T. V. PLICE.

DOOR HANGER.

APPLICATION FILED MAY 23, 1912.

1,105,919.

Patented Aug. 4, 1914.

Fig. 1.

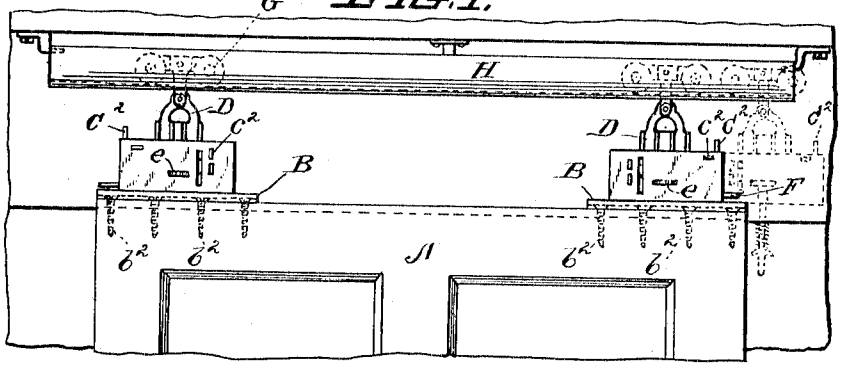


Fig. 2.

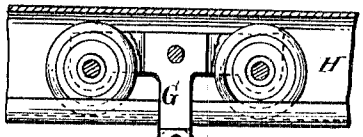


Fig. 5.

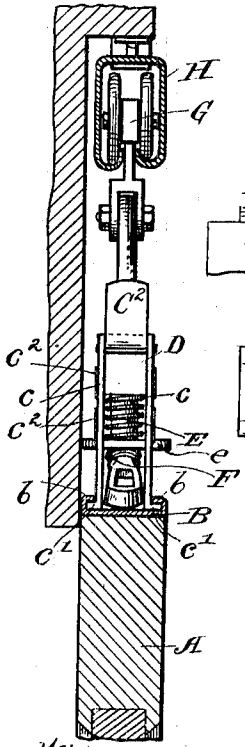


Fig. 3.

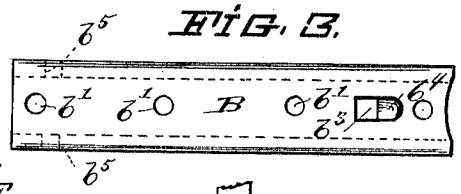


Fig. 6.

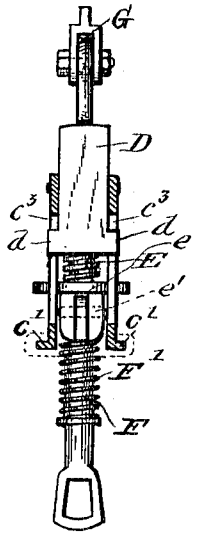
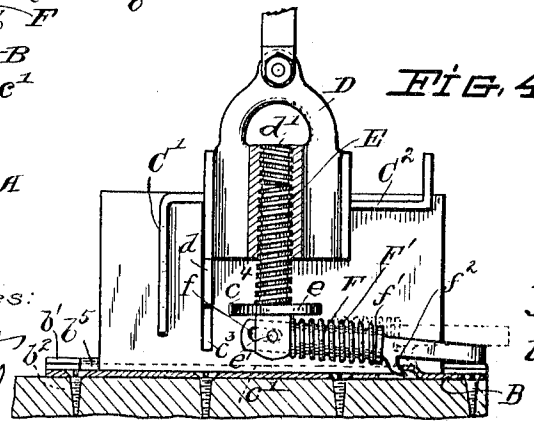


Fig. 4.



Witnesses:

J. C. Turner

E. L. Rosnsteel

Inventor.

Thomas V. Plice

by A. E. Merkel,

Attorney.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

THOMAS V. PLICE, OF ASHLAND, OHIO, ASSIGNOR TO W. V. B. TOPPING, OF ASHLAND, OHIO.

