the sleeve 17. The sleeve 19 is free to rotate in the sleeve 17, unless locked against such rotation by mechanism to be described.

The bell-hammer is normally prevented from being vibrated by the clockwork 14 by a leaf-spring 21, secured to the partition 15, and as soon as the leaf-spring 21 is depressed the hammer will be free to vibrate and sound the alarm.

To cause the spring 21 to be depressed by a slight rotation of the knob 8, one end of a rod or wire 22 is hooked or otherwise secured to the spring 21. The remaining end of the rod 22 is screw-threaded and passes through a perforation in a sliding block 23 and coöperates with the threaded hole of a long nut 24, made in the shape of a bearing-pin to guide said rod 22. The nut or pin 24 extends part way into a perforation in the block 23, and a part of it extends out from said block, which is guided in a perforation provided in an ear or lug 25, extending from the shell 11. The block 23 is provided with an offset or shoulder 26, against which the corners of the spindle 9 are arranged to press when said spindle is turned. Thus it will be seen if the knob 8, which is secured to spindle 9, is turned while the knob 10 is held still one of two corners of the spindle 9 will press against the shoulder 26 and depress the spring 21 by means of its connection through the wire 22 and block 23. The wire 22 may be rigidly secured to the block 23 or may itself be depressed by the turning of the spindle 9; but I



prefer to make some means of adjustment between the spring 21 and shoulder 26, as shown. The shell 11 is provided with the perforation 27 to permit access to the nut or pin 24 for adjusting the same.

To prevent the knob 10 from turning with the sleeve 19 on the spindle 9 when said spindle is rotated, the small bell-crank levers 28 are fitted in the slots 18 to pivot or rock about the points 29, which rest in sockets provided therefor in the sleeve 17. One end of each bell-crank lever extends radially out of its slot 18 and into a circumferential slot 30, provided on the inner face of a nut 31, threaded to fit on the screw-threads provided on the exterior of the sleeve 17. The remaining end of each bell-crank lever extends longitudinally in its slot 18 and terminates flush with the ends of sleeves 17 and 19. The collar or flange 32, which is integral with the rose 7, surrounds the ends of the sleeves 17 and 19, so that when the nut 31 is turned to travel away from said collar 32 the bell-crank levers 28 will be rocked about the points 29, and their ends adjacent the rose 7 will be pressed radially outward against the inner surface of the collar 32, which will cause a greater degree of friction than there is on the contacting surfaces between the sleeve 17 and sleeve 19. Thus when the knob 8 is turned the sleeve 19 will turn within the sleeve 17 and depress the spring 21. A screw 33 is provided to rigidly secure the sleeve 19 to the spindle 9.

To switch or move the parts to throw the alarm out of service, the sleeves 17 and 19 must be locked together, and to accomplish this I provide in the end of the sleeve 19 adjacent the rose 7 two radial slots 34 of a size to receive the ends of the bell-crank levers 28. It will be understood that if now the nut 31 is turned to move toward the rose 7 the bell-crank levers 28 will be rocked about the points 29, so as to move their ends adjacent to the rose 7 away from the collar 32 out of the slots 18 in the sleeves 17 and into the slots 34 in sleeve 19, thus causing the sleeves 17 and 19 to rotate together.

While the mechanism is in position so that the alarm will be sounded, when the knob 8 is turned—i. e., with the bell-crank levers 28 bearing against the collar 32—the knob 10 may, by using slight force, be turned to unlatch the door. The force required to do this is only sufficient to cause the bell-crank levers 28 to slide on the collar 32. The friction between the sleeves 17 and 19 may not be sufficient to unlatch the door, so I provide the extensions or lugs 35 on the flange 20 of the sleeve 19 to be contacted by the bracket 25 on the shell 11 when the knob 10 is sufficiently turned, and thus unlatch the door by turning the spindle 9.

I have illustrated and described a construction which I at present consider the best, and

I do not wish to be understood to limit myself to the exact interpretation of the appended claims, but only so far as is necessitated by the prior state of the art.

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

1. In an alarm-knob, an alarm normally held out of action, a sleeve integral with said knob, a square spindle, an inner sleeve mounted to rotate within said sleeve provided with a longitudinal aperture to receive said square spindle, means for securing said second-named sleeve to said spindle, and adjustable means provided between said spindle and said alarm comprising a screw-threaded portion whereby said alarm is allowed to act by the rotation of said spindle.

2. In an alarm-knob, an alarm normally held out of action, a sleeve integral with said knob, a knob-spindle, an inner sleeve mounted to rotate within said sleeve and secured to said knob-spindle, means between said spindle and said alarm whereby said alarm is allowed to act by a partial rotation of said spindle and means for locking said two sleeves together comprising a bell-crank lever coöperating with slots provided in said sleeves, and a nut for operating said bell-crank lever.

3. In an alarm-knob, a knob, a knob-spindle, an inner sleeve secured to said knob-spindle, an outer sleeve secured to said knob, an alarm normally held out of action, means between said alarm and said inner sleeve whereby said alarm is allowed to act by a partial rotation of said inner sleeve, a collar secured to the door, and means having two positions, one position locking said two sleeves together and the other position frictionally locking said outer sleeve to said collar, by pressing a member tightly against said collar by means of a screw-thread on said outer sleeve.

4. In an alarm-knob, a knob, a trip-bar, an alarm normally held out of action by said trip-bar, a sleeve integral with said knob, a door-lock spindle mounted to rotate within said sleeve, said trip-bar forming the connection between the end of said spindle and said alarm, means for adjusting said trip-bar comprising a screw, means for locking said sleeve to said spindle and locking said sleeve to the door.

5. In an alarm-knob, a spring-pressed arm, an alarm normally held out of action by said spring-pressed arm, a sleeve integral with said knob, an inner sleeve mounted to rotate within said sleeve, a knob-spindle, means for securing said second-named sleeve to said spindle, one end of said spindle extending into the alarm-knob provided with a flattened portion, a block having a flattened portion resting against the flattened portion of said spindle end and a rod having one end se-



cured to said spring-pressed arm and its other end adjustably secured in said block.

5 6. In an alarm-knob, a knob, a trip-bar having a threaded end, an alarm normally held out of action by said trip-bar, a sleeve  
10 integral with said knob, a door-knob spindle mounted to rotate within said sleeve having one end terminating near said trip-bar provided with a flattened portion, a block hav-  
ing a flattened portion resting against the flattened portion of said spindle, a threaded nut swiveled in said block and the threaded  
15 end of said trip-bar engaging the threads of said nut.

20 7. In an alarm-knob, a knob, a knob-spindle, an alarm normally held out of action, an outer sleeve provided with a longitudinal slot and an exterior screw-thread integral with said knob, an inner sleeve provided with a  
longitudinal slot mounted to rotate within  
said sleeve and secured to said knob-spindle,  
means between said spindle and said alarm

whereby said alarm is permitted to act by a partial rotation of said spindle, a bell-crank lever pivoted on said outer sleeve having one  
25 arm extending in the slot of said outer sleeve and one arm extending radially outward from said sleeve and a nut on the threaded exterior of the outer sleeve provided with an  
30 internal circumferential groove into which one arm of said bell-crank lever extends, whereby the rotation of said nut will force the end of one arm of said bell-crank lever into the slot of the inner sleeve locking the  
35 said two sleeves together.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 12th day of January, 1905, at Chicago, Illinois.

HENRY MASKE.

Witnesses:

THOMAS MILLS,  
R. J. JACKER.