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FIREPLACE CLOSURE

Filed Jan. 5, 1961

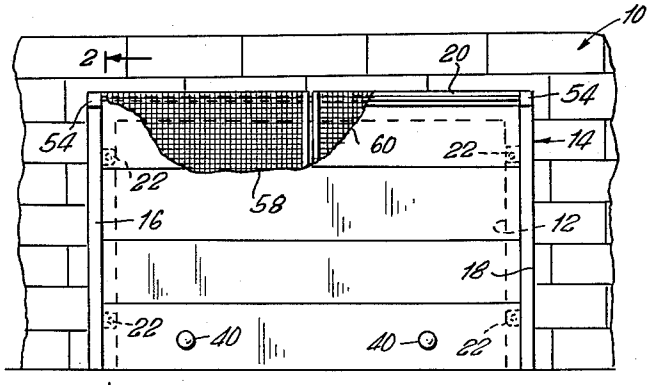


FIG. 1

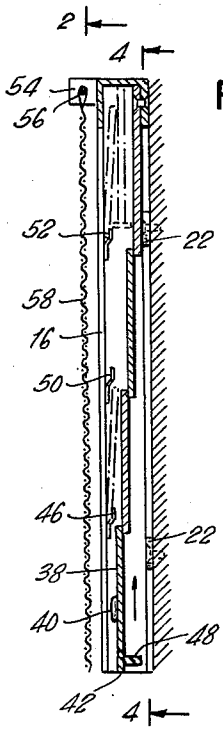


FIG. 2

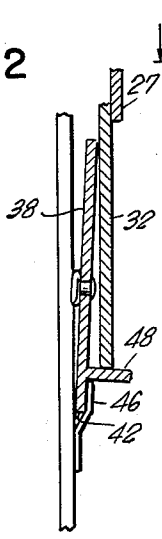


FIG. 3

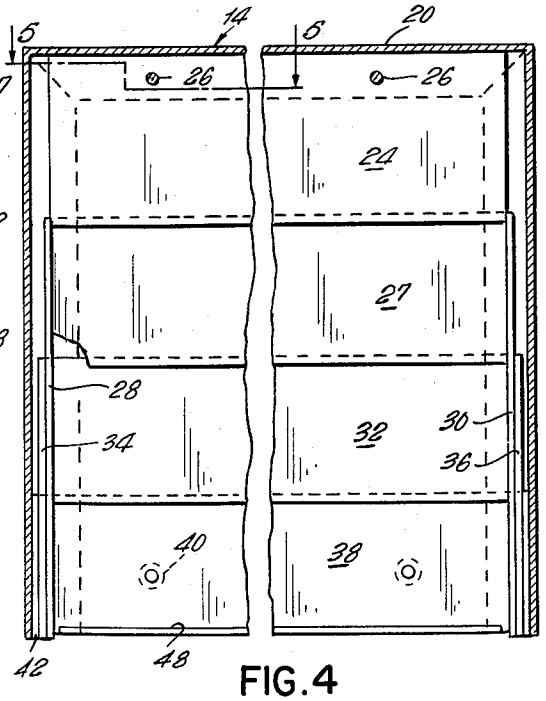


FIG. 4

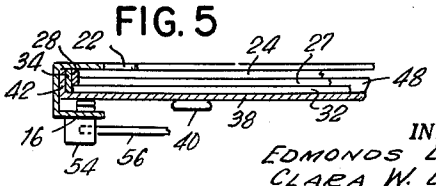
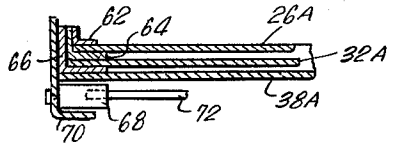


FIG. 5

FIG. 6



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FIREPLACE CLOSURE

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This invention relates in general to fireplace construction and closure devices therefor and in particular to a new and useful device adapted to be fitted over the openings of a fireplace and including a plurality of panel members which may be raised upwardly from the bottom to selectively open substantially all or a small portion of the fireplace openings for the purpose, for example, of fire and draft control.

