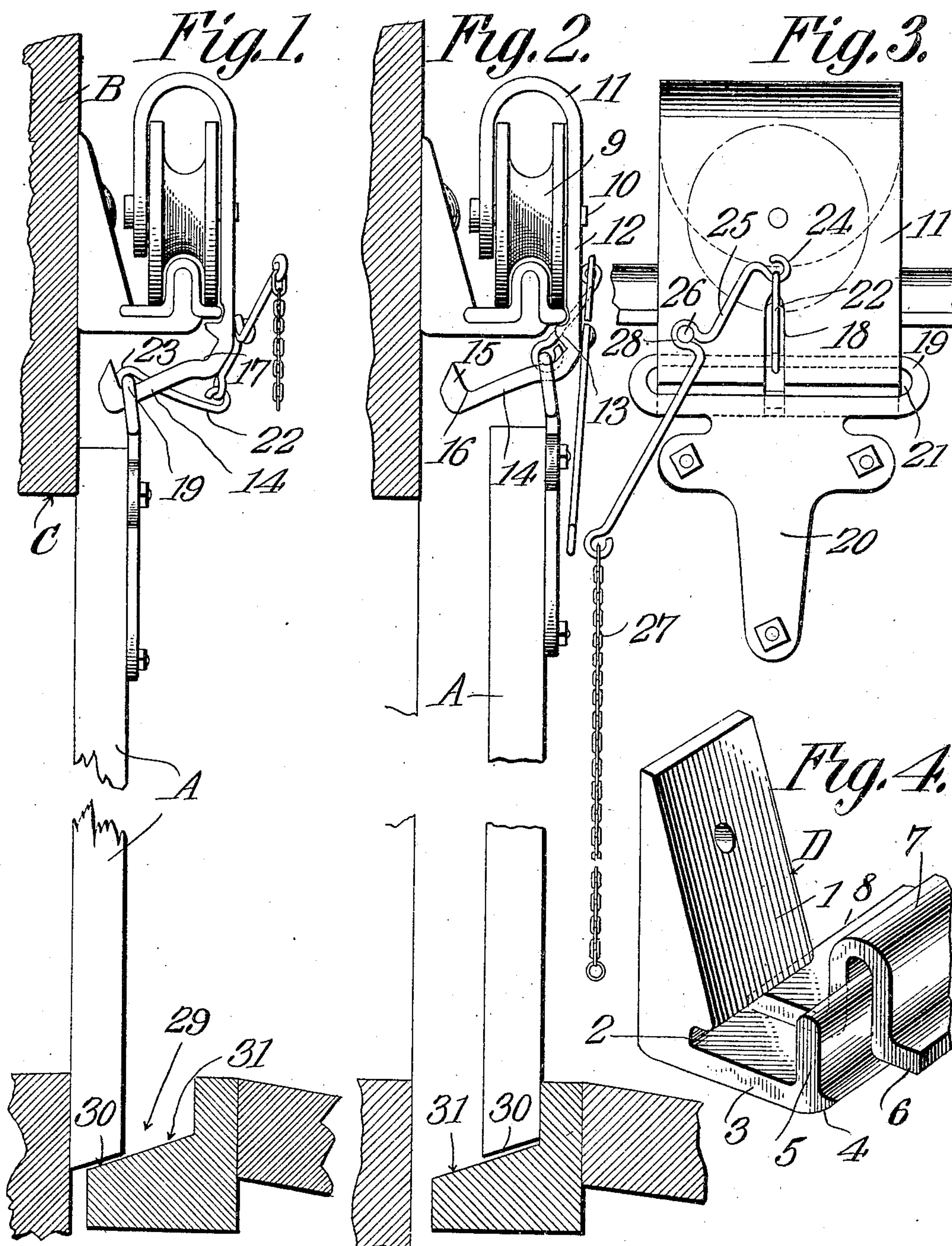


No. 838,710.

PATENTED DEC. 18, 1906.

