

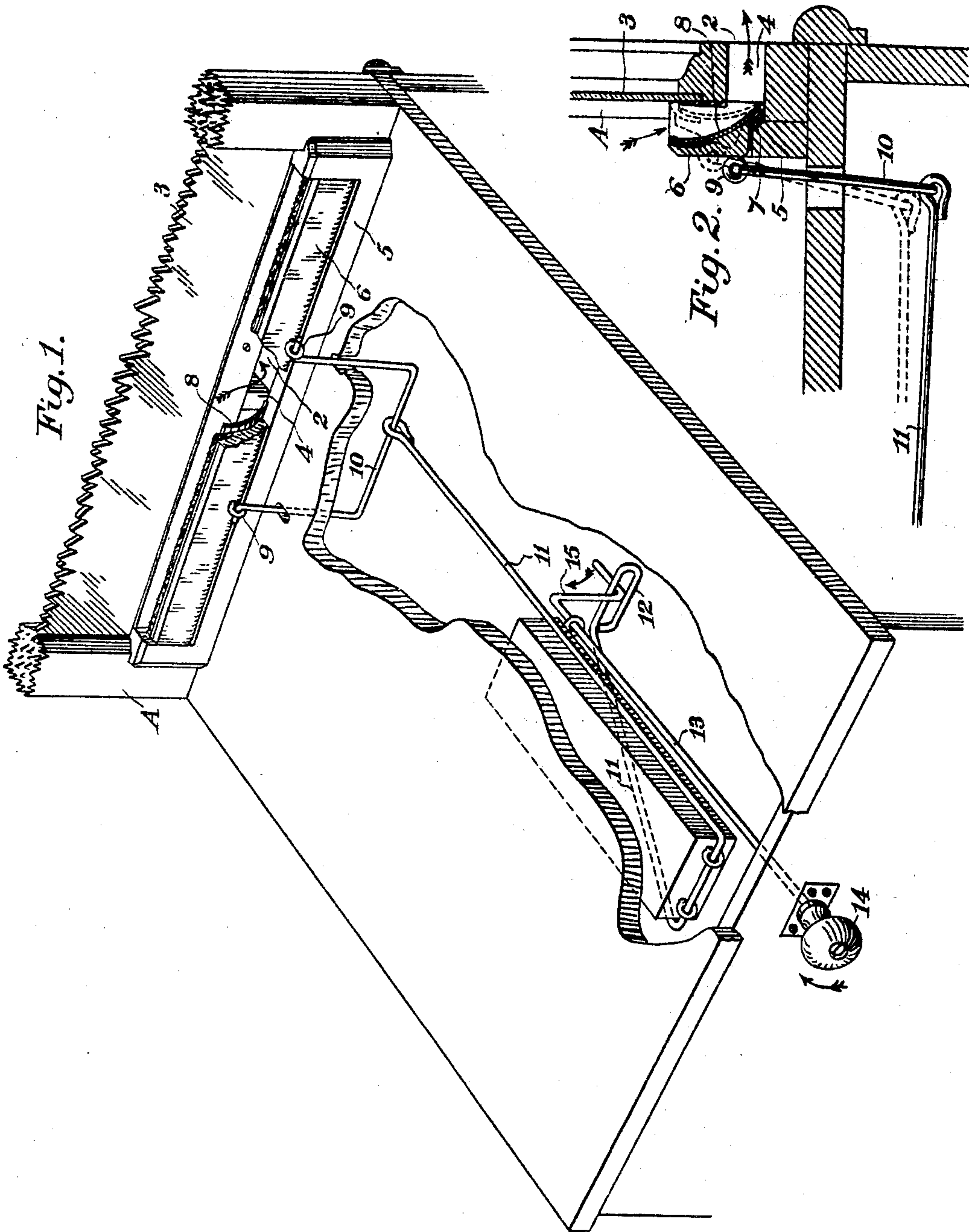
No. 681,844.

Patented Sept. 3, 1901.

A. J. COLLAR.  
WINDOW FLY ESCAPE AND CLOSURE.

(Application filed Jan. 11, 1901.)

(No Model.)



Witnesses,  
E. A. Brandau,  
J. H. Morse

Inventor,  
Adoniram J. Collar  
By Duway Strong & Co.  
attys



# UNITED STATES PATENT OFFICE.

ADONIRAM JUDSON COLLAR, OF YREKA, CALIFORNIA.

## WINDOW FLY-ESCAPE AND CLOSURE.

SPECIFICATION forming part of Letters Patent No. 681,844, dated September 3, 1901.

Application filed January 11, 1901. Serial No. 42,887. (No model.)

*To all whom it may concern:*

Be it known that I, ADONIRAM JUDSON COLLAR, a citizen of the United States, residing at Yreka, county of Siskiyou, State of California, have invented an Improvement in Window Fly-Escapes and Closures; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to a device attachable to window or door screens and like openings or apertures, so that flies and other window-insects are given an egress-passage, and means for closing or opening the passage whenever desired.

It consists of a transversely-channeled concaved base through the lower part of the sash and below the glass or other closed portion, through which passage the flies are allowed to escape, and in a means for opening or closing said passage.

It also comprises details of construction which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 is a perspective view of my invention, showing its application. Fig. 2 is a transverse section through the lower part of the sash.

The object of my present device is to provide a closure for openings which may be made in the lower part of a window-sash for the escape of flies and a means for manipulating said closure so that it can be operated from a considerable distance and opened or closed and locked in either position. It is especially applicable for use in show-windows of stores, where the space behind the window may be filled with articles and the window cannot be readily approached.

