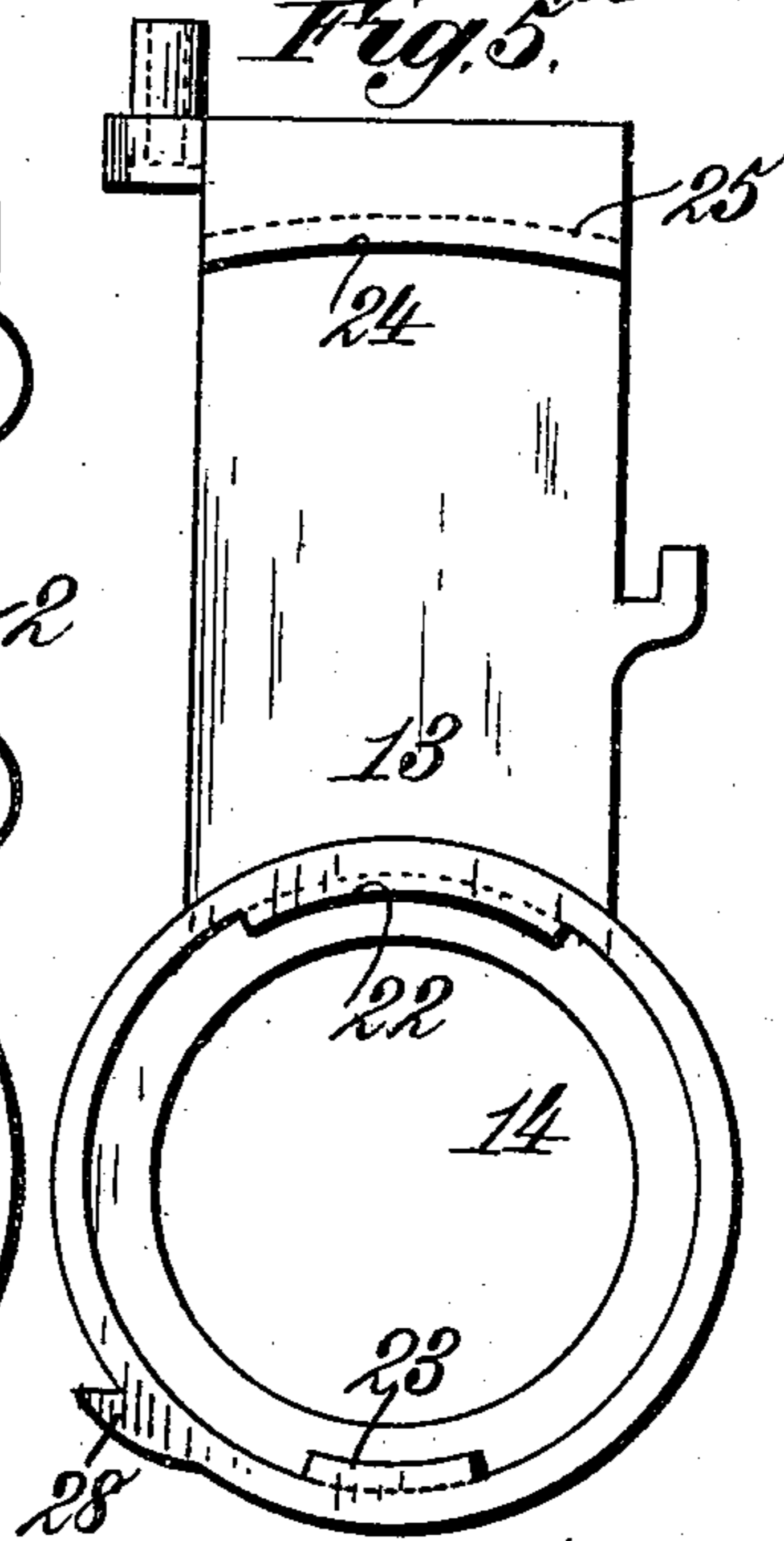
