

C. W. CANINE.  
INDICATING MECHANISM.  
APPLICATION FILED APR. 20, 1908.

927,636.

Patented July 13, 1909.

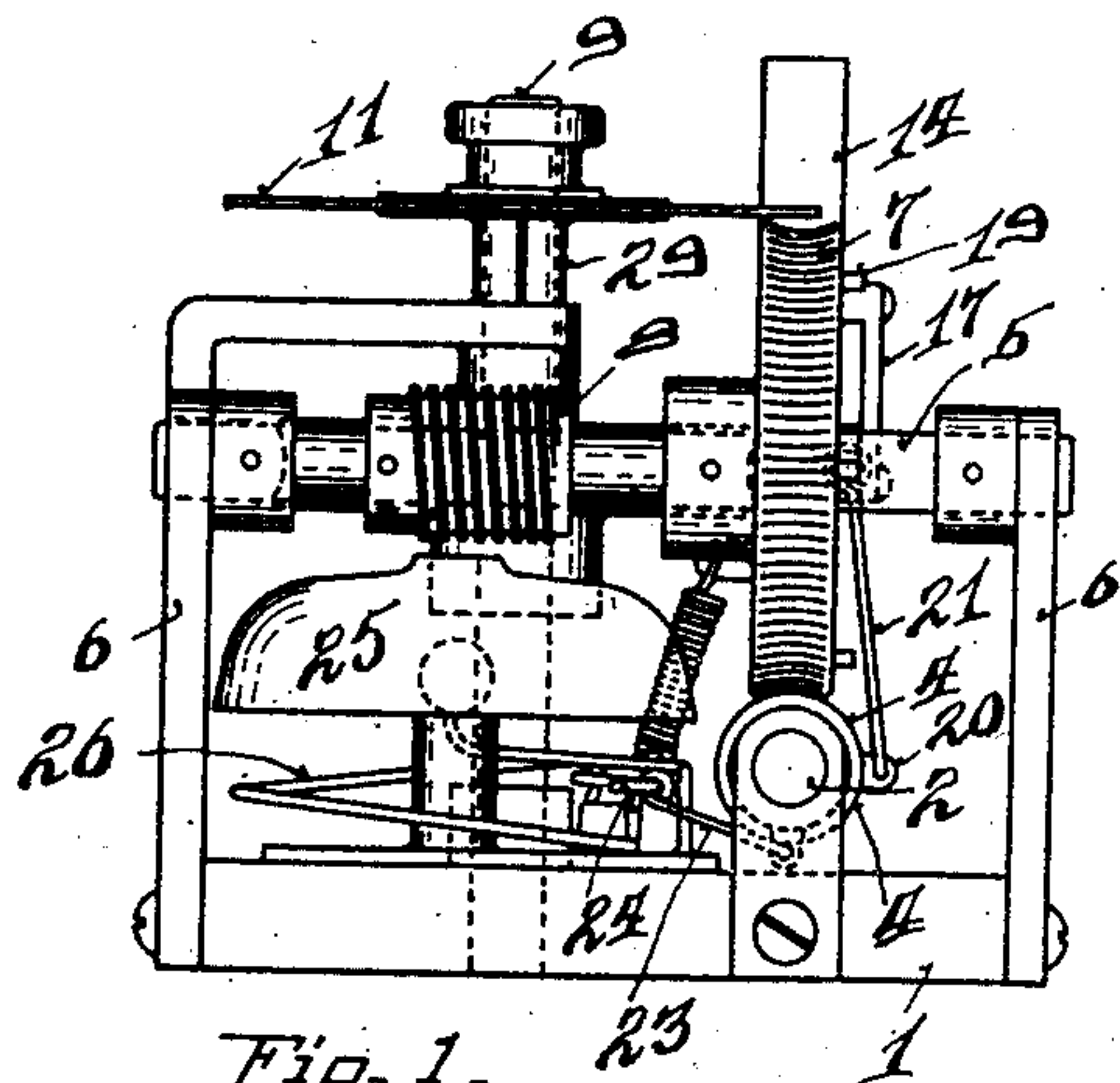


Fig. 1.

