Aug. 29, 1944. J. F. SHANNON 2,356,892

FIREPLACE SCREEN

Filed Jan. 21, 1942

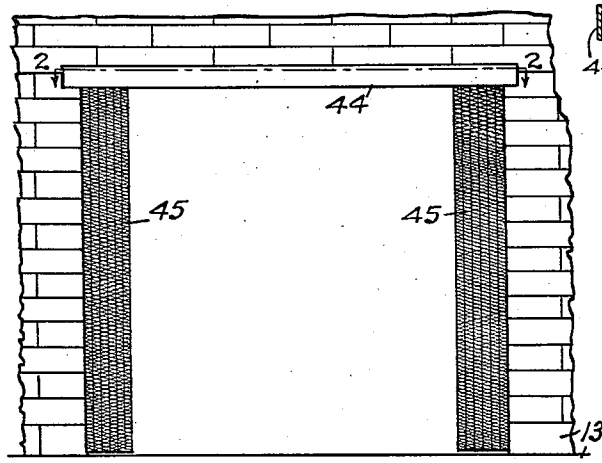


Fig. 1

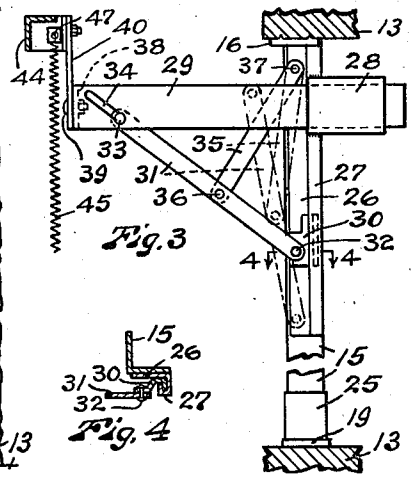


Fig. 3

Fig. 4

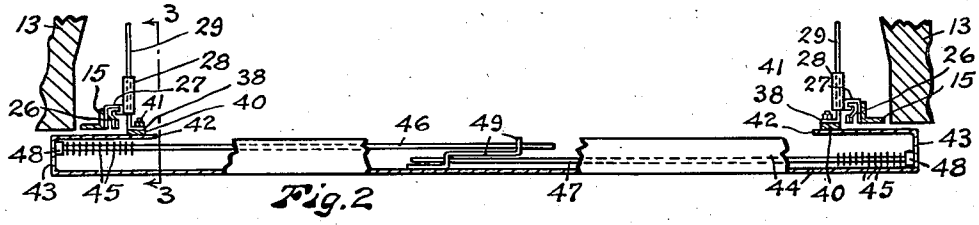


Fig. 2

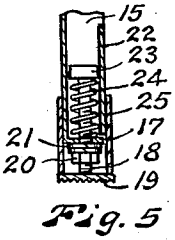


Fig. 5

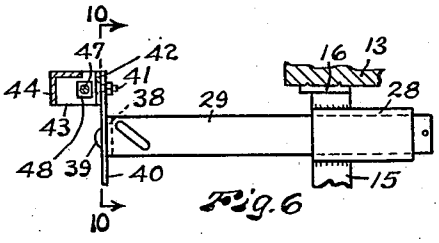


Fig. 6

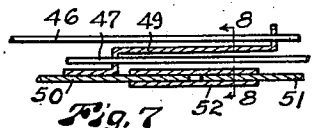


Fig. 7

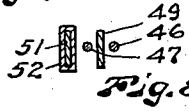


Fig. 8

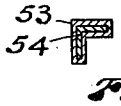


Fig. 9

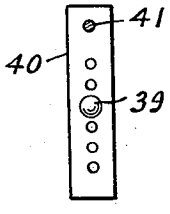


Fig. 10

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FIREPLACE SCREEN

James F. Shannon, Bellevue, Wash.

Application January 21, 1942, Serial No. 427,573

7 Claims. (Cl. 160—333)

My invention relates to fireplace screens and my present invention is in the nature of a continuation in part and improvement on the fireplace screen disclosed in prior patent application Serial No. 316,338, filed Jan. 30, 1940, Patent No. 2,275,236, issued March 3, 1942.

An object of this invention is to provide a fireplace screen of the collapsible or draw curtain type comprising supporting means that can be installed in and secured to a fireplace without alteration or mutilation of the fireplace and that is capable of supporting a metal screen of the draw curtain type in such a manner that the screen can be moved toward and away from the fireplace to thereby make it possible to position the screen far enough away from the fireplace to prevent damage to the screen when there is a hot fire in the fireplace and to move the screen close to the front of the fireplace when there is little or no fire in the fireplace.