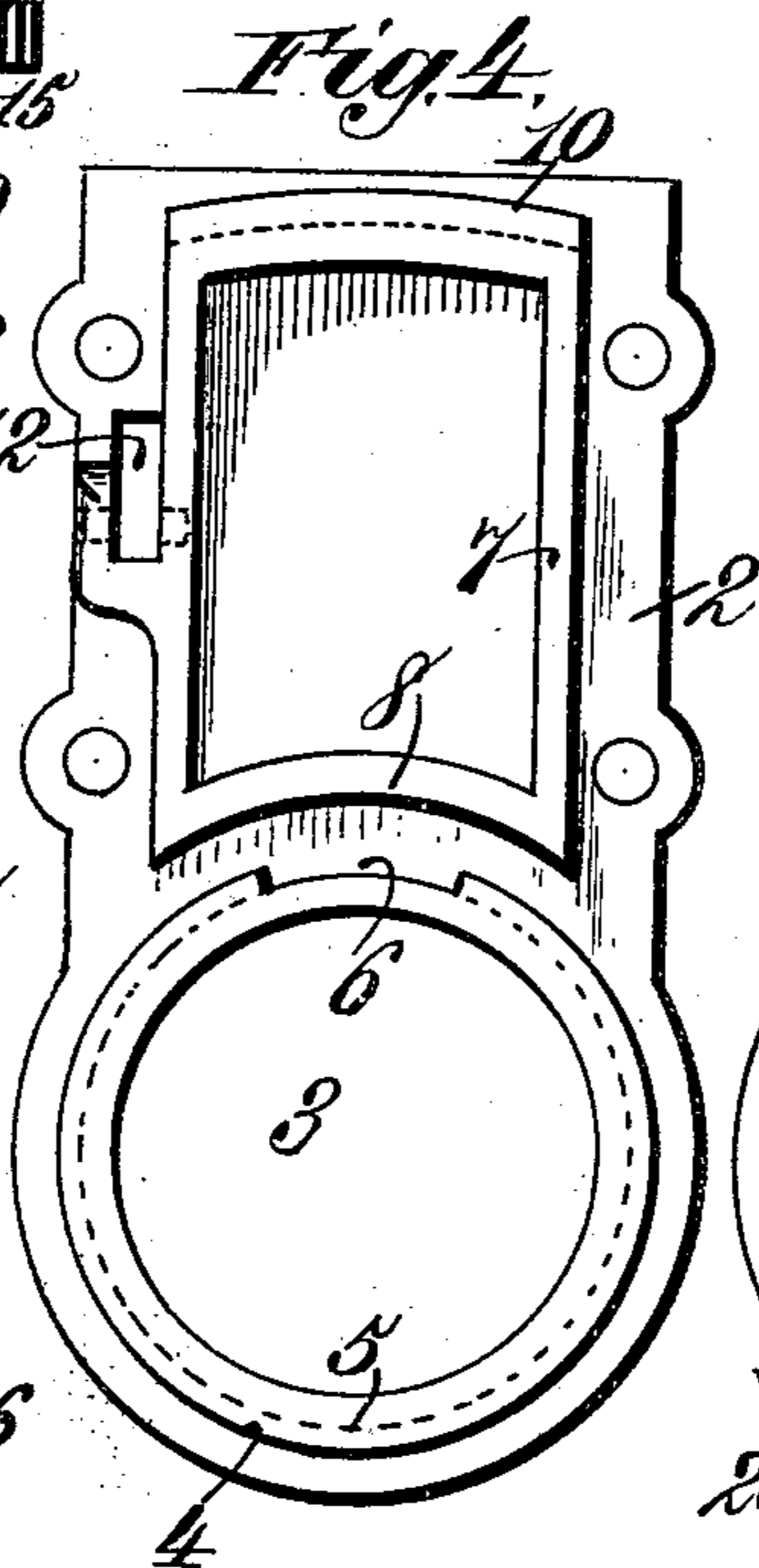