DOOR-HANGER.

1,105,919. Specification of Letters Patent. Patented Aug. 4, 1914.

Application filed May 23, 1912. Serial No. 699,114.

To all whom it may concern:

Be it known that I, THOMAS V. PLICE, a citizen of the United States, resident of Ashland, county of Ashland, and State of Ohio, have invented a new and useful Improvement in Door-Hangers, of which the following is a specification, the principle of the invention being herein explained and the best mode in which I have contemplated applying that principle, so as to distinguish it from other inventions.

My invention relates to door hanger structures and particularly to door hanger structures that are adapted for use in connection with parlor-doors.

The object of my invention is to provide a parlor-door hanger of a nature such that the door may be readily adjusted vertically.

The said invention consists of means hereinafter fully described and particularly set forth in the claims.

The annexed drawing and following description set forth in detail certain means embodying my invention, the disclosed means, however, constituting but one of various mechanical forms in which the principle of the invention may be applied.

In said annexed drawing, Figure 1 is a side elevation of a parlor-door hanger embodying my invention. Fig. 2 is a side elevation of one of the door hangers and adjacent parts of the door structure, upon an enlarged scale. Fig. 3 is a bottom plan of one of the guide-members forming a part of the structure. Fig. 4 is a longitudinal section of parts shown in Fig. 2. Fig. 5 is an end elevation of one of the door hangers, showing a fragmentary portion of the door and guide-member in section. Fig. 6 is a transverse section of the hanger, taken upon the plane indicated by line VI—VI, Fig. 2.

In the illustrated embodiment of my invention, two guide-members B, B, are provided one such being secured to the upper edge of the door and adjacent to each end of the latter, as shown in Fig. 1. Each of these guide-members is of channel formation, being provided with inwardly turned flanges b, b, as shown in Fig. 5. Suitable apertures b' are provided for receiving the fastening screws b^2. Near the outer end of each guide-member B is formed an aperture b^3 Fig. 3 and an upwardly extending lug b^4 forming a shoulder adjacent thereto.

Mounted in each guide-member B is the door hanger member, C, which comprises in its structure two side plates c, c, whose lower edges are formed with outwardly extending flanges, c', c', which fit in the grooves formed by the inwardly extending flanges, b, b, of the guide-member B, and are slidable therein. Two separators C′ and C² are provided and are secured to the side plates by means of lugs c^2, passing through suitable apertures in the said plates and having their outer projecting portions upset so as to secure the separators firmly to the side plates and maintain the latter fixedly with relation to each other. These side plates and separators form the main or body portion of the hanger, which is thus provided with an interior space, open at the bottom.

Mounted between the two side plates is a vertically slidable member D formed with two outwardly extending lugs d which project through two vertical slots, c^3, one of which is formed in each side plate c as shown in Fig. 6. These lugs and slots serve to guide the member D in its vertical movement. The central portion of said member D is formed with an interiorally threaded bore which is engaged by a vertical screw E having fixed near its lower end a disk e which projects through horizontal slots c^4 formed in the side plates c, as illustrated in Fig. 2. The engagement of the disk e with the slots c^4 serves to maintain the position of the said screw in the direction of its axis, while permitting its rotation thereabout.

Passing transversely through the lower end of the vertical screw E, is a pin e'. This pin passes through elongated slots f formed in the bifurcated end of the member F, the said lower end of the screw being flattened, as shown in Fig. 6, in order to pass into and conform to the space between the bifurcations. This member F is formed with a shoulder f', against which bears one end of a coil-spring F′, the other end of which bears against the lower end of the screw, as will be hereinafter described. This member F is therefore hinged to the lower end of the screw and is of a length such that it projects outwardly beyond the main or body portion of the hanger, when said member F is thrown into an upward or substantially horizontal position, as shown in Fig. 4. Formed upon this member is a lug f^2, Fig. 4, which is adapted to engage, as will be hereinafter set forth, the upward projection b^4 of the member B. The slots f

