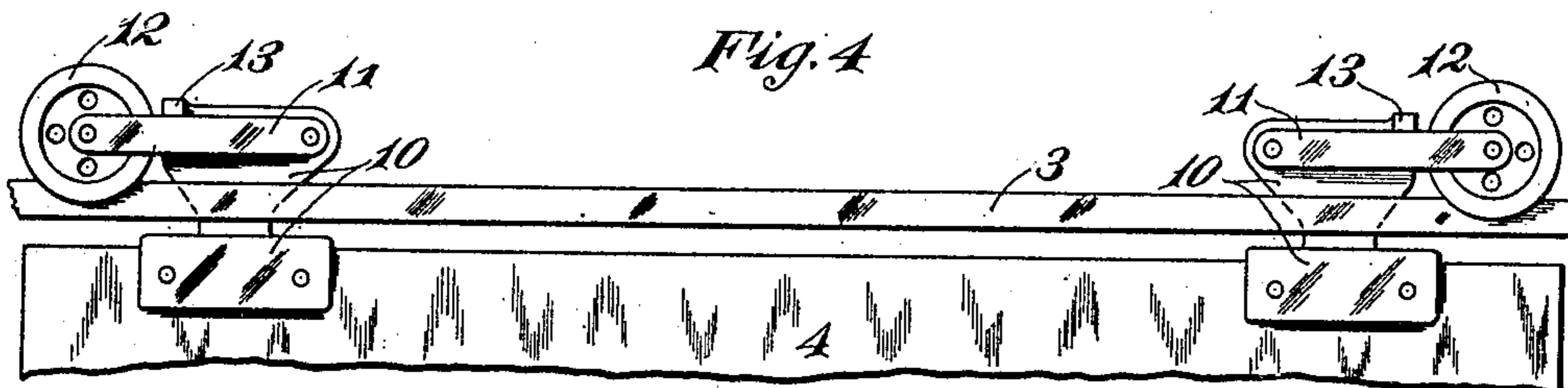
