

J. DAWSON.

GEARING.

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903,546.

Patented Nov. 10, 1908.

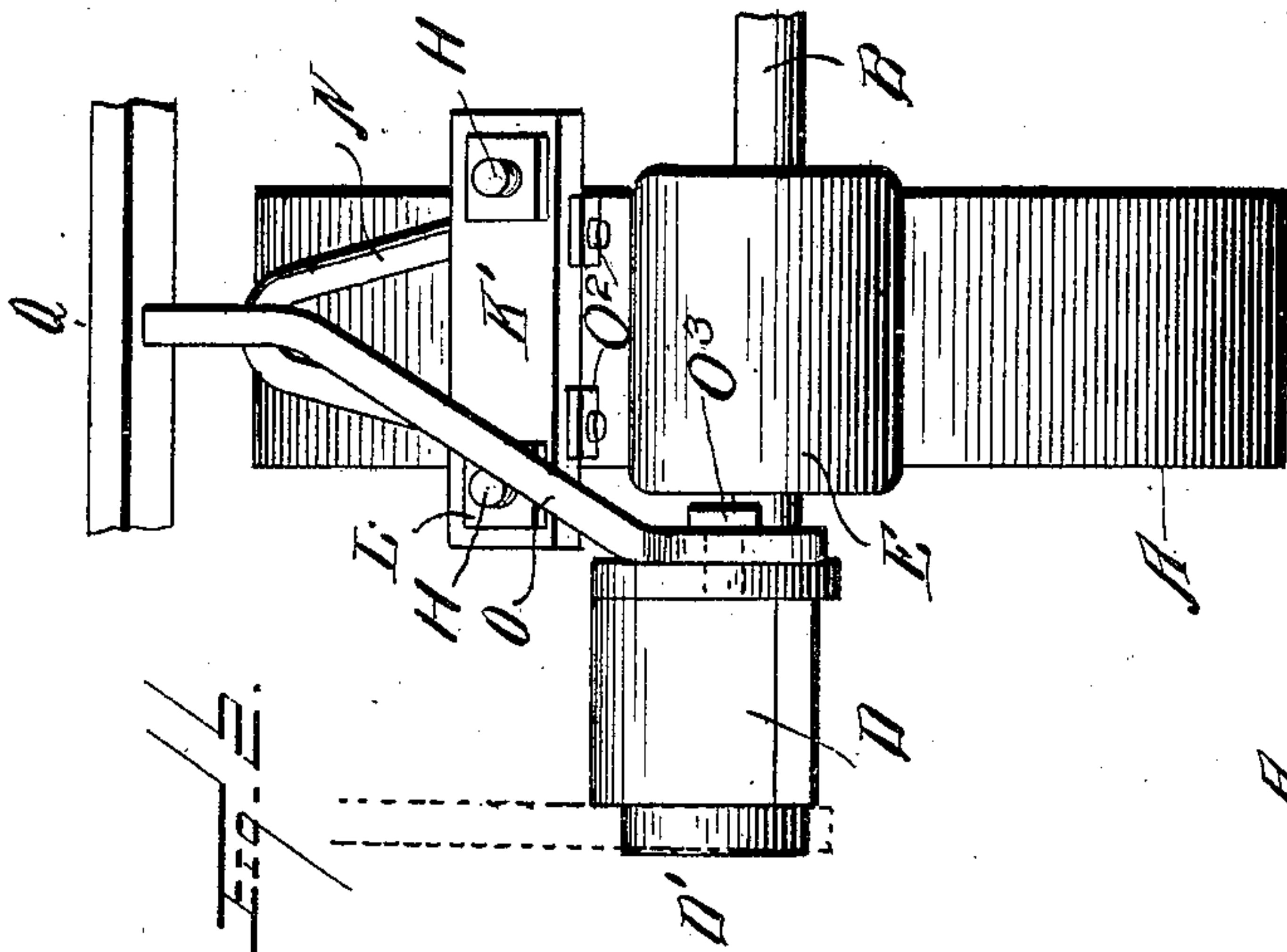


Fig. 1.

