

**913,424.**

Patented Feb. 23, 1909.

Fig. 1.

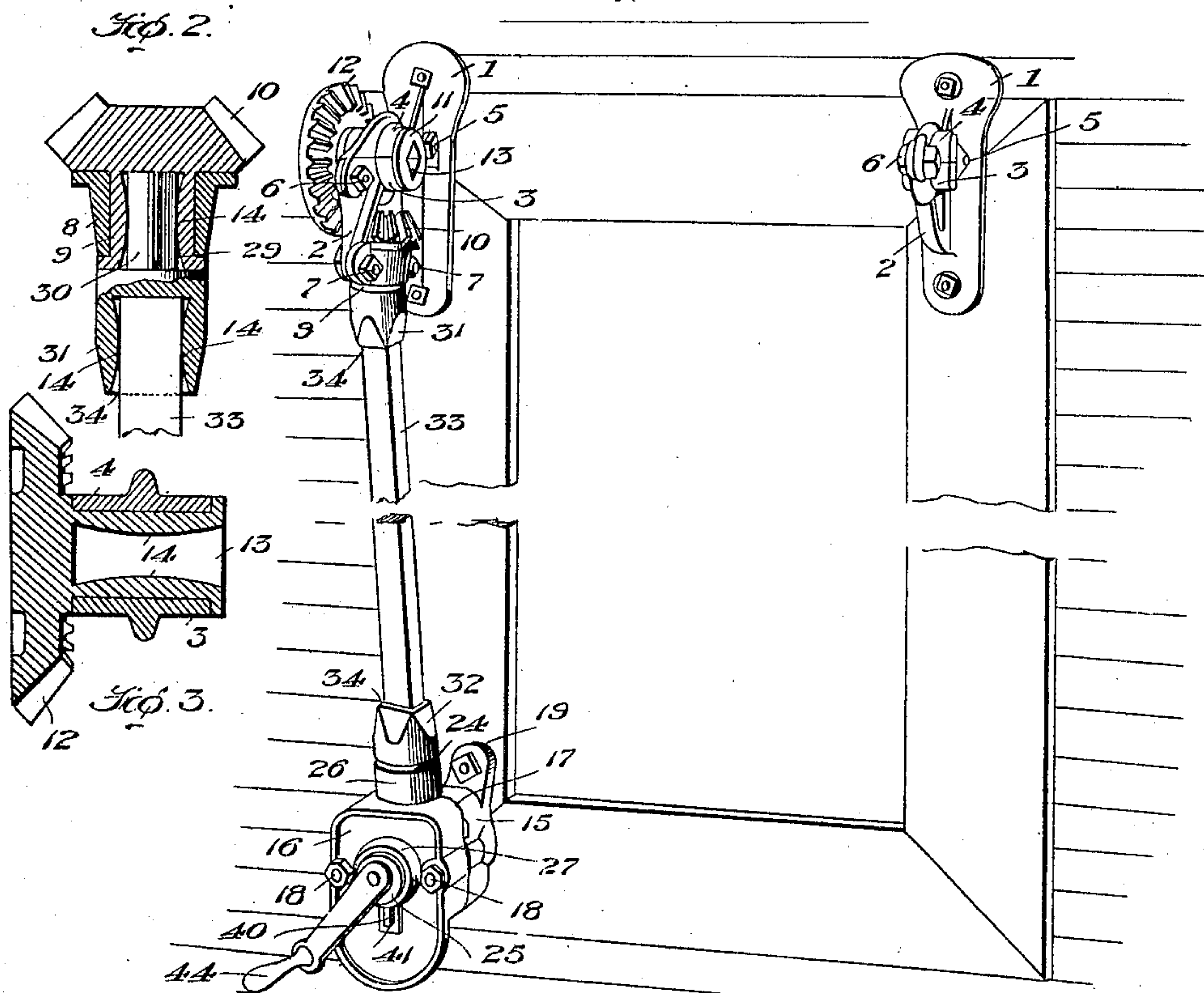


Fig. 3.

