I. R. SALLADAY.

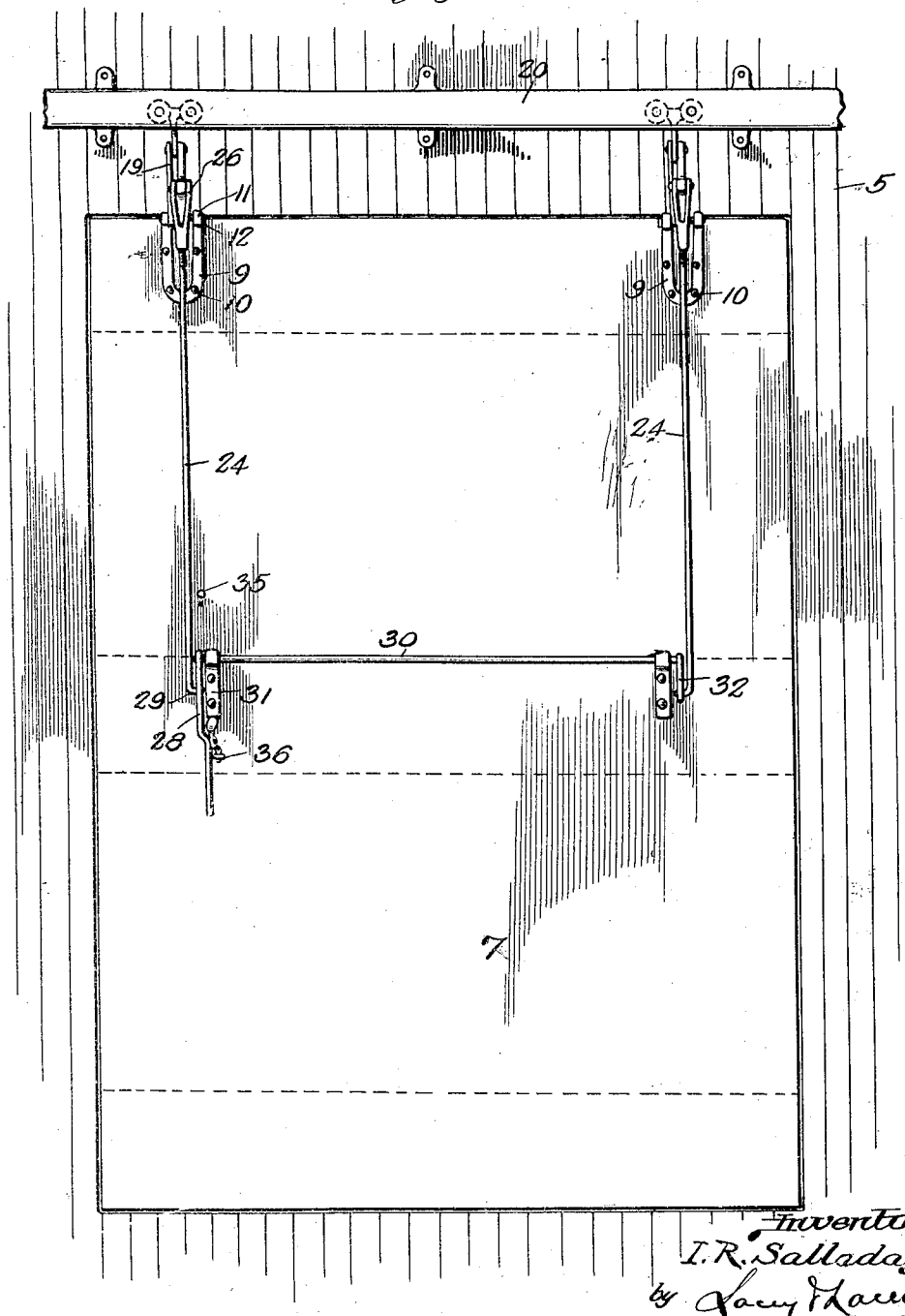
DOOR HANGER.

APPLICATION FILED AUG. 18, 1919.

1,339,790. **Patented May 11, 1920.**

2 SHEETS—SHEET 1.

Fig. 1.



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2 SHEETS—SHEET 2.

