

Jan. 8, 1957

C. C. HELWIG  
FIREPLACE FRONT

2,776,707

Filed Jan. 18, 1954

2 Sheets-Sheet 1

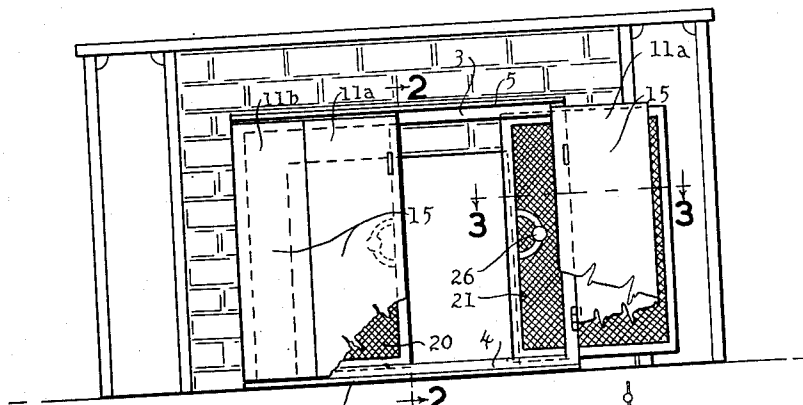


FIG. 1.

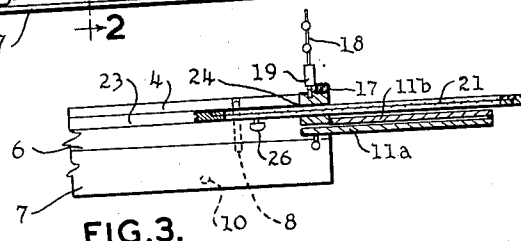


FIG. 3.

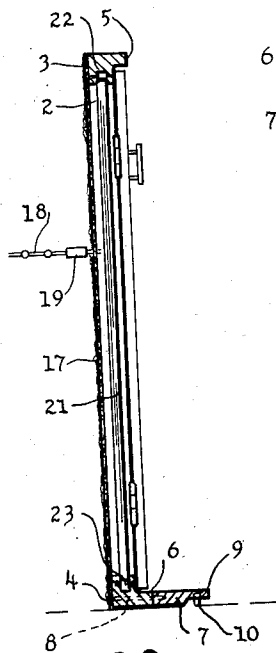


FIG. 2.

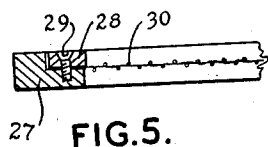


FIG. 5.

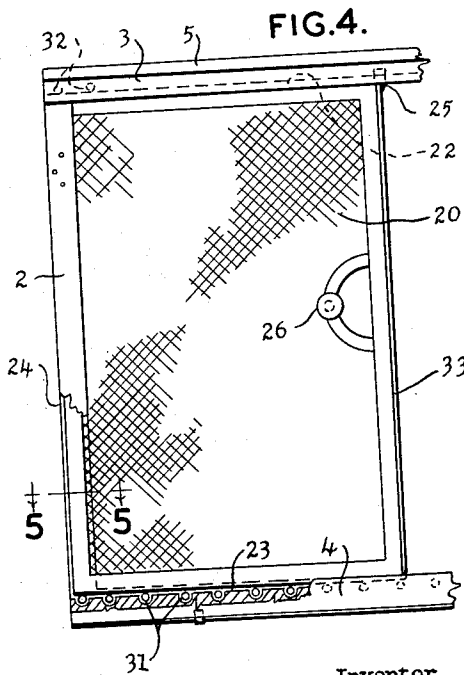


FIG. 4.

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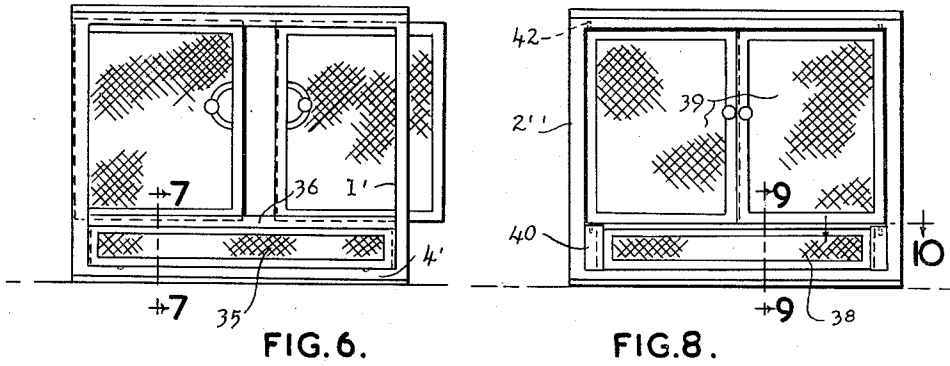


FIG. 6.

