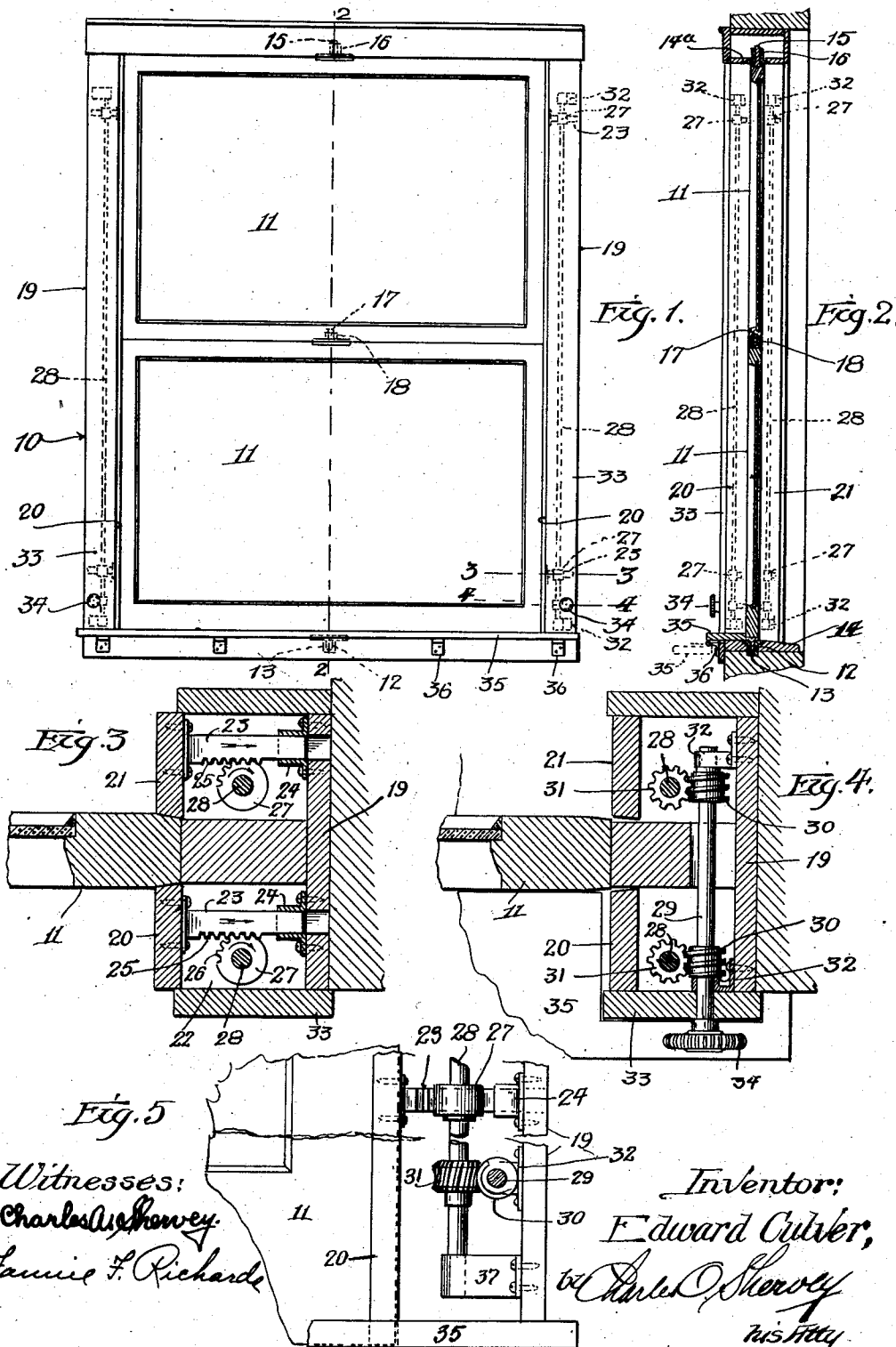


E. CULVER.
SWINGING WINDOW.
APPLICATION FILED JULY 24, 1911.

1,021,862.

Patented Apr. 2, 1912.



Witnesses:
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Jennie F. Richards

Inventor:
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by Charles A. Shovey
his atty.

UNITED STATES PATENT OFFICE.

EDWARD CULVER, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO FRANK B. BASSLER, OF CHICAGO, ILLINOIS.

SWINGING WINDOW.

1,021,862.

Specification of Letters Patent.

Patented Apr. 2, 1912.

Application filed July 24, 1911. Serial No. 640,344.

To all whom it may concern:

Be it known that I, EDWARD CULVER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Swinging Windows, of which the following is a specification.

This invention relates to improvements in swinging windows, and has for its object to provide a pivoted window sash, normally held in place, but capable of being swung around to present its reverse side.

Another object is to provide depressible window stops for holding the sash in position, but arranged to be depressed into pockets in the window frame to permit the sash to be turned upon its pivots.

Other objects and advantages will appear in the course of this specification, and the invention consists in the several novel features of construction, arrangement and combination of parts hereafter set forth and particularly defined in the claims.