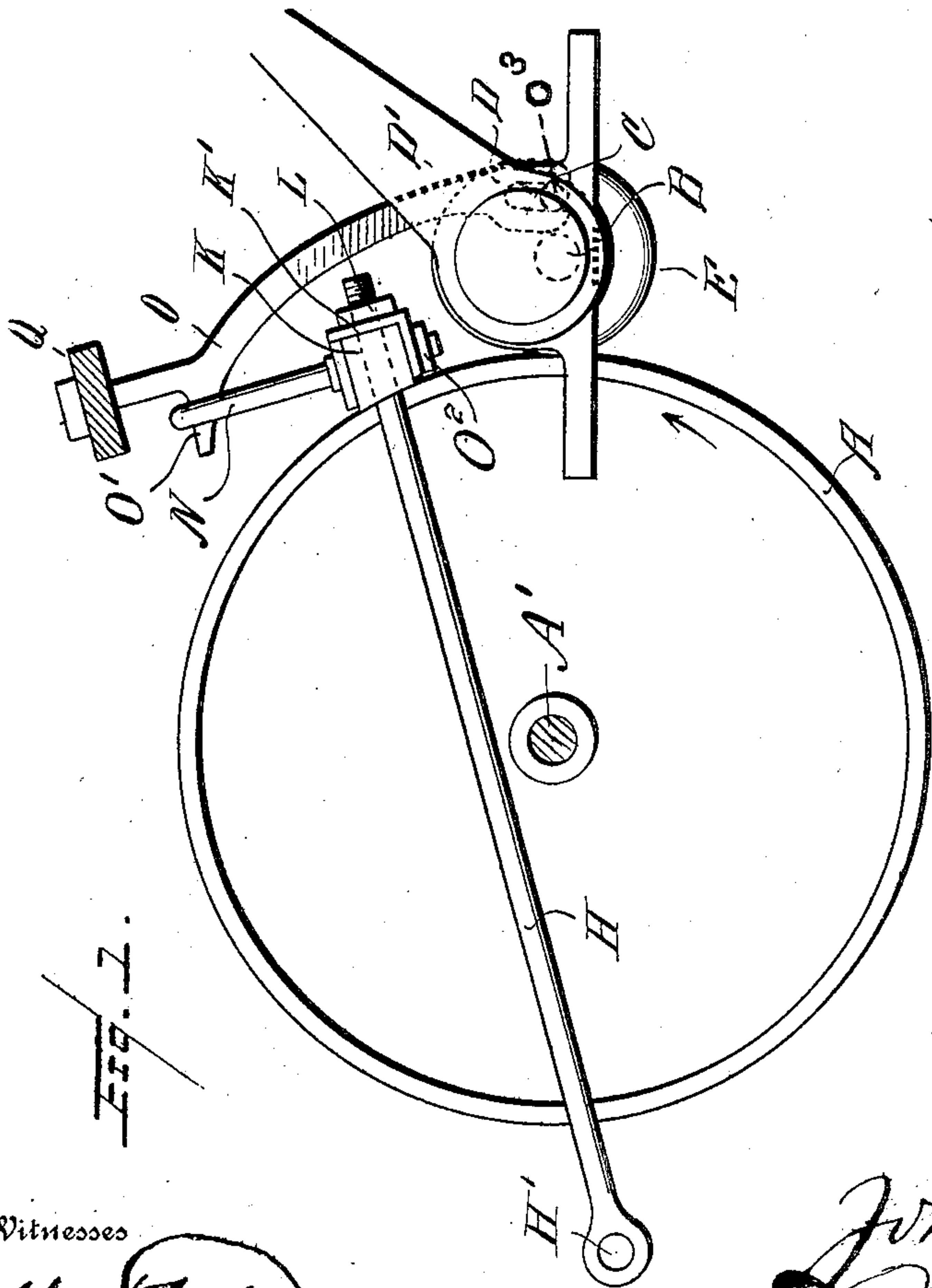


Fig. 2.

