

**Sept. 15, 1931.**

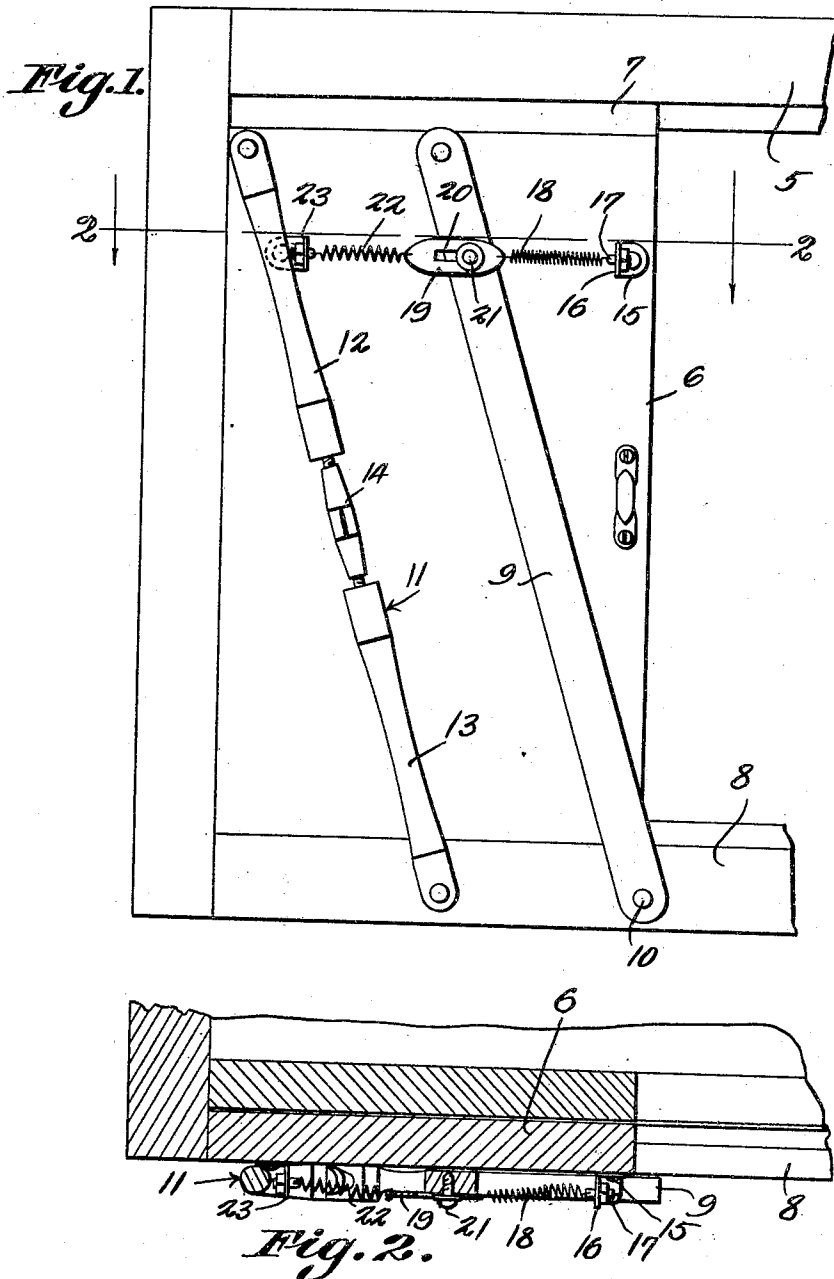
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1,823,193

CLOSURE HANGER

Filed June 27, 1930

2 Sheets-Sheet 1



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2 Sheets-Sheet 2

Fig. 4.