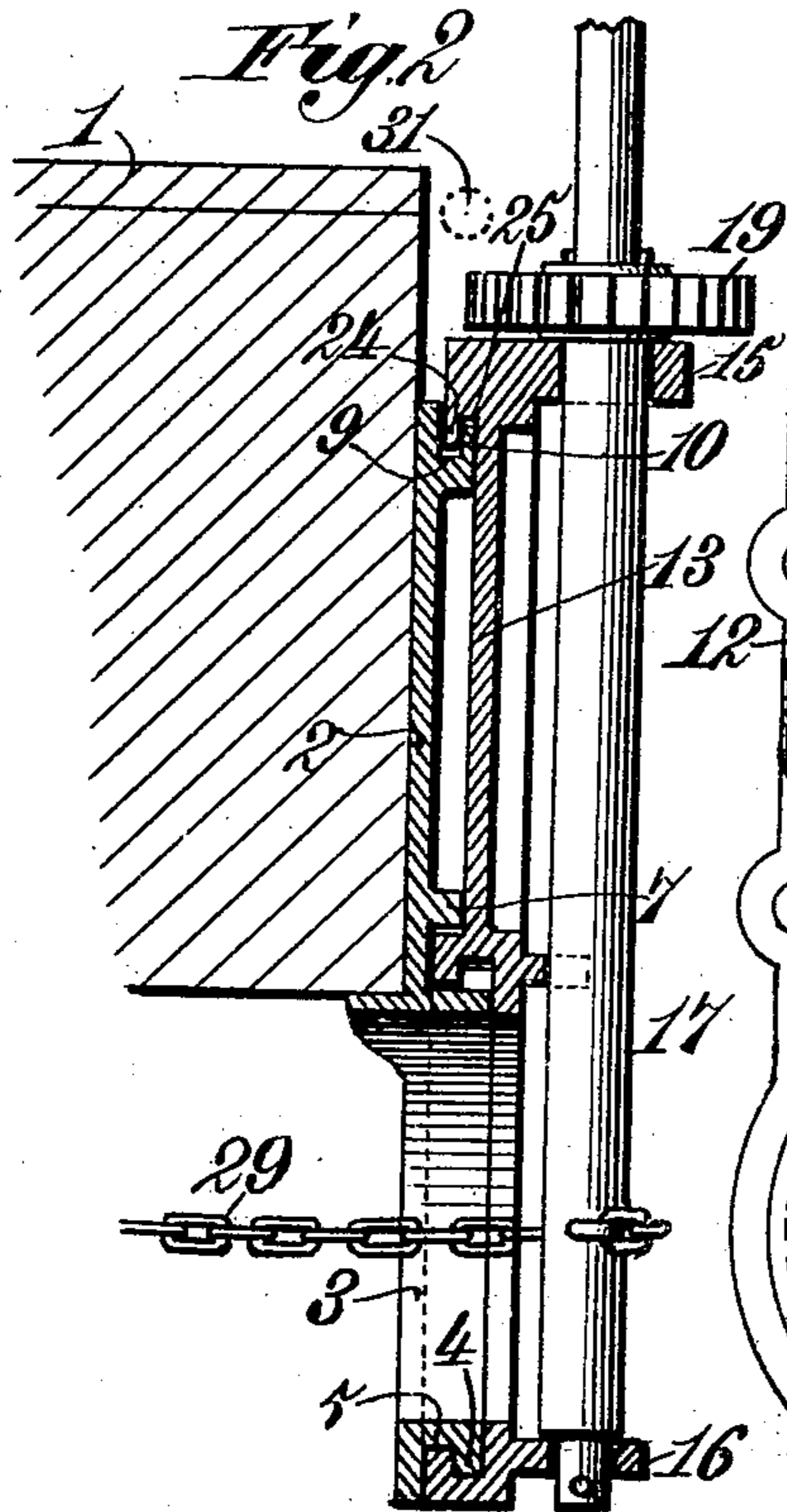