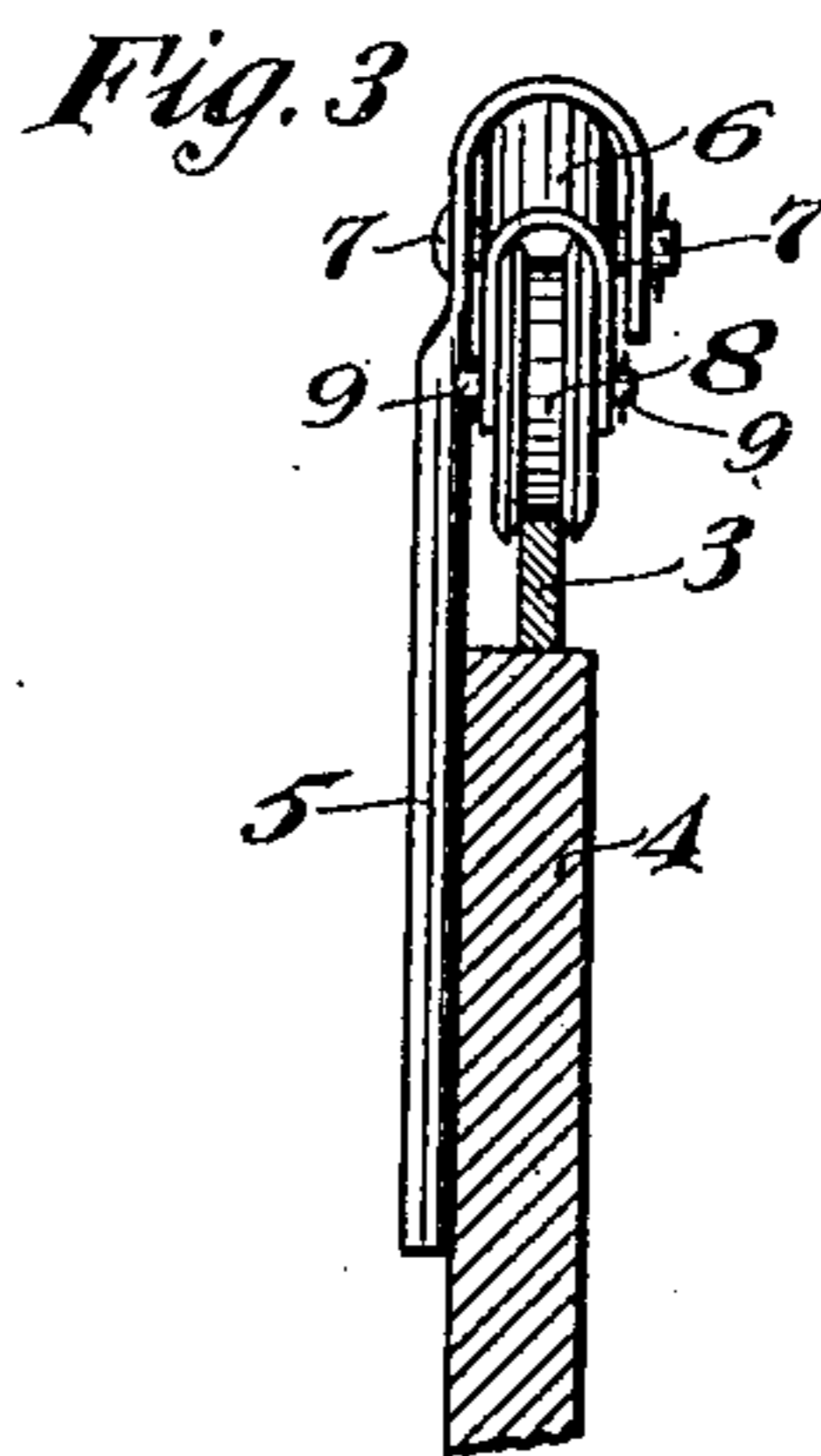
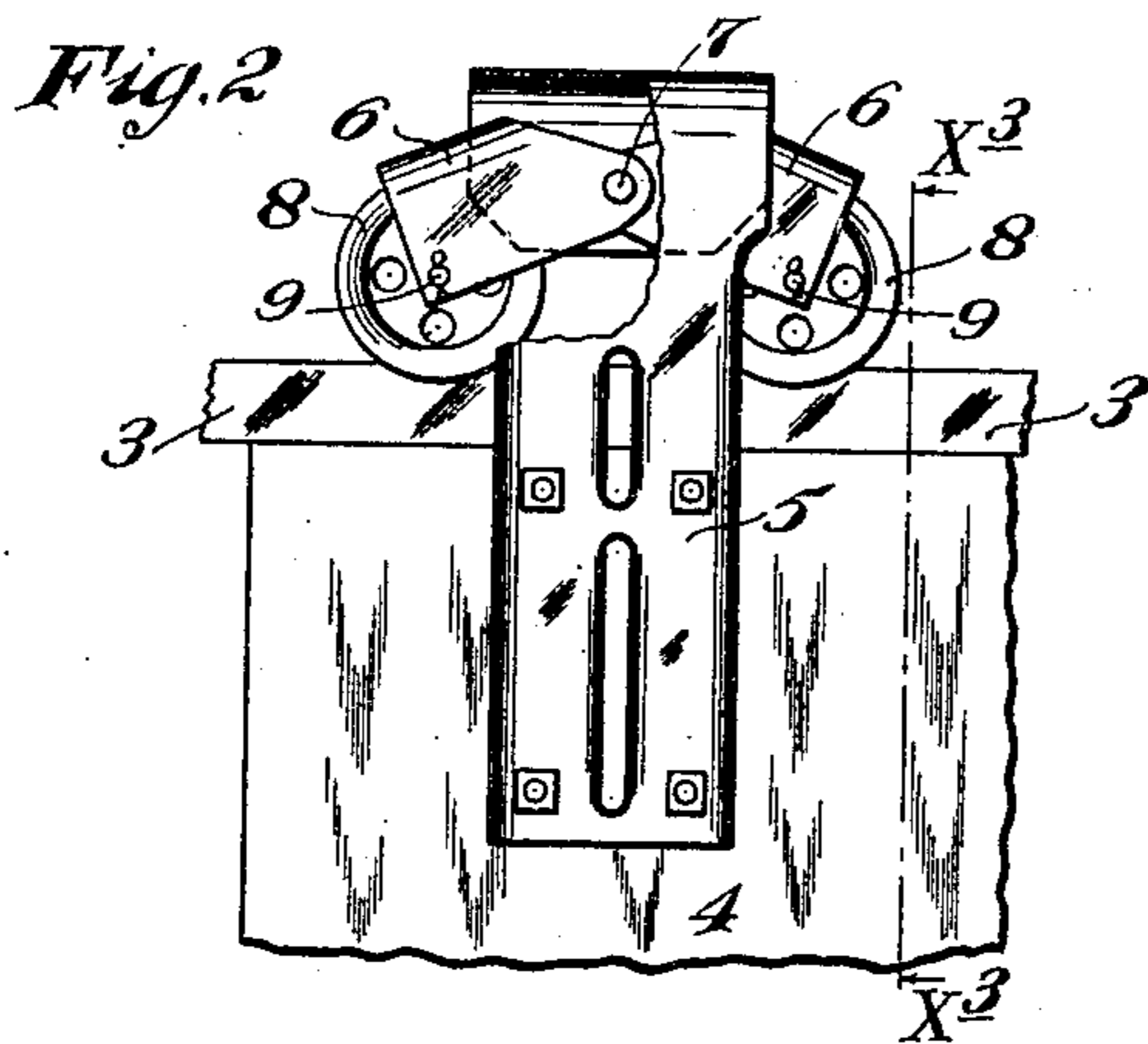
