OK EATON.

DOOR STAY.

APPLICATION FILED MAY 5, 1910.

978,568. Patented Dec. 13, 1910.

Fig. 1.

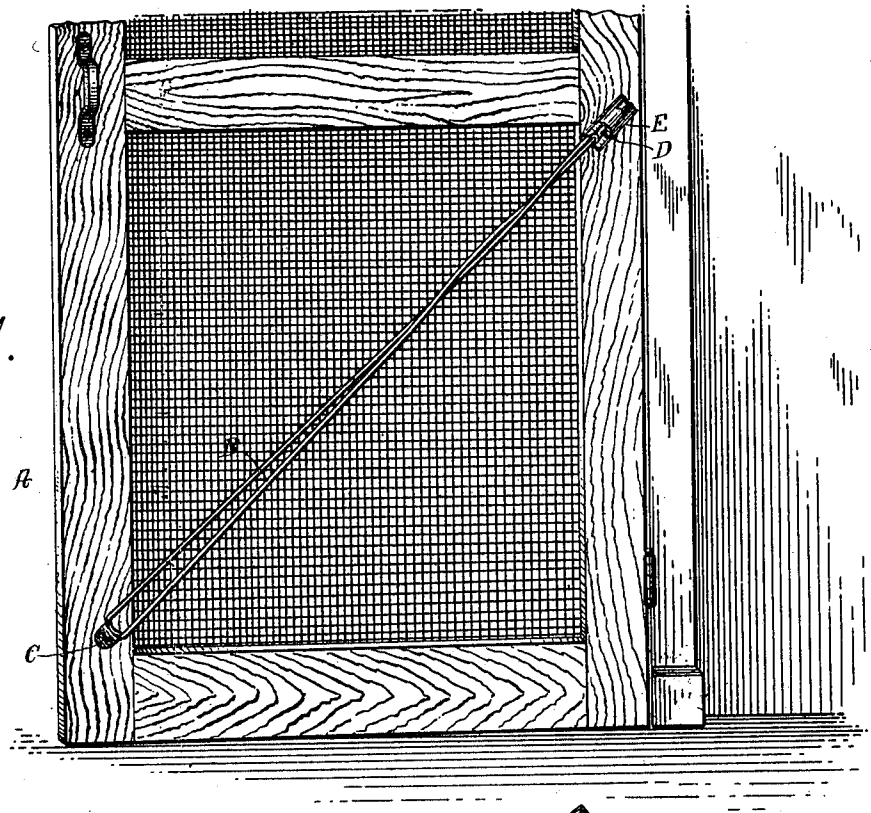
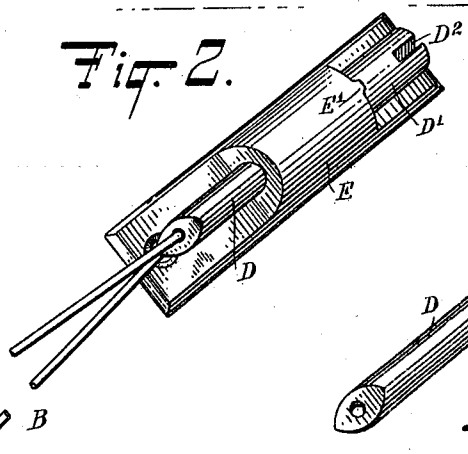


Fig. 2.



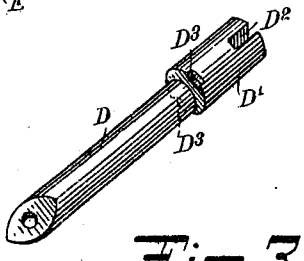


Fig. 3.

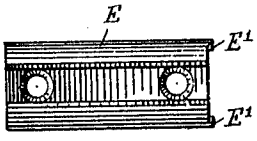


Fig. 4.

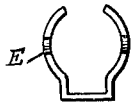


Fig. 5.

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DOOR-STAY.

978,568. Specification of Letters Patent. Patented Dec. 13, 1910.

Application filed May 5, 1910. Serial No. 559,520.

To all whom it may concern:

Be it known that I, OK EATON, a citizen of the United States, and a resident of Portland, in the county of Cumberland and State of Maine, have invented a new and Improved Door-Stay, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved stay for screen doors and other light doors, more especially designed to prevent the door from sagging, and, if a door is already in such condition, to permit of restoring the door parts to normal condition and to hold the same therein.