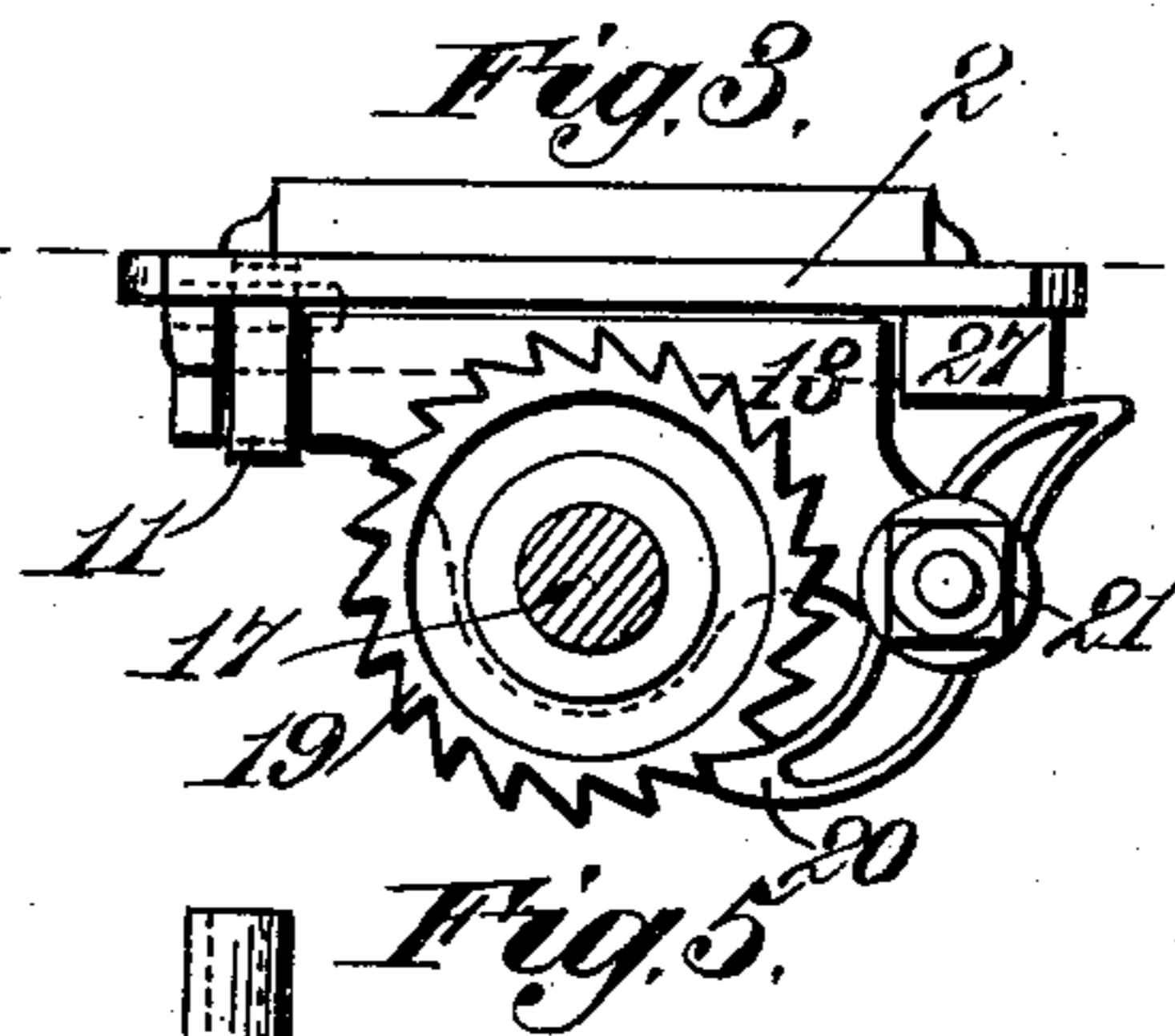
