

No. 845,479.

PATENTED FEB. 26, 1907.

H. J. RANDALL.  
DOOR HANGER.

APPLICATION FILED MAY 11, 1905.

Fig. 1.

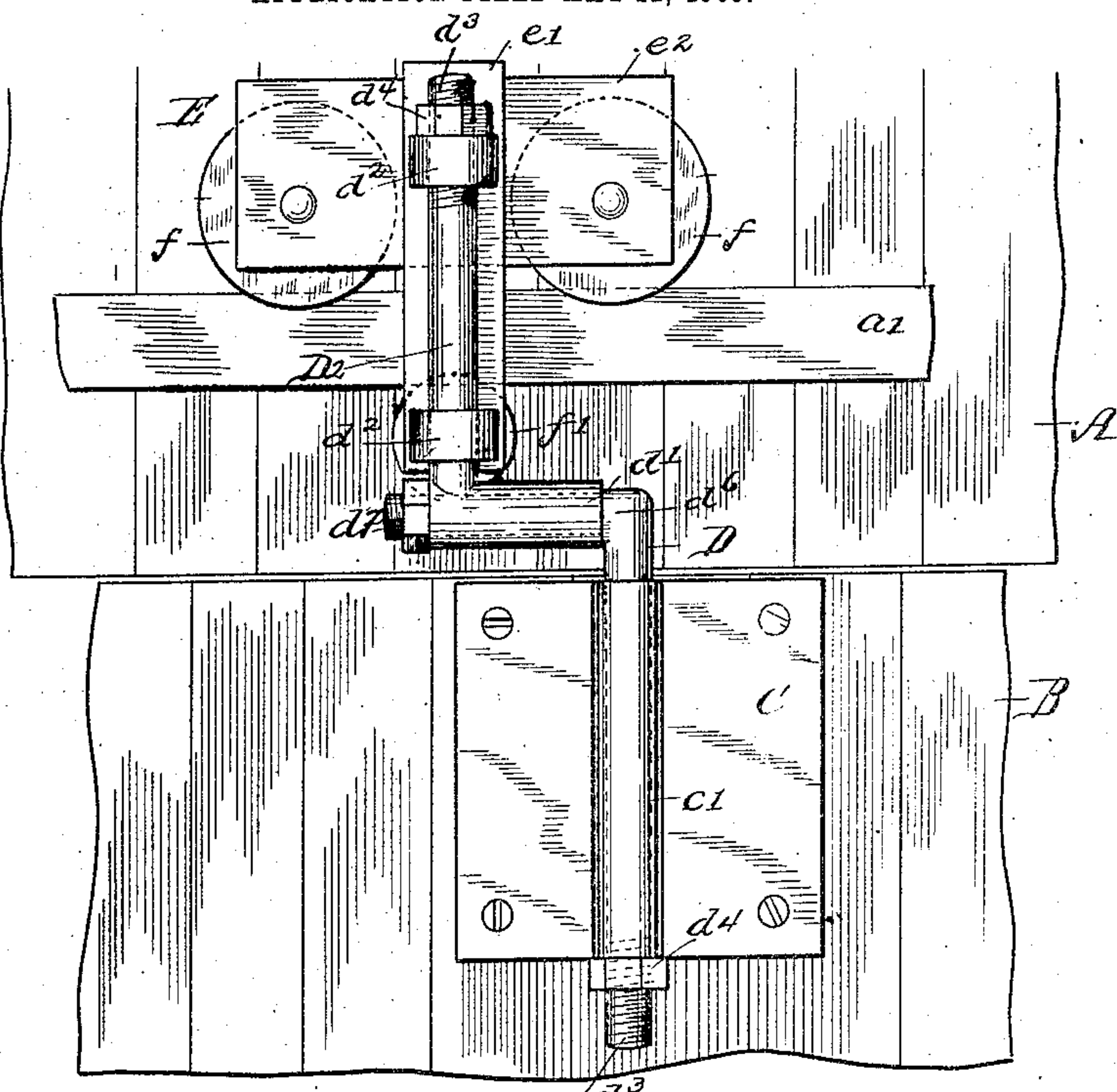


Fig. 2.