The invention is clearly illustrated in the drawing furnished herewith, in which—

Figure 1 is a front elevation of a window embodying one form of my present improvement, Fig. 2 is a vertical transverse section taken on the line 2—2 Fig. 1, Fig. 3 is a detail horizontal section taken on the line 3—3 Fig. 1, Fig. 4 is a detail horizontal section taken on the line 4—4 Fig. 1, and Fig. 5 is a detail front elevation of the lower right hand corner of the window, with the casing removed to show operating parts that would otherwise be hidden from view.

Referring to said drawings 10, represents a window frame and 11—11 a pair of sashes arranged one above the other and pivotally mounted in said frame to swing on a vertical axis. As here shown, the lower sash has secured to its lower edge a vertically and downwardly extending bolt or pin 12, journaled in the socket 13, secured in the window sill 14, and the upper sash has an upwardly projecting bolt 15, secured at its upper edge and turning in a socket 16, secured in the lintel 14^a of the window frame. The upper and lower sash are also pivotally connected together as by a bolt 17, secured to the upper edge of the lower sash and turning in the socket 18, secured to the lower edge of the upper sash. All of the bolts are in vertical alinement at the

center of the sash, whereby either or both sash may be swung around upon said pivotal connections.

Movably secured to the vertical members 19, of the window frame are cushions or window stops 20, 21, said window stops being arranged in pairs as shown in Figs. 3 and 4, and embracing between them the side edges of the window sash. Said window stops are arranged to be moved into pockets 22, of the vertical members of the window frame, so as to leave the sash free to be turned upon their fulcrums. Means are provided for depressing said window stops into the pockets and for moving them back into operative position and locking them in such position and the form shown will now be described.

Secured to each window stop are upper and lower supporting posts 23, that are slidably mounted in brackets 24, carried by the upright members 19, of the window frame. Said posts 23, are shown as formed with rack teeth 25, that mesh with the teeth 26, of gears 27, mounted upon vertical shafts 28, journaled in brackets 37. It is obvious that by partially rotating said shafts in the proper direction, the window stops may be depressed to points beyond the window sash, and that by partially rotating said shafts in the opposite direction, said window stops may be returned to their operative position to hold the sash between them. Fig. 3 shows them in their operative position and Fig. 4 shows them in their depressed position in the pocket.

Means are provided for simultaneously moving both members of each pair of window stops, and as here shown, comprises a horizontally extending shaft 29, which has secured thereon a pair of worms 30, meshing with wormwheels 31, upon the vertical shafts 28. The horizontal shaft 29, is journaled in brackets 32, supported by the upright members 19, of the window frame and said shaft projects out through the casing 33, beyond which it is provided with a hand wheel or other knob 34, whereby it may be turned to effectuate the movement of the window stops. It is perfectly obvious that whenever the hand-wheels 34, are rotated in the proper directions, the window stops will be withdrawn from the sides of the window sash and either or both sash may then be turned completely around to present the re-

verse side thereof. The worm gearing provides a locking mechanism, thereby effectually preventing persons from depressing the stops from the outside of the building.

5 I have shown the stool 35, of the window sill 14, as hinged to the window frame by hinges 36, whereby said stool may be swung over to the position indicated in dotted lines in Fig. 2, so as to leave the lower window
10 free to be swung open. If desired, the usual weather strips may be secured to the meeting edges of the window sash or at other points where crevices occur, so as to prevent the weather from beating in.

15 While I have shown a pair of window sash for the purpose of illustration, it is perfectly obvious that one or more sash may be employed without departing from the invention.

20 This invention is particularly advantageous, inasmuch as both sides of the sash may be presented to a person within the room, for the purpose of washing them, thereby doing away with the necessity of
25 having a window washer stand outside of the window to wash it as is customary with the ordinary vertically sliding window sash.

I realize that various alterations and
30 modifications of this device are possible without departing from the spirit of my invention, and I do not therefore desire to limit myself to the exact form of construction shown and described.

35 I claim as new and desire to secure by Letters Patent:

1. In a window, the combination com-

prising a window frame having a vertical pocket in one of its sides, a depressible window stop located at said side of the frame and capable of being depressed into said
40 pocket, toothed posts carrying said stop and slidably mounted on said frame, a vertically extending rotary shaft in said pocket, toothed wheels carried by said shaft and
45 meshing with the teeth of said posts, and shaft rotating means having an element projecting out through the frame.

2. In a window the combination comprising a window frame, a pair of depressible
50 window stops, at each side of said frame, toothed posts carrying said stops, and slidably mounted in the window frame, a pair of vertically extending shafts at each side of the frame, toothed wheels carried by
55 said shafts and meshing with the teeth of the posts, pinions carried by said vertically extending shafts, horizontally extending shafts journaled upon the window frame and projecting out through the
60 front thereof, worm gears mounted upon said horizontally extending shafts and meshing with the pinions upon the vertically extending shafts and hand wheels for
65 turning said horizontally extending shafts.

In witness whereof, I have hereunto subscribed my name at Chicago, Cook county, Illinois, this 14th day of July 1911.

EDWARD ^{his} ~~X~~ CULVER.
mark

Witnesses:

FRANK B. BASSLER,
CHARLES O. SHERVEY.