

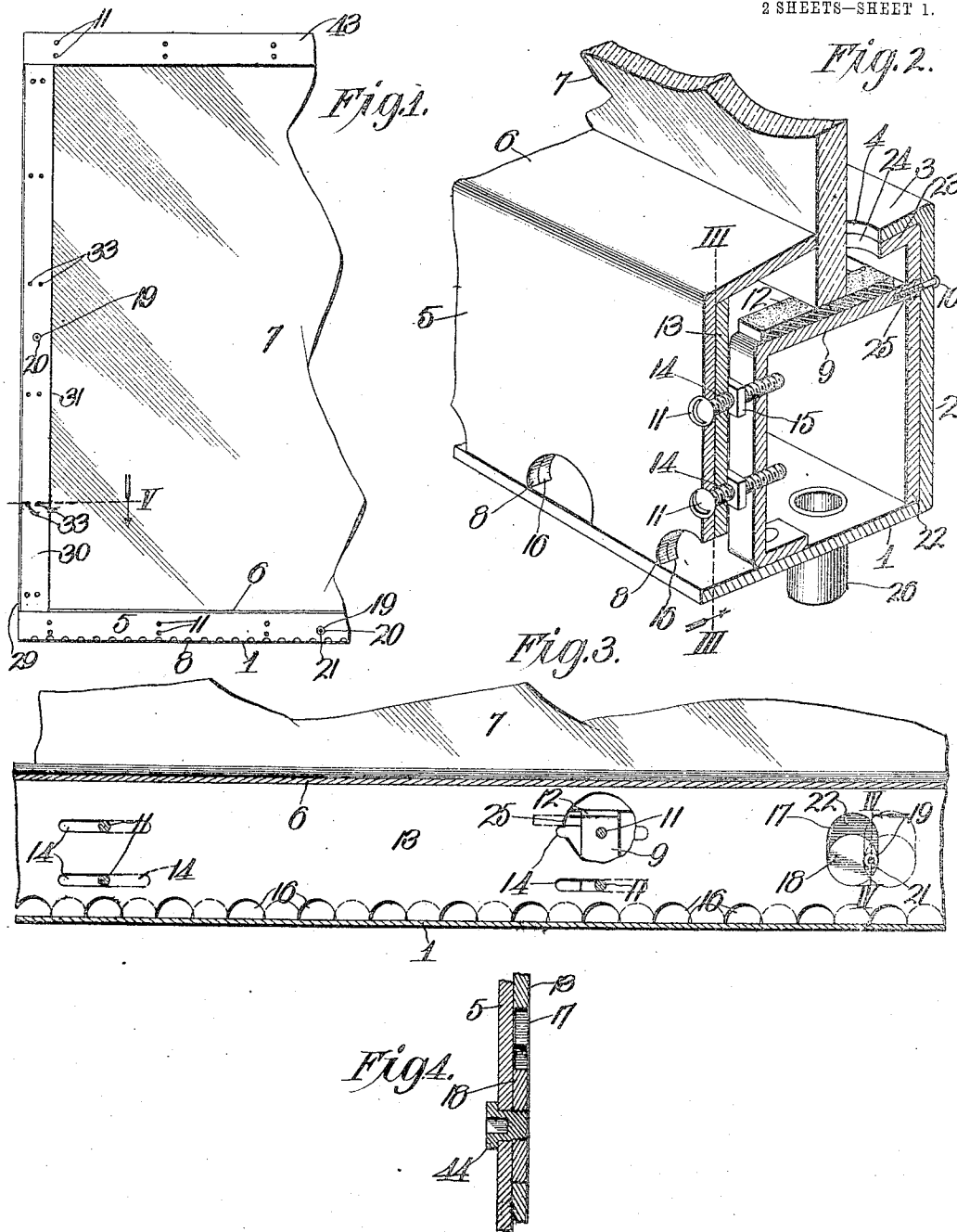
No. 897,372.