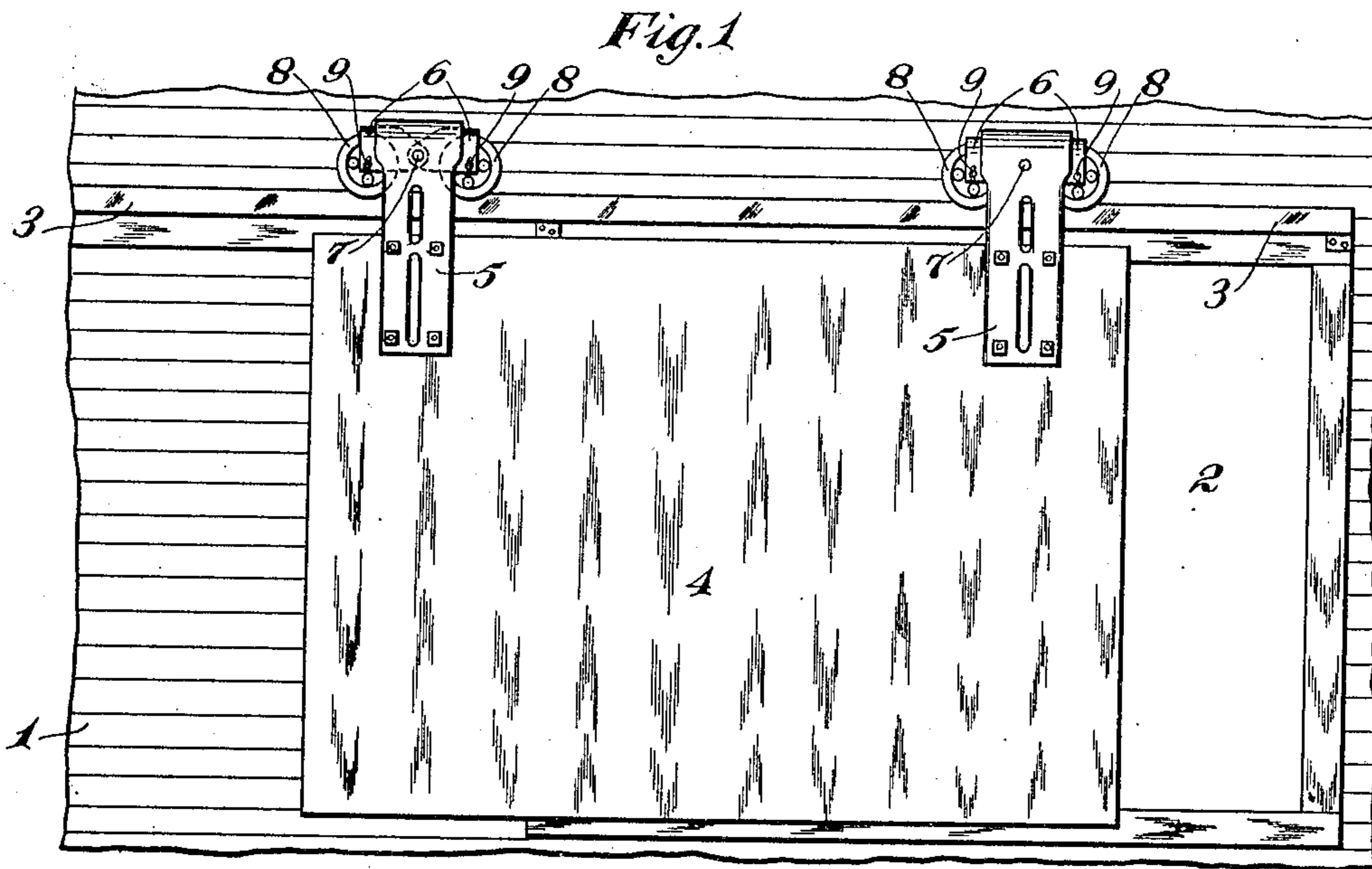