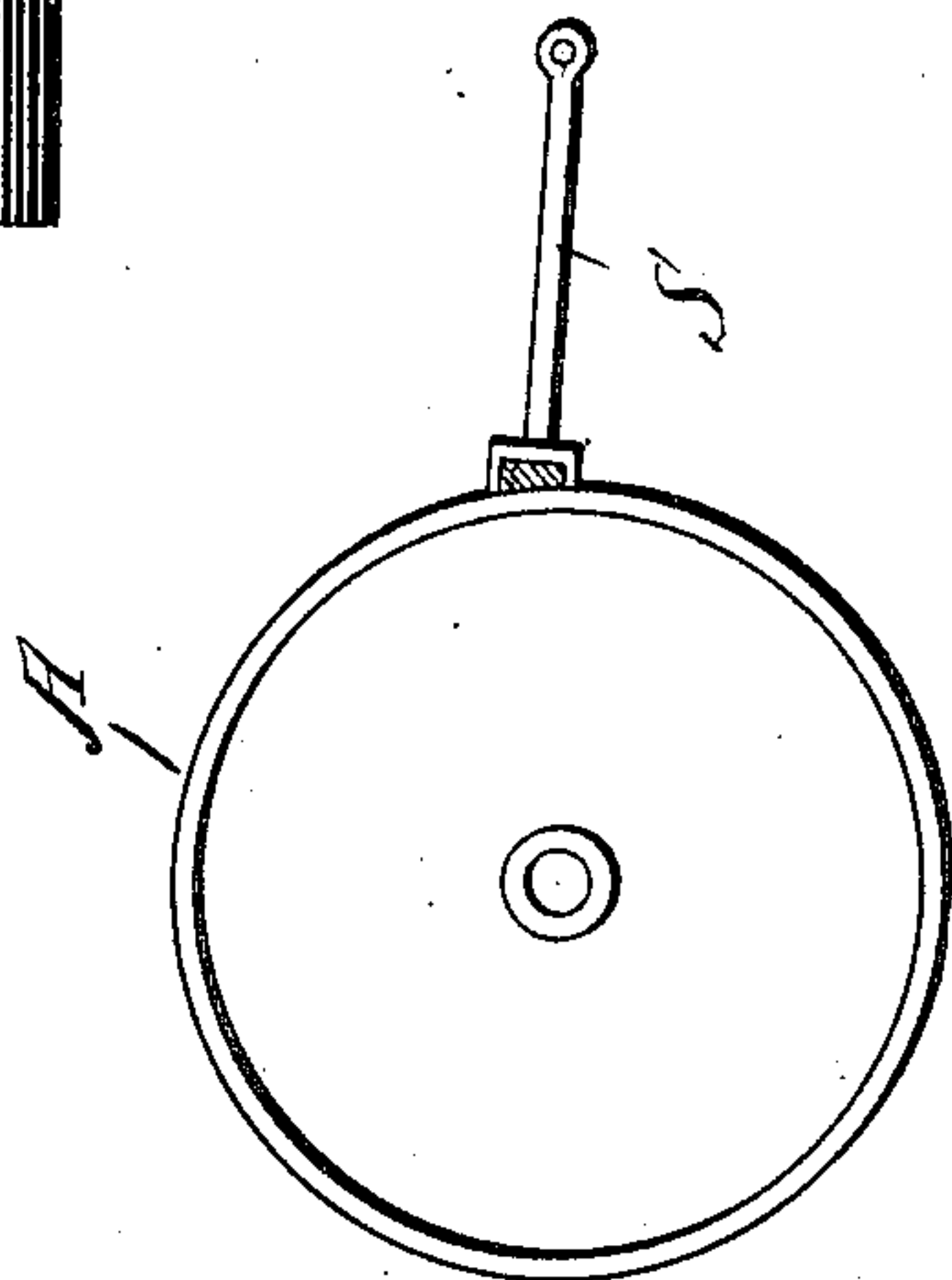


Fig. 3.