PATENTED SEPT. 1, 1908.

F. M. JACKSON.
WINDOW FRONT CONSTRUCTION.

APPLICATION FILED FEB. 25, 1908.

2 SHEETS—SHEET 1.



Witnesses
Frank R. Gore
H. C. Rodgers.

Inventor
F. M. Jackson
By George H. Thorpe Atty.

No. 897,372.

PATENTED SEPT. 1, 1908.

F. M. JACKSON.
WINDOW FRONT CONSTRUCTION.

APPLICATION FILED FEB. 25, 1908.

2 SHEETS—SHEET 2.

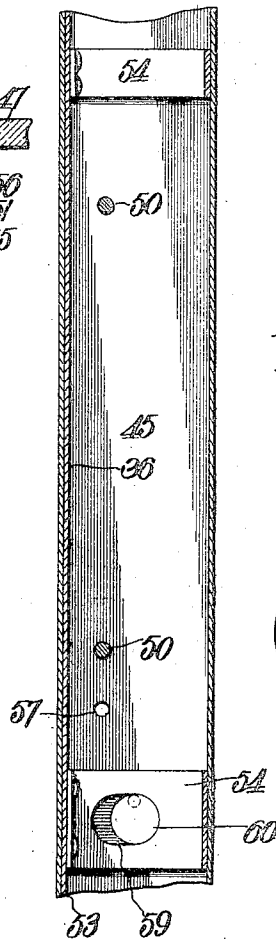
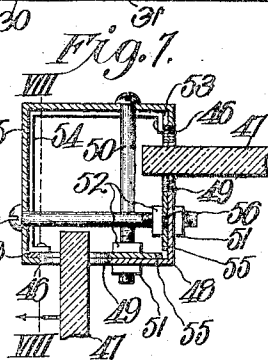
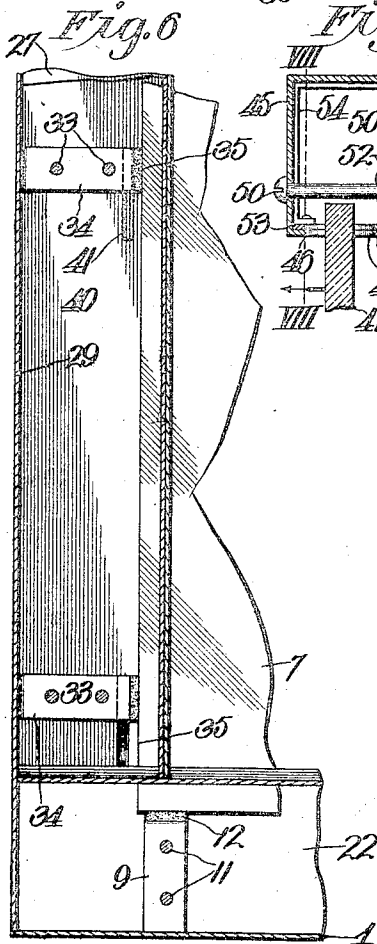
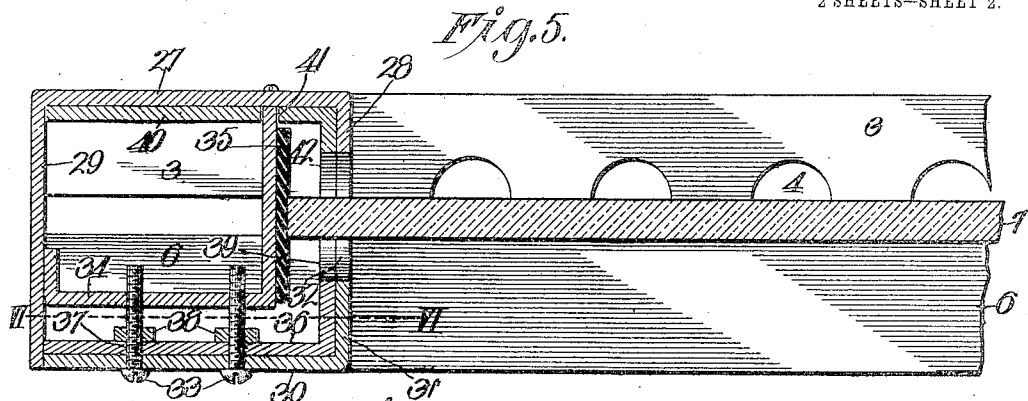


Fig. 9.