FIG. 8.

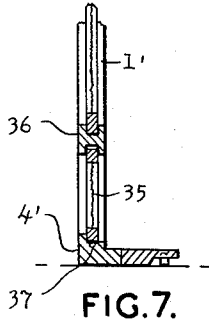


FIG. 7.

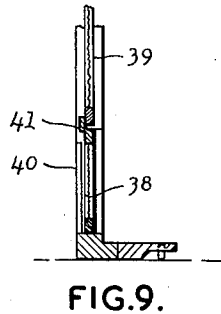


FIG. 9.

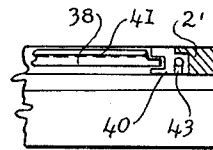


FIG. 10.

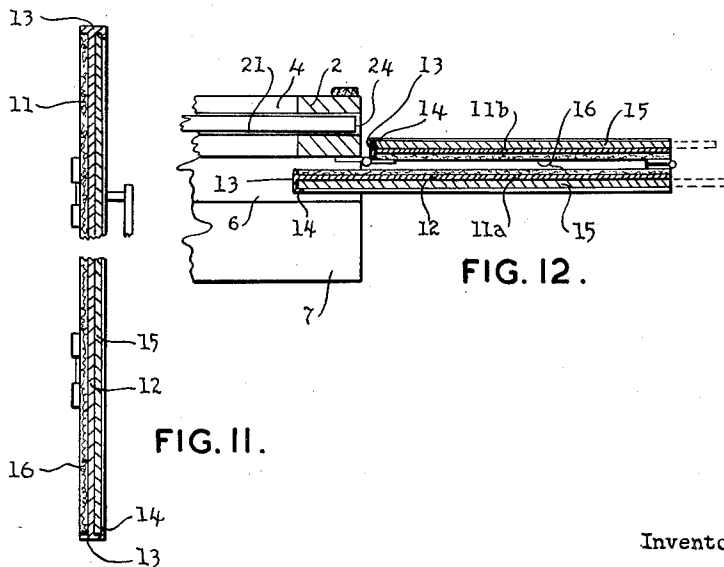


FIG. 11.

FIG. 12.

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2,776,707

**FIREPLACE FRONT**

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Application January 18, 1954, Serial No. 404,532

4 Claims. (Cl. 160-118)

My present invention relates to improvements in a fireplace front and has for its object to provide a neater and more compact fixture, embodying a sectional screen and foldable cover doors, adapted to be arranged against the front of a fireplace structure.

A further object of the invention is to provide a fireplace front having a frame of improved design for mounting over the front opening of a fireplace structure to seal the same against drafts without necessitating either close tolerance prefitting or permanent attachment.

A still further object of the invention is to provide a fireplace whose cover doors may be provided with replaceable or interchangeable decorative panels affording the purchaser a wide selection of attractive door designs.

A still further object of the invention is the provision of a fireplace front in the nature of a door covered fire screen of improved and simplified structure and that can be manufactured at reasonable price, whereby the same is rendered commercially desirable.

To the accomplishment of these and related objects as shall become apparent as the description proceeds, the invention resides in the construction, combination and arrangement of parts as shall be hereinafter more fully described, illustrated in the accompanying drawings, and pointed out in the claims hereunto appended.

The invention will be best understood and can be more clearly described when reference is had to the drawings forming a part of this disclosure wherein like characters indicate like parts throughout the several views.

In the drawings:

Figure 1 is a front elevation of a preferred embodiment of the invention applied to a conventional open fireplace;

Figure 2 is an enlarged vertical section, as taken on line 2-2 of Figure 1;

Figure 3 is a similarly enlarged horizontal sectional detail, along line 3-3 of Figure 1;

Figure 4 is a front elevational detail of the left end of the fireplace front, shown in Figure 1, with the folding outer door removed and the lower corner of the frame broken away;

Figure 5 is a further enlarged transverse horizontal section on line 5-5 of Figure 4;

Figure 6 is a front elevation of a modified form of my fireplace front;

Figure 7 is an enlarged vertical section on line 7-7 of Figure 6;

Figure 8 is another modified form of front;

Figure 9 is an enlarged vertical section on line 7-7 of Figure 8;

Figure 10 is an enlarged horizontal section, on line 10 of Figure 8;

Figure 11 is a vertical section through one of the outer door closure members, as shown in Figure 1, enlarged to show its three-ply, removable panel form; and

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Figure 12 is an enlarged horizontal section through the outer door closure members, in folded open position.