A. JENSON.
SLIDING DOOR HANGER.
APPLICATION FILED JULY 3, 1908.

913,660.

Patented Feb. 23, 1909.



Witnesses:

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UNITED STATES PATENT OFFICE.

AUGUST JENSON, OF KENYON, MINNESOTA, ASSIGNOR TO THE STANDARD CARRIER COMPANY, OF KENYON, MINNESOTA, A CORPORATION OF MINNESOTA.

SLIDING-DOOR HANGER.

No. 913,600.

Specification of Letters Patent.

Patented Feb. 23, 1909.

Original application filed March 14, 1908, Serial No. 421,131. Divided and this application filed July 3, 1908. Serial No. 441,884.

To all whom it may concern:

Be it known that I, AUGUST JENSON, a citizen of the United States, residing at Kenyon, in the county of Goodhue and State of Minnesota, have invented certain new and useful Improvements in Sliding-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 appertains to make and use the same.

My invention has for its object to provide an improved wheel-equipped hanger for sliding doors, such as barn doors; and to this end it consists of the novel devices and combinations of devices hereinafter described and defined in the claims.

The present invention is in the nature of a division of my prior application S. N. 421,131, filed March 14, 1908, entitled litter carriers, and is directed, broadly, to construction specifically illustrated in Figure 8 of said prior application.

In the accompanying drawings which illustrate the invention, like characters indicate like parts throughout the several views.

Referring to the drawings, Fig. 1 is a view in side elevation, with some parts broken away, showing the improved wheel-equipped hangers applied to a sliding barn door. Fig. 2 is an enlarged detail view in side elevation, with some parts broken away, showing the barn door raised in respect to its supporting track. Fig. 3 is a section taken on the line $x^3 x^3$ of Fig. 2; and Fig. 4 is a view corresponding to Fig. 1, but illustrating a modified construction, the construction illustrated thereby being identical with that shown in Fig. 8 of my prior application above identified.

The numeral 1 indicates the side of a barn, the same having a door opening 2 and a horizontal door supporting rail 3 secured in the usual way above the door opening and extending to one side thereof, the same being, of course, laterally spaced from the side of the barn.

