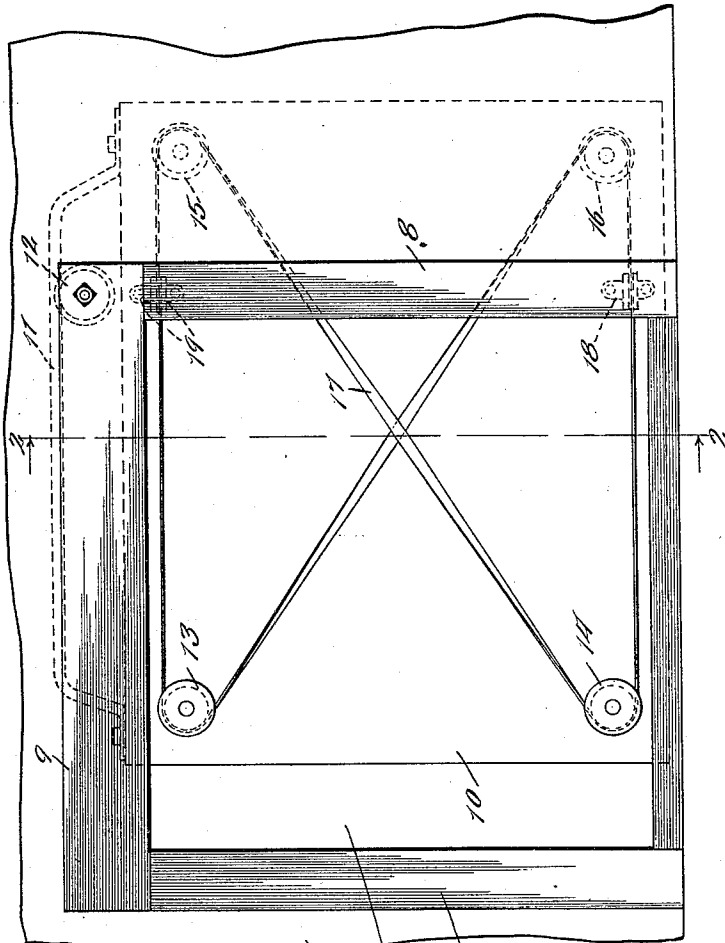
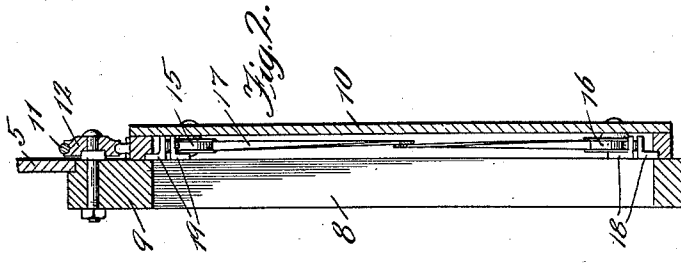


T. C. PROUTY.
 MEANS FOR SUSTAINING SLIDING DOORS.
 APPLICATION FILED FEB. 10, 1910.

1,008,988.

Patented Nov. 14, 1911.

