

(No Model.)

W. M. BRINKERHOFF.

STAY ROLLER FOR SLIDING DOORS.

No. 287,223.

Patented Oct. 23, 1883.

Fig. 1.

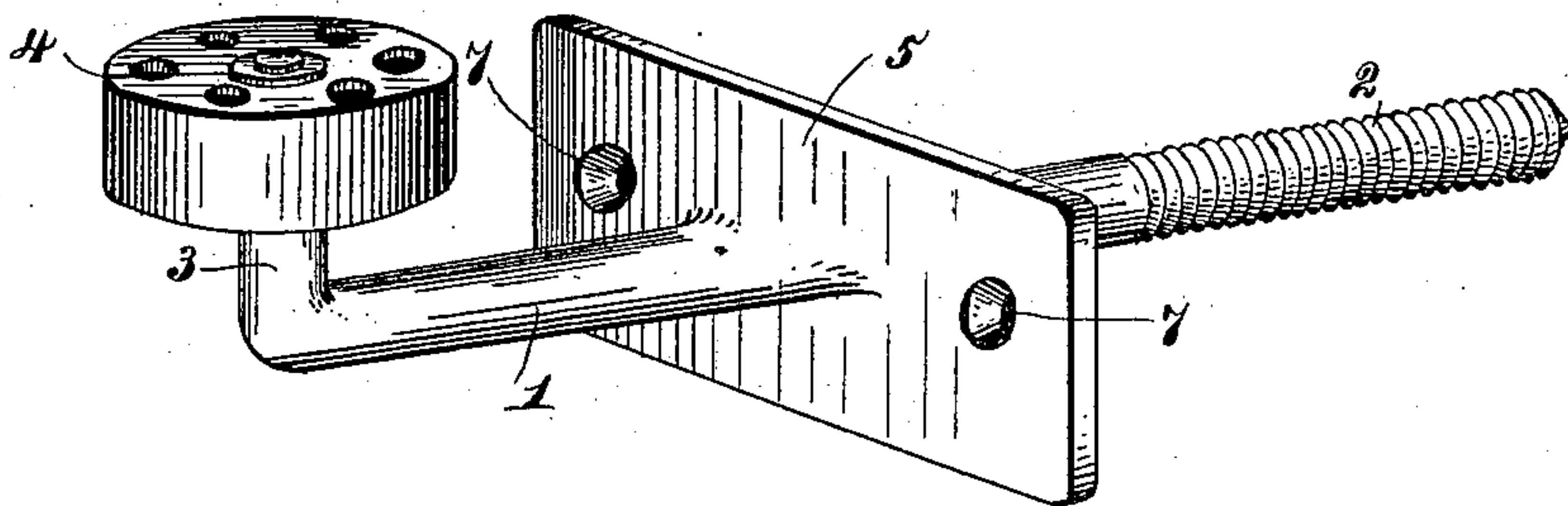
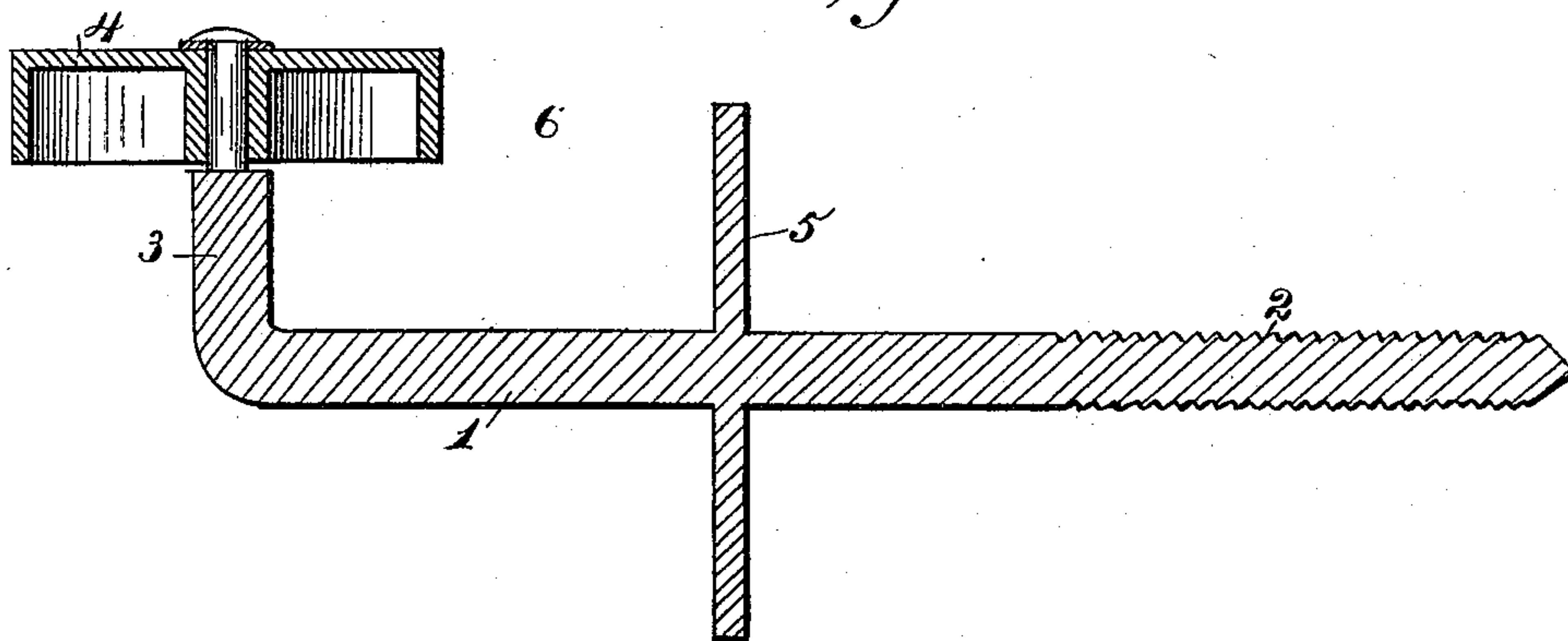


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

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STAY-ROLLER FOR SLIDING DOORS.