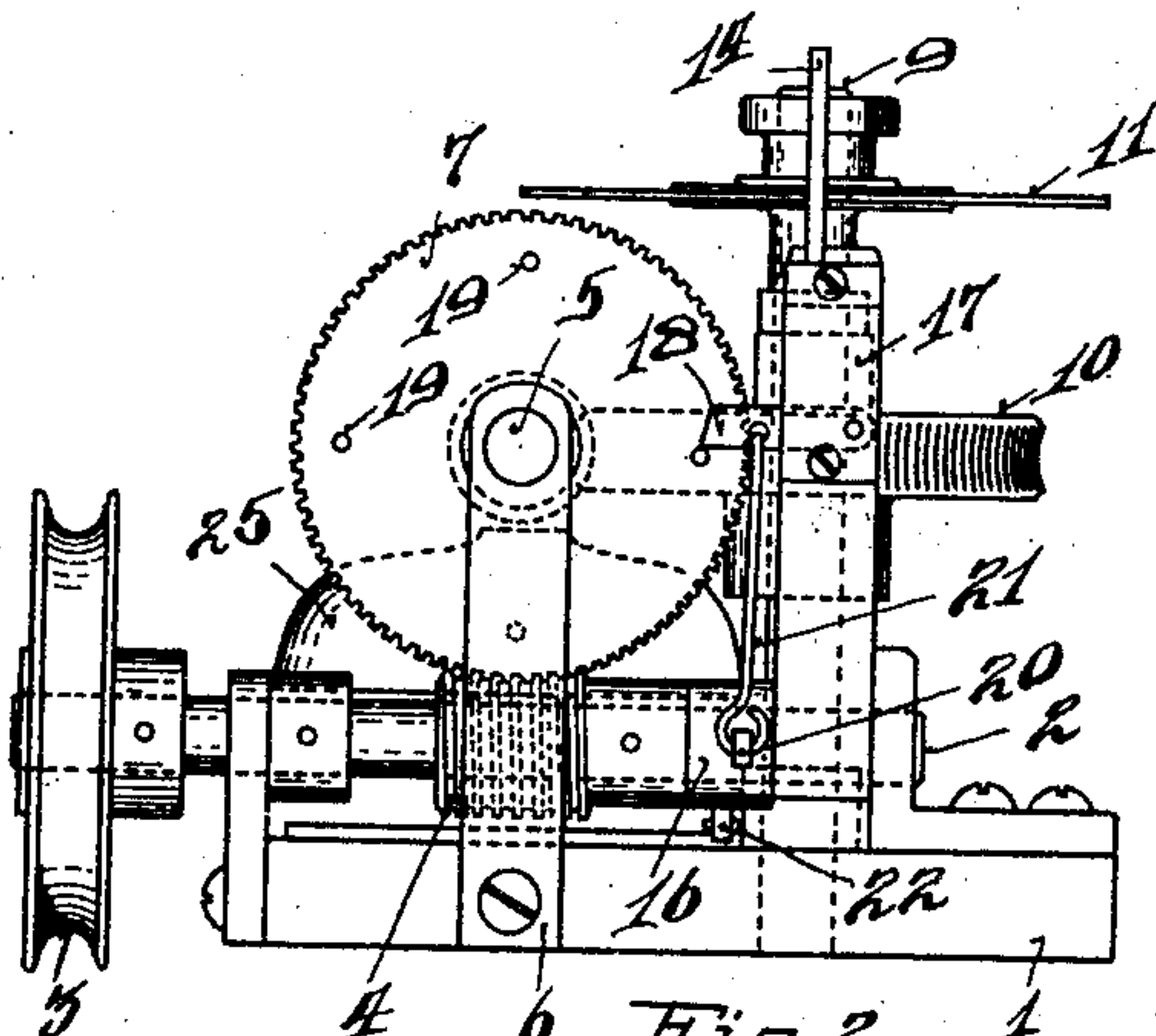


Fig. 2.

