J. C. FLUGGER.

DOOR HANGER.

APPLICATION FILED OCT. 14, 1912.

1,067,725.

Patented July 15, 1913.

2 SHEETS—SHEET 1.

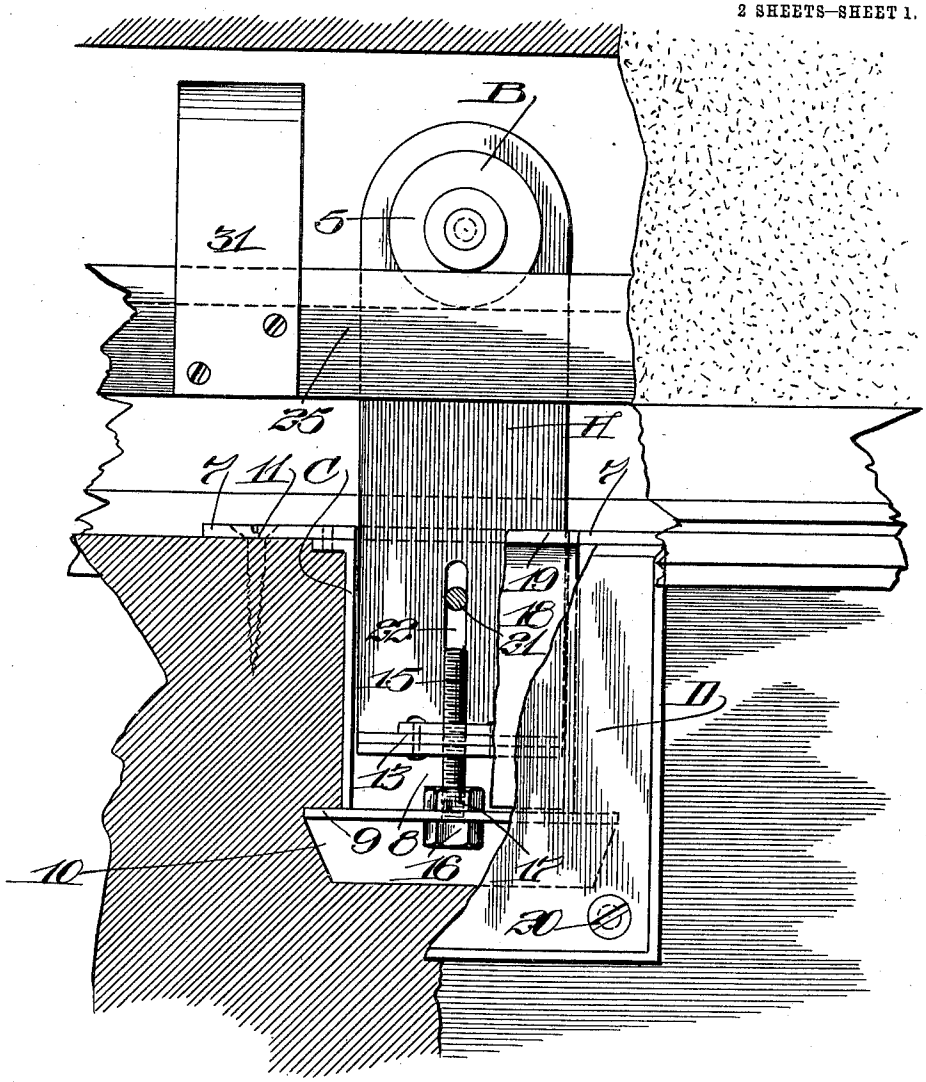


Fig. 1.

WITNESSES:

Thos. Castberg.

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2 SHEETS—SHEET 2.

Fig. 3.

