

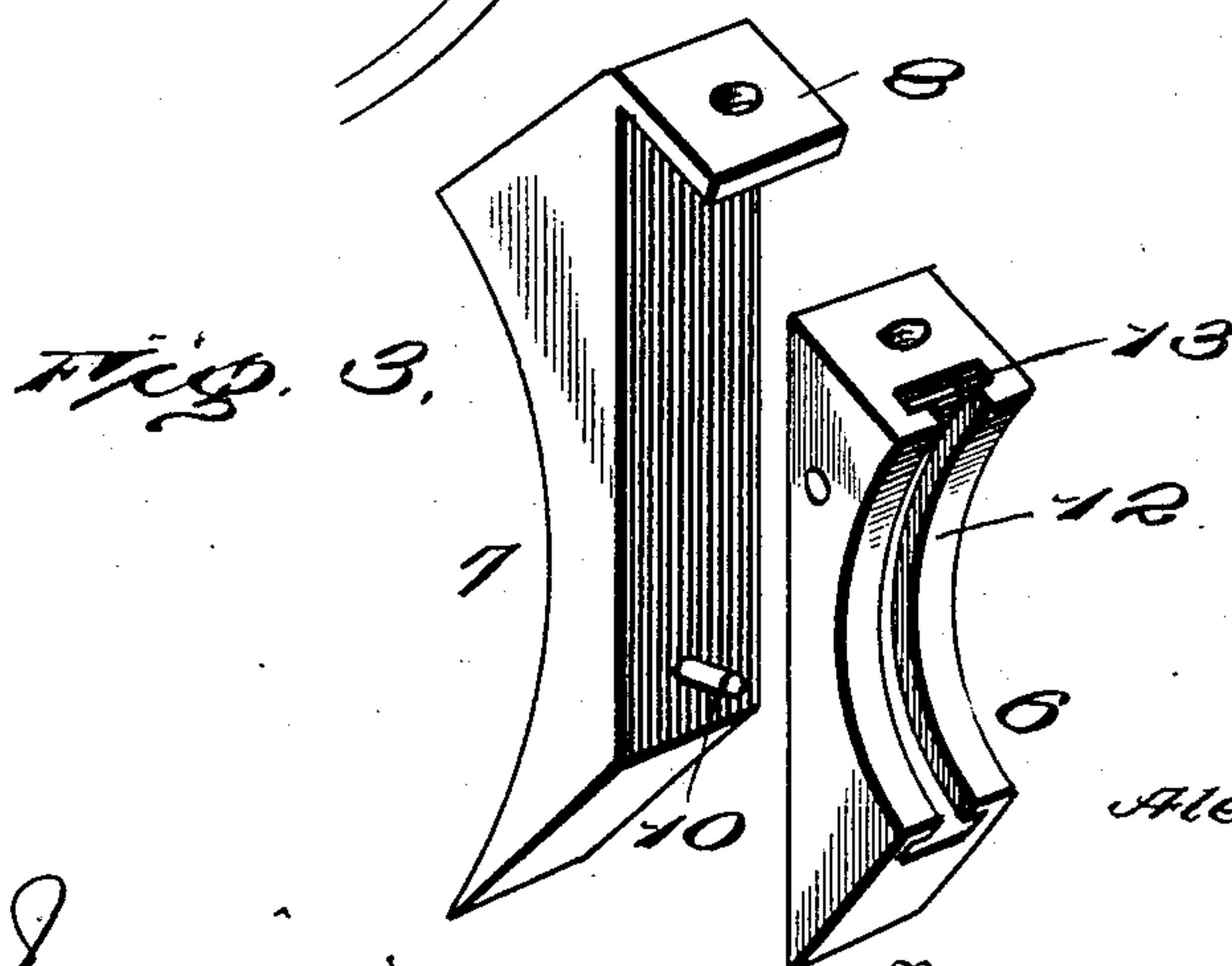