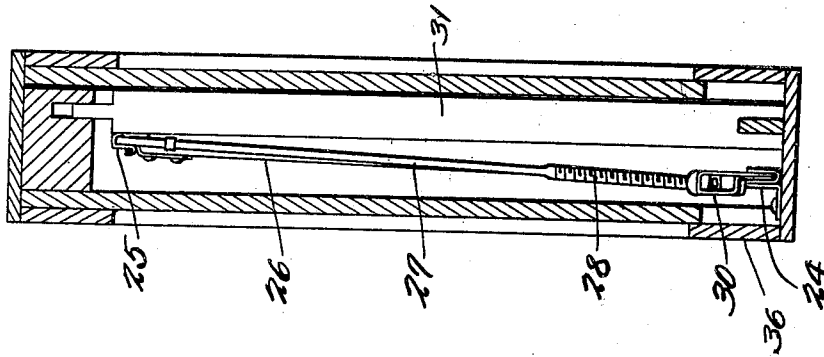
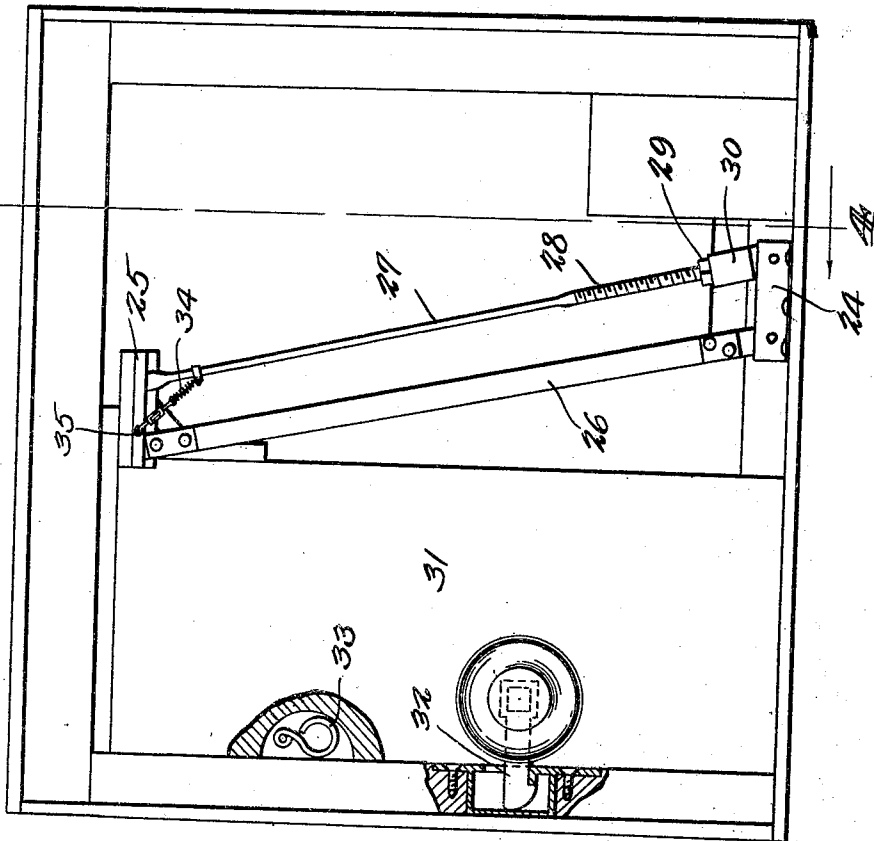


Fig. 3.



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## UNITED STATES PATENT OFFICE

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## CLOSURE HANGER

Application filed June 27, 1930. Serial No. 464,317.

This invention relates to closure hangers, and aims to improve generally the construction as shown and described in my Patent No. 1,757,422.

5 An important object of the invention is to provide a closure hanger which will operate to elevate the closure and cause the closure to swing laterally, when the closure is pulled in either direction to operate the closure.

10 A further object of the invention is to provide a hanger embodying a pair of supporting bars, the bars being adjustable to cause the closure to tilt to compensate for closures that are hung unevenly, to the end that the  
15 closure may be properly balanced after it has been set up.

With the foregoing and other objects in view, which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, may be made without  
25 in the scope of what is claimed, without departing from the spirit of the invention.

Referring to the drawings:

Figure 1 is an elevational view of a closure and closure hanger, the closure hanger being  
30 constructed primarily for use in connection with heavy closures such as car doors garage doors or the like.

Figure 2 is a sectional view taken on line 2—2 of Figure 1.

35 Figure 3 is an elevational view of a closure and closure hanger, of the type constructed for use in dwellings.

Figure 4 is a sectional view taken on line 4—4 of Figure 3.