of the member F are of a length such that the said member may be moved some distance in the direction of its axis upon the pin e', and the slotted end of the said member is of a form such that the coil-spring may extend over same and engage the side of the lower end of the screw E, when the said member is in the position shown in Fig. 4. It will therefore be noted that this spring, by reason of its bearing against the shoulder f', tends to thrust the member F outwardly. The length of the slots f is such that, when the pin e' engages the extreme outer end thereof, as the result of the action of the coil-spring, the lug f^2 will extend outwardly beyond the upwardly projecting lug b^4, as shown in dotted lines in Fig. 4, when the door hanger occupies its innermost position on the member B. Near the inner end of the member B are two stops b^5, b^5, formed by cutting the flanges b' and bending the cut portions downwardly. These stops limit the inward position of the hanger in the member B.

When the member F is in the position shown in dotted lines in Fig. 4, it may, it will be noted, be pushed inwardly in the direction of its axis against the action of the spring F'. The lengths of the slots f is such that the amount of this inward movement may be such as to cause the lug f^2 to be brought directly over the opening b^3 in the member B and pushed downwardly at the same time. Upon the subsequent release of said member, the lug f^2 will be caused to engage the upward projection b^4 and thus fix the door hanger on the said member B, the position of the parts under these conditions being shown in Fig. 4.

When it is desired to adjust the door hanger vertically at either or both ends, one of the members F is grasped at its outwardly projecting end, pushed slightly inwardly so as to disengage the lug b^4, and then moved upwardly so as to cause the lug f^2 to completely clear the said lug b^4. In this position it will be seen that the door hanger member C may be slid outwardly to assume a position such as is shown in dotted lines in Fig. 1. In this position the lower end of the screw E may be caused to clear the end of the door, and the member F to swing downwardly into a vertical position as shown in Fig. 6. This member F may then be used as a handle to turn the screw E and thus effect the required vertical adjustment of the member E and of the corresponding end of the door. After the proper adjustment is affected, the member F is swung upwardly and the hanger member C pushed inwardly until it engages the stops b^5, b^5. The said member F is thus caused to engage the member B, in the manner above described, so as to fix the door-hanger in place thereon. When required, either one or both of the ends of the door may be adjusted in the above-described manner. The upper end of the member D is secured to any suitable roller construction G, which runs in a suitably supported track H, as illustrated in the drawing.

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

1. In a door hanger, the combination with a guide-member adapted to be secured to the upper edge of a door and adjacent to one end of the latter; of a member slidable thereon, whereby it may be caused to partially project beyond said door end; said slidable member embodying in its construction a vertically movable member and adjusting means for securing same; said adjusting means being operative only when said slidable member is in a position in which it projects beyond the said door end.

2. In a parlor-door hanger, the combination with a guide-member secured to the upper edge of the door adjacent to one end of the latter; of a door-hanger member slidably mounted in said guide-member and consisting of a main or body portion provided with an interior open space, open at the bottom, a vertically slidable member mounted in said space, a screw-member for effecting the sliding movement of such vertically slidable member, and a member hinged to the bottom of said screw-member and arranged so that it may be caused to lie wholly above said guide-member.

3. In a door hanger, the combination of a guide-member secured to the upper edge of the door and adjacent to one end of the latter; of a door-hanger member comprising in its structure a main or body member slidably mounted in said guide-member, a vertically movable member mounted upon said body-member, a screw engaging said vertically movable member and adapted to impart vertical movement thereto, a member hinged to the lower end of said screw and engaged therewith by means of a pin and slot construction, whereby said hinged member is movable on the screw in the direction of its own axis, a spring connected with said hinged member and screw whereby the free end of the former tends to move away from its pivotal axis; said guide-member being provided with a shoulder and said hinged member with a projection adapted to engage said shoulder.

Signed by me this 8'' day of April 1912.

THOMAS V. PLICE.

Attested by—

H. A. MYKRANTZ,

F. N. PATTERSON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."