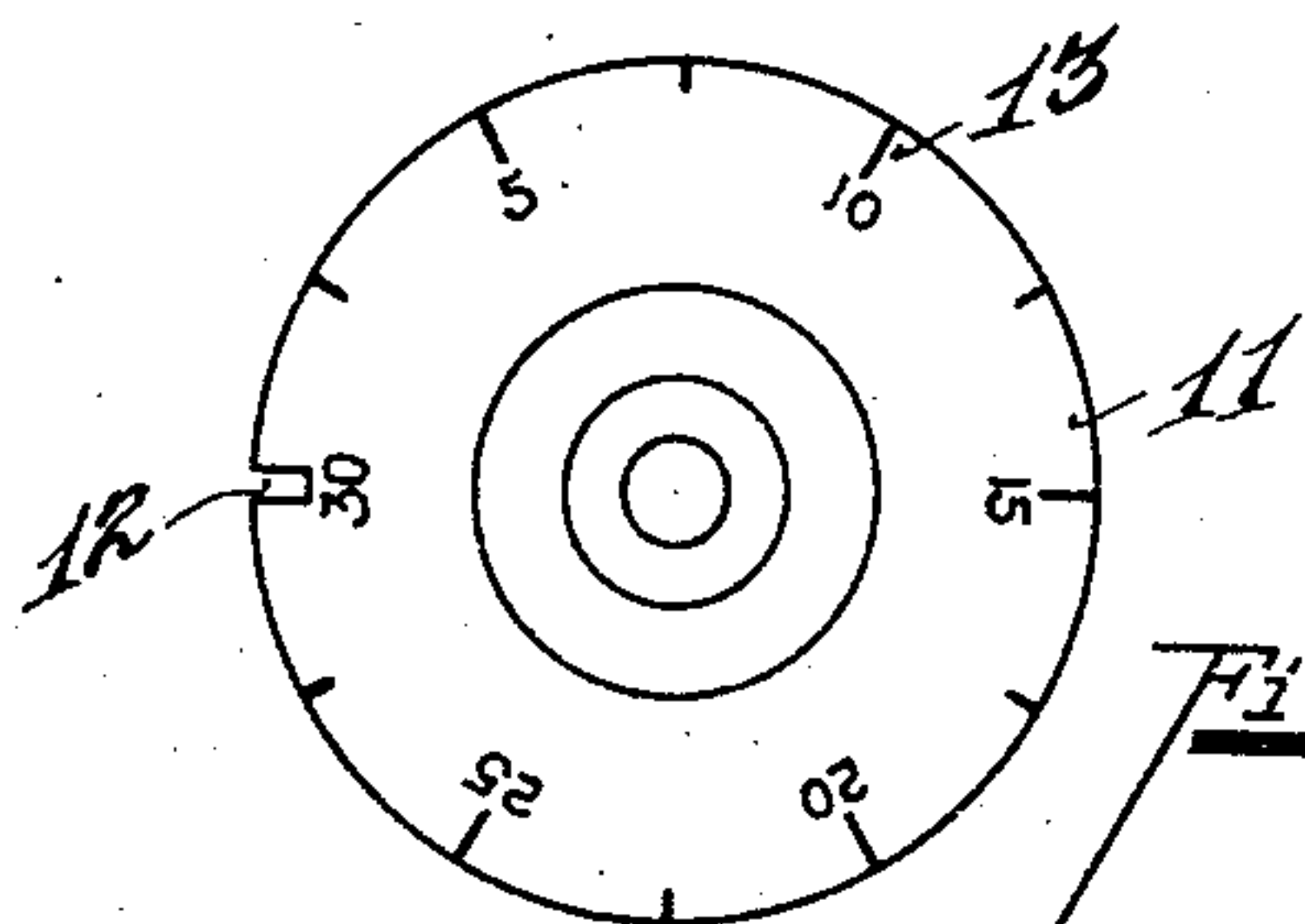


Fig. 5.