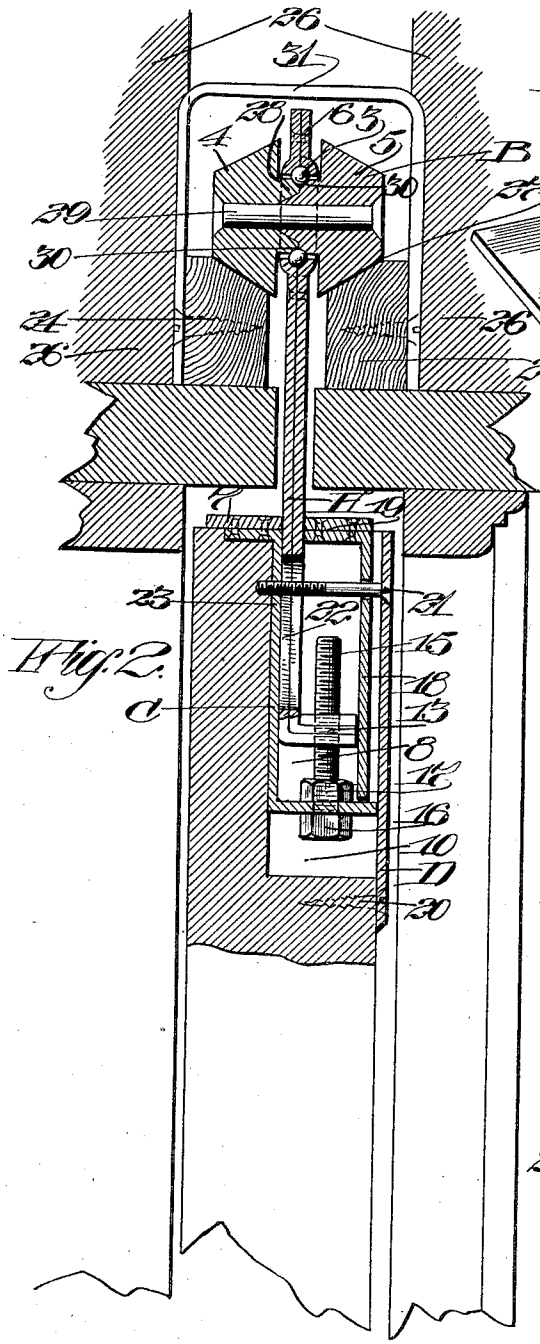


Fig. 2.

Fig. 5.

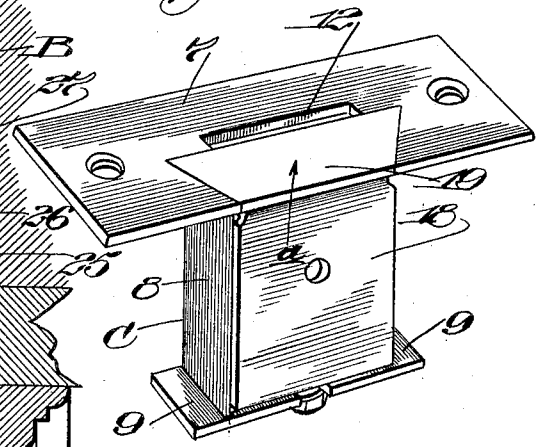
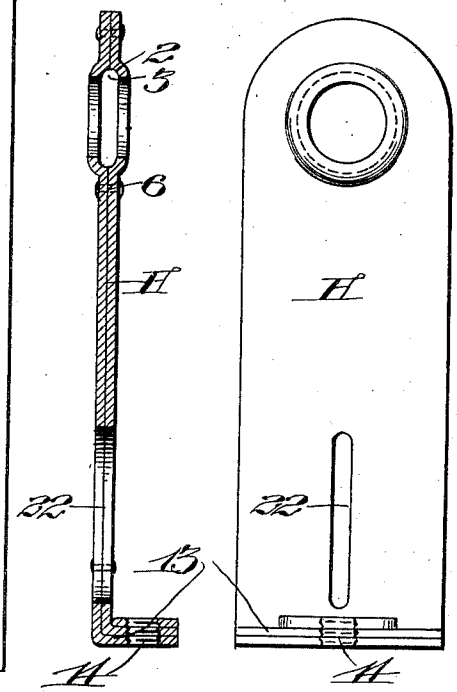


Fig. 4.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN CHAS. FLUGGER, OF SAN FRANCISCO, CALIFORNIA.