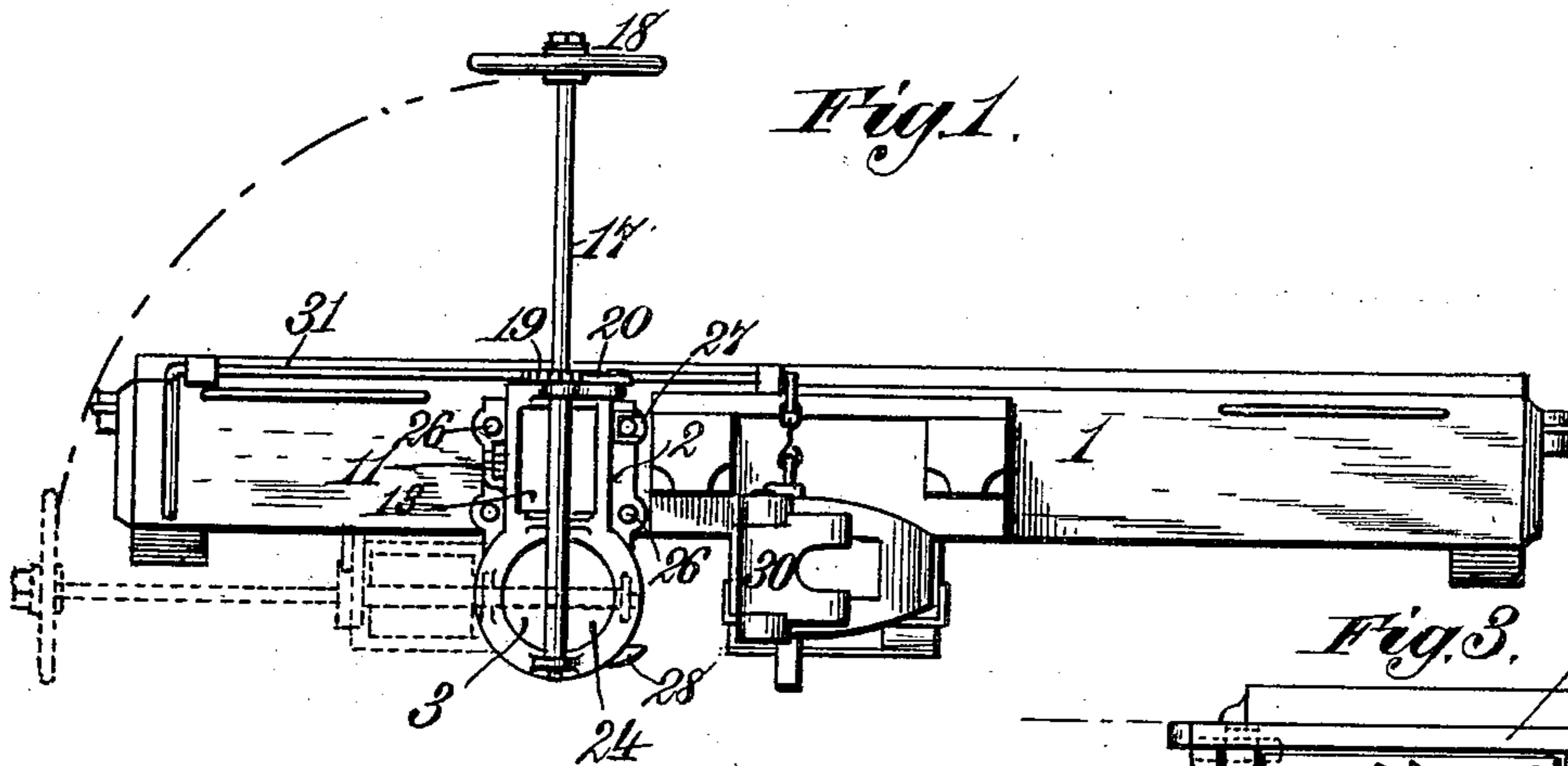