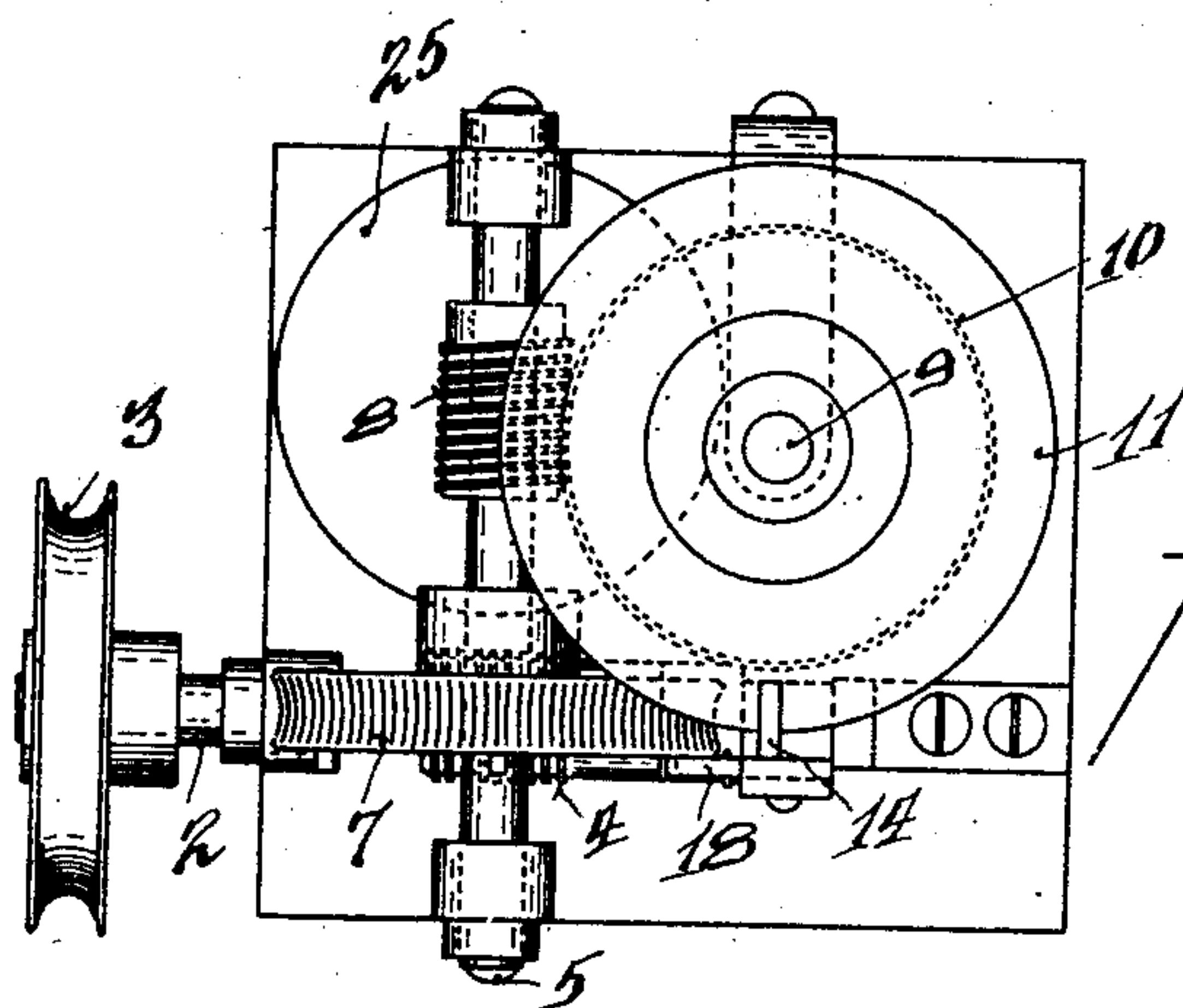


Fig. 4.