Heretofore it has been customary to stand a fire screen or fireplace front in vertical position, in advance of the fireplace opening, unconnected and usually spaced loosely from the fireplace structure or else to fasten the fixture into the fireplace as by an inwardly projecting flange which required that the fixture be of a predetermined exact size. In this invention, in which both movable fire screen sections and closure door panels are incorporated in neat and convenient arrangement, a novel frame is employed that may be so plumbed by inconspicuous and almost invisible means that a close fit against the front wall of the fireplace about the opening may be obtained as to substantially reduce unwanted draft when the outer doors are closed, and which frame is further provided with adjustable anchoring means removably connectible with the fireplace structure.

An open rectangular frame 1 consists of a pair of side posts 2, a top rail 3 and a bottom rail 4 each substantially square in cross section except that the top rail 3 has a forwardly projecting lip or flange 5 along its upper edge and the bottom rail 4 has a similar lip or flange 6 along its lower edge and from the front of the latter a hearth plate 7 continues, being joined thereto by Allen screws 8 that project in from the back of the bottom rail 4, as will be seen in Figures 2 and 3. The hearth plate may be dispensed with and the front of the screw openings in the rail closed with ornamental cap screws if desired. The front edge of the hearth plate is finished with an overhanging shelf 9 whose underside is upwardly stepped from the body of the plate and the bottom of the rail 4 and has spaced threaded openings in its upwardly offset lower side for the reception of adjustable set screws 10 by which the frame 1 can be accurately plumbed or set to fit snugly against the front of the fireplace about the fireplace opening. Outer door closures 11 hinge to the opposite vertical posts 2 and each half consists of a pair of hingedly connected doors 11a and 11b, with the inner door 11a of each half being a little wider than the outer doors 11b that are hingedly mounted on the outer edge of the posts 2 so that as the doors of each half are opened they go back in doubled fold to lie in fully opened position in the plane of the front of the frame 1 with outwardly facing side of the outer door 11b aligned with its posts 2 and the inner door section 11a in a parallel plane with its free edge, because of its greater width, just covering the post, as will be seen in Figures 1, 3 and 12.

The thin body 12 of each door has a T edge 13 around three sides, only the confronting vertical edges where the companion doors 11a and 11b are hinged together being free thereof, and on the outer face of each door, this T edge has an inturned flange 14 that is spaced outwardly from and parallel with the door body 12. A removable decorative panel 15 is inserted horizontally into the front of each door 11 when the same are in open folded position, as in Figure 12 and is held therein by the flange 14. As no T edge 13 or flange 14 extends along the hinged line joining companion doors 11a and 11b of each half, the two inserted panels can thereby form a single design or unbroken motif when the outer door closures are in closed position. A sheet of insulating material 16 of asbestos board, fibre glass or the like is affixed to the back of the door body 12, of a thickness equal to the projecting crossbar of the T edge. These doors are of a height to fit between the projecting lips 5 and 7 of top and bottom frame rails 4 and 6 and of an overall thickness to lie flush with or just within the forward edge thereof. On the back of the frame 1, secured to the top rail and

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both side posts is a reasonably thick, soft, draft-stopping insulating strip 17 that is normally compressed against the front of the fireplace structure when the frame 1, properly plumbed by the adjustment of the hearth plate set screws, is set in place and pressed tightly against the fireplace structure. An additional means for securing the fireplace front in position is provided in the form of a chain 18 connected with the back of each post 2 just above centre, the proper link of which engages a hook mounted in the side wall in the fireplace recess and for assurance of tight fit the chain, here shown as composed of bar-spaced balls, includes a take-up turn buckle 19. This type of easily disconnectible anchor is not suitable where the overall size of the frame 1 as greatly exceeds the size of the fireplace opening as occurs in the installation shown in Figure 1, but has the advantage of functioning satisfactorily where the side posts are spaced approximately the width of the opening and makes for less exact fitting and easier installation than those fixtures where close tolerance of fit and permanent attachment is required.