No. 694,191.

Patented Feb. 25, 1902.

J. W. PUCKETT.  
BRAKE STAND FOR CARS.  
(Application filed Oct. 15, 1901.)

(No Model.)



Witnesses,  
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*att'y.*

# UNITED STATES PATENT OFFICE.

JOHN W. PUCKETT, OF MANCHESTER, VIRGINIA.

## BRAKE-STAND FOR CARS.

SPECIFICATION forming part of Letters Patent No. 694,191, dated February 25, 1902.

Application filed October 15, 1901. Serial No. 78,750. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN W. PUCKETT, a citizen of the United States, residing at Manchester, Chesterfield county, Virginia, have invented certain new and useful Improvements in Brake-Stands for Cars, of which the following is a specification.

My invention relates to brake-stands for railway-cars, the same residing particularly in a novel means of mounting the brake-staff whereby it may be swung from a vertical to a horizontal position without throwing it out of operative connection with the brakes.

In the loading of freight-cars it is frequently found necessary or desirable to have the load project beyond one or both ends of the car, and as the brake-staffs are ordinarily located at the ends of the car it is necessary to disconnect the same, and thereby render it impossible to operate the brakes. By my invention I provide for simply changing the position of the brake-staff when it is desirable to have the load project beyond the end of the car, so that the same is out of the way, but is still capable of throwing the brakes into operation.

The details of my invention will hereinafter appear, and the novel features thereof will be set forth in the claims.

In the drawings forming part of this specification, Figure 1 is an end elevation of a car-body provided with my improvements. Fig. 2 is a vertical section of the same, the section being taken through the brake-staff. Fig. 3 is a sectional plan view showing the upper end of the brake-stand. Fig. 4 is a detail front elevation of the back plate or bracket, and Fig. 5 is a rear elevation of the staff-carrying plate or frame.

Like reference-numerals indicate like parts in the different views.

In the embodiment of my invention herein shown I secure to the front of the car-body 1 a base-plate or bracket 2, which projects down below the bottom of the car-body and has an opening 3 extending through it. Around this opening, on the front side of the plate 2, is an outwardly-extending rib 4, which lies parallel to the front face of the plate 2, forming an annular groove 5. The rib 4 is cut away or notched at one point, as shown at 6,

forming an entrance into the annular groove or channel 5. This notched or cut-away portion has been shown as being located at the upper edge of the rib 4; but it is obvious that the same may be otherwise disposed. Above the rib 4 and groove 5 the plate 2 has secured to or formed integral with it a secondary plate or thickened portion 7, the lower edge of which is concave, as shown at 8, and concentric with the rib 4. The upper edge of the plate, enlargement, or thickened portion 7 is convex and concentric in its curvature with the rib 4 and is also recessed to form with the plate 2 a groove 9 and an upwardly-extending locking projection 10. Pivoted in the plate 2, adjacent to one of the side edges of the enlargement or thickened portion 7 thereon, is a dog or stop 11, which normally projects outwardly beyond the face of the enlarged portion 7, but is adapted to move upwardly and inwardly, so as to fit within the recess or opening 12 in the plate 2.

Coöperating with the back plate or bracket 2 is what may be termed a "staff-carrying" plate or frame 13. The same is formed with a circular opening 14, which when the parts are in their assembled positions registers with the opening 3 in the plate 2. Secured to or formed integral with the plate or frame 13 on the front side thereof are the lugs 15 16, the same having openings extending there-through, which constitute bearings for the brake-staff 17. Any other suitable form of bearings for this staff may, however, be substituted for the lugs 15 and 16. The said staff 17 is provided, as usual, with an operating-wheel 18 upon its upper end and has secured to it at a point just above the upper lug 15 a ratchet-wheel 19. With this ratchet-wheel coöperates the pawl or dog 20 for preventing reverse movement of the staff. The said pawl or dog is pivoted in a lug or projection 21 on the frame or plate 13. On the rear side of the staff-carrying frame are the inwardly-extending lugs or projections 22 23, the lug 23 being of a size corresponding with that of the notch 6 in the rib 4 and the lug 22 being of greater length. These lugs lie in the same plane with each other and are preferably located on opposite sides of the opening 14. Their inner edges are concave, and the

curvature thereof is concentric with that of the opening 14. The said lugs when the parts of the device are in operative positions fit and move within the groove 5 on the back plate or bracket 2, as is clearly shown in the drawings. In assembling the parts the staff-carrying frame or plate 13 is turned so that the operating-wheel 18 on the staff 17 extends downwardly. The lug 22 is then introduced into the groove 5 and the lug 23 is passed through the notch 6 into the groove 5, when said frame 13 is swung around to a vertical position, with the operating-wheel 18 on the staff 17 uppermost. The lugs 22 and 23 move freely in the groove 5, and it is impossible for the same to become disconnected from said groove unless the lug 23 be brought around to the notch 6. Above the lug 22 on the rear face of the staff-carrying frame or plate 13 is formed an overhanging flange 24, having a concave lower edge and producing a groove or channel 25 between it and the body of the plate 13. When the staff 17 is in its vertical position, the flange 24 fits within the groove 9 behind the locking projection 10 and said locking projection 10 fits within the groove 25 in front of the flange 24. This construction provides for a locking connection between the base-plate or bracket 2 and the staff-carrying frame or plate 13 in addition to that formed by the lugs 23 and 24 and the rib 4. Danger of displacement or outward movement of the plate or frame 13 independent of the plate or bracket 2 is thereby effectually prevented.