J. W. HARRIS.  
DOOR HANGER.

APPLICATION FILED SEPT. 1, 1906.



WITNESSES:

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# UNITED STATES PATENT OFFICE,

JAMES WATSON HARRIS, OF ASHLAND, OHIO.

## DOOR-HANGER.

No. 838,710.

Specification of Letters Patent.

Patented Dec. 18, 1906.

Application filed September 1, 1906. Serial No. 332,959.

*To all whom it may concern:*

Be it known that I, JAMES WATSON HARRIS, a citizen of the United States, residing at Ashland, in the county of Ashland and State of Ohio, have invented a new and useful Door-Hanger, of which the following is a specification.

This invention relates to door-hangers, such as are adapted particularly for use on sliding barn-doors, railroad-car doors, and the like.

The objects of the invention are to improve and simplify the construction of such devices; furthermore, to increase their efficiency in use and to decrease the expense attending their manufacture.

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 invention herein disclosed can be made within the scope of the following claims without departing from the spirit of the invention or sacrificing any of its advantages.

In the accompanying drawings, forming part of this specification, Figure 1 is a vertical section, partly in elevation, through a door equipped with the improved hanger of the present invention, the door being shown in its inner or closed position. Fig. 2 is a view similar to Fig. 1, showing the door in its outer position. Fig. 3 is a view in elevation looking toward the outer side of the improved hanger, and Fig. 4 is a perspective view of the track member.

Like reference characters indicate corresponding parts in the different figures of the drawings.

The reference-letter A indicates a door, and B a door-casing. Suitably secured to the door-casing B above the door-opening C therein is a track member D, consisting, preferably, of a bracket, such as shown in Fig. 4, having a vertical approximately wedge-shaped portion 1, having at its lower end a slot 2. Extending downwardly from the lower end of the vertical portion 1 is a horizontal portion 3, having a beveled lower outer edge 4 and an upstanding fin 5. Fitted upon the horizontal portion 3 of the bracket is a shield or track 6, having an inverted approximately U-shaped portion 7 to receive the upstanding fin 5 of the horizontal portion

3. The inner edge 8 of the shield 6 fits into the slot 2 of the wedge-shaped portion 1, whereby the shield is securely held in position upon one or more of the brackets, as shown.

The reference-numeral 9 indicates a roller which is adapted to be moved along the shield 6 for the purpose of moving the door into closed or opened position. Connected with the shaft 10 of the roller 9 is a yoke 11, the outer portion 12 of which yoke is extended downward beyond the horizontal portion 3 of the stationary track member D and is provided with an inwardly-extending shoulder 13, adapted to fit under the outer edge of the shield 6, as shown in Fig. 2. Below the shoulder 13 the yoke 11 is formed with an inwardly-extending supporting portion 14, which is inclined, as shown, and is formed at its inner end with an upwardly-extending flange 15. The supporting portion 14 is formed in its upper face with an inner depression or groove 16 and an outer depression or groove 17, the outer groove 17 being in a higher horizontal plane than the inner groove 16 and the material of the supporting portion 14 being inclined upwardly from the groove 16 to the groove 17. The supporting portion 14 of the yoke 11 is formed with a transversely-extending slot 18, the outer end of which is continued upward a short distance in the outer portion 12 of the yoke 11, as shown in Fig. 3.

Extending across the supporting portion 14 of the yoke 11 is the upper bar 19 of a door-plate 20, which is suitably secured to the door A, the upper bar 19 of said plate being formed, preferably, by means of a slot 21 in the plate, as shown in Fig. 3. The upper bar 19 is adapted to be seated either in the inner lower groove of the supporting portion 14 of the yoke 11 or in the outer and higher groove 17, the arrangement being such that when the upper bar 19 is in the groove 16 the door A is moved tight against the casing B, as shown in Fig. 1, and when said bar is in the outer groove 17 the door A is moved away from the casing B, as shown in Fig. 2, so that it can be readily slid along the shield or track 6.

