(No Model.) 2 Sheets—Sheet 1.

S. SCHOLFIELD.

REMOVABLE BAY WINDOW.

No. 400,605. Patented Apr. 2, 1889.

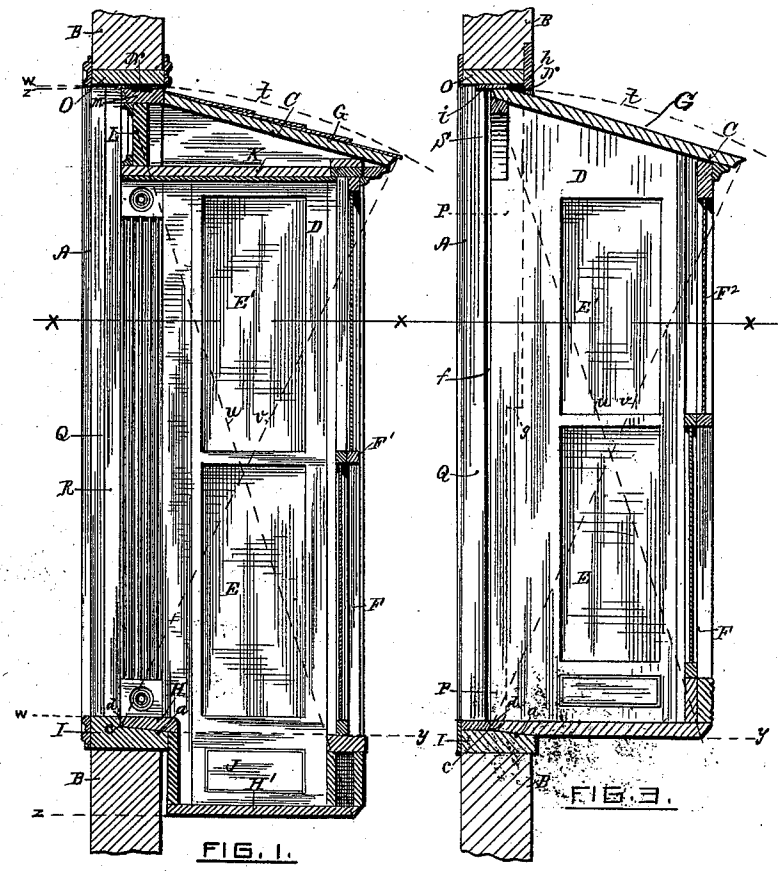


FIG. 1.

FIG. 3.

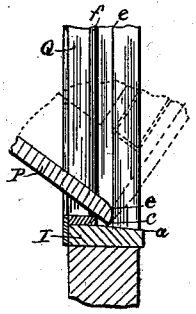


FIG. 4.

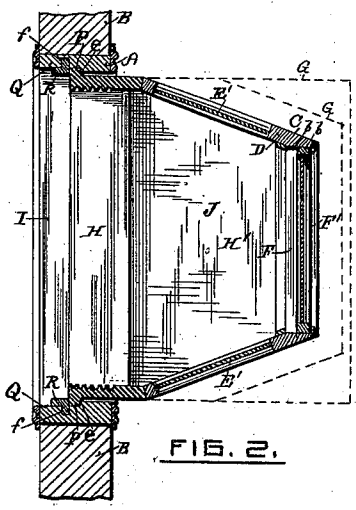


FIG. 2.

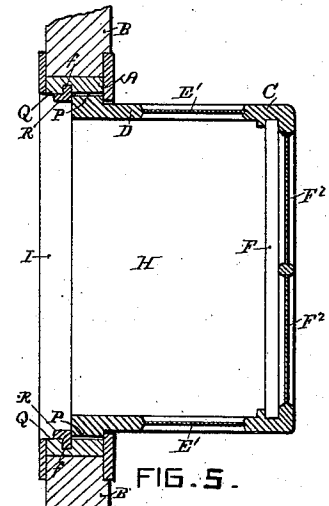


FIG. 5.