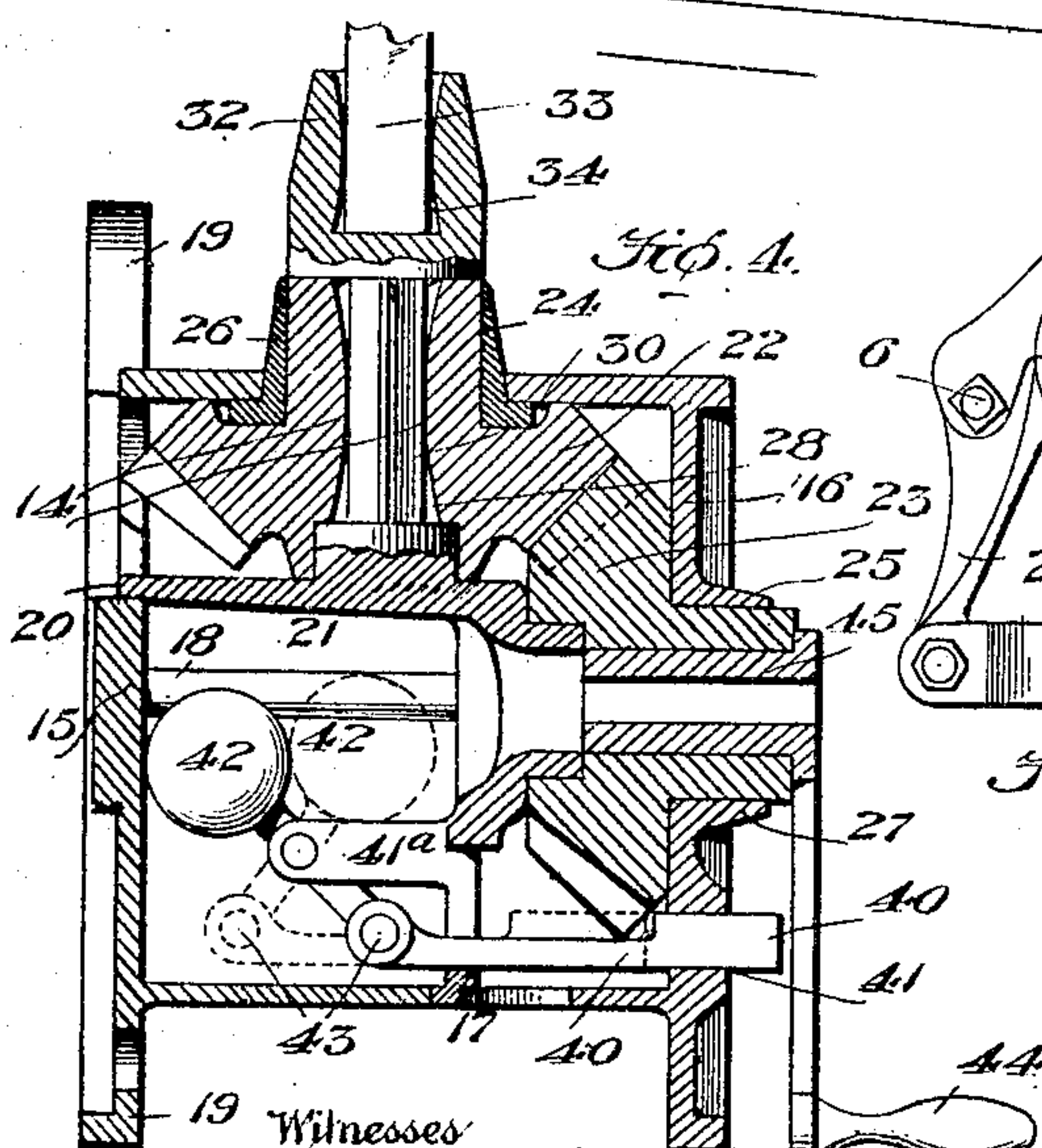


Fig. 4.