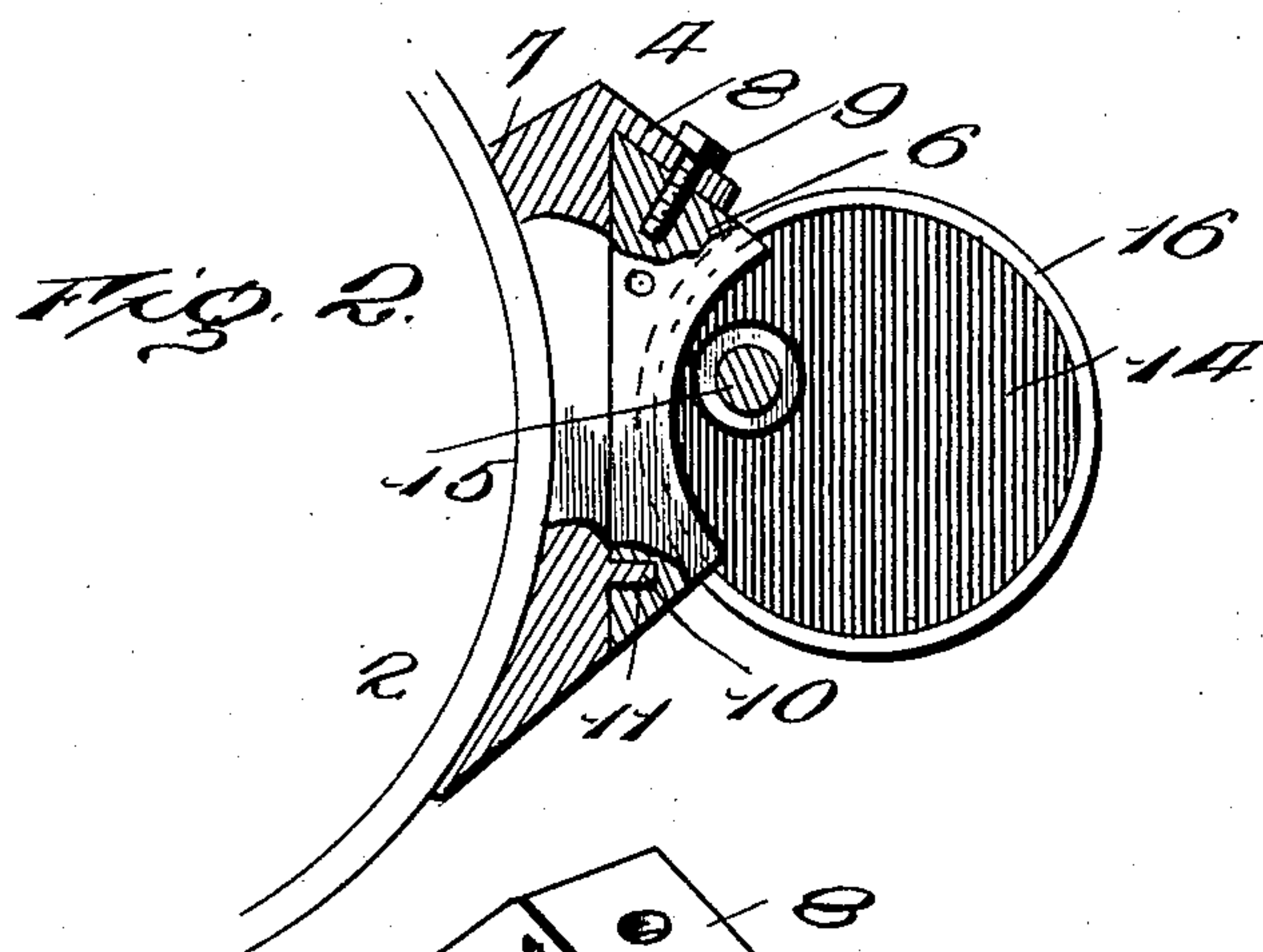