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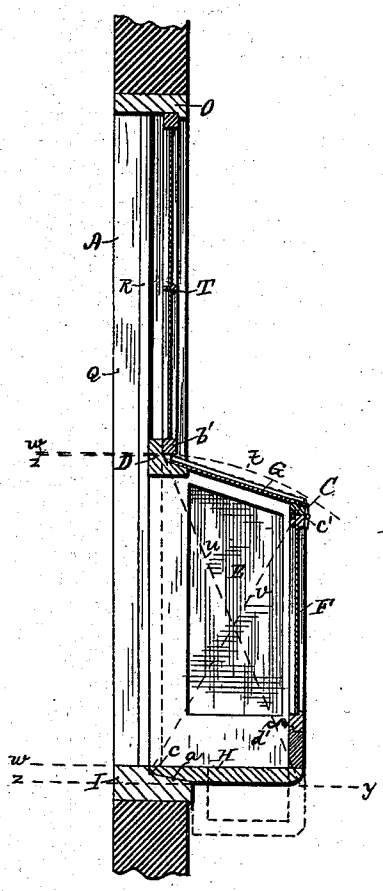


FIG. 6.

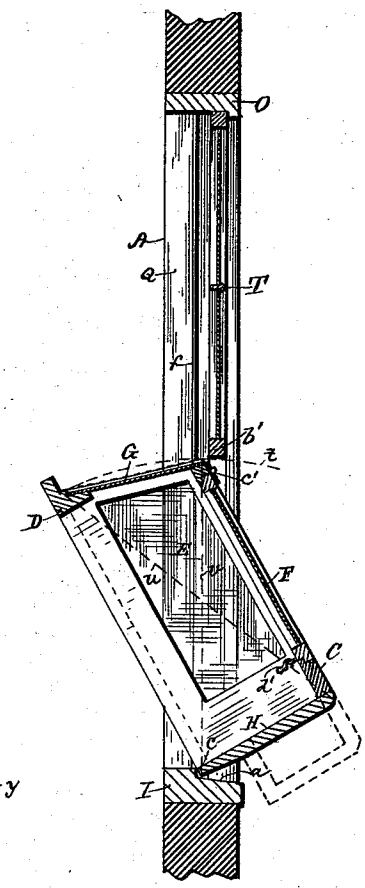


FIG. 7.

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UNITED STATES PATENT OFFICE.

SOCRATES SCHOLFIELD, OF PROVIDENCE, RHODE ISLAND.

REMOVABLE BAY-WINDOW.

SPECIFICATION forming part of Letters Patent No. 400,605, dated April 2, 1889.

Application filed April 29, 1886. Renewed August 30, 1888. Serial No. 284,211. (No model.)

To all whom it may concern:

Be it known that I, SOCRATES SCHOLFIELD, of Providence, in the State of Rhode Island, have invented a new and useful Improvement in Removable Bay-Windows, of which the following is a specification.

The object of my invention is to provide a removable bay-window which is adapted for convenient attachment to the ordinary window-frames of a building and also for ready inward removal from the same by means of a tilting movement upon a fulcrum, whereby access may be had to the exterior of the bay-window for the purpose of cleaning or repairs without requiring that the entire weight of the bay-window should be lifted from its seat upon the window-stool.

My improved window, among other purposes, is especially desirable as a window for house-plants, and when the frame of the bay-window is adapted to fit the ordinary sash-grooves of the window-frames of a building, it can be readily set up at any of the windows of the house without the necessary employment of screws or other means for attachment than those ordinarily provided for the proper attachment of the common window-sash. A tenant in a dwelling-house can therefore afford to have a bay-window of his own, which he can take with him upon his removal from the house and apply to his new premises after first removing the ordinary sash, and to many persons such a removable bay-window is very desirable.

My invention consists in an improved bay-window comprising a window-light or sash-holding frame, floor, and roof or ceiling in one structure, adapted for removable attachment to the window-frame of a building and for a tilting inward movement upon a fulcrum from its normal position in the window-frame, whereby access may be had to the exterior of the bay-window without requiring that the entire weight of the same should be lifted, as hereinafter fully set forth.

Figure 1 is a vertical section of one form of my improved removable bay-window held in a window-frame, which is also shown in section. Fig. 2 is a horizontal section taken in the line *x x* of Fig. 1. Fig. 3 is a vertical section showing my improvement in another form. Fig. 4 is a detail section illustrating the movement of the bay-window upon a fulcrum at the window-stool, the holding-flange being shown in vertical section, with a portion of the frame and floor shown by dotted lines. Fig. 5 is a horizontal section taken in the line *x x* of Fig. 3. Figs. 6 and 7 are sectional views showing my improved bay-window as arranged to take the place of the lower sash in the fixed window-frame, an optional downward extension of the bay-window, as in Fig. 1, being shown in broken lines.

In the accompanying drawings, Figs. 1 and 2, A is the window-frame secured to the wall B of a building.