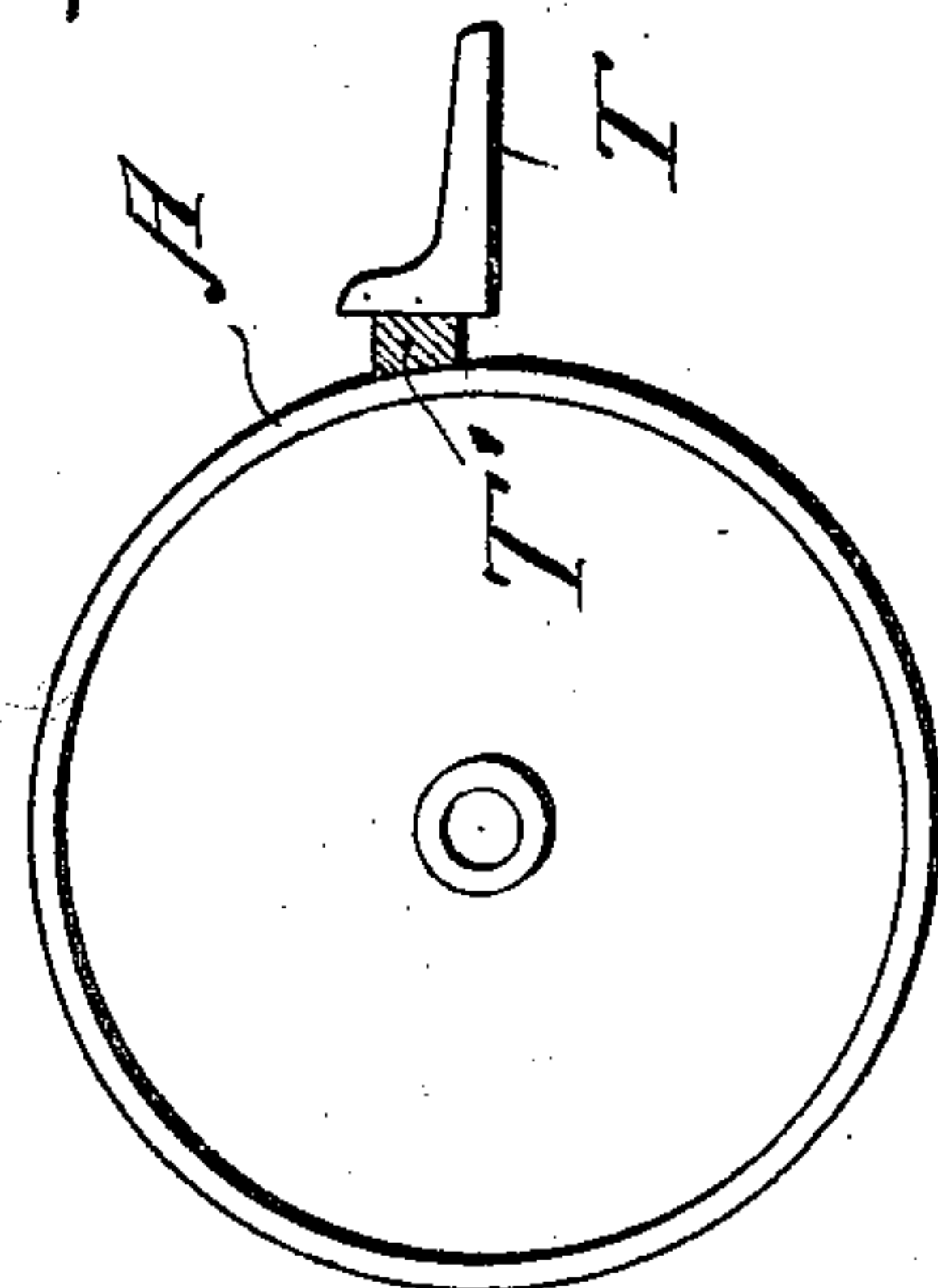


Fig. 4.

Witnesses

*Wm. F. Royce*  
*a s. s.*

Inventor

*John Dawson*  
*Franklin H. Hough*  
Attorney



# UNITED STATES PATENT OFFICE.

JOHN DAWSON, OF PARMA, MISSOURI.

## GEARING.

No. 903,546.

Specification of Letters Patent.

Patented Nov. 10, 1908.

Application filed June 26, 1908. Serial No. 440,540.

*To all whom it may concern:*

Be it known that I, JOHN DAWSON, a citizen of the United States, residing at Parma, in the county of New Madrid and State of Missouri, have invented certain new and useful Improvements in Gearing; 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in friction hoist mechanism and brake therefor and comprises various details of construction, combinations and arrangements of parts which will be hereinafter fully described and then specifically defined in the appended claims.

I illustrate my invention in the accompanying drawings, in which:—

Figure 1 is an end view of a frictional driven drum and driving mechanism in elevation. Fig. 2 is an edge view, and Figs. 3 and 4 are detail views showing modified forms of the brake apparatus.

Reference now being had to the details of the drawings by letter, A designates a frictionally driven wheel fixed to the shaft A' and on which shaft a winding drum, not shown, is adapted to be mounted. B is a shaft journaled in the eccentric C, which latter is adjustably held within the eccentric boxing D. A lever D' is adapted to be held to said eccentric and affords means whereby the eccentric may be shifted.