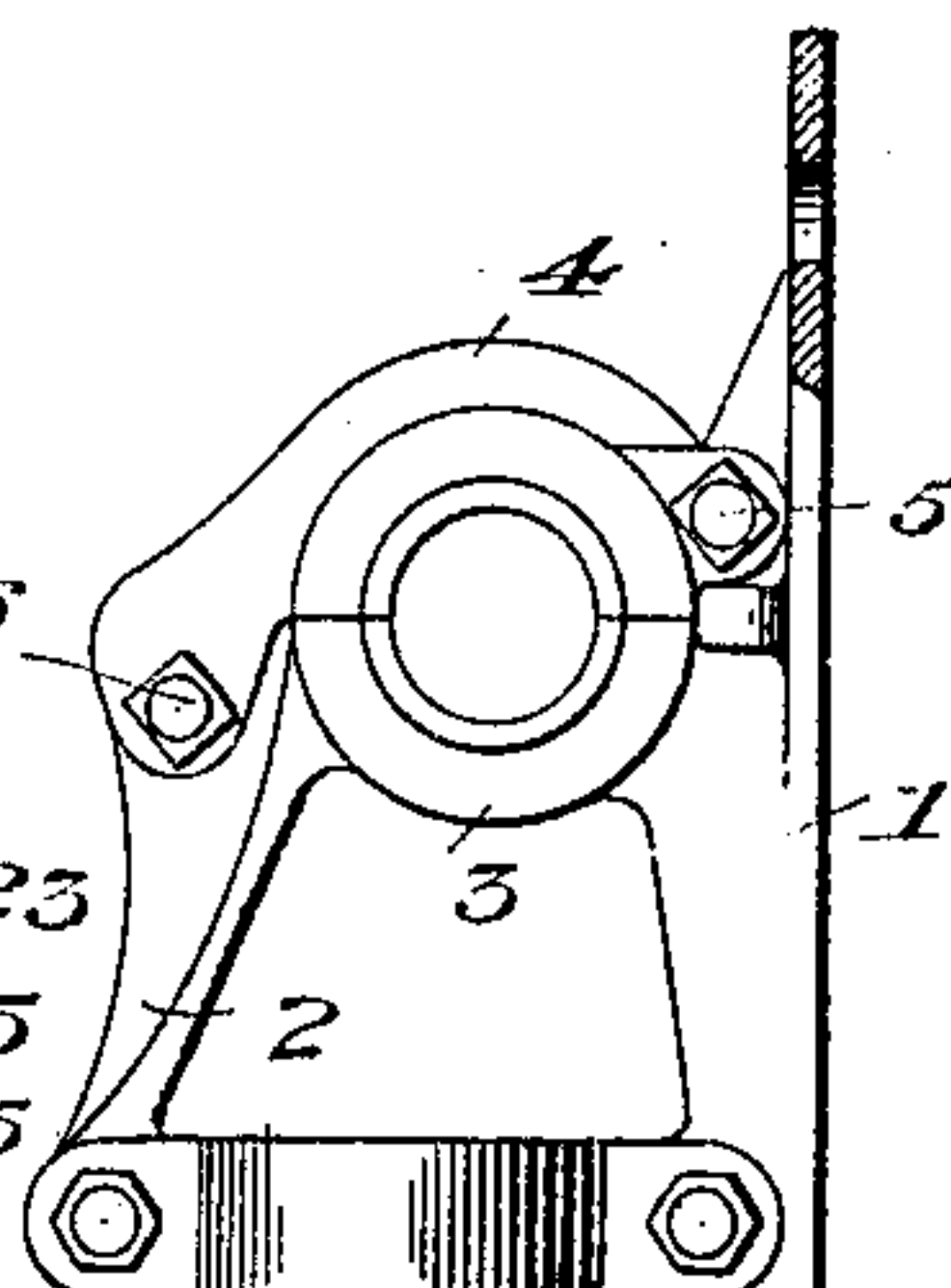
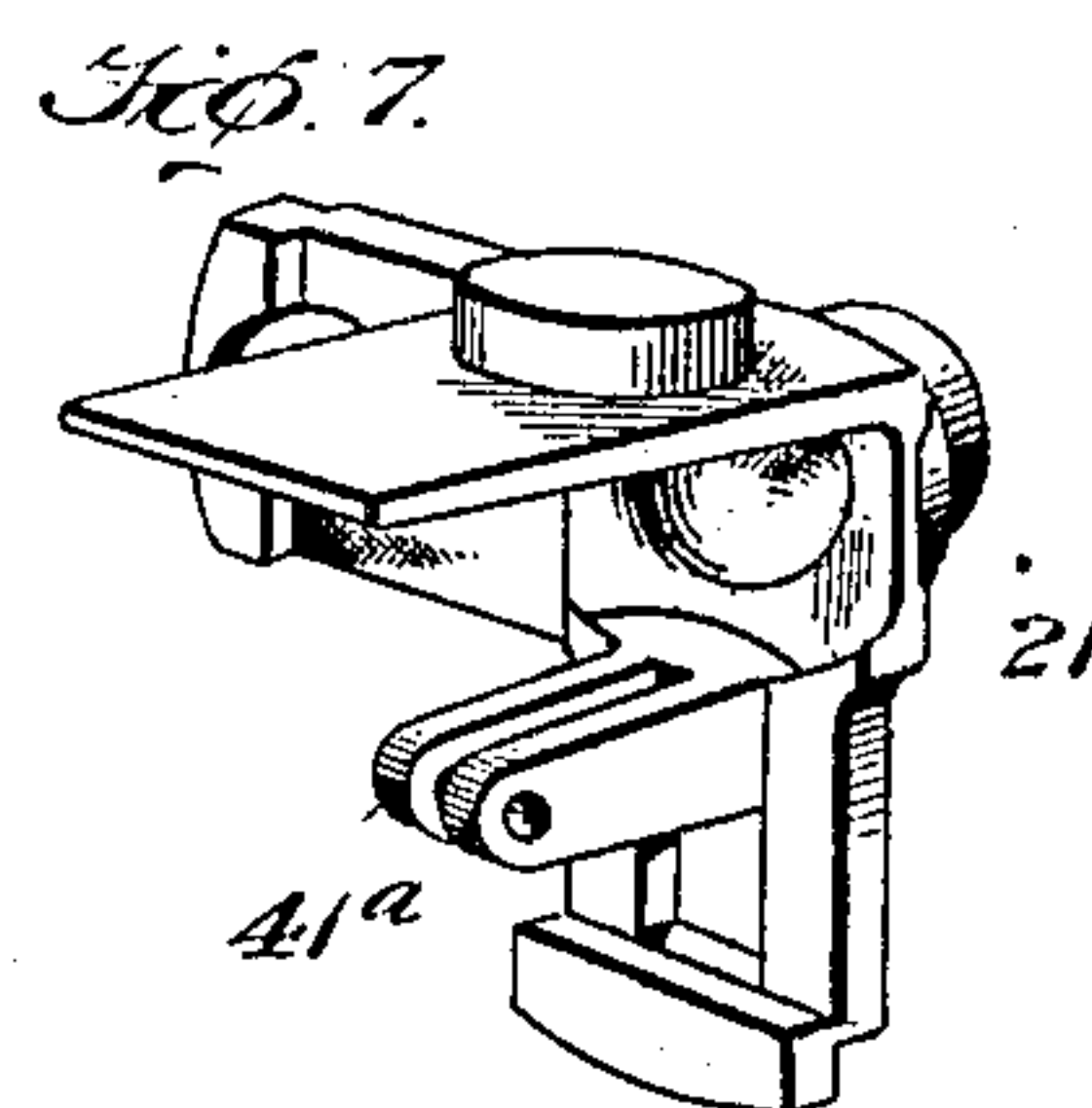