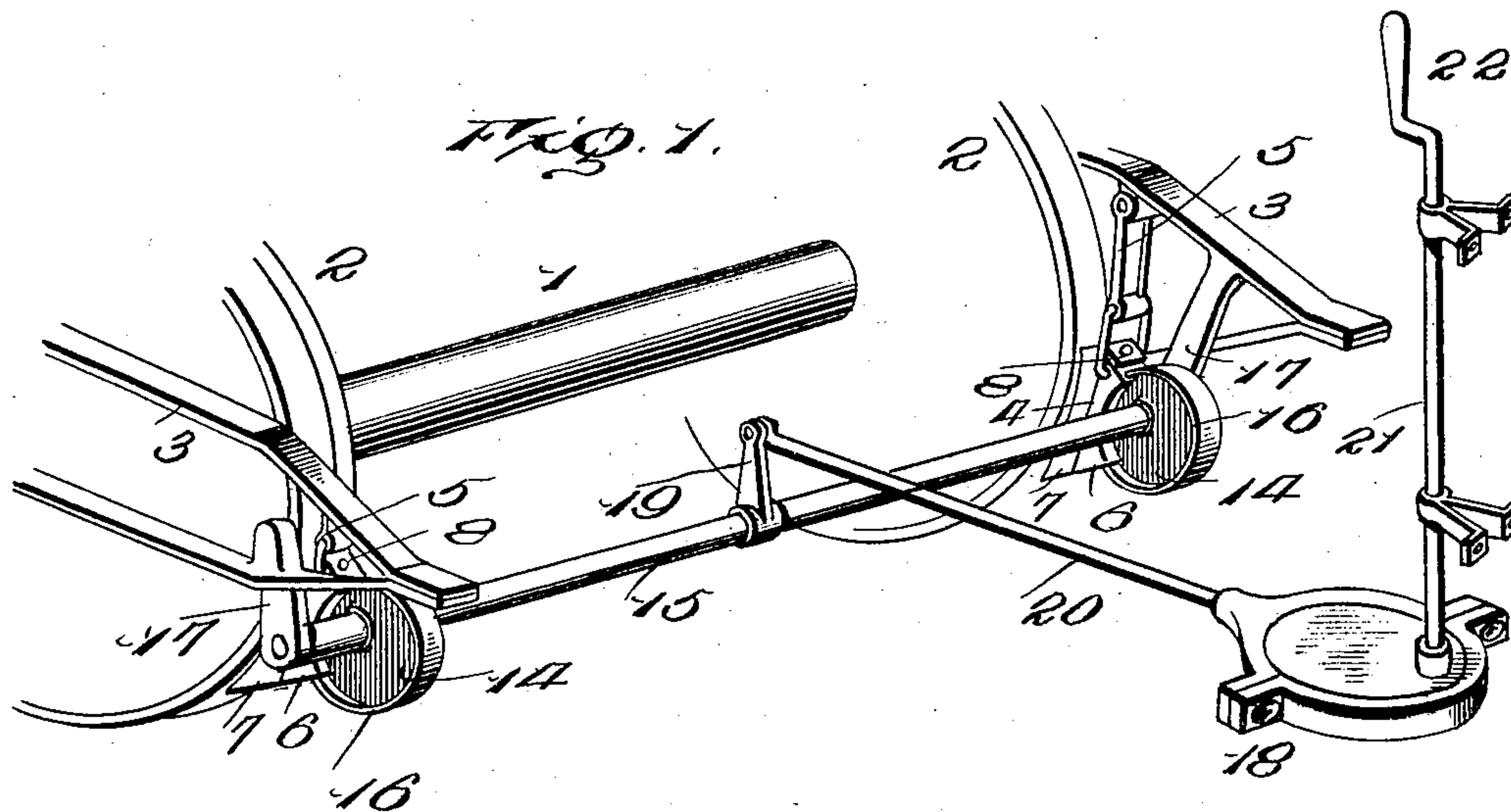
No. 773,190.