Witnesses
Frank R. Gore
H. C. Rodgers.

Inventor
F. M. Jackson
By *Wm. H. Phelps* Atty.

UNITED STATES PATENT OFFICE.

FRANCIS M. JACKSON, OF KANSAS CITY, MISSOURI.

WINDOW-FRONT CONSTRUCTION.

No. 397,372.

Specification of Letters Patent.

Patented Sept. 1, 1908.

Application filed February 25, 1903. Serial No. 417,745.

To all whom it may concern:

Be it known that I, FRANCIS M. JACKSON, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Window-Front Constructions, of which the following is a specification.

This invention relates to ventilating window front constructions and my object is to produce a construction of this character whereby window lights of different thicknesses may be easily and reliably secured in position and by which air may be caused to circulate against the inner face of the glass to prevent frosting of the same under certain weather conditions.

With this general object in view and others as hereinafter appear, the invention consists in certain novel and peculiar features of construction and organization as hereinafter described and claimed; and in order that it may be fully understood reference is to be had to the accompanying drawings, in which—

Figure 1, is an outer face view of a window front construction embodying my invention. Fig. 2, is an enlarged sectional perspective view of a part of the same. Fig. 3, is a vertical section taken on the line III—III of Fig. 2, but on a smaller scale. Fig. 4, is a horizontal section taken on the line IV—IV of Fig. 3. Fig. 5, is a horizontal section on an enlarged scale taken on the dotted line V of Fig. 1. Fig. 6, is a section on the line VI—VI of Fig. 5. Fig. 7, is a horizontal section of that part of the construction uniting the adjacent vertical edges of glass panes disposed at an angle to each other. Fig. 8, is a section on the line VIII—VIII of Fig. 7.

In the said drawings, an angle bar is arranged so that its arm 1 is arranged horizontally and its arm 2 vertically, and the latter is provided at its upper edge with an arm 3 projecting outwardly and downwardly and equipped in its outer edge with equi-spaced apertures 4.

An angle bar inverted with respect to the first-named angle bar has its arm 5 arranged vertically and its arm 6 projecting upwardly and inwardly by preference, the window-lights 7 being arranged between the adjacent edges of arms 3 and 6. The arm 5 rests upon arm 1, and is provided in its lower edge with equi-spaced apertures 8.

9 indicates a series of angle brackets ar-

ranged at suitable intervals in the passage formed by and between the angle bars and secured at their lower ends to arm 1 and at their opposite ends to arm 2, at 10, or in any 60 other suitable manner.

11 indicate screw bolts extending through the outer angle bar 5—6 and the alined bracket 9 for the purpose of adjusting said angle bar 5—6 toward or from angle arm 2 to 65 accommodate window lights of different thickness, rubber or equivalent cushions 12 being interposed between the edge of the glass and the brackets 9 to protect the former from chipping while supported by the 70 brackets.

13 indicates a slide plate fitting against the inner side of wall 5 of the outer angle bar, provided with longitudinal slots 14 engaging the bolts 11 and held by the nuts 15 also engaging said bolts, snugly against arm 5 of the 75 said outer angle bar, the said slide plate having apertures 16 in its lower edge corresponding to the apertures 8, and adapted to register with the latter when air is to be admitted 80 to the space between the angle bars. For the purpose of adjusting the slide plate to throw its apertures 16 in or out of engagement with apertures 8, it is provided with a 85 vertically extending slot 17 receiving the disk 18 provided eccentrically with the outwardly projecting hub 19 journaled in a circular hole 20 in arm 5 of the outer angle bar, the said hub by preference having a square 90 socket 21 to receive a key, whereby the cam is turned from the position shown in dotted to the position shown in full lines Fig. 3, and vice versa, the first-named adjustment of the cam disposing the apertures 16 out of alignment with the apertures 8, so as to prevent 95 the entrance of air and the second reversing such relation of the parts.