C is the removable bay-window, comprising the frame D, which is adapted to hold the window-lights E E′ and the movable sash F F′; the inclined roof G, which may extend outward in rectangular form over the frame D, as shown by the outer dotted lines in Fig. 2, or which may be made to conform more nearly to the shape of the horizontal section of the frame, as shown by the inner dotted lines of the same figure; and the floor, which may be made in two sections, the upper and inner section, H, being made to rest upon the outer portion, *a*, of the upper surface of the window-stool I, and the lower and outer section, H′, being located below the outward extension of the horizontal plane *y*, commencing at the outer termination of the upper surface of the said portion *a* of the window-stool. The chamber J, formed by dropping the floor H′ a distance below the horizontal plane *y*, as shown in Fig. 1, is expressly adapted for holding flower-pots, the plants in which will serve to make the window very attractive; or the chamber J may be used as a receptacle of various articles when flowering plants are not desired, the circumscribing sides of the sunken chamber J, below the lights of the window, serving to hide the flower-pots or other articles contained in the said chamber, both from exterior and interior view, and the exterior of the sides of the said chamber serves to form a desirable architectural finish to the lower portion of the bay-window.

The sashes F and F′ are made to move in vertical slides *b b*, as usual, for the upper and lower sash of a window, and any or all of the

lights of the bay-window may be set in sliding or hinged sash, as desired; but I prefer to set some of them as E E′ in the frame D.

The removable bay-windows C may be provided with a ceiling, K, and a transom-bar, L, surmounted by a cap-piece, M, above which is placed the weather-strip N, which occupies the contracted space between the cap-piece M and the under side of the head, O, of the window-frame. The weather-strip N may be made of wood, rubber, or any material suitable for that purpose, and may be attached either to the head of the bay-window or to the head of the window-frame, as desired; or when the bay-window is closely fitted to the window-frame the weather-strip may be omitted. It will be observed that the extreme vertical height of the removable bay-window C, between the lines *z z*, thus including floor and roof and extensions of the frame, is greater than the distance between the lines *w w*, which is equal to the shortest distance between the window-stool I and the head O of the window-frame, so that the bay-window C cannot be removed from the window-frame except by tilting the said window inward upon a fulcrum, *c*, at the inner lower corner of the frame D, which rests upon the upper surface of the outer portion, *a*, of the window-stool and adjoins the shoulder *d* of the same. The opposite sides of the frame D are provided with the vertical flanges or projecting bearing-pieces P P, Fig. 2, which, when the bay-window C is thrust outward, rest against the ordinary sash-retaining shoulders, *e e*, of the jambs Q Q of the window-frame, which prevent the farther outward movement of the bay-window, and serves to hold the same in the proper vertical position, as shown in Fig. 1, and when the stop-beads R R are inserted into their retaining-grooves *f f* in the jambs Q the bay-window will be firmly held in its proper normal position in the window-frame.

Whenever it is desired to wash the fixed lights of the bay-window, for which purpose access must be had to the exterior of the same, the stop-beads R R are to be removed from their retaining-grooves *f f*, and then the window C can be tilted inwardly upon its fulcrum-point *c* at the window-stool I, the flanges P P being preferably rounded at their lower ends, as shown in the sectional view, Fig. 4, and by dotted lines in Fig. 3, in order to facilitate the tilting of the bay-window upon its corner fulcrum *c*, the rounded end of the flanges P P resting against the shoulders *e e* of the window-frame jambs, while the bay-window is being tilted inward and turned down to a horizontal position, in which free access may be had to all parts of the exterior of the bay-window for the purpose desired; and it will be observed that in order to tilt the bay-window inward, as above described, the distance from the fulcrum-point *c* to the outer extremity of the roof or ceiling, as shown by the dotted line *v*, must be less than the distance between the resting-point of the fulcrum *c* and the head O of the window-frame, as indicated by the arc *t*, while in order to utilize to the best advantage the space provided between the head of the window-frame and the window-stool the opposite diagonal line, *u*, is made greater than the distance between the same. It is also evident that the roof G and ceiling K may be made in one, and that the horizontal ceiling K of Fig. 1 may form the roof of the bay-window, the transom-bar L, which may be made to form a tight joint with the flat roof, serving to prevent the water from leaking inward from the same; or the horizontal ceiling K may be removed and the inclined roof G also form the ceiling, as shown in Fig. 3, which shows another form of my removable bay-window, in which the lights E E′ and F² are fixed in the frame D, and F is the only movable sash in the structure. The floor H also extends entirely across the bottom of the bay-window above the horizontal plane *y*, and this figure shows more particularly the construction of the ordinary window-frame in cheap houses, and illustrates the preferred application of my improved bay-window thereto, the bay-window being represented in its normal position in the window-frame previous to the insertion of the stop-bead, which serves to hold the window in its normal position against an outside pressure of wind, the groove *f*, which serves to receive the stop-bead, being clearly shown at the inner edge of the frame D. The holding-flange P is in this case preferably made with a shoulder, *g*, as shown by the vertical dotted lines in Fig. 3, which represent the line of the outer edge of the flange P, the lower narrow portion of the flange P being held in the place previously provided for the edge of the lower sash in the window-frame, and the upper portion of the flange P being made of double width to occupy the space formerly occupied by the edges of both upper and lower sashes when the lower sash was in its extreme raised condition. The bay-window C may thus be firmly held, upon the insertion of the stop-bead into the groove *f*, without requiring any change whatever in the fastenings employed over those employed for the removed ordinary sash.