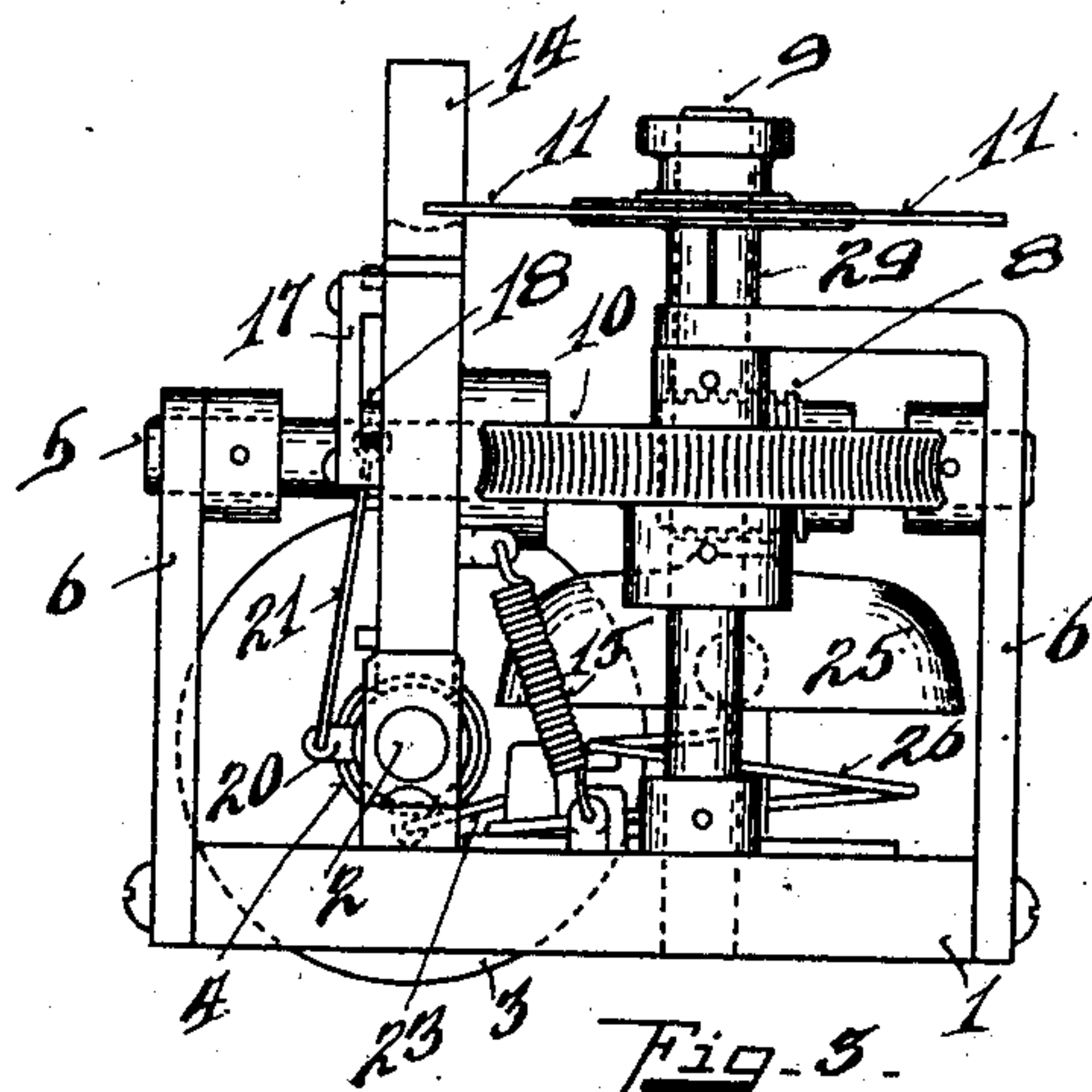


Fig. 3.

Inventor

Witnesses

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# UNITED STATES PATENT OFFICE.

CHESTER W. CANINE, OF CINCINNATI, OHIO.

## INDICATING MECHANISM.

No. 927,636.

Specification of Letters Patent.

Patented July 13, 1909.

Application filed April 20, 1903. Serial No. 428,016.

*To all whom it may concern:*

Be it known that I, CHESTER W. CANINE, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Indicating Mechanism, of which the following is a specification.

My invention relates to an indicating mechanism.

The object of the invention is to produce an attachment to be used in connection with machines which will automatically actuate a signal at the end of the operation, and continue to actuate the signal until the operator stops the machine. Such a machine is useful in numerous classes of work, for instance, with washing machines, extractors, etc. In such a machine some fabrics require a treatment of, say, ten minutes, while others require a treatment of thirty minutes. The dial is set for the selected period of operation and the machine started; at the end of the set time the signal sounds and notifies the operator or the foreman that the work is completed.

The mechanism of my attachment is in driven connection with the mechanism of the machine, so that the signal is mechanically accurate.