22 indicates an angle shaped slide plate fitting in the passage formed by the angle bars and against arm 2 of the inner one and 100 provided at its upper edge with a flange 23 underlying arm 3 and provided like the latter with equi-spaced apertures 24 adapted to be thrown into or out of register with apertures 4, by a cam as described, and shown in Fig. 105 3, the slide plate 22 being provided with longitudinal slots 25 to receive angle brackets 9 the slots being sufficiently long to accommodate the slidable movement of plate 22. It will thus be seen that the slide plates or 110 valves for controlling the admission and exit of air to and from the passage between the

angle bars are capable of independent operation. The advantage of this independent operation will hereinafter appear, it being noticed in this connection that air may be
5 supplied to the passage, under pressure, through the medium of the supply pipe 26 communicating with a blower or equivalent device, not shown.

27 indicates an angle bar corresponding to
10 the inner angle bar already described except that it is arranged vertically instead of horizontally and its inner apertured arm 28 corresponding to arm 3 preferably occupies a parallel relation with arm 29 corresponding
15 to arm 1.

30 indicates a bar corresponding in all essential respects to the outer angle bar 5—6 except that the inwardly projecting flange 31 is provided with apertures 32 instead of having such apertures in the outer edge of bar
20 30, as would be the case if said bar 30 corresponded in all respects to bar 5—6.

33 indicate screw bolts extending through bar 30 and brackets 34 secured to arm 29 at
25 one end and to arm 27 at the other, and 35 is a cushion secured to each bracket 34 for receiving the pressure of the side edge of the window glass 7. 36 is a slide plate having slots 37, similar to slots 14 in plate 13,
30 through which the screw bolts 33 (see Fig. 5) extend and fitting snugly between bar 30 and the nuts 38 engaging the screw bolts. This slide bar is provided with an apertured flange 39 to control the admission or exit of
35 air through the said apertured flange 31.

40 is a slide bar corresponding to slide bar 22 and provided with slots 41, through which the brackets 34 project, and said slide bar is provided with an apertured flange 42 to co-
40 operate with flange 28 in controlling the admission or exit of air through said apertured flanges. It will be noticed that the side portions of the window front construction rest upon the flanges 3 and 6 of the base section,
45 but that communication is established between the passage of the base section and that formed by and between the side sections through the space between the flanges 3 and 6 beyond the outer edges of the window glass
50 as shown most clearly in Fig. 5. Only one side section is shown as they are of duplicate construction and the top section 43 is also of the same construction.

The side and top sections are equipped
55 with means similar to those described and shown in Fig. 3 most clearly, for longitudinally adjusting their slide plates, it being noticed in this connection and by reference particularly to Fig. 4, that the hubs of the
60 eccentrics are provided with outwardly projecting flanges 44 to prevent the cams being dislocated and falling into the passages formed by their respective angle bars.

Where two window lights are disposed at
65 an angle to each other, I provide a division

piece or mullion constructed as follows:—45 is an angle bar provided with inwardly projecting apertured flanges 46 at its ends to engage the outer sides of the window-lights 47.

48 is an oppositely disposed angle bar to
70 engage the inner sides of the glass and provided in its edges with apertures 49. 50 are crossed bolts arranged at suitable intervals along the length of the mullion contiguous to the vertical edges of the lights and connect-
75 ing the angle bars 45 and 48 so as to clamp the lights firmly between them, nuts 51 engaging the inner ends of said bolts and nuts 52 engaging the bolts in the passage formed by and between the said angle bars. 80

53 are apertured slide bars fitting against the inner sides of apertured flanges 46 and connected at intervals by angle brackets 54.