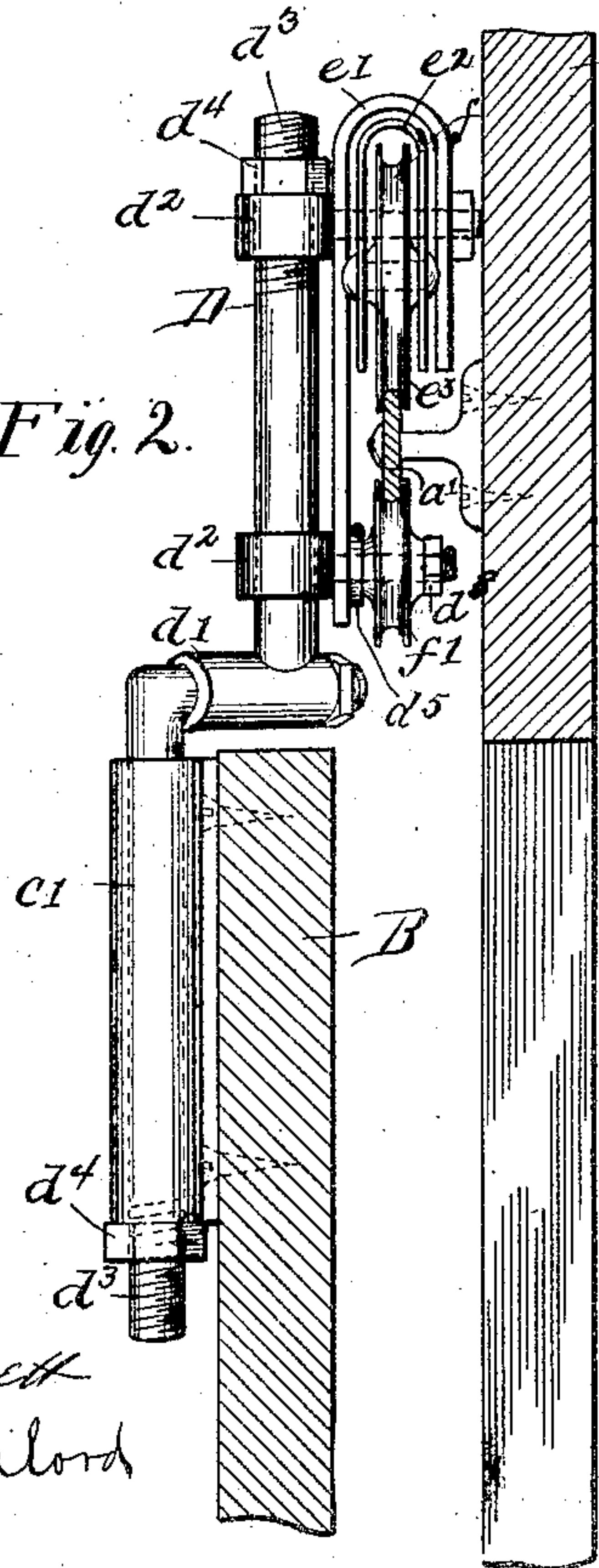
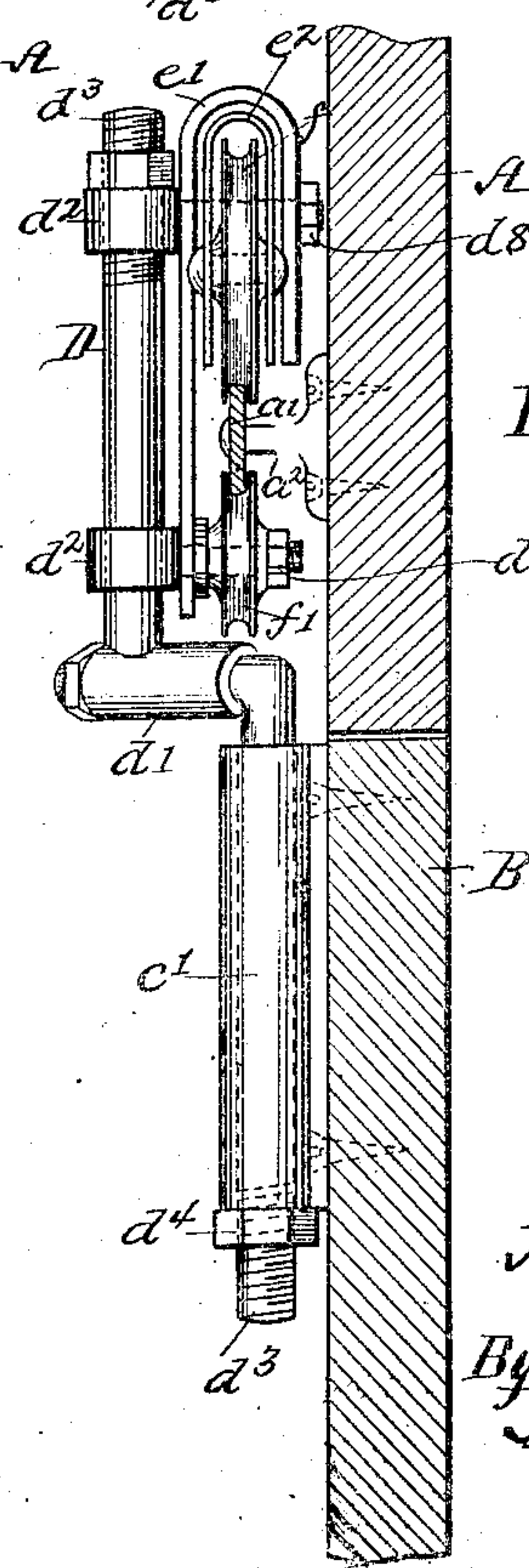


