T. J. JONES.

DOOR-HANGERS.

No. 194,874. Patented Sept. 4, 1877.

Fig. 1.

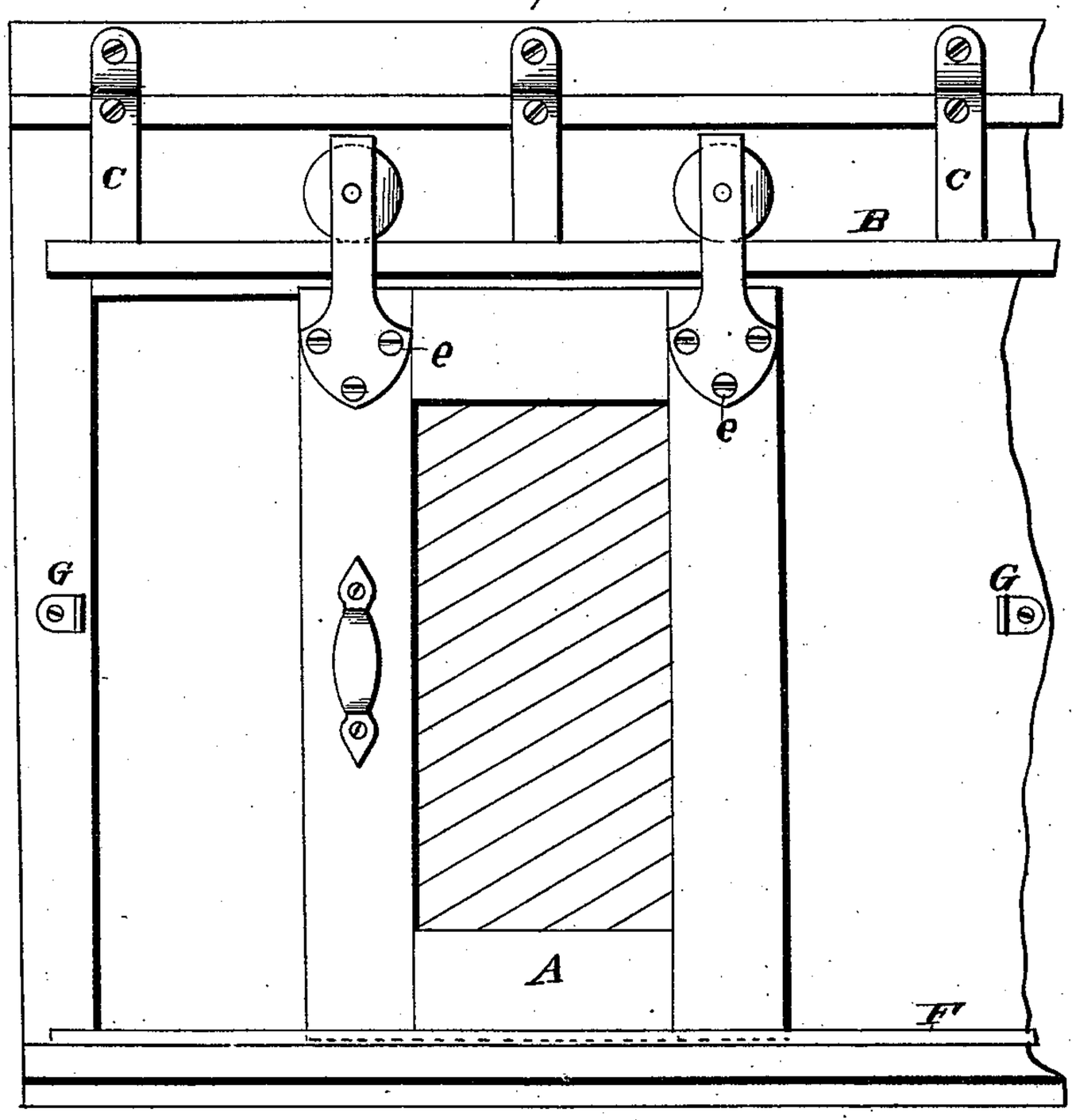


Fig. 2.