55 are independent apertured slide plates fitting against the inner sides of the lights
85 and fitting snugly between the inner side of angle bar 48 and nuts 52. The slide plates 55 are provided with slots 56, one only appearing, through which bolts 50 extend and are equipped with slots, not shown, corre-
90 sponding to slot 17 and are engaged by cams corresponding to cam 18 to be turned by a key 58 in order that their apertures may be thrown into or out of register with the aper-
95 tures of the angle bar 48, it being preferred that said cams shall be operated from the outside of the mullion and to accomplish this purpose, bar 45 is preferably provided with keyholes 57 (one only of which appears)
100 through which the key is inserted.

To vertically adjust the apertured slide plates 53, one of the brackets 54 is provided with a slot 59 corresponding to slot 17 and engaged by a cam 60 corresponding to cam 18 and adapted to be turned by the same key,
105 if desired, that is used to operate the other cams referred to. By this arrangement it will be seen that the apertured slide plates 55 are independently adjustable and that slide plates 53 are likewise simultaneously adjust-
110 able independent of slide plates 55. By having the various apertured slide plates of the base, side and top sections independently adjustable it will be apparent that the person in control can effect the discharge of air from
115 either side section or from one or more of said sections simultaneously. He can therefore concentrate practically all of the air at any particular point on or around said "light."
120 If the entire glass is frosty or apt to become frosty he can discharge the air against the light along the four edges. It will thus be seen that I have provided means for dissipating frost or preventing its accumulation
125 upon the window light by the natural circulation of the air and can stimulate or increase its circulation by closing the outside aper-
tures and forcing air under pressure through pipe 26 or its equivalent, it being of course
130 understood that there may be a pipe or pipes

26 communicating not only with the bottom passages but with the top and side passages as well if desired.

5 From the above description it will be apparent that I have produced a ventilating window front construction possessing the features of advantage enumerated as desirable in the statement of invention and I wish it to be understood that I do not desire to be restricted to the exact details of construction shown and described as obvious modifications will suggest themselves to one skilled in the art.

15 Having thus described the invention what I claim as new and desire to secure by Letters Patent is:—

1. In a window front construction, a pair of bars having apertures, a window light between said bars, and a slide plate fitting in the passage formed by and between the bars and adapted to cover or expose the apertures of one of them.

2. In a window front construction, a pair of bars having apertures, a window light between said bars a slide plate fitting in the passage formed by and between the bars and adapted to cover or expose the apertures of one of them, and a second slide plate also occupying said passage and adapted to cover or uncover the apertures of the companion bar.

3. In a window front construction, a pair of bars having apertures, a window light between said bars, a slide plate fitting in the passage formed by and between the bars, and means for sliding said bar in one direction or

the other so as to cover or uncover the apertures of said bar.

4. In a window front construction, a pair of bars having apertures, a window light between said bars, a slide plate fitting in the passage formed by and between the bars, and provided with an elongated hole, a cam fitting in said hole and eccentrically journaled in the contiguous bar, and means to turn said cam and thereby slide the slide plate so as to cover or uncover the apertures of said contiguous bar.

5. In a window front construction, a pair of angle bars having their adjacent edges provided with apertures, a pair of window lights fitting between the apertured edges of the bars and disposed at an angle to each other, means for clamping the bars against the window lights, a pair of slide plates fitting against the inner side of one of said angle bars and connected together and provided with apertures in their edges contiguous to the window lights, a pair of slide plates fitting against the inner side of the other angle bar and provided with apertures in their edges adjacent to the window lights, means for imparting sliding movement to said connected apertured slide plates, and independent means for imparting sliding movement to the other pair of slide plates.

In testimony whereof I affix my signature, in the presence of two witnesses.

FRANCIS M. JACKSON.

Witnesses:

H. C. RODGERS,
G. Y. THORPE.