The features of my invention will be more fully set forth in the description of the accompanying drawings, forming a part of this specification, in which:—

Figure 1 is an end elevation of my device. Fig. 2 is a front elevation of my device. Fig. 3 is an end elevation of the same from the opposite side to that of Fig. 1. Fig. 4 is a top plan view of the same. Fig. 5 is a plan view of the dial.

1 is the supporting frame. 2 is the driving shaft having bearings therein.

3 is the driving wheel taking power through a suitable transmitter from a wheel on the countershaft, or other suitable rotary member, of the machine to be operated.

The time indicating function of the device is dependent upon the condition that the wheel 3 be driven a predetermined number of rotations per minute. This can be effected by a properly figured transmission mechanism from the machine to be indicated. The machines to be most commonly used as contemplated, are for instance, extractors, which when working at proper efficiency has a uniform speed.

As shown, the worm mechanism is rotated

so that when the wheel 3 has one hundred and fifty rotations per minute, the half-hour dial will rotate once every thirty minutes. The dial may be used to indicate the subdivisions of a greater period, say, an hour, by appropriate change in the rate of rotation of wheel 3.

4 is a worm on shaft 2.

5 is a shaft transverse to shaft 2, having bearings in upright pillars 6.

7 is a worm wheel on shaft 5 driven by worm 4.

8 is a worm on shaft 5.

9 is a shaft transverse to shaft 5, having a worm wheel 10 driven by worm 8. Shaft 9 is the final or driven shaft, upon the upper end of which is a dial 11, having a notch and time indications 13, see Fig. 5. As shown, the dial is graduated to show five minutes and multiples thereof up to 30.

14 is an arm pivoted upon shaft 2, in a plane parallel to shaft 9, a spring 15 drawing the arm normally inward so that its upper end bears against the periphery of disk 11.

16 is a rock-collar pivoted on shaft 2.

17 is a bracket on arm 14 upon which is pivoted a finger 18, extending opposite to the side of the periphery of worm wheel 7 in position to be engaged and lifted by the pins attached to the outside of the periphery of worm wheel 7.

20 is an arm on collar 16 connected by wire 21 to finger 18. 22 is an arm on the other side of collar 16 connected by wire 23 with the clapper 24 of bell 25, the clapper spring 26 exerting strain on rock collar 16 tending to pull finger 18 downwardly. Disk 11 has a split sleeve 29 engaging frictionally on the end of shaft 9, the friction being sufficient to rotate the disk with the shaft but allowing the shaft to rotate in the sleeve when the disk is held stationary by finger 18.

In operation the dial is set for the selected time, the number of the selected period, say, five minutes being placed adjacent to the arm 14. When the machine is operated the dial will be slowly rotated through the worm mechanism, the arm 14 being held in its outward position by the periphery of dial 11, the finger 18 is held outside of the line of movement of pins 19, at the end of the five minutes the notch 12 will have arrived opposite to the arm 18 and the arm will be drawn by spring 15 into the said notch, thus bringing finger 18 opposite the pin 19; as each pin passes the finger it will lift the finger and re-



lease it with a snap which operates the bell or signal through the connecting mechanism of the rock collar, the bell will thus continue to ring at regular intervals until the operator  
5 responds to the signal and stops the machine or gives the attention required.

This attachment is applicable in connection with any machine which does a given work in a certain time. It is a labor saver,  
10 avoiding time losses, and enabling the foreman to keep accurate tab on each machine in his department. It is thus insured that the full efficiency of each machine shall be obtained.

15 Having described my invention, I claim:—  
In a device of the class described, a driving and a driven shaft, speed reducing transmis-

sion mechanism connecting them, a notched disk frictionally engaging the driven shaft to normally rotate therewith, a pivoted spring  
20 actuated lever adapted to engage the periphery of the disk and enter the notch, and signal mechanism adapted to be operated by the rotary mechanism while the lever holds the disk against movement by its engage-  
25 ment with the slot, substantially as described.

In testimony whereof, I have hereunto set my hand.

CHESTER W. CANINE.

Witnesses:

LEO J. O'DONNELL,  
LOUISE BECK.