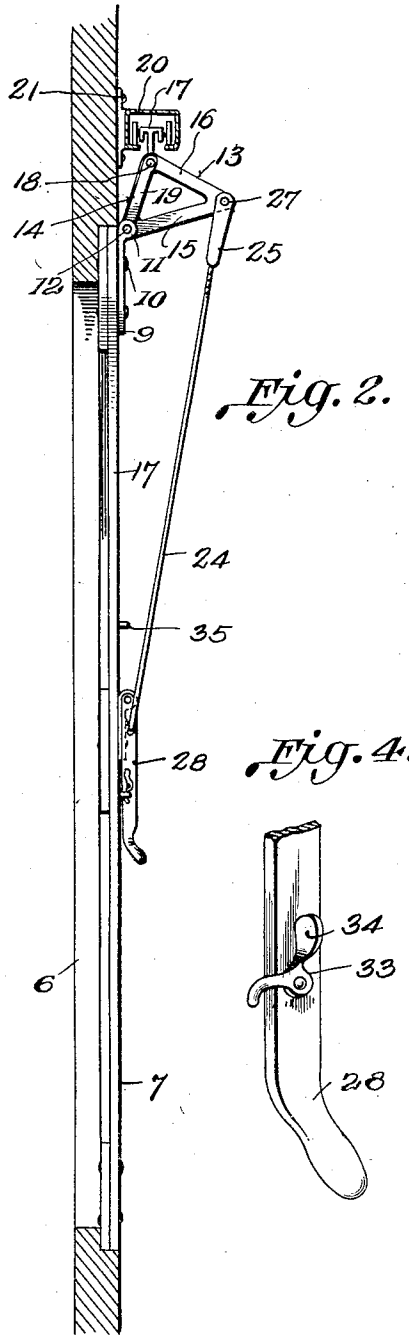


Fig. 2.

Fig. 4.

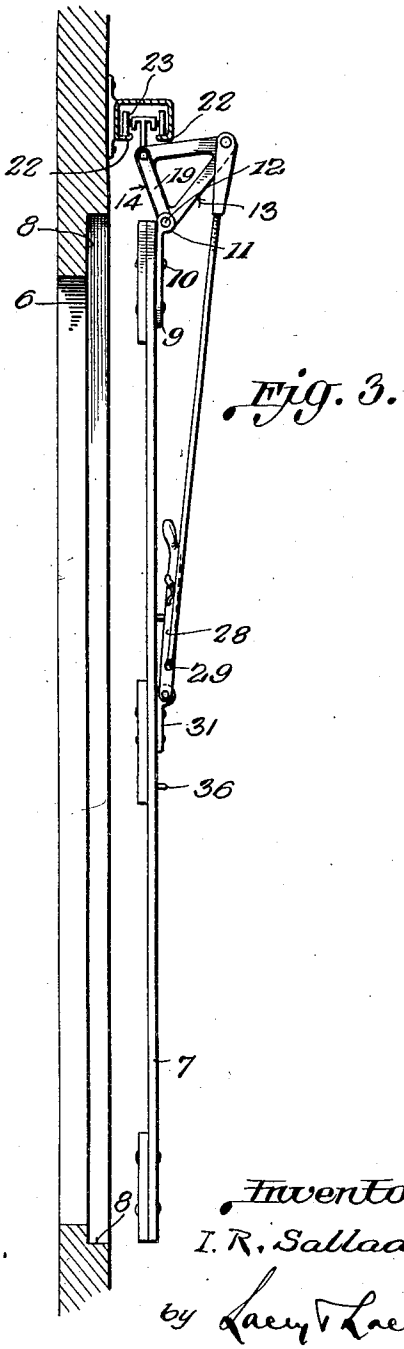


Fig. 3.

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UNITED STATES PATENT OFFICE.

ISAIAH R. SALLADAY, OF AINSWORTH, IOWA.

DOOR-HANGER.

1,339,790. Specification of Letters Patent. Patented May 11, 1920.

Application filed August 18, 1919. Serial No. 318,219.

To all whom it may concern:

Be it known that I, ISAIAH R. SALLADAY, a citizen of the United States, residing at Ainsworth, in the county of Washington and State of Iowa, have invented certain new and useful Improvements in Door-Hangers, of which the following is a specification.

My invention relates to improvements in sliding doors and more particularly to the hangers therefor.

An important object of this invention is to provide a sliding door hanger having means whereby the door may be swung outwardly from the doorway when it is desired to open the same.

A further object is to provide a door hanger having means for positioning the door flush with the outer side of the doorway when the door is closed whereby objectionable cracks between the door and the sides of the doorway may be dispensed with.

A further object of the invention is to provide a door hanger which is simple in construction and which may be conveniently attached to sliding doors.

In the accompanying drawings forming a part of this application and in which like numerals are employed to designate like parts throughout the same,

Figure 1 is a front elevation of a door having my improved door hanger applied,

Fig. 2 is a vertical transverse section through the same,

Fig. 3 is a similar view, the door being shown extended outwardly from the doorway,

Fig. 4 is a fragmentary perspective of an operating lever embodied in the invention.

In the drawings wherein for the purpose of illustration is shown a preferred embodiment of my invention, the numeral 5 designates a portion of a building having a door opening 6. A sliding door 7 is adapted for closing the door opening 6 and when closed the edge portions of the door are seated in a recess 8 formed in the outer sides of the doorway. When the edge portions of the door are seated in the recess or groove 8, the outer side of the door is flush with the outer side of the building and all objectionable cracks between the door and the doorway are thereby eliminated. As illustrated in Fig. 1, the upper side of the door is provided with a pair of U-shaped attaching straps 9 secured to the door by bolts or other suitable fastening devices 10. The upper portions of the arms of each U-shaped strap 9 are provided with enlarged bearing openings 11 receiving a pin or stud 12.