PATENTED OCT. 25, 1904.

A. BROWN.
CAR BRAKE.

APPLICATION FILED MAR. 3, 1904.

NO MODEL.



Witnesses

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CAR-BRAKE.

SPECIFICATION forming part of Letters Patent No. 773,190, dated October 25, 1904.

Application filed March 3, 1904. Serial No. 196,343. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER BROWN, a citizen of the United States, residing at Springfield, in the county of Clark and State of Ohio, have invented certain new and useful Improvements in Car-Brakes, of which the following is a specification.

This invention relates to improvements in braking mechanisms adapted for use upon cars or the like, and aims to provide a novel means for effecting the braking action of brake-shoes engaging the wheels of the vehicle to which the invention is applied. In carrying out the invention the brake-shoes are supported by suitable hangers and are adapted to be forced into and out of braking engagement with the adjacent car-wheels by means of peculiarly-mounted actuators coöperating therewith.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result reference is to be had to the following description and accompanying drawings.

While the essential and characteristic features of the invention are susceptible of modification, still the preferred embodiment of the invention is illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view, parts broken away, illustrating the preferred embodiment of the invention. Fig. 2 is a view, parts broken away, bringing out more clearly the arrangement of the brake-shoe and the coöperative engagement of the actuating-eccentric. Fig. 3 is a perspective view showing the brake-shoe, the friction-plate and body of the shoe being separated.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The invention is shown in its application to a car, and in the drawings 1 designates the car-axle, and 2 the car-wheels. The axle 1 and the wheels 2 are of the usual form and are mounted in the ordinary type of truck structure, (designated 3.) The brake-shoes 4 are supported by hangers 5, depending from the

adjacent portions of the truck-frame, and said hangers may be so hung as to cause the brake-shoe 4 to normally remain in a position adjacent to but out of engagement with the car-wheel with which same coöperates. The brake-shoe, if desirable, may be caused to remain in the normal position aforesaid by use of a spring or analogous device. The shoe 4 is of a peculiar form, being composed of a body 6 and a friction-plate 7. The friction-plate 7 is provided upon the rear side thereof and projecting from the upper end portion with a downwardly-inclined lug 8, which overlaps the body 6 of the shoe and which is provided with an opening to receive a fastening 9, which secures the plate 7 to the shoe. To more securely hold the friction-plate upon the body 6 of the shoe, a dowel-pin 10 is projected from the lower portion of the friction-plate and received by an opening 11 in the lower portion of the body 6. The rear side of the body 6 of the shoe 4 is cut away upon the arc of a circle, as shown at 12, and is provided with a T-shaped groove 13. The means for actuating the brake-shoe into engagement with the wheel and for positively withdrawing same from such engagement comprises an eccentric disk or similar cam-actuator 14, which disk is mounted upon a shaft 15, disposed in rear of the car-wheels. The disk or disks 14 are in interlocking engagement with the body 6 of the shoe 4, and for this purpose the peripheral portion of the disk 14 is provided with laterally-extending flanges 16. The flanged peripheral portion of the disk 14 is received by the T-shaped groove 13 of the body 6 of the shoe, and since the disk 14 is eccentrically mounted upon the shaft 15 it will be readily seen that rotary movement of this disk will cause the brake-shoe to move into or out of engagement with the adjacent wheel. The shaft 15 may be mounted in suitable supports 17, carried by the truck, and oscillatory movement may be imparted to this shaft in any desired manner to secure the necessary braking action of the brake-shoes 4.

The means for actuating the shaft 15 when it is designed to operate this part by manual power consists, preferably, of the horizontally-disposed or eccentric wheel 18, which

wheel is connected to a rock-arm 19, rigidly mounted upon the shaft 15 by means of a connecting-rod 20. The usual manually-operated shaft 21 may be employed to actuate the eccentric wheel 18, to thereby impart the necessary oscillatory movement to the shaft 15. The shaft 21 may be provided at its upper end with the crank-handle 22, to be grasped by the motorman.

It will be understood that the eccentric disks 14 constitute virtually a cam-operating connection between the brake-shoes and the shaft 15, and, as will be readily comprehended, the parts may be modified in construction in accordance with the broad spirit of the invention. The use of the eccentric actuators is greatly advantageous in that great power may be secured to effect the necessary braking action of the shoe.

Having thus described the invention, what is claimed as new is—

1. In a car-brake, the combination of a brake-shoe provided with a groove, and an eccentric actuator provided with a flange engaged in the groove of the brake-shoe aforesaid.

2. In a car-brake, the combination of a brake-shoe provided with a T-shaped groove therein, an eccentric actuator, and flanges projected through the said actuator and engaged in the T-shaped groove of the brake-shoe aforesaid.

3. In a car-brake, the combination of a

brake-shoe, provided with an arcuate groove therein and an eccentrically-mounted actuating-disk having a flange projected therefrom and engaging the arcuate groove of the brake-shoe aforesaid.

4. In a car-brake, the combination of a brake-shoe comprising a body and a removable friction-plate, the body being provided in the rear side thereof with a T-shaped groove, an eccentric disk operating adjacent the brake-shoe, and laterally-projected flanges extended from the eccentric disk and received in the T-shaped groove of the body of the brake-shoe.

5. In a car-brake, the combination of a brake-shoe, and an eccentric actuator interlocking with said brake-shoe to effect braking action thereof.

6. In a car-brake, the combination of an eccentrically-flanged disk, and a brake-shoe engaged by the flanged portion of said disk, whereby an interlocking connection is formed between the shoe and disk.

7. In a car-brake, the combination of a brake-shoe, and an eccentric actuating-disk provided with a projecting part interlocking with the brake-shoe for effecting braking engagement of said shoe.

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

ALEXANDER BROWN. [L. s.]

Witnesses:

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