2 SHEETS—SHEET 1.



Witnesses:
W. A. Furrner
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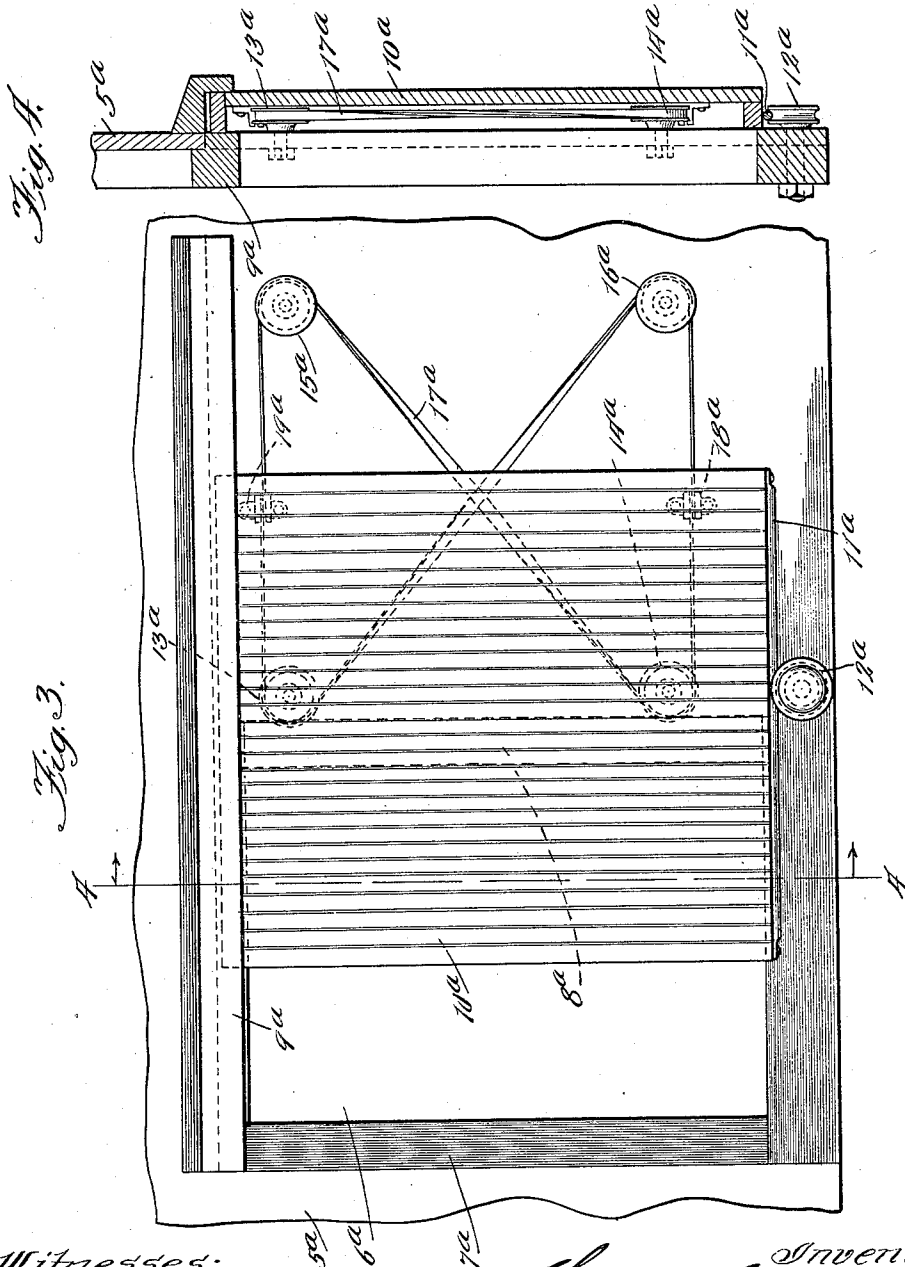
Inventor:
Theodore C. Prouty
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Witnesses:

Ed. D. Terry

W. A. Furrner.

Inventor:

Theodore C. Prouty.
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UNITED STATES PATENT OFFICE.

THEODORE C. PROUTY, OF AURORA, ILLINOIS, ASSIGNOR TO RICHARDS-WILCOX MANUFACTURING COMPANY, OF AURORA, ILLINOIS, A CORPORATION OF ILLINOIS.

MEANS FOR SUSTAINING SLIDING DOORS.

1,008,988.

Specification of Letters Patent.

Patented Nov. 14, 1911.

Application filed February 10, 1910. Serial No. 543,181.

To all whom it may concern:

Be it known that I, THEODORE C. PROUTY, a citizen of the United States, residing at Aurora, in the county of Kane and State of Illinois, have invented certain new and useful Improvements in Means for Sustaining Sliding Doors, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to means for sustaining sliding doors, and particularly to that class of devices wherein the door is sustained in proper position by means of a tightly stretched flexible connection that passes over a plurality of pulleys and moves thereover as the door is moved to open and close a doorway.

The object of the invention is to provide a novel and simple construction and arrangement of sustaining means, which object I accomplish as illustrated in the accompanying drawings, and as hereinafter specifically described.

That which I believe to be new will be pointed out in the claims.

In the drawings,—Figure 1 is a side elevation of an ordinary sliding door to which is applied my improved sustaining devices, a portion of a building wall being also shown in which is the doorway designed to be closed by said door; Fig. 2 is a vertical section taken at line 2—2 of Fig. 1; Fig. 3 is a view similar to Fig. 1, but illustrating a modified form of construction; and Fig. 4 is a vertical cross-section taken at line 4—4 of Fig. 3.

