

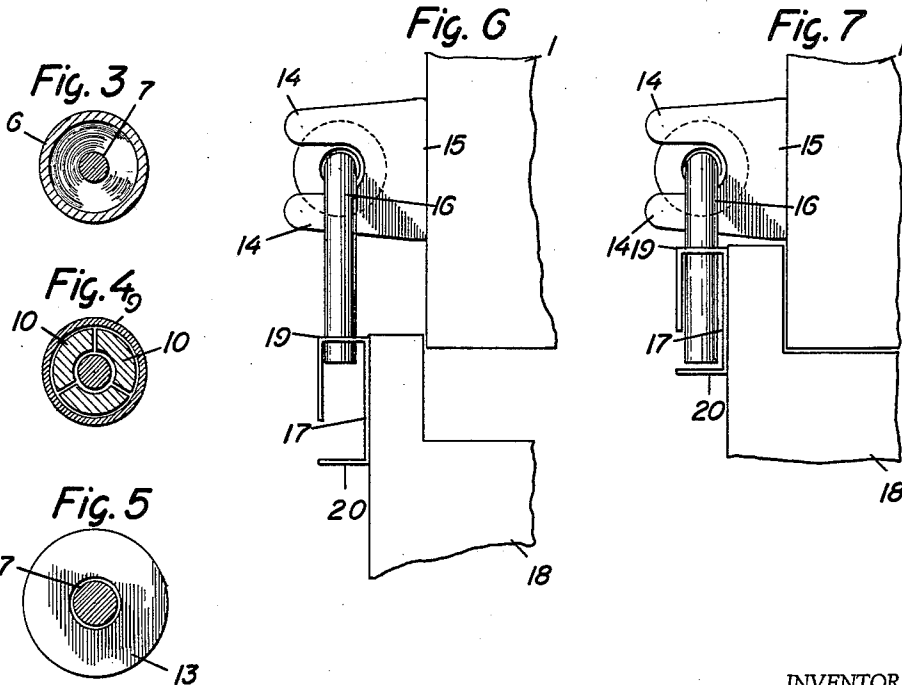
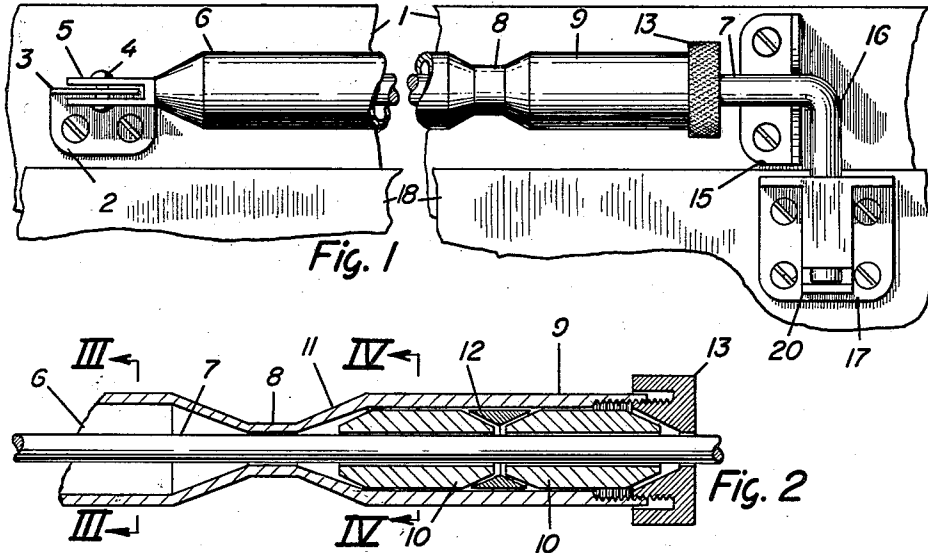
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FRICTION STAY DEVICE FOR WINDOWS, DOORS AND THE LIKE

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FRICITION STAY DEVICE FOR WINDOWS, DOORS AND THE LIKE

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The present invention relates to a friction stay device for windows, doors and the like.

An object of the invention is to provide a stay device which is sure in operation and which may be easily manipulated.

A further object of the invention is to provide a stay device which may be used for doors and windows where-in prior to swinging a door or a window it is necessary to raise them slightly from a groove or the like into which when closed they are moved to form a hermetical seal.

A further object of the invention is to provide a construction which will secure reliably the positioning of the door or window in the desired displacement without the risk of subjecting the parts to any deformation.

With the above and other objects in view which will become apparent from the detailed description below, a preferred modification is disclosed in the drawings in which:

FIGURE 1 is a side view showing the device mounted upon a door.

FIGURE 2 is a slightly enlarged longitudinal sectional view of the right hand side of the device shown in FIGURE 1.

FIGURE 3 is a cross-sectional view taken upon section line III—III of FIGURE 2.

FIGURE 4 is a cross-sectional view taken upon section line IV—IV of FIGURE 2.

FIGURE 5 is an end view taken from the right hand side of FIGURE 2.