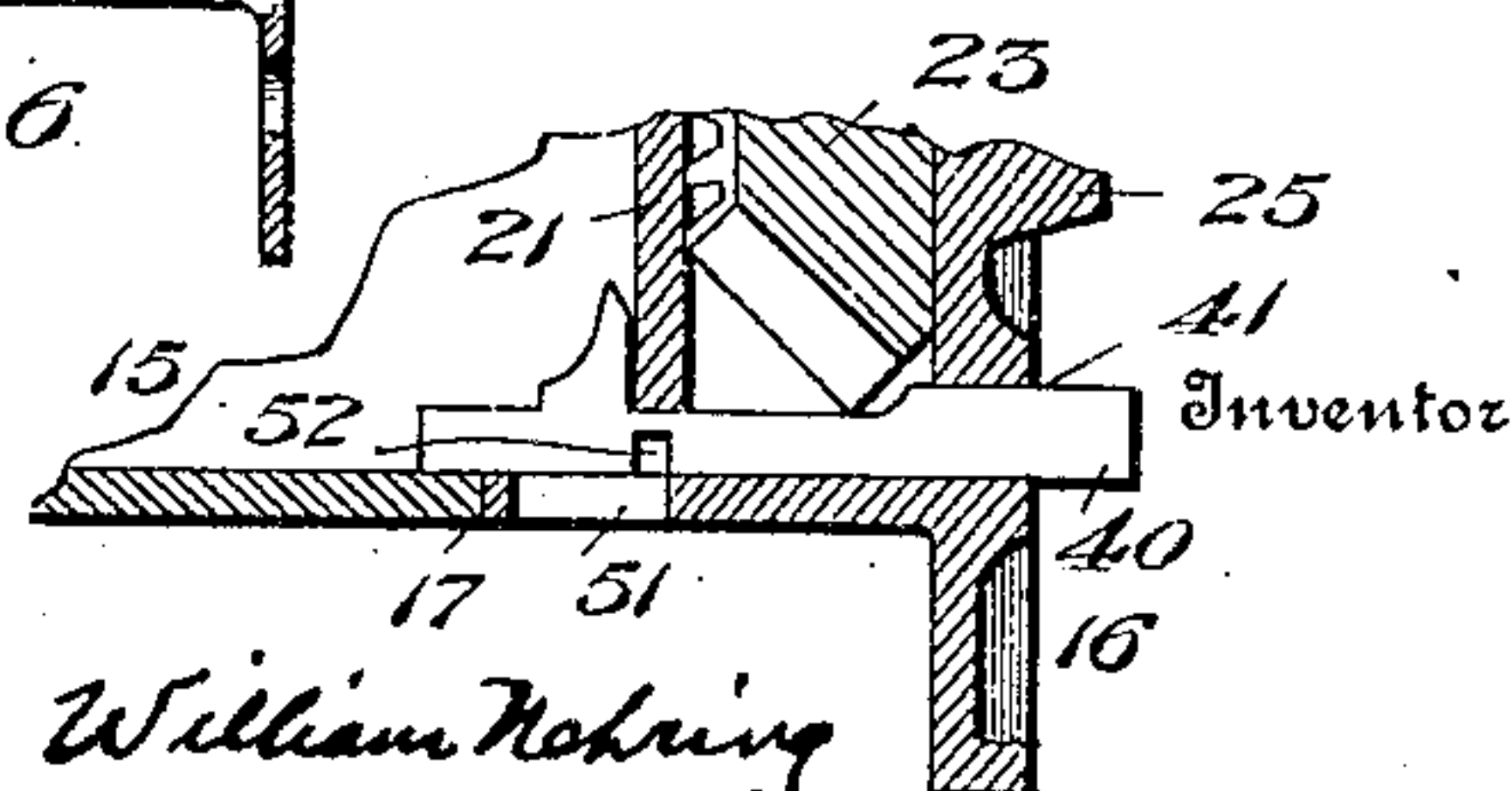