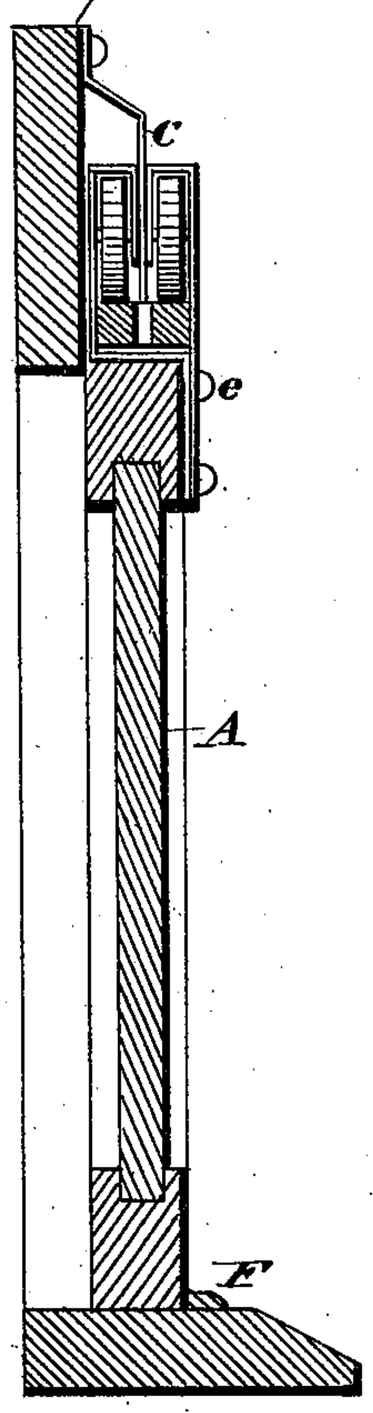
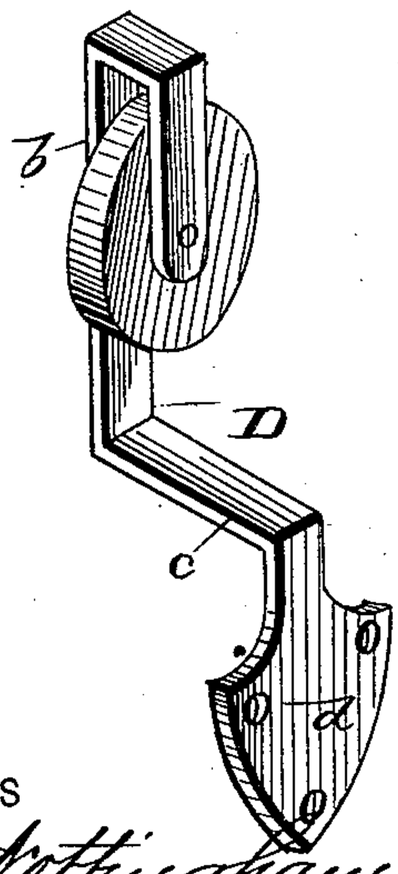
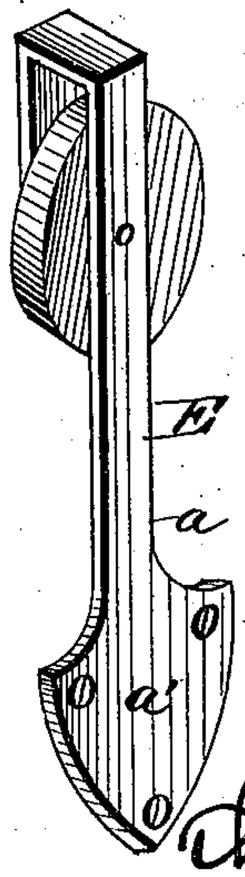


Fig. 3.





WITNESSES

Ed. L. Nottingham.

A. W. Bright.

INVENTOR

Theodore J. Jones

By Wadsworth.

ATTORNEY

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

THEODORE J. JONES, OF EARL, ASSIGNOR OF ONE-HALF HIS RIGHT TO WILLIAM VAN DEVENTER, OF EARLVILLE, ILLINOIS.

IMPROVEMENT IN DOOR-HANGERS.

Specification forming part of Letters Patent No. **194,874**, dated September 4, 1877; application filed March 31, 1877.