Prior to the present invention, fires in fireplaces have been controlled by means of dampers in the chimney or flue, or in some instances by the use of separate devices such as bellows or other blowing equipment. A disadvantage in the use of a damper control is that it unfeasible to smother a fire by shutting the damper since the smoke which would be produced would fill the room in which the fireplace is located. In addition, since the damper control is located above the opening of the fireplace, very little control in the vicinity of the fire located at the lower portion of the fireplace opening can be obtained, especially during the initial stages of firing, other than to throttle the damper to some extent or to open it widely in those cases where a large initial draft is desired.

In accordance with the present invention, there is provided an attachment for a fireplace which includes a framed structure which may be secured to the fireplace at the location of the opening therein and which includes a plurality of panels slidable in the frame which may be manipulated to either completely close the fireplace opening or to open a selected portion thereof from the bottom, proceeding upwardly. The arrangement includes a channel frame structure which may be of slight depth and which in one embodiment is bolted to the outside brick structure and it is made large enough to completely enclose the fireplace opening. A plurality of thin fireproof plates are confined within the channel and the upper one of the plates is preferably secured in its upper position. The remaining plates each have side leg portions which support them at separate respective heights so that each plate overlaps a portion of the next adjacent plate and the complete set of plates completely closes the frame opening defined by the channel frame members. A feature of the construction is that the bottom plate member, which rests directly at floor level, includes an inwardly extending projection adapted to pick up the next adjacent higher plate when the bottommost plate is raised upwardly beyond the position at which the second lowest is disposed.

The channel frame structure is provided with hook members to facilitate the positioning of the bottom plate at various increments of openings along the height of the frame. Thus, the frame structure may be opened from the bottom by raising the lowermost panel one panel width and lodging the panel in a hook portion for support at such location. A single width panel opening is desirable upon the starting of a fire where it is necessary to obtain a rapid inflow of air for combustion purposes at a location below the fire, such as when the burning materials are supported on a grate structure within the fireplace opening.

After the fire has been fully started, the lowermost panel of the closure frame structure may be moved upwardly one or more panel widths to substantially completely open the fireplace to permit the heat therefrom to penetrate the room.

A feature of the construction is that the fireplace opening may be completely closed for the purpose of smothering the fire so that it will not be necessary to spend a great deal of time waiting for the last embers of the fire to die out. Since the panel structure presents a very ornate appearance, it also provides a pleasing front for the fireplace as well as means of closing from sight the unattractive ashes and refuse which are left from the fires which have been burned in the fireplace. Since the opening of the fireplace is then completely closed, there is no likelihood that the ashes and soot will blow or migrate into the room.

Accordingly, it is an object of this invention to provide an improved closure construction for a fireplace.

A further object of the invention is to provide a frame closure for a fireplace including a plurality of panel members, individual ones of which may be displaced to selectively open a portion of the fireplace opening.

A further object of the invention is to provide a frame structure adapted to fit in the location of a fireplace opening and which includes a plurality of horizontally elongated panel members supported in overlapping relationship to completely close the fireplace opening and including one or more panels of which may be moved upwardly in the frame structure to open the fireplace in an amount desired.

A further object of the invention is to provide a fireplace closure member including selectively openable door means and means for holding a fire screen member thereon.

A further object of the invention is to provide a fireplace closure structure which is simple in design, rugged in construction and economical to manufacture.

The various features of novelty which characterize the invention are pointed out with particularity in the claims annexed to and forming a part of this specification. For a better understanding of the invention, its operating advantages and specific objects attained by its use, reference should be had to the accompanying drawings and descriptive matter in which there are illustrated and described preferred embodiments of the invention.

In the drawings:

FIG. 1 is a fragmentary plan view of a fireplace or mantle construction including a closure member constructed in accordance with the invention;

FIG. 2 is a vertical section taken on the line 2—2 of FIG. 1;

FIG. 3 is an enlarged fragmentary vertical section indicating the lowermost panel supported in a raised position;

FIG. 4 is a fragmentary vertical section taken on the line 4—4 of FIG. 2;

FIG. 5 is a horizontal section taken on the line 5—5 of FIG. 4; and

FIG. 6 is a section similar to FIG. 5 but indicating another embodiment of the invention.

Referring to the drawings in particular, the invention is embodied therein on a fireplace or mantel generally designated 10 having a fireplace opening 12 which is closed by means of a framed closure structure generally designated 14.