Fig. 3.



Witnesses

Chas. F. Bassett  
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Inventor  
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By Frederick Benjamin  
Atty



# UNITED STATES PATENT OFFICE.

HENRY J. RANDALL, OF EAST COHOCTAH, MICHIGAN, ASSIGNOR TO F. E. MYERS AND BROTHER, OF ASHLAND, OHIO, A COPARTNERSHIP.

## DOOR-HANGER

No. 845,479.

Specification of Letters Patent.

Patented Feb. 26, 1907.

Application filed May 11, 1905. Serial No. 259,863.

*To all whom it may concern:*

Be it known that I, HENRY J. RANDALL, a citizen of the United States, residing at East Cohoctah, in the county of Livingston and State of Michigan, have invented certain new and useful Improvements in Door-Hangers, of which the following is a specification.

This invention relates to improvements in the construction and arrangement of door-hangers, and particularly to the class of such hangers that is used in connection with barn-doors, though my improved hanger is adapted for use with car-doors and the like.

The especial object of my improvements is to produce a door-hanger that is capable of vertical adjustment relative to the track on which it travels, that will permit the door to which it is connected to slide or move closely to the barn or other structure for which it serves as a closure, and that forms a hinge connection on which the door may be swung outwardly.

Other objects of general utility are obtained by my improved hanger which need not be specifically pointed out.

Referring to the drawings which form a part of this application, Figure 1 shows in front elevation a hanger constructed according to my invention and operatively applied to a barn and door, portions of the latter being shown. Fig. 2 is an edge view of the hanger and showing the door swung outwardly from the barn and door-opening; and Fig. 3 is a view similar to Fig. 2, but shows the door set closely to the barn.

Referring to the details of the drawing, A represents a portion of the front of a barn having a suitable doorway formed therein to which a door B is applied.  $a'$  represents a door-hanger track which is arranged across the front of the barn above the doorway and is supported by brackets  $a^2$ , secured to the building, all in the usual way.

C indicates a metal plate which is formed with a central vertical tubular barrel  $c'$  and is secured to the outer face of the door.