E is a friction wheel fixed to the shaft B designed to be driven by any suitable pulley connection not shown. Rods H are fastened at corresponding ends, which have the eyes H', to the frame of the apparatus and one of said rods is positioned on either side of the wheel A. A brake shoe K is mounted upon the threaded ends of the rod H and is held in place by means of the angled iron K' and a nut L is mounted upon the threaded end of each rod H and is adapted to bear against the angled plate K'.

O designates a bar having a lug O' projecting therefrom and upon which the bar N which is bent to form a loop is hung, the ends of said bar N passing through the angled plate and held in place thereon by

the nuts O<sup>2</sup> which have connection with the threaded ends of the bar N. The upper end of the bar O passes through an aperture in a cross-piece Q of the frame of the apparatus. The lower end of the bar O is forked and is adapted to straddle a cap screw of pin O<sup>3</sup> mounted in the end of the eccentric.

In Figs. 3 and 4 of the drawings, I have shown different methods of applying pressure to the brake, in one of which (Fig. 3), instead of using the rods H, a stationary block T is provided which, with the face of the wheel A, forms a wedge-shaped opening in which the brake shoe T' works. In Fig. 4 of the drawings, the bar S is adapted to be fastened to the frame in an opposite direction from that shown in Fig. 1 and adapted to be so arranged as to work automatically as in the first form described.

From the foregoing, it will be noted that the wheel A is allowed to rotate in the direction of the arrow and in so doing will lift the brake shoe K so as to move to relieve the wheel A of the pressure of said shoe but any attempt to move the wheel A in the opposite direction will be arrested by the brake shoe which instantly clutches and stops said wheel A until the eccentric is shifted in such a manner as to bring the pin O<sup>3</sup> in contact with the forked end of the bar O and raises the brake shoe which would release the brake and allow the cable to unwind.

It will thus be seen that, by the provision of the apparatus shown and described, a simple and efficient automatically operated brake is afforded which may be readily applied by the shifting movement of the cam through the medium of the eccentric connected thereto.

What I claim to be new is:—

1. A gearing comprising, in combination with a frictionally driven wheel, a shaft to which the latter is fixed, a frictional driving wheel, an eccentric, a shaft mounted in said eccentric and upon which said friction driving wheel is mounted, means for moving the eccentric to bring the friction driving wheel in contact with said driven wheel, rods adapted to be fastened to the frame of the apparatus, friction shoes carried by said bars, and means for moving the friction shoes as the eccentric is actuated, as set forth.

2. A gearing comprising, in combination with a frictionally driven wheel, a shaft to which the latter is fixed, a frictional driving



wheel, an eccentric, a shaft mounted in said eccentric and upon which said friction driving wheel is mounted, means for moving the eccentric to bring the friction driving wheel  
5 in contact with said driven wheel, bars adapted to be fastened to the frame of the apparatus, friction shoes carried by said bars, a bar having a lug thereon, a looped hanger connected to the brake shoe and en-  
10 gaging said lug, said bar being designed to be actuated by the eccentric to move the brake shoe, as set forth.

3. A gearing comprising, in combination with a frictionally driven wheel, a shaft to  
15 which the latter is fixed, a frictional driving wheel, an eccentric, a shaft mounted in said eccentric and upon which said friction driving wheel is mounted, means for moving the eccentric to bring the friction driving wheel  
20 in contact with said driven wheel, rods adapted to be fastened to the frame of the apparatus, friction shoes carried by said bars, a bar having a lug thereon, a looped hanger connected to the brake shoe and en-  
25 gaging said lug, the lower end of said bar being forked, and a pin projecting from the

eccentric and engaged by said pin, as set forth.

4. A gearing comprising, in combination with a frictionally driven wheel, a shaft to  
30 which the latter is fixed, a frictional driving wheel, an eccentric, a shaft mounted in said eccentric and upon which said friction driving wheel is mounted, means for moving the eccentric to bring the friction driving wheel  
35 in contact with said driven wheel, rods adapted to be fastened to the frame of the apparatus, friction shoes carried by said bars, a bar having a lug thereon, a looped hanger connected to the brake shoe and en-  
40 gaging said lug, the lower end of said bar being forked, a pin projecting from the eccentric and engaged by said pin, and a handle adjustably fixed to said eccentric, as  
45 set forth.

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

JOHN DAWSON.

Witnesses:

C. R. BROWN,  
CHAS. L. SIGLER.