In accordance with the invention, the framed closure structure 14 comprises channel sectioned leg members 16 and 18 which are connected by a top channel sectioned member 20. The frame outline formed by these members is advantageously made larger than the fireplace opening 12 and inwardly extending clamps 22 are provided on each of the leg members 16 and 18 to permit securing of the frame members to the outer face of the fireplace at such locations. In some instances, however, it is preferable to make the frame outline slightly smaller than the size of the fireplace opening 12 in which instance the frame outline is wedged in the opening or secured in

position such as by threaded bolt members which are threaded outwardly against the adjoining wall.

An upper panel member or closure door 24 is secured in position between the outer walls of the channel-sectioned members 16, 18 and 20 and located in a position with its top edge abutting the interior of the channel 20 and being secured thereto as by bolting at 26. The panel member 24 is substantially rectangular and is advantageously elongated in a horizontal direction. A similarly shaped intermediate panel or closure member 27 is disposed within the exterior walls in the channel formed by the frame members 16 and 18 and extends between these members. It is supported at an elevation at which its top edge overlaps the bottom edge of the uppermost panel 24 by means of vertically elongated side legs 28 and 30 which rest directly on the floor.

Another intermediate panel 32 is nested with the panel 26 and includes side legs 34 and 36 of a height to support it so that its upper edge overlaps the lower edge of the panel 26.

A lowermost panel 38 is provided which has a lower edge which rests directly on the ground. The lowermost panel includes knobs 40 to permit the panel to be manipulated by the hands and raised to partly open the furnace opening 12. The lowermost panel 38 may be raised by an amount to bring its lowermost edge 42 above a hooked shaped holding bracket 46 for positioning thereon as indicated clearly in FIG. 3. The lowermost panel 38 is provided with an inwardly extending ledge 48 of a width sufficient to permit it to support each of the panels 32 and 26 when the panel 38 is raised therebeyond. Thus, when lowermost panel 38 is raised upwardly to the next highest supporting bracket 50, the ledge 48 picks up the panel 32 and causes it to be lifted up to the raised position also so that the fireplace opening 12 is opened by two panel widths. An uppermost bracket 52 is also provided on each of the frame members 16 and 18 to support the lowermost panel 38 thereon. In this latter position each of the panels 32 and 26 is raised up by the supporting ledge 48 so that they all become positioned in front of the uppermost panel 24 to open the fireplace to its maximum opened position.

In the embodiments indicated in FIGS. 1 to 5, blocks 54 are secured to the upper corners of the fire closure framed structure 14 and include a rod 56 which is held therebetween and which supports a pair of slidable curtain or screen members 58 and 60. The screen members may be positioned to provide a screen covering for the fireplace opening to prevent the discharge of cinders when the fireplace closure member is fully opened.

As seen in FIG. 5, each of the panels 38, 32 and 26 is nestable so that they are freely slidable relative to one another.

In FIG. 6 an alternate embodiment of panel structure is indicated in which the sides of each of panels 26*a*, 32*a* and 38*a* are provided with angle-shaped supporting legs 62, 64 and 66, respectively, which, because of their thickness, provide some spacing between each of the plates 26*a*, 32*a* and 38*a*.

In the embodiment indicated in FIG. 6, a block member 68 is secured on the interior of a channel member 70 rather than on the exterior as indicated in the embodiments of FIGS. 1 to 5. This block member 68 and the similar one on an opposite channel-shaped member (not shown) supports a rod 72 for the screen as in the other embodiment.

Thus, the invention provides a novel closure device for a fireplace opening which includes a plurality of panels which may be shifted to open the fireplace to a greater or lesser extent as desired. In a preferred embodiment, the lower opening of the fireplace may be opened by raising a single panel by approximately its width and supporting the panel at such locations on supporting hooks provided on each side of a channel-shaped frame structure provided therefor. The lowermost panel advantageously includes means for picking the panels supported on legs at an elevation so that each of the panels may be raised as desired with the exception of the uppermost panel, which is advantageously secured in this position. A feature of the construction is that the lowermost panel includes a supporting ledge of an extent to engage the bottom edges of each of the next highest panels to elevate these latter panels along with the lowermost panel when the lowermost panel is moved upwardly therebeyond.

Although the invention provides a means for completely closing the fireplace, in those instances where the fireplace is not used or where it is desired to smother a fire, it is also possible to operate the fireplace in a fully opened or substantially fully opened position with the panels fully raised. For this reason, the framed structure 14 is advantageously made larger than the fireplace opening so that the uppermost panel which is preferably affixed to the framed structure will not overlie the opening or only a small portion of it will overlie the opening. In the fully opened position, the device advantageously includes a screen member which may be closed over the open fireplace to prevent the discharge of cinders from the fire while burning is proceeding.