In the drawings the door shown is one particularly designed for out door use and the like or for closing doorways in interior walls of buildings where the door when drawn back to uncover the doorway will lie alongside of such wall, or, in other words, it is particularly designed for situations wherein the door is not drawn back into a "pocket" when opened. I do not wish to restrict the use of the invention in this manner, however, as it of course might be employed in connection with doors other than those of the character for which it is, as stated, especially adapted.

Referring now to the construction shown in Figs. 1 and 2,—5 indicates a portion of a wall of a building in which is a doorway 6, the uprights forming the sides thereof being

indicated by 7 and 8, respectively, and the top beam by 9. 10 indicates a sliding door adapted to close the doorway 6. The door is shown as partially opened, and as it is located at the opposite side of the wall 5 from the side shown in Fig. 1 a portion of the rear end of the door as well as the lower and upper edge portions of the door are indicated by dotted lines. 11 indicates a yoke forming a track attached to the upper edge of the door, in the form of construction shown, which runs upon a wheel 12 suitably journaled to the member 9 of the frame of the doorway. 13 and 14 indicate pulleys rotatably mounted on that face of the door 10 adjacent to the frame of the doorway and located respectively near the upper and lower forward corners of the door. 15 and 16 indicate similar pulleys on the same face of the door and located near the upper and lower rear corners respectively of the door. 17 indicates a flexible connection, best made of a ribbon-like steel strip. This flexible connection is made fast at a point about midway between its ends to one of two suitable clamps 18 and 19 secured to one of the side-bars of the frame of the doorway and near the opposite ends of such side-bar. Assuming the connection to be so secured to the clamp 19 as shown, it is then to be extended in opposite directions from such clamp and passed over and around the two upper pulleys 13—15 on the door, being then led in a diagonal direction from the pulley 13 to the pulley 16 and from the pulley 15 to the pulley 14 and around these pulleys to the clamp 18 where its ends are secured. This connection 18 will, of course, be stretched very tightly before its ends are clamped to the frame piece 8, and before being so clamped the door is to be rocked on its wheel, as on a pivot, to bring it into the exact position required for it to move in a horizontal plane so that there will be no liability of its binding or sticking at either the top or bottom. When properly adjusted in this manner and with the flexible connection tightly stretched and firmly held as described, it will be found that the door will be so perfectly supported that it can be moved back and forth with great ease. If at any time for any cause the door sags so as not to run perfectly true, or if through settling of the building the frame of the doorway yields so

as to interfere with the proper running of the door, a readjustment of the door so as to bring it again into proper relation with the fixed wall or framework can be readily made by loosening that clamp that holds the ends of the flexible connection, and then by a pull on one end or the other of the connection causing the door to be turned on its wheel 12 as before described.

10 It is obvious that the same secure support by means of a flexible connection can be provided if, instead of the pulleys around which the said connection passes being carried by the door and the clamps for the connection
15 being secured to the fixed member—that is, the frame piece or portion of the building wall—the conditions are reversed so that the said pulleys are on a fixed member, viz. the wall of the building, while the clamps are
20 carried by the movable member or door. This reversed construction is illustrated in Figs. 3 and 4. This construction of Figs. 3 and 4 shows also that the wheel and track may be at the lower edge of the door instead
25 of at the upper edge as in the first described construction. The parts in Figs. 3 and 4 that correspond to the parts that are shown in Figs. 1 and 2 are indicated by the same reference numerals with the addition, however, of the letter *a* to each, and as they are
30 exactly the same in construction as in the construction described in detail (with the exception of the track-rail) it is not believed that a further description is needed. In this
35 modified form the track-rail 11^a is secured

to the lower edge of the door and is in the form of a cylindrical rod or bar.

What I claim as my invention and desire to secure by Letters Patent is,—

1. The combination with a reciprocable member and a fixed member, of four pulleys on one face of the reciprocable member, two of said pulleys being located adjacent to the front edge and the other two adjacent to the rear edge of said reciprocable member, a crossed flexible connection passing around said pulleys and secured at its ends and at a point between its ends to the other member, and a guide at one edge of said movable member.

2. The combination with a reciprocable member and a fixed member, of four pulleys carried by one of said members, a flexible connection passing around said pulleys and secured at its ends and also at a point between its ends to the other member, and a guide at one edge of said movable member.

3. The combination with a reciprocable member and a fixed member, of two pairs of pulleys carried by one of said members, one pair being located above the other pair, and a crossed flexible connection passing around said pulleys and secured to the other member at two points, and a guide at one edge of said movable member.

THEODORE C. PROUTY.

Witnesses:

ALBERT H. ADAMS,
W. H. DE BUSK.