Fig. 6.



*Fig. 5.*



Inventor

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19 "Witnesses"  
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# UNITED STATES PATENT OFFICE.

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## AWNING-OPERATING DEVICE.

No. 913,424.

Specification of Letters Patent.

Patented Feb. 23, 1909.

Application filed April 9, 1908. Serial No. 426,126.

*To all whom it may concern:*

Be it known that I, WILLIAM NEHRING, a citizen of the United States, residing at Evansville, county of Vanderburg, and State of Indiana, have invented certain new and useful Improvements in Awning-Operating Devices, of which the following is a specification.

My invention relates to awning operating devices.

The object of the present invention is the provision of an awning operating device having the gear box and gear mountings of novel construction; novel means for locking and unlocking the gears; novel hanger construction and mounting for the awning roller; and novel couplings for connecting the operating rod to the gears; and, in general, to provide an awning operating device, the parts of which are readily accessible for replacement or repairs, adapted to the different conditions existing in different places where awnings are used, and permitting rapidity and ease in the putting up of the device.

The most perfect embodiment of the invention which at this time I have devised is set forth fully hereinafter and shown in the accompanying drawings, the novel features of the invention being embodied in the appended claims.

In the accompanying drawings:—Figure 1 illustrates the invention in use; Fig. 2 is a longitudinal detail section showing the gear and coupling at the upper end of the fixture; Fig. 3, a longitudinal detail section of the gear for turning the awning roller; Fig. 4, a detail section of the gears and gear box; Fig. 5, a detail section showing a modified form of the locking device; Fig. 6, a detail side elevation of one of the awning roller hangers; and Fig. 7, a detail of the angle plate.

The hangers for the awning rollers are shown at 1, which have integral arms 2 formed with half box sections 3 and being provided with movable box sections 4 which are hinged at 5 and connected by a removable bolt 6 to the arm 2, permitting the box sections 4 to be thrown back whenever it is desired to remove the roller. The arm 2 of one of the hangers is formed somewhat differently from the corresponding arm on the other hanger, being connected by bolts 7 to detachable box section 8 in which turns the

neck 9 of the pinion 10. Journaled in the box sections 3 and 4 of the same hanger aforesaid, is the reduced neck 11 of the gear 12, the neck 11 having a polygonal opening 13 therein to receive the end of the awning roller. The walls of the opening 13 are of reduced size about midway therein as at 14, said walls sloping to said reduced part 14, the purpose of which is to allow some of the play for the end of the awning roller so that if the two hangers 1 are not exactly alined, the proper rotation of the awning roller will not be interfered with. The other end of the awning roller turns in the box on the other hanger. In setting up or taking down the device, the bolts 6 are taken out and the sections 4 thrown back on their hinges 5, permitting removal of the gear 12 and its neck 11 and of the other end of the awning roller.