SPECIFICATION forming part of Letters Patent No. 287,223, dated October 23, 1883.

Application filed August 30, 1883. (No model.)

To all whom it may concern:

Be it known that I, WARREN M. BRINKERHOFF, a citizen of the United States, residing at Auburn, in the county of Cayuga and State of New York, have invented new and useful Improvements in Stay-Rollers for Sliding Doors, of which the following is a specification.

This invention relates to improvements in the stay-rollers for sliding doors for which Letters Patent No. 267,832 were issued to me November 21, 1882, and has for its object to provide a novel construction of the stay-roller shank, whereby a guideway of a determined width is provided, in which the lower edge of a sliding door may travel, if desired, and be maintained against undue outward or inward movements, while at the same time the shank can be made cylindrical throughout its length, and be locked or secured, when in use, to prevent its turning, and the consequent displacement of the stay-roller from proper working position in relation to the door.

In many barns the walls are not perfectly perpendicular, and in order that a sliding door may be maintained in a true perpendicular position, which is requisite for its convenient and perfect operation, it has been customary to block the door, in order to compensate for the extent to which the wall is out of perpendicular, and bring the door against the stay-roller, which is an objection that I am enabled to avoid by my present invention.

In my patent alluded to the locking-plate is made a separate device from the shank, and is not capable of forming a guideway of a determined and permanent width; and to overcome this is the essential object of my present invention, to which end it consists in a shank adapted to be driven or screwed at one end into the timber of a building, and carrying a door-guiding roller at its other end, and a flange or plate, rigidly and permanently attached to the shank at a point between its penetrating end and the roller, whereby a guiding or guide way is provided between the roller and flange or plate, which maintains the same width at all times, so that if a wall be out of perpendicular the shank can be driven into the timber only to such an extent as to bring the roller in proper relative position to

the door when the latter hangs perpendicular, the flange or plate standing away from the wall a distance sufficient to compensate for the extent to which the wall is out of perpendicular, the lower edge of the door being adapted, if desired, to travel in the guideway formed by the roller and the flange or plate, while, if the wall and door are perfectly perpendicular, the shank is driven into the timber until the flange or plate abuts the wall, after which the plate is secured to the wall, to prevent the shank from turning, and thereby displacing the stay-roller from its proper position.

The invention is fully illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a stay-roller and its supporting-shank constructed in accordance with my invention, and Fig. 2 is a longitudinal central sectional view.

As in my patent mentioned, the shank number 1 is provided at one end with a screw-thread, 2, and at its other end is bent at right angles, or approximately so, to provide a journal-arm, 3, on which is journaled a stay-roller, 4, so as to be capable of freely rotating when the sliding door is moved in contact with it. To the shank, at a point between its penetrating or threaded end and the roller, is rigidly and permanently secured a flange or plate, 5, which stands at right angles, or approximately so, to the shank, in such manner as to form a guideway, 6, between such flange or plate and roller, in which guideway the lower edge of a sliding door may travel, the roller serving to prevent an undue swinging movement of the door away from the building, while the rigidly-attached flange or plate is capable of preventing an undue movement of the door inward or against the building. The flange or plate may be rigidly attached by casting it integral with the shank from malleable iron; or it may be welded thereon or cast on after the shank is made; and I do not confine myself to any special means of securing the flange or plate, the essential feature being that it is rigidly connected with the shank at a determined distance from the roller, to create a clear space between them, which is adapted as a guideway for the door, if such be desired.

In applying the invention to a building in

which the wall is not perpendicular and inclines inward from upper to the lower portion, the shank may be driven or screwed in only so far as will bring the roller against or nearly
5 against the lower end of the door when the latter hangs truly perpendicular, the flange or plate in this instance standing away from the building a distance sufficient to compensate for the extent to which the wall is out of perpendicular.
10 In this use of the device the flange or plate may prevent an undue inward-swinging movement of the door, and with the roller may serve to keep the door in perpendicular line; but, obviously, if the wall and door both be per-
15 pendicular, the shank can be driven into the timber until the flange or plate abuts against the wall, after which the flange or plate can be secured thereto by screws or nails passing through the holes 7 into the wall, which will
20 effectually prevent the shank from turning, and consequently maintain the stay-roller at all times in proper working position against or adjacent to the door.

By rigidly attaching the plate or flange to
25 the shank, a guideway, 6, of a determined and permanent character, is provided, there is no liability of the parts becoming lost, simple and efficient means are provided whereby a door

may be held perpendicular and prevented from undue swinging movements, even if a wall be
30 out of perpendicular the shank can be locked against rotating or turning, and the shank can be cylindrical or any form in cross-section throughout its extent.

I have shown the flange or plate as project-
35 ing laterally from the shank entirely around the same; but I do not confine myself to that construction, as such is not essential, for the reason that good results can be accomplished if the flange or plate projects from the shank
40 only partly around the same.

Having thus fully described my invention, what I claim is—

A stay-roller for sliding doors, consisting of a shank carrying a roller to stay the door, and
45 provided with a rigidly-attached flange or plate at a point between its penetrating end and the roller, substantially as and for the purpose described.

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

WARREN M. BRINKERHOFF.

Witnesses:

ALBERT H. NORRIS,
J. A. RUTHERFORD.