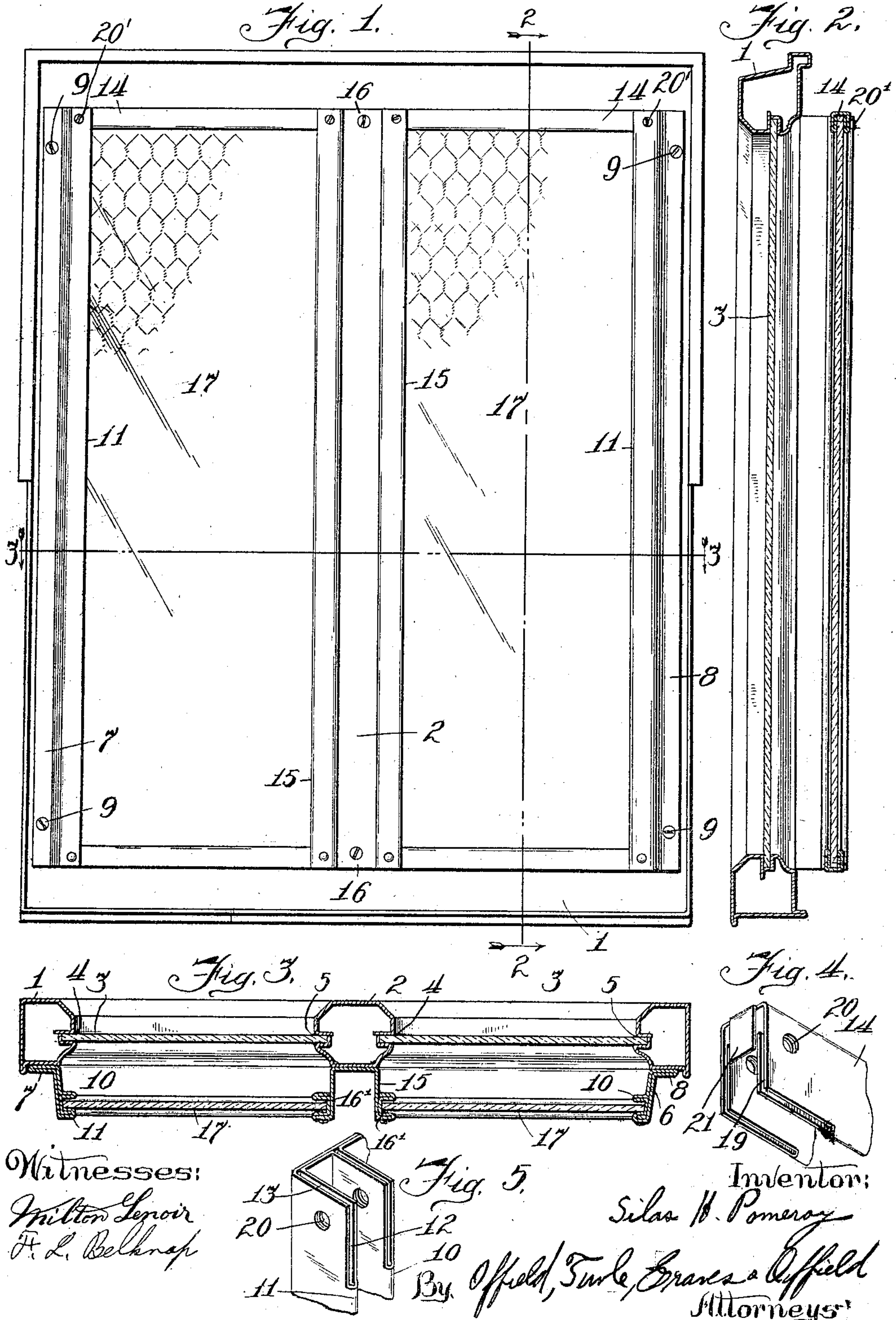


S. H. POMEROY.
FIREPROOF WINDOW.
APPLICATION FILED JUNE 8, 1910.

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UNITED STATES PATENT OFFICE.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, SILAS H. POMEROY, a citizen of the United States, residing in the city of New Rochelle, county of Westchester, and State of New York, have invented certain new and useful Improvements in Fireproof Windows, of which the following is a specification.

This invention relates to improvements in fireproof windows and refers more particularly to an anti-heat radiating window provided with double glazing and ventilation and so constructed that in case of fire the glazing remote therefrom will be maintained cool by the air between the glazings and thus bar the progress of radiation through the window.

Among the salient objects of the invention are to provide a double glazed construction which has one of the glazings removably seated in a supplementary sash frame, detachably connected to the main frame, whereby said glazing or supplemental sash frame may be readily removed for cleaning or other purposes; to provide a construction of the above character which affords a free, unobstructed air passage between the two glazings whereby the latter may be more effectually protected against fire; to provide a construction in which the removable glazing while held positively within its sash frame in such a manner as to prevent rattling can nevertheless be easily removed when desired; to provide durable weather proof construction which can be economically manufactured, and in general to provide an improved construction of the character referred to.

The invention consists in the matters hereinafter described and more particularly pointed out in the appended claims.