40 Referring to the drawings in detail, the reference character 5 designates the upper bar of a door frame in which the door or closure 6 operates, the bar 5 being formed with a groove in which the tongue 7, formed longitudinally of the upper end of the door 6,  
45 operates.

The lower bar 8 of the closure frame is also formed with a groove to receive the lower end of the door or closure 6. The reference character 9 designates the main sup-

porting bar of the closure hanger, the lower end thereof being pivotally connected to the bar 8, at 10, while the upper end of the bar has pivotal connection with the door 6, at a point intermediate the side edges thereof, and adjacent to the upper end of the door. The pivot point 10 of the bar 9 is arranged adjacent to one edge of the door 6, as clearly shown by Figure 1 of the drawings.

The reference character 11 designates what might be termed the balancing bar of the hanger, and includes an upper section 12 pivotally connected to the door 6 adjacent to one corner of the door, while the lower section 13 of the bar 11 has pivotal connection with the bar 8, at a point in spaced relation with the bar 9.

Threaded openings are formed in the adjacent ends of the sections 12 and 13, and receive the threaded ends of the adjusting screw 14 by means of which the sections 12 and 13 may be adjusted to properly balance the door.

Secured to the door 6, is a plate 15 formed with an upstanding ear 16 having an opening through which the bolt 17 passes, the bolt 17 having an opening to receive one end of the coiled spring 18, the opposite end of the coiled spring being connected with the plate 19.

The plate 19 is formed with an elongated opening 20 that accommodates the pin 21 employed for securing the plate 19 to the bar 9. This construction permits of sliding movement of the plate 19 with respect to the pin 21. A relative large spring 22 connects with the plate 19 and has its opposite end connected with the section 12 of the bar 11, by means of the plate 23 which is secured to the bar 12. Thus it will be obvious that when the door or closure 6 is moved to the right, the door 6 will be elevated, and after the bar 9 assumes a vertical position, the door will automatically gravitate to its closed position and may only be moved to its open position by exerting a force on the door in the opposite direction.

In the form of the invention as shown by Figure 3 of the drawings, the construction

of the door is one for use in light building construction, and as shown this hanger embodies a supporting bracket 24 secured at the base of the door or closure, and a bracket 25 secured to the door at a point adjacent to the inner upper end thereof.

The main supporting bar of the hanger is indicated by the reference character 26 and has its lower end pivotally connected with the bracket 24, the upper end thereof being connected to the bracket 25. Spaced from the bar 26 is an adjusting rod or bar 27 that has its upper end pivotally connected with the bracket 25 at a point in spaced relation with the bar 26.

Threads 28 are formed at the lower end of the rod 27 and are designed to accommodate the nut 29 that rests against the upper end of the socket member 30 which is pivotally connected to the bracket 24. By adjusting the nut 29, the rod may be lengthened or shortened to properly balance the closure, which is indicated by the reference character 31.

The reference character 34 designates a coiled spring that has one of its ends connected to the rod 27, the opposite end of the spring being adjustably connected with the bracket 25, at 35 so that the closure will swing evenly and lightly into and out of its closed position.

Disposed adjacent to the bottom of the door or closure, is a base or casing cover 36 which is so constructed that it may be readily removed to permit of access to the nut 29, to adjust the hanger.

A latch member indicated by the reference character 32 is provided on the door and acts to hold the door in its closed position. In order that the closure may be readily operated, a hand grip 33 is mounted in a recess in one edge of the door, as clearly shown by Figure 3.

I claim:

1. In a closure hanger, a main supporting bar, means for pivotally connecting the supporting bar to a closure, a balancing bar connected with the closure, a plate slidably mounted on the main supporting bar, coiled springs connected with the plate, one of said coiled springs being connected with the balancing bar, the opposite coiled spring being connected to the closure, and said coiled springs adapted to move the closure laterally past a vertical line drawn through the pivot points of the main supporting bar.

2. In a closure hanger, a main supporting bar, means for pivotally connecting the supporting bar to a closure, a balancing bar connected with the closure, coiled springs, one of said coiled springs being connected to the closure, means for connecting the opposite coiled spring to the balancing bar, means for slidably connecting the adjacent ends of the springs to the supporting bar,

and said coiled springs adapted to move the closure laterally past a vertical line drawn through the pivot points of the main supporting bar.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature.

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