While specific embodiments of the invention have been shown and described in detail to illustrate the application of the invention principles, it will be understood that the invention may be embodied otherwise without departing from such principles.

What is claimed is:

1. A closure for an open fireplace comprising a channel-shaped frame structure comprising spaced side members connected by a top member, at least two panels disposed between said side member of said frames within the channel portions including a lower one disposed at the bottom of said frame and an upper one, a leg on each side of the upper one of said panels extending downwardly therefrom and attached thereto for supporting it at an elevation substantially equal to the height of the top of said lower panel, said lower panel including handle means thereon for moving it upwardly and downwardly in said frame, and an inwardly extending portion on said lower panel vertically aligned to engage the lower edge of said upper panel to raise said upper panel when said lower panel is moved beyond the elevation thereof.

2. A closure for an open fireplace according to claim 1, including means on said frame for supporting said lower panel at spaced elevations along the height thereof.

3. A closure for an open fireplace according to claim 1, wherein said panels comprise at least three separate panel members, one of which is secured to said frame at the upper end thereof and the others of which are disposed to close the space between the lower edge of the upper panel and the bottom of said frame.

4. A closure for an open fireplace according to claim 1, including screen means disposed to close one side of said frame.

5. A closure for a fireplace or a similar structure having an opening, comprising a frame adapted to close the opening, a plurality of panel members associated with the frame including a lowermost panel having an upper edge and a lower edge upon which said lowermost panel member is supported, a first panel having an upper edge and a lower edge, legs connected to each side of said first panel and supporting said first panel at an elevation with the lower edge thereof substantially at the same elevation as said lowermost panel upper edge, a second panel having a lower edge, legs connected to each side of said second panel and arranged in nesting relationship with the legs of said first panel and supporting said second panel at an elevation with the lower edge thereof substantially at the same elevation as said first panel upper edge, at least said lowermost panel and said first panel being vertically movable, and means on said lowermost panel engageable with said first panel to move said first panel upwardly with said lowermost panel when said lower-

most panel is moved upwardly beyond said first panel lower edge.

6. A closure for a fireplace according to claim 5, including a plurality of supports defined on said frame at spaced vertical locations, said lowermost panel having a portion engageable with said supports whereby to hold said lowermost panel at a vertically adjusted position on said frame to partially open said frame therebeneath.

7. A closure for a fireplace having an opening including a closure frame adapted to be secured to a fireplace to close an opening of the fireplace, and a plurality of panel members slidable in said frame between fully and partially overlapped positions to open said frame when in a fully overlapped position, a pair of side leg members attached to and extending downwardly from each of said panels to support said panels at distinct elevations with vertically adjacent panels being partially overlapped when in a closing position, said panels being of a size and arranged to fully close an area of said frame when said panels are in a partially overlapped closing position.

8. A closure for an open fireplace according to claim 7, including means on said frame for supporting said panels at distinct elevations, the lower panels being slidable upwardly and being engageable on said supporting means to open a predetermined portion of said frame.

9. A closure for an open fireplace according to claim 7, including a lowermost panel disposed directly at the bottom of said frame and wherein said frame includes a hook member disposed at elevations substantially corresponding to the height of each of said panels, said lowermost panel being slidable in said frame to position its lower edge on said hook member for support thereby.

10. A closure for an open fireplace according to claim

9, wherein said lowermost panel includes outstanding knob portions for raising and lower this panel and includes an inwardly extending supporting ledge vertically aligned to contact the next adjacent highest panel and raise the latter panel with said lowermost panel.

11. A closure for a fireplace having an opening including a closure frame adapted to be secured to a fireplace to close an opening of the fireplace, and a plurality of panel members slidable in said frame between fully and partially overlapped positions to open said frame when in a substantially fully overlapped position, said plurality of panels including a lowermost panel disposed to close the lowermost portion of an opening of a fireplace and at least one additional panel, and a pair of side leg members secured to said additional panel, said side leg members supporting said additional panel in a closed position at a distinct elevation with vertically adjacent panels being partially overlapped, said plurality of panels being of a size and arranged to fully close said frame when said panels are disposed in a parrtially overlapped closed position.

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