DOOR-HANGER.

1,067,725. Specification of Letters Patent. Patented July 15, 1913.

Application filed October 14, 1912. Serial No. 725,633.

To all whom it may concern:

Be it known that I, JOHN C. FLUGGER, a citizen of the United States, residing in the city and county of San Francisco and State of California, have invented new and useful Improvements in Door-Hangers, of which the following is a specification.

This invention relates to an adjustable door hanger.

The purpose of this invention is to provide a simple, substantial door hanger and bracket which are so constructed that the door may be hung or adjusted without removing any woodwork or plaster.

The object of the invention is to provide a securing bracket by which the door may be adjusted with relation to the hanger.

Another object is to provide means for securing the bracket to the door so as to equalize and distribute the weight of the door.

The invention further consists of the parts and the construction and combination of parts as hereinafter more fully described and claimed, having reference to the accompanying drawings, in which—

Figure 1 is a side elevation, partly broken away, showing the application of the invention. Fig. 2 is a vertical cross-section of Fig. 1. Fig. 3 is a perspective view of the door bracket. Fig. 4 is a side elevation and section of the hanger bracket.

Referring to Fig. 1 of the drawings A indicates the hanger, B the ball-bearing wheels, and C the door bracket to which the hanger is adjustably secured. The hanger is made of sheet steel or like material, which is stamped in two separate pieces and pressed out, as shown at 2, to receive rollers 4 and 5 for the purpose of forming the ball-bearing 3, between the hanger and the roller; the separate pieces being secured together by suitable means, as the rivets 6.

The door bracket C consists of a top plate 7 and a box portion 8 having projecting flanges 9. The flanges 9 are provided for the purpose of holding or carrying the main weight of the door; the door being undercut, as shown at 10, for the purpose of receiving the box portion and the projecting flanges 9.

The top plate may be secured to the door by any suitable means, as the screws 11, provided more for the purpose of holding the bracket in position than to carry the weight of the door, as the main weight of the door is supported by the flanges 9. The plate 7 is cut, as shown at 12, to provide a slot through which the hanger A may project. The lower portion of the hanger A is provided with a flange 13, perforated and threaded, as at 14, for the purpose of receiving the adjusting bolt 15, which projects through the lower portion of the door bracket. The lower portion of the adjusting bolt is provided with a head 16, and the other side of the bracket is provided with a lock-nut 17, making it possible to adjust the position of the hanger A with relation to the door bracket.

For the purpose of gaining admission to the lock-nut 17, and also for the purpose of clamping and securing the hanger A with relation to the door bracket, I have provided a cover portion 18 having a right angular dovetailed projection 19 adapted to fit into the top plate 7. The projection 19 forms the opposite wall of the slot 12 and acts as a clamp or retainer for the hanger when this is in position and will, when removed, by being lifted a sufficient distance in the direction of arrow *a* to disengage the dovetailed portion from the top plate 7, allow the insertion or removal of the hanger into the door bracket. The cover plate 18 also serves the function of preventing any turning movement or play of the lock-nut 17. The door bracket as a whole is entirely covered by a cover plate D, which is secured to the door by screws 20 and a central screw 21 which passes through the cover 18 and a slot 22 in the hanger before passing through the back portion 23 of the door bracket; the screw 21 performing the function of securing and holding the cover plate 18 and clamp portion 19.