For the purpose of drawing the upper bar 19 outward upon the supporting portion 14 of the yoke 11, so as to cause it to move from the inner groove 16 to the outer groove 17, a link 22 is pivotally connected at its inner end 23 with the upper bar 19 and extends down-



ward and outward through the slot 18 in the supporting portion 14 and outer portion 12 of the yoke 11. At its outer end the link 22 is pivotally connected at 24 with a lever 25, fulcrumed loosely upon a pin 26 on the outer portion 12 of the yoke 11. Suitably connected with the lever 25 is a flexible element 27. The lever 25, which preferably consists of a bar of metal bent to form a spring-loop 28, is loosely connected with the pivot-pin 26, so as to be capable of a certain amount of loose or wobbling movement thereon, as indicated in Fig. 1. For this reason by drawing downward upon the flexible element 27 and at the same time manipulating the same so as to draw the long end of the lever slightly inward toward the door A the opposite end of said lever, which is connected with the link 22, will be moved upward and outward, thus drawing upon the link 22 and pulling the upper bar 19 of the door-plate 20 from the inner groove 16 of the supporting portion 14 outward and upward along the inclined upper surface of said supporting portion until it drops into the upper and outer groove 17. This movement of course serves to change the door A from the position shown in Fig. 1, in which it is fitted closely against the door-casing B, to the position shown in Fig. 2, in which it is disposed a sufficient distance away from the door-casing to permit it to be freely moved along the track 6. When it is desired again to close the door, the operator pushes inward against the upper portion of said door, so as to cause the upper bar 19 to move out of the groove 17 and slide downward into the groove 16.

The lower end of the door A preferably is fitted into a groove 29 in the door-sill, said door being formed with a beveled lower end 30, adapted to be in parallelism with the inclined bottom 31 of the groove 29, so as to produce a comparatively tight joint at the lower end of the door.

The improved door-hanger of this invention is strong, simple, durable, and inexpensive in construction, as well as thoroughly efficient in operation.

What is claimed is—

1. A door-hanger comprising a track member, a roller mounted on said track member, a yoke connected with said roller and having a supporting portion formed with inner and outer grooves, a door-plate having a bar, and a lever having a link connection with said bar for moving the same from one of said grooves to the other.

2. A door-hanger comprising a track mem-

ber, a roller mounted on said track member, a yoke connected with said roller and having a supporting portion formed with outer and inner grooves arranged in different horizontal planes, a door-plate having a bar extending across said supporting portion, and a lever mounted upon said yoke and having a link connection with the bar of said door-plate for moving the same from one of the grooves of the yoke to the other of said grooves.

3. A door-hanger comprising a track member, a roller mounted on said track member and having a yoke provided with an inclined supporting portion having an inner and an outer groove arranged in different horizontal planes and a transverse slot, a door-plate having a bar extending across said supporting portion, a link connected with said bar and extending through said transverse slot, and a lever loosely fulcrumed on said yoke and connected with said link for moving said bar from one of said grooves to the other.

4. A door-hanger comprising a track member consisting of a bracket having a vertical, approximately wedge-shaped portion formed at its lower end with a slot, a horizontal portion extending outwardly from the lower end of the wedge-shaped portion and having an upstanding fin, and a shield having a U-shaped portion to receive the fin; a roller mounted on said shield, a yoke engaging the roller and having its outer portion extended downward beyond the horizontal portion of the bracket and having an inwardly-extending shoulder fitted beneath the outer edge of said shield, the lower portion of said yoke being extended inwardly and downwardly on an incline to form a supporting portion having an upstanding flange at its inner end, an inner and an outer groove in different horizontal planes, and a transversely-extending slot; a door-plate having an upper bar extending across the supporting portion of the yoke, a link pivotally connected with the bar and extending through the slot in the yoke, and a lever fulcrumed loosely on the outer portion of the yoke and connected with the link for moving the upper bar of the door-plate from the inner groove of the yoke into the outer groove.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JAMES WATSON HARRIS.

Witnesses:

ED. FLAHERTY,  
GEO. HART.