A fire screen of suitable design is mounted in the open rectangular frame 1, a preferred arrangement being shown in Figures 1 to 5 inclusive and Figure 12, where the screen is seen to consist of two rectangular sections 20 and 21 slidably mounted in channels 22 and 23 in the underside of the top rail 3 and the upper side of the lower rail 4, respectively and slidable outwards through vertical slots 24 in the opposite side posts 2. A suitable center pin 25 projecting downwards from the channel 22 in the upper rail 3 may be used to limit the closing or inward movement of the screen sections while outwardly projecting handle knobs 26 near the inner edges of the sections will strike the slotted side posts 2 to stop outward or opening movement. The knobs are threadedly attached and may be removed if it is desired to slide either screen section clear through the post if necessary to replace or repair it. Each screen section consists of an open rectangular frame 27 of thin L-shaped form in the angular seat of which a companion frame 28 is nested and secured by screws 29 with the perimetral edge of the screen fabric 30 compressed between the confronting faces of the frames. I have found it desirable to support the lower edge of the screen sections on rollers 31 spaced all along the channel 23 with two or more rollers 32 in the upper rail channel 23 near the opposite side posts. The meeting edges of the two screen sections have a fitting tongue and groove 33. When the screen sections 20, 21 are closed, the double-fold outer doors 11 may be closed over them completely covering them, without interference even by the knobs 26; whereas when the double-fold doors are in open position, the screen sections may be opened sufficiently for normal fueling or tending of the fire without their outer edges being exposed beyond the extreme edges of the folded doors, as seen in Figure 1, behind which doors they slide unimpeded and their outer edges usually lie concealed.

In the modified form shown in Figures 6 and 7, a separate non-sliding clean-out screen section 35 extends across the bottom of the frame 1' from post to post and may be snapped into position as by having its upper edge inserted in a groove in the underside of a cross rail 36 and its lower edge releasably fastens to the lower rail 4' by a suitable spring urged keeper 37; the upper screen sections are similar to the sliding sections of the preferred form already described.

In Figures 8, 9 and 10, a somewhat similar arrangement of transverse lower clean-out screen section 38 and pair of upper screen sections 39 appears but there is no extra cross rail, the lower transverse screen section being inserted vertically into channelled side wings 40 standing alongside or integral with the posts 2'' and such section having an upstanding rearwardly offset flange 41 along its upper edge. The upper screen sec-

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tions 39 swing horizontally on pintles 42 that seat in sockets in the upper rail 3'' and the wings 40, the lower pintles 42 sliding in grooves 43 and dropping into their sockets in the wings 40. Otherwise, the frames, hearth plates and double-fold doors (not shown) are as already described.

From the foregoing description taken in connection with the accompanying drawings, it will be manifest that a fireplace front is provided that will fulfil all the necessary requirements of such a device, but as many changes could be made in the above description and many apparently widely different embodiments of the invention may be constructed within the scope of the appended claims, without departing from the spirit or scope thereof, it is intended that all matters contained in the said accompanying specification and drawings shall be interpreted as illustrative and not in a limitative or restrictive sense.

Having thus described the invention, what is claimed as new is:

1. In a fireplace front the combination of a frame defining a substantially polygonal opening and including longitudinally slotted vertical side posts and channeled top and bottom rails, side perforate screens slidably mounted within the frame, the top and bottom edges of said screen fitting into the said channels and slidable through the said longitudinal slots for movement across and outwardly of said polygonal opening, and a door movably connected to said frame outwardly of said screen for positioning to expose and close the polygonal opening.

2. A fireplace front as defined in claim 1 wherein the imperforate closures comprise two double hung doors hingedly connected to said side posts, said doors each consisting of an inner door section and an outer door section hingedly connected together, said inner and said outer sections each comprising a frame defining openings on either side of said frame, said openings having outlets leading thereinto adjacent the hinged connection of the inner and outer sections, whereby when the doors are in their open positions with the inner sections swung away from the outer sections, decorative material may be placed into one of said openings and insulating material into the other of said openings.

3. A fireplace front as described in claim 1 wherein the frame extends below the bottom rail defining a second opening below said bottom rail and a side perforate screen removably mounted within said second opening.

4. In a fireplace front the combination of a frame defining a substantially polygonal opening and including a top rail having a channel the length of its lower side, a bottom rail having a channel the length of its upper side, said second channel confronting said first mentioned channel, vertical side posts having vertical slots there-through extending from the base of one channel to the base of the other channel, separate screen sections slidably mounted within the frame, said screen sections lying in their closed position across the polygonal opening, and slidable outwardly through said slotted posts to lie in open position on either side of the frame; and doors movably mounted upon said frame for positioning to expose and close the polygonal opening.

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