To all whom it may concern:

Be it known that I, THEODORE J. JONES, of Earl, in the county of La Salle and State of Illinois, have invented certain new and useful Improvements in Door-Hangers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to improvements in door-hangers, on which the doors of a dwelling, barn, or car may roll backward and forward, and is designed to produce, and mainly consists in, a double roller-frame in two parts, with each of its rollers having a smooth face-bearing adapted to work on a corresponding double track, as hereinafter more fully described and definitely claimed.

My object is to obtain upon the double track a full bearing for each roller acting independently of the other, since the separate rails of the track, being exposed to the weather, become warped, and out of true line, so that in the course of their use they present an uneven bearing for their respective rollers, thus causing the door to slide heavily, and with an increased frictional resistance.

By making each roller with an independent supporting-frame, the warping of the outer rail, which, on account of its greater exposure, is much sooner affected by the weather, does not interfere with the travel of the roller on the inner rail, and thus the strain upon the roller-frame otherwise incident is avoided. Each roller-frame acts independently of the other, and the unequal sagging of their respective rails does not unfavorably affect the sliding of the door upon its hangers.

The combination of these features—a two-part double roller-frame with smooth-faced rollers, so that as each rail becomes untrue on its individual bearing-surface, as well as taken bodily relative to its counterpart rail, the said construction will allow each roller to find an even bearing—constitutes the principle of my invention, since it is found that grooved double rollers do not readily conform to the warping of the face of each rail of a double track, while the plane-faced rollers easily adapt themselves to the uneven lateral change in the surface of the rails, and are not materially affected in their travel by such a displacement.

The manufacture of double rollers is also made easier by forming the frame in two parts, and the expense is decreased correspondingly; and, if desired, the door may be supported upon one roller only, and, when necessary, the second roller may be applied.

This construction also allows the different parts to be separately duplicated in case one only of the rollers or roller-supporting arms becomes broken or injured, and thus the expense of substituting two new rollers with their supporting-frames, on account of only a partial injury to the double roller-frame, is obviated.

Referring to the drawings, Figure 1 is a view, in side elevation, of a door and detached connecting frame-work. Fig. 2 is a broken cross-sectional view of the same, while Fig. 3 shows the two-part double roller in detail.

The door A may be of any desired construction, movable on the double rollers, which have their tread on the upper double track B, which latter is, in turn, supported by the suspension-brackets C. These brackets are centrally placed between the two rails forming the double track, and the inner one of the rails is far enough from the side wall to admit of the passage between the same of the supporting-arm of the inner roller. Both the rollers have plain wearing-faces, so that their bearing or tread may present a plane surface upon the corresponding plane-surfaced rails. The inner roller-frame D is an angular piece of metal, having the door-bracket *d* suitably provided with slots for screw engagement with the door, from which branches off the right-angular shoulder *c*, to the inner end of which latter is formed the upright arm *b*, which journals its respective roller.

The outer roller-frame E consists of a vertically-straight arm, *a*, bearing its appropriate roller, while the door-bracket part *a'* is of the same dimension as that of the inner roller-frame, and generally corresponds with it.

The several slots in the two brackets, respectively, coincide with one another, so that the two independent frames are secured to the door by the same screws *e*, or other similar engaging means. The door freely rolls on these hangers, and, by the smooth wide bearing furnished by the plane treads of the rollers supported on the independent frames, it obtains full vertical support and an enlarged bearing-surface, which serves to hang the same evenly, and allow of its free sliding movement under the face-warping of each individual rail, together with the unequal sagging of their bodies relatively considered.

A guiding-strip, F, parallel with the track C, is secured to the threshold of the door, so as to suitably allow the latter to slide between it and the lower wall, and thus aid in giving it steadiness and a straight horizontal movement as it is rolled to and fro.

Stops G are placed in the wall at the extremity of either end thrust of the sliding door as it traverses back and forth in front of the door-opening.

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

1. The double roller-hanger D E, constructed with independent frames for each roller, the said rollers having smooth face-bearing, substantially as described.

2. The combination, with the two-part double roller-frame D E, independently-journaling plane-faced rollers, the supporting-arm of the part D being made with a double angle, as described, of a single set of screws or rivets, by which the two parts are jointly secured to a door, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand this 20th day of March, 1877.

THEODORE J. JONES.

Witnesses:
WM. VAN DEVENTER,
SAM LYNN.