The gear box is formed in two parts 15 and 16 which meet at the line 17, the parts being connected by bolts 18, the rear section 15 having ears 19 to secure the entire structure to the building. Held by notches in the adjoining edges of the sections 15 and 16 and in another notch 20 in the rear section 15, and in the bottom is an angle plate 21 against which the gears 22 and 23 abut, said gears having necks 24 and 25, respectively, which are journaled in the hollow hubs or bosses 26 and 27, the former being loose in the top of the gear box and the latter a part of the front face thereof. The neck 24, and the neck 9 of the pinion 10, are provided with square-shaped sockets 28 and 29 which receive correspondingly formed parts 30 on couplings 31 and 32, thus permitting a relative sliding engagement between the couplings and the gears 12 and 22, the connecting rod 33 being seated in polygonal sockets 34 in the couplings 31 and 32. The inner walls of the sockets may be enlarged in the manner shown at 14 as previously described, to accommodate the rod 33 when the gear box and the hanger are not exactly in vertical alinement as frequently is the case in practice, while the slip or adjustable connection between the couplings and the gears by the employment of the parts 30, allows considerable adjustment vertically without affecting the operation of the device. On removing the bolts 18, the angle plate may be readily taken out and the gears 22 and 23 removed.



In Fig. 4, I have shown one form of the locking device for the gears 22 and 23 and in Fig. 5, another form. Referring first to Fig. 4, there is a sliding latch 40 which has its end projected loosely through the opening 41 in the front of the gear box in convenient position to be pushed in by the finger of the operator. The outer end of the latch is larger than the stem thereof so that when the latch is out, it is disengaged from the gear 23. When the latch is pushed in, it engages gear 23. Pivoted to a bracket 41<sup>a</sup> on the angle plate, is a weighted arm 42 which is pivoted to the latch 40 at 43, the weighted arm being in such position that its head lies opposite the square opening in the gear 23. The numeral 44 designates a crank or handle having a squared part 45 adapted to fit the square opening in the gear 23 and itself having an opening. The part 45 being in the gear 23, a pencil or any other suitable instrument may be passed through the part 45 to engage and push back the arm 42 to throw the latch 40 out of engagement with the gear 23. When the latch 40 is pushed in it remains in engagement with the gear 23 by reason of the then position of the alinement 42. Referring to Fig. 5, a latch is employed, as before, and a keyhole 51 may be positioned adjacent thereto for the insertion of a key to engage the part 52 of the latch to throw it into or out of engagement with the gear 23.

I am aware that changes of construction may be resorted to in carrying out my invention and I do not, therefore, limit myself to the exact features herein set forth but claim all modifications coming within the scope of the invention.

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

1. In an awning operating device, the combination with a closed gear box, of intermeshing gears located within the box, a movable latch adapted for locking the gears

having a projecting part serving as a push button and provided with means within the gear box or case whereby it may be independently operated from the exterior of the gear box.

2. In an awning operating device, the combination with a gear box, of intermeshing gears therein, one of which has an opening therethrough, a sliding latch to lock the gears which has a projecting part serving as a push button, and a pivoted weighted lever operated by the latch and adapted for operation by means introduced through the opening in the gear aforesaid.

3. In an awning operating device, the combination with a split gear box or case, of an angle plate therein which is held by the meeting edges of the section of the box, and intermeshing gears journaled in the box or case and bearing against the angle plate.

4. In an awning operating device, the combination with a gear box or case, of an angle plate located within the box whose angle lies intermediate the walls of the box and intermeshing gears journaled in the box and bearing against the angle plate.

5. In an awning operating device, the combination with an operating gear and a gear for rotating the awning roller, of couplings for said gears which have sockets, and an operating rod having its ends loosely seated in said sockets, whereby exact alinement of the gears is rendered unnecessary.

6. In an awning operating device, the combination with hangers for the awning roller, of operating means, and a gear carried by one of the hangers having a loose connection with the awning roller whereby the necessity for positioning the hangers in exact alinement is obviated.

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

WILLIAM NEHRING.

Witnesses:

F. C. GORE,  
J. R. DILL.