D indicates a round steel or iron rod which is bent near its upper end to form a horizontal portion  $d^6$ , which is threaded at its end  $d^7$ . The vertical portion of the rod D passes through the barrel  $c'$  of the plate C, and a nut  $d^4$  is screwed on the end  $d^3$  until it bears against the lower end of the barrel.

$D^2$  is a rod which passes through the eyes of two eyebolts  $d^2$ , and a nut  $d^4$  is screwed on the upper end of the rod until it impinges against the upper eyebolt. The lower end of the rod  $D^2$  terminates in a tubular angular extension  $d'$ , which receives and forms a bearing for the horizontal portion  $a^6$  of the rod D. The shanks of the eyebolts extend through a metal strap  $e'$  and are threaded at their outer ends to receive nuts  $d^8$ . On the shank of the lower eyebolt is mounted a grooved sheave  $f'$ , which is so arranged that its groove will engage the under side or edge of the track  $a'$ , and a washer  $d^5$  is interposed between the hub of the sheave and the strap  $e'$ . The shank of the upper eyebolt, in addition to passing through the strap  $e'$ , also passes through a housing  $e^2$ , which is U shape in cross-section and overhangs and furnishes bearings for the spindles or axles of grooved sheaves  $f f$ , which are so arranged that their grooves engage the upper edge of the track in the usual manner.

It will be noted that the upper part of the strap  $e'$  is bent and overhangs the housing so that the shank of the upper eyebolt passes through the strap at two points, as clearly shown in Figs. 2 and 3.

The vertical portion of the rod D turns freely in its bearings in the barrel  $c'$  and the vertical portion of the rod  $D^2$  turns freely in the eyes  $d^2$  and the horizontal portion of the rod D turns freely in the tubular portion of the rod  $D^2$ .

Two hangers constructed as described will ordinarily be employed on a door and when applied will operate as follows: When the door is in position opposite the door-opening, the same may be swung on the respective rods  $D'$  and  $D^2$  into its closed position in said opening, and when it is desired to fully uncover the door-opening the operation is in reverse movement of the door, it being swung outwardly on said rod. The adjustability of the hanger parts relative to the frame or front of the structure on which the door is hung renders possible the free sliding of the door notwithstanding inequalities in the face of the structure in the door or the door-frame. Vertical adjustment of the hanger is effected by screwing up or down the nuts  $d^4$  on either or both of the rods D  $D^2$ , as may be desired. If it be desired to swing the door



outwardly at the bottom, the horizontal portions  $d^6$  of the rods D will turn in their tubular bearings.

It will be seen that I have a hanger capable  
5 of swinging on a vertical axis and a horizontal axis.

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

10 1. In a door-hanger, a strap adapted to be secured to a door, said strap having a bearing thereon, a hanger-frame adapted to support sheaves and having bearings provided thereon, and means connecting said hanger-frame  
15 and strap, said means being hingedly connected and rotatably mounted in the bearings in the strap and hanger-frame.

20 2. In a door-hanger, a strap secured to a door and having a tubular bearing thereon, a hanger-frame adapted to support sheaves and having detachable bearings secured thereon, and means connecting said hanger-frame and strap, said means being hingedly connected and rotatably and adjustably

mounted in the bearings on the hanger- 25 frame and the strap.

3. A door-hanger comprising a sheave-supporting hanger-frame, and a door-supporting strap, said frame and strap having vertical bearings thereon, and means connecting said frame and strap, said means being rotatably mounted in said bearings and having a horizontal hinge connection. 30

4. In a door-hanger, a sheave-supporting hanger-frame having vertical bearings there- 35 on, a rod rotatably mounted in said bearings, and provided with a horizontal bearing, a door-supporting strap having a vertical bearing thereon, a rod rotatably mounted in said bearing and provided with a horizontal arm 40 rotatably mounted in said horizontal bearing of the first-named rod.

In testimony whereof I affix my signature in presence of two witnesses.

HENRY J. RANDALL.

Witnesses:

WILLIE H. TROWBRIDGE,  
JESSE J. HENDRYX.