The back plate or bracket 2 is secured to the front of the car-body 1 by means of screws 26, bolts, or other analogous devices. By one of said screws is secured in place a stop 27. This stop has been shown in the form of a block of metal, through which the screw 26 passes; but any other form of stop may be employed, and the same may be secured in place in any other suitable manner. Now it will be observed that when the staff 17 is in its vertical position movement of the frame 13, which carries said staff, is prevented in one direction by the dog 11, and movement of said frame in the opposite direction is prevented by the stop 27. As long as the stop 27 remains in place, therefore, it is impossible to turn the staff-carrying frame 13 to the right to bring the lug 23 opposite the notch 6, and consequently it is impossible to disconnect said plate or frame from the back plate or bracket 2.

Movement of said staff-carrying frame 13 beyond a certain distance is prevented in the opposite direction by the engagement of the lug or projection 28 on said frame with the enlarged portion 7 on the back plate 2. This lug or projection 28 is so disposed that it will permit of a movement of the frame or plate 13 from a vertical to a horizontal position and no farther. When, therefore, it is desired to load the car-body 1 beyond the ends of the same, and it is consequently desirable to get the brake-staff 17 out of the way, it is merely nec-

essary to release the dog 11 by throwing it back within the recess or opening 12, when the frame 13, with the staff 17 and the parts cooperating therewith, may be bodily turned until the lug 28 strikes against the enlargement 7. When it is desired to return these parts from their horizontal to their vertical positions, no locking or detent mechanism is necessary to be released, it being merely essential to elevate the free end of the staff 17, which movement will cause a swinging to the right of the plate or frame 13. When said plate or frame strikes the dog 11, it moves the same out of the way automatically, and when said frame reaches its vertical position, which is determined by its striking against the stop 27, said dog 11 returns to its normal outward position, and turning movement in either direction of the frame 13 and the parts carried thereby is prevented.

It should be stated, of course, that the staff 17 has connected to it adjacent to its lower end the chain 29, which leads rearwardly to the brake or brakes and is adapted to be wound upon said staff. This chain 29 passes through the openings 14 and 3 and is adapted to be wound upon the staff 17 in any position to which said staff may be turned.

My invention has been shown in connection with a coupler 30 and an operating-lever 31 for the coupling-pin in order to show that the staff 17 may be shifted from one of its positions to the other without interfering with the operation of said coupler or the uncoupling mechanism therefor.

The preferred form of my invention has been shown and described; but I realize the fact that many changes may be made in the details of construction as well as in the size, proportion, and arrangement of the different parts. I therefore do not desire to be limited to any of the specific details herein shown and described except as defined in the following claims.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination with a car-body, of a plate or frame mounted to swing thereon, and provided with an opening at the center of its arc of movement, a brake-staff carried by said frame, and a brake-chain connected with said staff and extending through said opening.

2. The combination with a car-body, of a bracket secured thereto and having an opening therein, a plate or frame mounted to swing on said bracket and having an opening therein at the center of its arc of movement, registering with the opening in said bracket, a brake-staff carried by said frame, and a brake-chain connected with said staff and extending through said openings.

3. The combination with a back plate or bracket, of a brake-staff-carrying frame mounted to turn from a vertical to a horizontal position thereon, and a releasable dog mov-

able independently of said frame for retaining said frame in its vertical position.

4. The combination with a back plate or bracket, of a brake-staff-carrying frame mounted to turn from a vertical to a horizontal position thereon, and a pivoted dog for retaining said frame in its vertical position.