For the purpose mentioned, use is made of a flexible connection extending diagonally across the door and secured to the door at the sides thereof, and means for twisting the said connection to shorten the same, and to hold the connection in the twisted and shortened condition.

A practical embodiment of the invention is represented in the accompanying drawing forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of a screen door provided with the stay; Fig. 2 is an enlarged perspective view of the stay; Fig. 3 is a perspective view of the twisting shaft for twisting the flexible connection; Fig. 4 is a face view of a modified form of the socket for the shaft to turn in; and Fig. 5 is an end view of the same.

Diagonally across the door A extends a flexible connection B, preferably in the form of a wire loop having its lower end hooked onto the hook C′ of a plate C, secured by screws or other means to the lock stile of the door A, near the lower end thereof, as plainly indicated in Fig. 1. The upper end of the loop B is attached to the end of a shaft D mounted to turn in a socket E, fastened by screws or other fastening devices to the hinge stile of the door, as shown in Fig. 1. Now, in case the door has sagged, and it is desired to draw the door parts back into normal position, it is only necessary for the operator to turn the shaft D so as to twist the flexible connection B, and in doing so shorten the said connection, thus drawing the outer stile and with it the bottom rail of the door upward, back into normal position.

The shaft D is provided at its upper end with a head D′, seated against the top of the socket E, and the said head D′ is provided in its outer end with a slot D^2 for the application of a screw driver or a similar tool, to permit the operator to conveniently turn the shaft D for twisting the flexible connection B, as previously explained. The inner end of the head D′ of the shaft D is provided at diametrically opposite points with notches D^3, adapted to be engaged by lugs or teats E′, formed on the upper end of the socket E, so as to hold the shaft D against accidental turning, thereby maintaining the flexible connection B in the twisted condition, it being, however, understood that the shaft D can be readily turned when applying a screw driver or other tool to the head D′, as before mentioned. The socket E may be in the form of a casting, as shown in Figs. 1 and 2, or it may be in the form of a sheet metal socket, as indicated in Figs. 4 and 5.

The hook C′ besides holding the lower or doubled up end of the flexible connection B, also serves to spread the flexible connection, with a view to permit proper twisting thereof when turning the shaft D, as before explained.

The door stay shown and described is very simple and durable in construction, and can be readily applied to screen doors and other light doors, with a view to prevent the door from sagging, or, in case a door has sagged, to draw the parts thereof back to normal condition.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:—

1. A door stay, comprising a looped flexible connection extending diagonally across the door, means for securing one end of the flexible connection to one stile of the door, and a twisting device secured to the other stile and to which the other end of the said connection is secured.

2. A door stay, comprising a looped flexible connection extending diagonally of the door, means on one stile of the door for receiving and holding one end of the said flexible connection, and a twisting shaft mounted to turn on the other stile of the door and connected with the other end of the said flexible connection, the said shaft on being turned causing twisting of the said flexible connection and thus shortening thereof, to draw the sagged door parts back into normal position.

3. A door stay, comprising a looped flexi-

ble connection extending diagonally across the door, a holder fixed on one stile of the door for holding one end of the flexible connection, a socket fixed on the other stile of the door, and a shaft mounted to turn in the said socket and engaged by the other end of the flexible connection.

4. A door stay, comprising a wire loop extending diagonally across the door from one side of the door to the other side thereof, a holder and spreader secured to one stile of the door and receiving one end of the said wire loop, a socket attached to the other stile of the door, and a shaft mounted to turn in the said socket and engaged by the other end of the said wire loop.

5. A door stay, comprising a wire loop extending diagonally across the door from one side of the door to the other side thereof, a holder and spreader secured to one stile of the door and receiving one end of the said wire loop, a socket attached to the other stile of the door, a shaft mounted to turn in the said socket and engaged by the other end of the said wire loop, and means for holding the said shaft against accidental turning.

6. A door stay, comprising a wire loop, a holder and spreader for receiving one end of the said wire loop, a socket, a shaft mounted to turn in the said socket and engaged by the other end of the said wire loop, the said shaft having a head provided with a slot at the outer end for the application of a screw driver, and notches at the other end of the head, the said notches being adapted to be engaged by teats on the adjacent end of the socket.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

OK EATON.

Witnesses:
RALPH H. EATON,
FANNIE E. EATON.