As indicated in Figs. 2 and 3, the stud 12 of each strap 9 is pivotally connected to a triangular hanger generally designated by the numeral 13. Each triangular hanger 13 includes a substantially vertical arm 14, an outwardly and upwardly inclined arm 15 and an approximately horizontal arm 16, each of said arms having their ends connected to the adjacent ends of the other arms. The upper portion of the triangular hanger 13 is pivotally connected to a trolley 17 by a pivot pin 18. A link 19 arranged in spaced parallel relation to the vertical arm 14 has its ends pivotally connected to the pivot elements 12 and 18 for coöperating with the arm 14 in supporting the door. A track 20 is secured to the side of the building by suitable fastening devices 21 and is provided with horizontal runners 22. Wheels 23 carried by the trolley are mounted on the runners 22.

An arm or rod 24 has threaded engagement with an adjusting sleeve 25. As illustrated in Fig. 1, the upper portion of the adjusting sleeve 25 is provided with forked arms 26 arranged on opposite sides of and pivotally connected to the forward portion of the triangular hanger 13 by a pivot element 27. As is obvious each triangular hanger is provided with an arm or rod 24. The lower end portion of one rod 24 is pivotally connected to the intermediate portion of an operating lever 28, as indicated at 29. The forward end portion of the lever 28 is keyed or otherwise rigidly secured to one end portion of a transversely extending rod 30. The rod 30 is rotatably supported by bearing brackets 31 secured to the door. As illustrated in Fig. 1, a crank 32 is secured to the opposite end of the rod 30 and has pivotal connection with the lower end portion of the other arm 24. The lever is provided with a pivotally supported locking bolt 33 having a thumb piece 34. The locking bolt 33 is adapted to engage upper and lower keepers 35 and 36 respectively which are secured to the door. When the locking bolt 33 is engaged with the lower keeper 36, the door is held in a closed position and when the bolt 33 is engaged with the upper keeper 35, the door is locked in spaced relation to the door opening.

In the practice of my invention, the triangular hangers 13 are pivotally connected to the trolleys 17 and to the attaching straps 9. When it is desired to move the door outwardly from the doorway preparatory to sliding the same to an open position, the handle of the operating lever is positioned substantially vertically, as illustrated in Fig. 3. The lever is locked in this position and the door may now be swung to an open position. When it is desired to return the door to a closed position, the lever 30 is lowered, as illustrated in Fig. 2, and the door immediately closes the opening and the edge portions of the same seat within the recesses 8.

While I have shown and described the preferred embodiment of my invention, it is understood that such minor changes in arrangement and construction of parts may be made as will remain within the spirit of the invention and the scope of what is claimed.

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

1. The combination with a wall having a door opening, of a door for closing said opening, attaching devices secured to the upper portion of the door, triangular hangers pivotally connected to said attaching devices and extending upwardly and outwardly from the same, trolleys pivotally connected to the upper portions of the triangular hangers, links pivotally connected to said attaching devices and said trolleys and arranged in spaced parallel relation to said hangers, and operating members connected to the outer portion of said hangers.

2. The combination with a sliding door, of triangular hangers pivoted to said door and inclusive of upright arms, upwardly inclined arms and outwardly extending arms connecting the first and second named arms, trolleys having pivot elements connected to said hangers, links pivoted to said door and to said pivot elements and arranged in spaced parallel relation to the upright arms of said hangers, and operating arms connected to said hangers at the junctures of the outwardly extending and upwardly inclined arms of the same.

3. The combination with a sliding door, of attaching members applied to said door and provided with pivot elements, triangular hangers connected to said pivot elements and extending upwardly and outwardly from the same, trolleys having pivotal connection with the upper ends of said hangers, sleeves pivoted to the outer portions of said hangers, rods threaded into said sleeves and arranged vertically in front of the door, a transversely extending bearing rod carried by the intermediate portion of the door and provided at one end with a crank pivoted to the lower end of one of said rods, a lever pivoted intermediate its ends to the lower portion of the other rod and having its forward end rigidly connected to the other end of said bearing rod, and means to secure said lever in adjusted position.

4. A device of the class described including an attaching strap having a pair of bearing openings, a pivot element extending through said bearing openings, a triangular hanger secured to said pivot element between said bearing openings, a trolley having a pivot element connected to the upper portion of said triangular hanger, a link connected to said first and second named pivot elements and arranged in spaced parallel relation to said hanger, said link having its lower portion confined between said bearing openings, and means whereby said triangular hangers may be operated.

In testimony whereof I affix my signature.

ISAIAH R. SALLADAY. [L. S.]