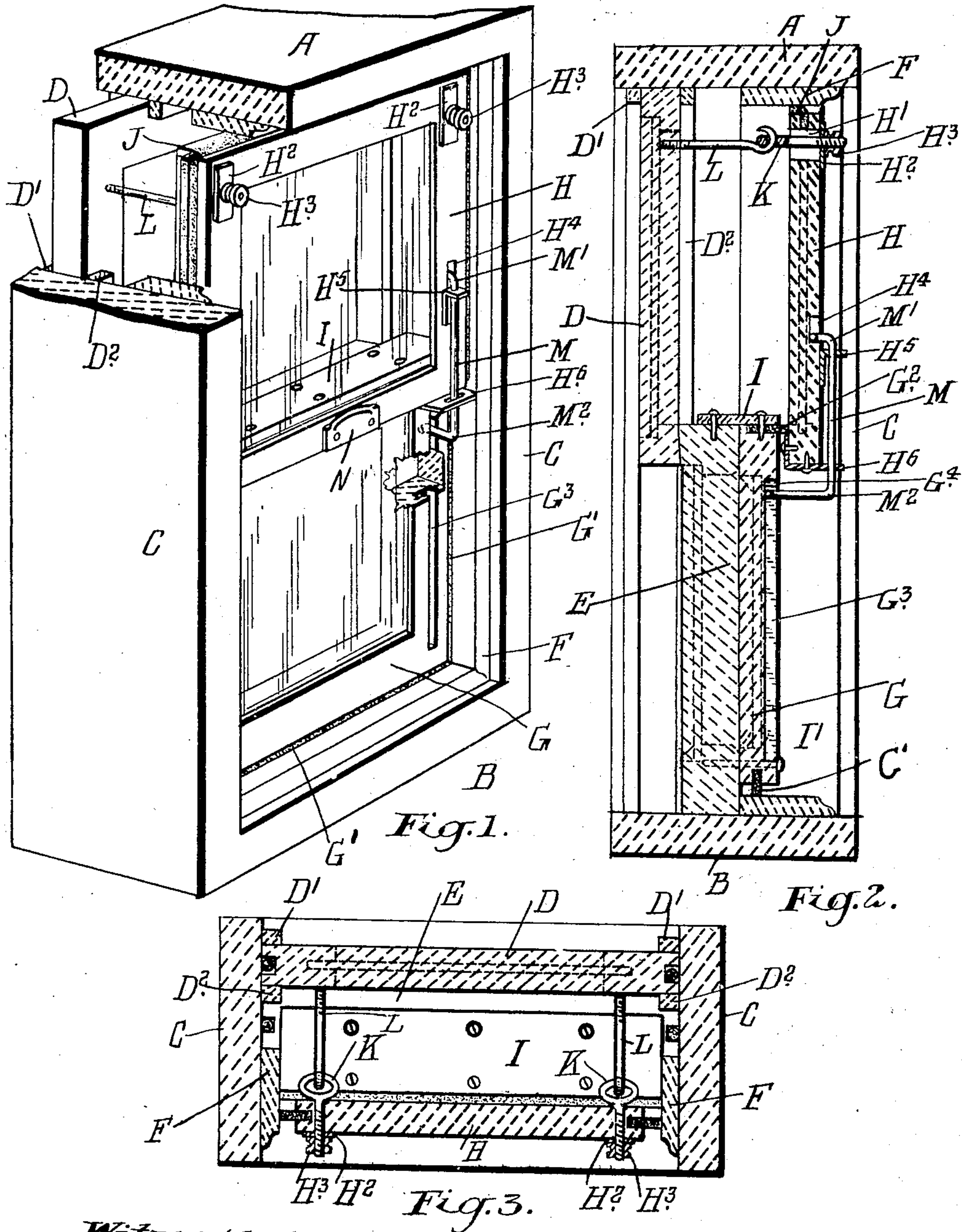


No. 865,453.

PATENTED SEPT. 10, 1907.

D. TODD.
STORM SASH FOR WINDOWS.
APPLICATION FILED JULY 2, 1906.



Witnesses.
H. Y. S. Young.
Albert H. Vaisey

Inventor.
D. Todd.

by
Frank B. Feltus
Att'y.

UNITED STATES PATENT OFFICE.

DAVIDSON TODD, OF TORONTO, ONTARIO, CANADA.

STORM-SASH FOR WINDOWS.

No. 865,453.

Specification of Letters Patent.

Patented Sept. 10, 1907.

Application filed July 2, 1906. Serial No. 324,476.

To all whom it may concern:

Be it known that I, DAVIDSON TODD, of the city of Toronto, in the county of York, in the Province of Ontario, Canada, have invented certain new and useful
5 Improvements in Storm-Sashes for Windows, of which the following is the specification.

My invention relates to improvements in storm sashes for windows, and the object of the invention is to devise a simple form of storm sash applicable to the in-
10 side of the window, which will not interfere with the free use of the upper and lower sashes of a window and will move with them, and yet which may be readily and quickly detached after winter use and it consists essentially of supplemental upper and lower sashes,
15 the lower supplemental sash being located adjacent to the ordinary lower sash and affixed thereto at the top, and the upper supplemental sash being located adjacent to the lower supplemental sash at the bottom and connected to the ordinary upper sash at the top by a
20 detachable connection and to the lower supplemental sash at the bottom by a detachable connection as hereinafter more particularly explained.