A suitable weather-strip, N, may be held in the space between the outer head-casing, *h*, and the under head-casing, *i*, thus preventing liability of inward leakage along the roof in a driving rain-storm. The inner side of the roof G is supported by an arched piece, S, which extends between the opposite sides of the frame D, and, as in Fig. 1, the extreme vertical height of the bay-window is greater than the least distance between the window-stool and the head of the window-frame or the under head-casing thereof, and the opposite diagonal lines *v* and *u* are the one less and the other greater than the distance between the fulcrum-seat of the bay-window and the head of the window-frame or its casing.

In specially adapting the window for holding plants in cold weather the surrounding

walls of the chamber J may be made double, and also the floor of the same, with an intervening air-space, as shown, for the front wall under the window-sash F in Fig. 1, and the glass for the window-lights may also be set double with an intervening air-space, for the purpose of securing the proper degree of temperature in the interior of the bay-window in cold weather.

My removable bay-window may also be constructed to take the place of a single sash in the fixed window-frame A, as shown in Figs. 6 and 7, the bay-window, in vertical section, being shown in Fig. 6 in its normal position under the lower rail, b', of the window-sash T, which also forms the head-rail of the opening filled by the bay-window, and in an inwardly-tilted position from under the normally-supported head-rail of the said opening in Fig. 7, and in this case, as before described, the bay-window has its extreme outward and downward diagonal measurement in the line u, from its highest point under the head-rail b', greater than its extreme outward and upward diagonal measurement in the line v, the said measurement in the line v being less than the vertical height between the bearing-point of the bay-window at the window-stool and the under side of the head-rail, in order that the bay-window can be readily tilted from its upright position under the normally-held head-rail b' of the bay-window opening to a horizontal position without requiring the bay-window to be lifted from its turning-fulcrum.

The inclined roof G of the bay-window, as shown in Figs. 6 and 7, may be preferably made of glass, and the sash F may be hinged at its upper edge to the frame D of the bay-window by means of the hinges c', and secured at its lower edge by means of the hook d'.

I claim as my invention—

1. The combination of a fixed window-frame, with a removable bay-window, comprising a window-light or sash-holding frame, floor, and roof or ceiling in one structure, and having when in its normal position in the window-frame a vertical height greater than the shortest distance between the window-stool and the head-rail of the opening for the bay-window, and being also adapted for a tilting inward movement from its normal position under the head-rail, substantially as described.

2. The combination of a fixed window-frame with a removable bay-window, comprising a window-light or sash-holding frame, floor, and roof or ceiling in one structure, which is adapted for a tilting inward movement from its normal position in the window-frame, the lowest point or extension of the removable bay-window being located below a horizontal plane extending outward from the upper surface of the window-stool, substantially as described.

3. The combination of a fixed window-frame, with a removable bay-window comprising a window-light or sash-holding frame, floor, and roof or ceiling in one structure, and having its extreme outward and downward diagonal measurement in a vertical plane greater than the extreme outward and upward diagonal measurement of the same, the former distance being greater than the distance between the window-stool and the head-rail of the opening for the bay-window, and the latter less than the same, and also being adapted for a tilting inward movement upon a fulcrum from its normal position under the head-rail, substantially as described.

SOCRATES SCHOLFIELD.

Witnesses:
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JOHN S. LYNCH.