As illustrated in the present drawings, A represents the window-sash, having a slot or channel 2 made in it below the lower edge of the glass 3. This channel opens directly through the sash, and the part above the opening may be sufficiently supported against the weight of the glass by blocks or strips 4, standing at intervals from one end to the other of the channel, but not having sufficient area to in any way obstruct the passage of the insects. This part may be further strengthened by means of a flat metal plate fixed to it and having the upper edge made

thin, lying in contact with the inner surface of the glass, while the lower part of the plate is screwed or otherwise secured to the sash below the glass. This provides a surface which is continuous with the plane of the glass, so that flies or insects can readily slip down over the surface and arrive at the escape-opening. At the same time the metal plate standing on edge gives great rigidity to prevent sagging of this portion, which is liable to occur where large plate-glass windows are thus constructed. It also supports it against lateral force or pressure.

Upon the bottom of the inner part of the escape-opening is fixed a bar 5, extending from one side to the other of the opening and forming a support for the closing-gate 6, the front edge of which gate is hinged to the front edge of the part 5 by links or other suitable attachments, as 7. The closing-gate is thus turnable about its hinges, and when it stands in the open position the front surface, which is concaved, as shown at 8, forms a guide and channel, in connection with the lower part of the window-glass, through which the insects will readily escape. The upper edge of the gate is covered with felt or any soft material which will form a suitable closure against the glass, and, if desired, the surface of the bar or strip 5 may have a similar soft surface upon which the gate sits and rests when it is opened. When it is closed, it is tilted about its hinges, so that the upper felt-covered edge is pressed against the lower part of the window, and thus acts to keep out dust, wind, and rain when desired. The packing between the two serves to make a dust-tight joint. In order to operate this gate from a considerable distance, as in the case of show-windows, I have shown wire loops, eyes, or other attachments 9, fixed to the lower rear edge of the gate and at such intervals that pressure applied to them will be evenly divided from one end to the other of the gate in case the latter be of considerable length. Loosely connected with these eyes is the U-shaped yoke 10, which extends down through holes in the floor or surface just interior to the window and into the space beneath, this surface being usually raised above the main floor and to about a level with the bottom of the window. Within this space is fulcrumed



a yoke 11. One arm of this yoke extends forward from the fulcrum-point and is connected with the yoke 10. The other arm of the yoke extends forward a short distance parallel with the first-named arm and is then bent into a loop, as at 12.

13 is a shaft extending into the above-mentioned space, having a knob or handle 14 upon the outer end by which it may be turned. This shaft is suitably journaled and has a bent arm 15 at the front end, which engages with the loop 12, so that when the shaft is turned the crank will either raise the loop and the arm, of which it is a part, or depress it. When the arm is depressed, the yoke 10, connecting with the closing-gate, will be drawn downward and the gate will be opened. When the shaft is turned in the other direction to raise the loop, the parts will be moved so as to close the gate, with its protected edge against the glass or lower part of the window. The length of the arm of the lever 11, which is engaged by the crank 15, is sufficient so that it has considerable elasticity, and this yielding allows the crank to be turned to a position beyond the vertical center in either direction, and thus act as a lock to retain the gate either in its open or closed position.

The mechanism here described is sufficient for the purpose; but it will be seen that any desired modification of this mechanism may be made without materially altering the character of the invention.

The inner concave face of the hinged gate or strip 6 may be covered by a smooth metal plate, as shown.

The mechanism beneath the window floor or bottom is shown as being carried by a movable and adjustable block, which enables one to transfer it to one side or the other and to thus transfer the knob or crank-rod to any desired point or position that construction or necessity may require.

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

1. The combination with a window and a channel made through the sash, of a gate hinged along one edge, and means for moving the opposite edge of the gate into and out of contact with the glass, thereby controlling said channel.

2. The combination with a window and a channel made through the lower sash, of a gate having a concaved front surface, hinges

by which the front lower edge of the gate is loosely connected with the bottom of the channel, while the inner edge of the gate extends above the lower edge of the glass, a yielding material fixed to the movable edge of the gate, means whereby the gate is turned about its hinges, and said edge brought in contact with the glass.

3. The combination with a window having a channel made through the lower sash beneath the edge of the glass for the escape of insects, a gate, hinges by which the lower edge is connected with the bottom of the channel, a concaved front face to said gate extending upwardly above the horizontal plane of the lower edge of the glass, and a flexible covering over said edge, connections between the rear of said gate and a lever mechanism whereby the gate is opened or closed.

4. The combination in a window of a channel made in the lower sash for the escape of insects, a hinged swinging gate by which said channel is opened or closed, a fulcrumed lever, connections between one arm of said lever and the gate, a turnable shaft having a crank-arm engaging the other end of said lever whereby the parts are moved to open or close the gate.

5. The combination with a window having a fly-escape passage through the lower sash, and a gate by which said passage is opened or closed, of a flexible yoke-lever, one arm of which is connected with the gate, a turnable shaft having a crank engaging the other arm of said lever and adapted to lock the parts with the gate in either the open or closed position substantially as described.

6. The combination in a window of a lower sash-bar having a slot or channel made through it below the glass, a metal strengthening-plate fixed to the sash above the opening with its upper edge essentially flush with the glass, a gate having its lower edge hinged in the bottom of the channel and its upper edge closable against said surface, and a mechanism by which the gate may be opened or closed and locked in either position.

In witness whereof I have hereunto set my hand.

ADONIRAM JUDSON COLLAR.

Witnesses:

ELISHA DE WITT,  
JAMES ROBERT TAPSCOTT.