In the drawings—Figure 1 is an inside elevation of a fire-proof window embodying my invention; Fig. 2 is a vertical sectional view taken on lines 2—2 of Fig. 1 and looking in the direction of the arrows; Fig. 3 is a horizontal sectional view taken on lines 3—3 of Fig. 1 and looking in the direction of the arrows; Fig. 4 is a detail view showing the manner of constructing the detachable inclosure caps; Fig. 5 is a fragmentary perspective view of one end of the vertical members of the sash frame.

Referring to the drawings, 1 designates as a whole the sash frame which is or may be of well known hollow sheet metal construction;

and 2 designates the vertical muntin which is of generally similar construction. Between the muntin and the outer sides of the sash frame are mounted the outer glazings 3, 3 which are seated between the grooves 4 and 5 in the usual manner. In constructions of this character it is not only necessary that a free and unobstructed air passage be formed between the double glaze, but also that one of the glazings may be removed in order that the window may be more effectively cleaned. To this end, and as an important feature of the present invention I detachably secure to the main sash frame of the window a supplementary sash frame designated as a whole 6. This supplementary sash frame comprises vertically extending members 7 and 8 secured by suitable bolts 9 to the interior of the main frame. Each of these vertically extending members 7 and 8 is provided with an inwardly extending channeled seat 10 which extends throughout substantially the height of the window and is offset a considerable distance from the main frame, as shown more clearly in Fig. 3.

Each side of the respective channel members 10 is folded back upon itself as shown at 11. The crown of each of these folds at the upper and lower ends of the latter is cut away as shown at 12 to form jaws 13 which receive the inclosure or cap members hereinafter described. The inner sides of the supplementary sash members 6 are formed by a U-shaped muntin 15, which is detachably connected by means of screws or bolts 16 to the main muntin 2. The opposed sides of the vertical muntin 15 are each interfolded to form channels or grooves 16', which together with the outer channels 10 receive the inner glazings 17.

Describing now the cap or end closure members 14 of the supplementary sash frame, each is formed in substantially the same way as the vertical members 7 and 8, the sides being folded back upon themselves in the manner heretofore described and in the same way each of these cap members is provided at its ends with jaws 19 which fit within the corresponding jaws on the vertical members 7 and 8. The arrangement is such that the cap members interfit closely with the vertical members of the casing and in such a manner as to prevent rattling. The lower cap or end closure members 14 which form the bottom of the supplemen-

- tary casing may be riveted or otherwise secured in position. The upper cap members 14, however, are detachably secured in place by means of screws or bolts 20' inserted through suitable apertures 20 in the upper jaws 13 and 19. If desired, the cap members may be further confined in position by means of downwardly extending lips 21 as shown.
- 10 In order to remove the inner glazings the upper cap members 14 are detached whereupon the glazings may be readily slipped out of their channels. It is to be particularly noted that not only may the inner
- 15 glazings be removed as described, but the supplementary sash frames themselves may be detached from the main frame. It is also to be noted that the inner and outer glazings are so spaced away from each other
- 20 as to afford an unobstructed air passage which is entirely open at its ends. In conclusion it may be stated that the construction is such that by diverting the radiation upwardly and consequently throughout the
- 25 room the heat of radiation directly in front of the window is materially reduced. In effect the double glazing forms a radiating chamber.
- I claim as my invention:
- 30 1. In a fire proof window, the combination with a main sash frame having a glazing therein, a supplementary sash frame connected to said first frame, a supplementary glazing seated in said second
- 35 frame, but offset from said first glazing whereby an open ended and unobstructed air passage is formed between said glazings, one of said supplementary members being detachably connected to the main frame.
- 40 2. In a fireproof window, the combination with a marginal main sash frame having a glazing fixedly seated therein, a supplementary sash frame secured to said main frame and having a glazing seat off-set and
- 45 spaced away from the first glazing throughout its length, and a second glazing seated in said off-set seat, said parts being so arranged that the entire space within the two glazings forms a free and unobstructed air

passage opening at both ends throughout the width of the glazings. 50

3. In a fire proof window, the combination with a main frame, having a glazing therein, of an inner sash frame connected to said first frame and having a glazing seat offset and spaced away from said glazing, an inner glazing seated on said seat and forming an open ended air passage between said glazings, and a removable end closure member forming a part of said inner sash frame and detachably locking said inner glazing in position. 55 60

4. In a fireproof window, the combination with a hollow sheet metal main sash frame, of a muntin therefor, a pair of glazings seated between said muntin and the respective sides of said sash frame, a supplementary sash frame secured to the main sash frame and having a glazing seat offset a considerable distance from said first glazing, a supplementary muntin for said second sash frame and having glazing seats in alinement with the glazing seat of the sash, and a pair of supplementary glazings seated in the seats of the supplementary sash frame and its muntin, said parts being so arranged as to form an unobstructed air passage between said glazings, said passage being open at either end throughout its width. 65 70 75

5. In a fireproof window, the combination with a longitudinal main sash frame having a glazing seated therein, of a supplementary sash frame and supported by said first frame and having a glazing seat off-set and spaced throughout its length from said first glazing, a supplementary glazing seated in said off-set seat whereby an open ended air passage unobstructed throughout its width is formed between said glazings, and a removable end closure member detachably securing the second glazing in its seat, said closure member having telescopic engagement with the adjacent end of the supplementary sash frame. 80 85 90

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Witnesses:

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