The upper portion of the hanger A is hung in the rollers 4 and 5, as shown, which are supported on tracks 24 and 25, suitably secured to the studding 26, or similar means, within the wall or partition. The track portions of the rails 24 and 25 are provided with inclined faces 27 to prevent derailing of the rollers 4 and 5 and also for the purpose of centering same with relation to the tracks. The rollers 4 and 5 are provided with interlocking hub portions 28, and are secured and retained in position with relation to each other by a bolt 29, which may be riveted to prevent spreading or displacement of the rollers. The hub portions are provided with an annular groove 30 for the purpose of forming the opposite bearing for the balls 3.

In practical operation and construction, the rollers 4 and 5 are preferably formed of metal, while the tracks may be made of a suitable hardwood for the purpose of insuring even, true, and noiseless operation. The tracks may also be secured by clips 31 to guard against spreading or displacement of the rails and also for the purpose of securing the rails during shipment.

With the hanger positioned, as here shown, with relation to the rollers 4 and 5 and the tracks 24 and 25, it is possible to equalize the strains and distribute the weight of the door so as to gain the best results and operation. It can also be seen that the cover plate D may be removed at any time when it is desired to adjust the position of the door to raise, lower or remove same. The cover plate D, when removed, exposes the inner cover plate 18, which may be removed by lifting it in the direction of arrow *a*, making it possible to gain access to the adjusting bolt 15 to raise or lower the door with relation to the hanger.

The apparatus here shown is neat in appearance, prompt and reliable in its actions, and takes no more space than similar mechanisms. The materials and finish of the several parts are such as the experience and judgment of the manufacturer may dictate.

I wish it understood that various changes in form, proportions and minor details of construction may be resorted to within the scope of the appended claims, and that I do not wish to limit myself to the specific design here shown.

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

1. The combination with a door hanger, of a bracket, a pocket formed in the side and top edge of the door adapted to receive said bracket, flanges projecting from said bracket, undercut shoulder portions formed in the door pocket with which the bracket flanges engage for the purpose of supporting the main weight of the door, means within the bracket for adjustably securing the hanger to the bracket, and means for clamping the hanger to the bracket.

2. An adjustable hanger comprising in combination, a pair of connected rollers, a hanger centrally hung between said rollers, a pocket formed in the top edge of the door, a bracket secured in said pocket which is open on one side to permit the insertion of the hanger, means for adjustably securing the hanger in the bracket, flanges projecting from the bracket, shoulder portions formed in the door pocket with which the bracket flanges engage for the purpose of supporting the main weight of the door, a plate secured to the door for the purpose of covering the bracket and hanger securing mechanism, and a secondary cover plate interposed between the first named plate and bracket for the purpose of clamping the hanger in the bracket.

3. An adjustable hanger comprising in combination, a pair of connected rollers, a hanger centrally hung between said rollers, a pocket formed in the top edge of the door, a bracket secured in said pocket which is open on one side to permit the insertion of the hanger, means for adjustably securing the hanger in the bracket, flanges projecting from the bracket, shoulder portions formed in the door pocket with which the bracket flanges engage for the purpose of supporting the main weight of the door, a plate secured to the door for the purpose of covering the bracket and hanger securing mechanism, a secondary cover plate interposed between the first named plate and bracket for the purpose of clamping the hanger in the bracket, and means for locking said secondary plate in the bracket, said means comprising a dovetail-shaped, right angular projection, and a similar shaped pocket in the top portion of the bracket with which said projection may interlock.

4. The combination with a door hanger, of a bracket, a pocket formed in the side and top edge of the door adapted to receive said bracket, flanges projecting from said bracket, undercut shoulder portions formed in the door pocket with which the bracket flanges engage for the purpose of supporting the main weight of the door, means within the bracket for adjustably securing the hanger to the bracket, a plate secured to the door to cover the bracket and hanger, and means interposed between said plate and hanger for the purpose of clamping the hanger in the bracket.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JOHN CHAS. FLUGGER.

Witnesses:
JOHN H. HERRING,
GENEVIEVE S. DONELIN.

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