The numeral 4 indicates the sliding door, to the outer side of the upper portion of which, near each vertical edge, as shown in Figs. 1, 2 and 3, is rigidly secured a hanger bracket 5, the upper end of which is of inverted U-shape, being turned inward and downward so as to overlies the rail 3.

In the preferred construction illustrated in Figs. 1 to 3 inclusive, a pair of wheel-equipped arms is pivoted to the upper portion of each bracket 5, and these arms 6 are preferably formed of sheet metal bent U-shape in cross section, with their inner ends overlapped and pivotally connected to and located within the sheath formed by the U-shaped upper end of the bracket 5, by means of a pivot pin 7. These arms 6 extend in opposite directions from the pivot pin 7 and to the respective outer ends thereof is loosely journaled on the pin 9 grooved wheels 8 arranged to run upon the rail 3. The wheels 8 are embraced and partly covered by the free end portions of the arms 6. The door thus hung is supported directly under the rail 3 with clearance for sufficient upward movement to permit engagement and disengagement of the flanged wheels with the rail by lateral movement when the arms 6 are forced upward to their limit and the said door is forced upward against said rail. The arms and the wheels, however, are freely supported for downward movement in respect to the door, so that when the door is raised into engagement with the rail, as shown in Fig. 2, the flanged wheels will maintain engagement with the rail, and hence, will not be accidentally thrown off from the rail. This is very important because it frequently happens that in sliding the door one edge thereof will be raised sufficiently to throw the wheels, under the ordinary arrangement, off from the rail or track. With the improved hanger above described it is impossible to accidentally derail the door.

By reference to Fig. 1 it will be noted that, normally, the upper portions of the arms 6 engage with the bent-over upper ends of the hanger brackets 5 and thereby limit the downward movement of the door.

In the construction illustrated in Fig. 4, the door is shown as provided with hanger brackets 10 to which arms 11 are pivoted above the rail; and grooved wheels 12 are journaled to the free ends of these arms. Normally, stop lugs 13 in the brackets 10 engage the intermediate portions of the arms 11 to limit the downward movements of the door. If, however, in pushing the door, one edge thereof be raised, the corresponding wheel 12 will not be raised but will maintain

engagement with the rail, since its arm 11 is free to move downward in respect to the raised bracket 10.

What I claim is:

- 5 1. The combination with a track and a door, of track engaging wheels and devices connecting said wheels and said door constructed and arranged to permit downward movement of said wheels in respect to the
10 door, whereby said wheels will maintain engagement with the track when said door is raised in respect to the track.
- 15 2. The combination with a track, of a door, pivoted arms operatively connected to the door, and track engaging wheels journaled to the arms to have downward movement in respect to the door, whereby said wheels will maintain engagement with the
20 track when said door is raised in respect to the track.
- 25 3. The combination with an overhead track, of a door, hanger brackets secured to the door, grooved wheels operatively connected to the hanger brackets to have downward movement in respect to the track, whereby said wheels will maintain engagement
30 in respect to the track, the clearance between said track and wheels being sufficient to permit lateral removal of the wheels from said

track when both the door and wheels are raised.

4. The combination with an overhead track, of a door, hanger brackets secured to the door, reversely extended arms pivotally connected to each bracket, and wheels journaled to the free ends of said arms to have downward movement in respect to the door whereby said wheels will maintain engagement with the track when said door is raised
40 in respect to the track.

5. The combination with an overhead track, of a door, hanger brackets secured to the door, the upper ends of which are bent inward and downward, approximately inverted U-shaped arms located partly within
45 and pivotally connected to the open upper ends of said hanger brackets, the latter being engageable therewith to limit the downward movement of the door, and wheels embraced by the free ends of said arms and
50 journaled thereto, the said wheels being arranged to run on said rail, substantially as described.

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

AUGUST JENSON.

Witnesses:

ANDREW LISTNER,
EDW. STYFARND.