Figure 1, is a perspective view of a portion of a window casing showing my improved supplemental sashes,
25 portion of the sashes and casing being broken away to exhibit the construction. Fig. 2, is a vertical section through the fasteners connecting the supplemental sashes to the ordinary sashes. Fig. 3, is a sectional plan.

30 In the drawings like letters of reference indicate corresponding parts in each figure.

A is the lintel and B the sill and C the sides of a window casing or frame.

35 D is an ordinary upper sash, which is held and has vertical movement between the strips D' and D².

E is the ordinary lower sash, which has a beveled connection at the top to the upper sash, such as ordinarily provided.

F is the internal molding of the frame.

40 G is the lower supplemental sash, which is provided around the bottom and side edges with the weather strips G' set in grooves in the edge of the sash as indicated.

45 G² is a weather strip located at the top of the supplemental sash G and extending to the upper supplemental sash H.

I is a plate of wood or metal secured to the top of the ordinary sash E and supplemental sash G and bridging the same and extending from side to side of the sash.

50 The plate I serves to hold the weather strip G² in position.

I' is a screw pin, which extends through the bottom rail of the sash G into the bottom rail of the sash E.

55 The upper sash H is provided with a weather strip J, which extends around the top edge and two side edges of the same fitting in grooves.

K are eyes extending through slots H' at each side of the upper sash and also through plates H² located to the inside of the slots. The eyes H' are held in position by suitable thumb nuts H³.

60

L are screw hooks, which are screwed into the ordinary upper sash D.

M are L-shaped bars provided with the upper bent end M' and the lower bent end M². The upper bent end M' extends into a slot H⁴. The upper end of the
65 bar M also extends through a bracket H⁵ and the lower end through a slotted plate H⁶ attached to the lower side of the supplemental sash H. There are two bars M one on each side of the sash. The lower bent end of each bar M extends into an undercut groove G³, which
70 is provided at the top with a lateral enlargement G⁴ as indicated.

It will now be seen that the supplemental sashes G and H form storm sashes, which will effectually prevent the ingress of air in cold weather especially in
75 view of the weather strips G' and G² and J, which are made of felt or other suitable material.

It will also be seen that from the connection of the upper storm sash to the ordinary upper sash that they will move in unison, and the lower portion of the storm
80 sash will be held in position as it moves up and down by means of the bars M at each side.

Should it be desired to disconnect the upper storm sash all that it will be necessary to do is to move the bar M upwardly in the slot H⁴ and necessarily in the slot G³
85 until the bent end M² is opposite the lateral enlargement G⁴ when the bars M may be thrust laterally outwardly and pulled inwardly, thereby swinging the sash H outwardly. By pulling the sash H downwardly the sash D will also move downwardly, where-
90 upon by swinging the sash H outwardly after the top is below the top of the casing sufficiently the eyes K may be readily unhooked from the hooks L and the sash removed. In order to remove the lower sash now all that it will be necessary to do will be to disconnect the
95 plate I and pins I' thereon from the ordinary sash when the storm sash may be readily removed. Both sashes it will be readily understood may be replaced by reversing the operation of removal.

Each sash I preferably provide with lifting handles
100 N and when the storm sashes are raised or lowered necessarily the outer sashes are also raised or lowered, so that air can be let into the room either from above or below, which is an important desideratum.

What I claim as my invention is:

105

1. In storm sashes for windows, the combination with the ordinary top and lower sashes, of a storm sash provided with top and bottom and side weather strips, a top plate bridging the tops of the ordinary bottom sash and storm sash and secured to the same as and for the purpose specified.

110

2. In storm sashes for windows, the combination with the ordinary top and lower sashes, of a storm sash pro-

vided with top and bottom and side weather strips, a top plate bridging the tops of the ordinary bottom sash and storm sash and secured to the same, and a pin extending through the bottom rails of the storm and ordinary lower sashes as and for the purpose specified.

3. In storm sashes for windows, the combination with the upper sash, of a detachable storm sash located to the inside of the lower sash, and detachable means for connecting it to the upper sash, whereby they may move in unison as and for the purpose specified.

4. In storm sashes for windows, the combination with the upper sash, of a detachable storm sash located to the inside of the lower sash, and hooks screwed into the ordinary upper sash and eyes extending through the storm sash through which the hooks extend, and detachable means for connecting the bottom of the storm sash to the bottom of the ordinary lower sash as and for the purpose specified.

5. In storm sashes for windows, the combination with the upper sash, of a detachable storm sash located to the inside of the lower sash, and hooks screwed into the ordi-

nary upper sash and eyes extending through the storm sash through which the hooks extend, the lower storm sash secured to the lower ordinary sash and provided with suitable weather strips, and the L-shaped bars held in suitable brackets and extending into slots in the upper storm sash and lower storm sash as and for the purpose specified.

6. In storm sashes for windows, the combination with the ordinary upper and lower sashes, of the upper and lower storm sashes, the lower one being securely affixed to the ordinary lower sash and the upper one being detachably connected at the top to the upper sash, so that it will swing on the connection, and L-shaped bars extending into slots in the upper and lower storm sashes, the lower slot in the lower storm sash being under-cut and provided with a lateral enlargement at the top as and for the purpose specified.

DAVIDSON TODD.

Witnesses:

B. BOYD,

E. MCEACHERN.