5. The combination with a back plate or bracket, of a brake-staff-carrying frame mounted to turn from a vertical to a horizontal position thereon, and a dog pivoted to said bracket and adapted to engage said frame for retaining the latter in its vertical position.

6. The combination with a back plate or bracket, of a brake-staff-carrying frame mounted to turn from a vertical to a horizontal position thereon, a stop for limiting the turning movement of said frame in one direction, and a releasable dog cooperating with said stop for retaining said frame in vertical position.

7. The combination with a back plate or bracket, of a brake-staff-carrying frame mounted to turn from a vertical to a horizontal position thereon, a stop for limiting the turning movement of said frame in one direction, and a pivoted dog cooperating with said stop for retaining said frame in vertical position.

8. The combination with a back plate or bracket, of a brake-staff-carrying frame mounted to turn from a vertical to a horizontal position thereon, a stop for limiting the turning movement of said frame in one direction, and a dog pivoted to said bracket, adapted to engage said frame and cooperating with said stop, for retaining said frame in vertical position.

9. The combination with a back plate or bracket, of a brake-staff-carrying frame mounted to turn from a vertical to a horizontal position thereon, detent mechanism for retaining said frame in vertical position, and a lateral projection on said frame cooperating with a stationary part for limiting the turning movement of said frame in one direction and for supporting the same in its horizontal position.

10. The combination with a back plate or bracket, of a brake-staff-carrying frame mounted to turn from a vertical to a horizontal position thereon, a stop for limiting the turning movement of said frame from a vertical position in one direction, a releasable dog for preventing the turning movement of said frame from a vertical position in the other direction, and a projection on said frame cooperating with a stationary part for supporting the same in a horizontal position.

11. The combination with a car-body, of a brake-staff mounted to swing thereon, and a flexible connection between said staff and the brake, the same being attached to said staff at the center of the arc of swinging movement of the same, whereby the brake may be oper-

ated by said staff in any position of the latter.

12. The combination with a car-body, of a brake-staff mounted to swing thereon in bearings located below the bottom of said body, and a flexible connection between said staff and the brake, the same extending beneath said body, and through said bearings and attached to said staff at the center of the arc of its swinging movement, whereby the brake may be operated by said staff in any position of the latter.

13. The combination with a back plate or bracket having an opening therein, of a frame mounted to turn on said bracket and having an opening therein registering with the opening in said bracket, a brake-staff mounted in said frame and extending across the opening therein, and a flexible connection between said staff and the brake extending through said openings.

14. The combination with a back plate or bracket having an opening therein, of a frame mounted to turn on said bracket and provided with an opening registering with the opening in said bracket, lugs secured to the upper and lower ends of said frame, a brake-staff mounted in bearings in said lugs, and a chain connected with said staff and extending through said openings.

15. The combination with a back plate or bracket having an opening therein, an outwardly-extending rib around said opening forming a groove and provided with a notch leading into said groove, of a frame having an opening therein registering with the opening in said bracket, inwardly-extending lugs on said frame adapted to fit within the groove in said bracket, one of which lugs is of a size corresponding with said notch and the other of a greater size, a brake-staff carried by said frame, connections between said staff and the brake, stops for limiting the turning movement of said frame in opposite directions, and a movable dog for retaining said frame in its vertical position.

16. The combination with a back plate or bracket having an opening therein, an outwardly-extending rib around said opening forming an annular groove and provided with a notch leading into said groove, and a thickened portion on the front face of said bracket recessed at its upper end to form a channel and a locking projection, of a frame having an opening therein registering with the opening in said bracket, lugs on said frame adapted to fit within said groove, one of which lugs is of a size corresponding with said notch and the other of a larger size, an overhanging flange on said frame above the opening therein, said flange adapted to fit within said channel behind said locking projection when said frame is in its vertical position, a brake-staff carried by said frame and connected through said openings with the brake, a projection on said frame adapt-

ed to engage the edge of said thickened portion for limiting the movement of said frame in one direction, a stop for limiting the movement of said frame in the opposite direction, and a pivoted dog cooperating with said stop for maintaining said frame normally in its vertical position.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOHN W. PUCKETT.

Witnesses:

WM. M. STOCKBRIDGE,  
EWELL A. DICK.