FIGURE 6 is a side view of the device as applied to a door when in lowered position, and

FIGURE 7 is a view similar to FIGURE 6 showing the door in raised position.

In the various views similar reference characters refer to like parts.

Upon the door frame 1 there is fixed a fitting 2 which is provided with a right angular portion 3 in which a pin 4 is mounted. A tube 6 has a forked end 5 which embraces the part 3 and is rotatably mounted upon the pin 4.

The tube 6 encloses a bar 7 which is slidably guided in a narrow portion 8 upon the tube 6. One end of the bar 7 extends beyond the right hand end of the tube 6 as shown in FIGURE 1 and is right angularly bent as shown at 16.

Within the part 9 of the tube 6 there are located three brake clamps 10 as shown in FIGURE 4. A plurality of such sets of clamps may be provided and in FIGURE 2 two of such sets are shown. The brake clamps 10 are of arcuate form and are conically shaped at their ends. The brake clamps 10 located adjacent the portion 8 of the tube 6 have one of their conical ends disposed so as to cooperate with the conical slope 11 provided upon the tube 6.

The conical ends of the brake elements 10 located adjacent one another within the part 9 cooperate with an axial slidable ring 12 located between the brake clamps 10. The ring 12 is provided with inclined sides extending towards the bar 7 which cooperate with the conical ends. The conical outer ends of the brake elements 10 located at the outer end of the tube part 9 cooperate with a corresponding conical surface provided upon the operative element 13. The element 13 is located so as to clamp

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the elements 10 against the bar 7 and thereby hold the door or window in any desired adjusted position.

As shown in FIGURES 6 and 7 the bent end 16 of the bar 7 is mounted between the ears 14 provided upon a fitting 15 which is fixed to the frame 1. The end portion 16 is rotatably and slidably mounted in another fitting 17 which is fixed upon the door 18, window sash or the like. The door 18 or the window sash as the case may be is of that type which may be raised and lowered slightly into a groove so as to provide a hermetical seal. Generally a mechanism is provided to raise the door 18 from the position shown in FIGURE 6 to that shown in FIGURE 7 and when so raised it may be rotated to the desired position and fixed in such position by manipulating the element 13 to clamp the elements 10 against the bar 7. The fitting 17 is provided with a resilient lip 19 which presses against the bent portion 16 of the bar 7. The fitting 17 is also provided with a stop flange 20 at the lower part so that when the door is in the open and raised position it will support the end 16 of the bar 7 in order to prevent any sinking of such bar. The resilient lip 19 maintains contact with the end 16 and at the same time prevents any undesired rattling.

When the door 18 is swung to the left as shown in FIGURE 7 then the end 16 leaves the lips 14 and the fitting 17 provides the entire support for such end.

What is claimed is:

1. A friction stay device for a door or the like having a frame comprising a tube mounted pivotally at one end to said frame, a rod slidably mounted in said tube extending beyond the other end of said tube, said rod beyond said tube having a portion bent at right angles to the longitudinal axis of said rod, means on said frame supporting said rod beyond said tube and said tube when said door is in closed position, means operable to clamp said rod to said tube and a fitting secured to said door in which said portion is slidably and rotatably mounted so that said device may be used with a door that may be raised and lowered.

2. A friction stay device for a door or the like having a frame comprising a tube mounted pivotally at one end to said frame, a rod slidably mounted in said tube extending beyond the other end of said tube, said rod beyond said tube having a portion bent at right angles to the longitudinal axis of said rod, means on said frame supporting said rod beyond said tube and said tube when said door is in closed position, means operable to clamp said rod to said tube and a fitting secured to said door in which said portion is slidably and rotatably mounted so that said device may be used with a door that may be raised and lowered and means upon said fitting to support said rod and tube when said door is in open position.

3. A friction stay device for a door or the like having a frame comprising a tube mounted pivotally at one end to said frame, a rod slidably mounted in said tube extending beyond the other end of said tube, said rod beyond said tube having a portion bent at right angles to the longitudinal axis of said rod, means on said frame supporting said rod beyond said tube and said tube when said door is in closed position, means operable to clamp said rod to said tube and a fitting secured to said door in which said portion is slidably and rotatably mounted so that said device may be used with a door that may be raised and lowered, a resilient lip upon said fitting maintaining contact with said portion and means upon said fitting to support said rod and tube when said door is in open position.

4. A friction stay device for a door or the like having a frame comprising a tube mounted pivotally at one end to said frame, a rod slidably mounted in said tube extending beyond the other end of said tube, said rod beyond

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said tube having a portion bent at right angles to the longitudinal axis of said rod, a plurality of clamping means having cone shaped ends located between said rod and tube, a slidable ring interposed between adjacent clamping means having conical surfaces cooperating with the adjacent cone shaped ends upon said clamping means, a cone shaped surface upon said tube to engage said cone shaped ends at one end of said clamping means, a manually operable member threaded on said tube having a conical surface to engage said cone shaped ends at the other end of said clamping means to clamp said rod and tube together and a fitting secured to said door in which

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said portion is slidably and rotatably mounted so that said device may be used with a door that may be raised and lowered.

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