In my prior patent hereinbefore referred to I have pointed out the desirability of being able to install fireplace screen supporting means for a collapsible or draw curtain type of fireplace screen in a fireplace, without employing skilled labor and without requiring special tools and without mutilating or altering the fireplace. In my present application I provide fireplace screen supporting means which is similarly installed and which has the added desirable feature of allowing the collapsible metal screens or draw curtains to be moved away from the fireplace to prevent said metal curtains from being damaged by hot fires in the fireplace.

In accordance with this invention I provide fireplace screen supporting means that can be quickly and easily secured to a fireplace by unskilled labor and without altering or mutilating the fireplace and which can be quickly and easily removed from the fireplace if desired and which will support metal draw curtains in such a manner that they can be moved toward and away from the fireplace at will.

Another object of this invention is to provide means for supporting metal draw curtains before a fireplace in such a manner that they can be opened like doors.

Other objects of the invention will be apparent from the following description taken in connection with the accompanying drawing.

In the drawing, Figure 1, is a front elevation of a fireplace having draw curtain type screens and screen supporting means constructed in accordance with my invention, the screens being shown as drawn to the sides of the fireplace.

Figure 2, is a view partly in section and partly in plan, taken substantially on broken line 2—2 of Fig. 1, and shown on a larger scale than Fig. 1.

Figure 3, is a view, with parts broken away, taken substantially on broken line 3—3 of Fig. 2 and on a larger scale than Fig. 2.

Fig. 4, is a sectional view taken substantially on broken line 4—4 of Fig. 3.

Fig. 5, is a fragmentary sectional view showing the foot portion of one of the extensible supporting members used in this invention.

Fig. 6, is a fragmentary view partly in elevation and partly in section showing a simplified form of supporting means constructed in accordance with this invention.

Fig. 7, is a fragmentary sectional view showing how two horizontal bar members may be connected by a telescopic slide in such a manner that they may be adjusted to fireplaces of different width.

Fig. 8, is a cross section on line 8—8 of Fig. 7.

Fig. 9, is a cross section of a telescopic slide shaped to fit bar members of angle shaped cross section.

Fig. 10 is a view partly in section and partly in elevation, taken substantially on broken line 10—10 of Fig. 6, and showing, on a larger scale than Fig. 6, an adjustable screen supporting member.

In accordance with my present invention I provide preferably two upright supporting members, preferably of duplicate construction, that are adapted to be placed within the combustion chamber of a fireplace 13 adjacent the side walls of said combustion chamber and expanded or longitudinally extended against the top and bottom walls of said fireplace combustion chamber. This secures said supporting members in fixed positions so that collapsible metal fireplace screens 45 may be supported therefrom by means which permits said screens to be moved toward and away from the fireplace.

Collapsible metal fireplace screens of the type herein contemplated may be formed of interlaced wire helices or of metal mesh or in any other way to render them flexible and capable of being drawn like curtains. Such metal fireplace screens are liable to be discolored and to warp if they are supported too close to the front of the fireplace when there is a hot fire in the fireplace. However, if they are withdrawn or moved outwardly several inches from the front of the fireplace the air flowing to the fireplace will come in around the sides of the screen and

the screen will remain relatively cool and will not be damaged by a hot fire.

Each extensible screen supporting member comprises an upright support 15 which is preferably an angle bar although it may be of other cross sectional shape such as round, rectangular or U shape.

The top end portion of each upright support 15 preferably has a rigid plate 16 thereon that is provided with one or more upwardly projecting prongs or with other means, such as serrations, to render this plate capable of more firmly engaging with any wall, such as iron, brick or masonry, against which it is jammed.

The bottom end portion of each upright support 15 has a part 17, Fig. 5, that is bent at right angles thereto and extends across the bottom end of the support 15. The part 17 has a hole therein which serves as a guide for a threaded rod 18 that has a footpiece 19 thereon. A nut 20 threaded on the rod 18 is adapted to be jammed against one or more spring washers 21 that are interposed between it and the part 17 so as to exert a downward pressure on the footpiece 19 and jam the plate 16 against the upper wall of the fireplace combustion chamber.

Preferably a short section 22 of angle iron is welded to the support 15 near the base thereof to provide a guide portion of substantially square cross section. A head 23 of square shape on the upper end portion of the threaded rod 18 is guided in this square guide portion and a compression spring 24 is interposed between this head 23 and the part 17 to prevent the rod 18 from dropping down when the support is not in a fireplace.

Preferably an external slidable telescopic member 25 of the same cross sectional shape as the bottom end portion of the support 15 is provided to conceal the nut 20 and rod 18 after the support 15 has been secured in place. This telescopic member 25 gives the support 15 the appearance of extending entirely to the floor but said member 25 can be raised on the support 15 to afford access to the nut 20.

Movable devices for supporting the flexible fireplace screens are secured to the upper end portion of each support 15. A preferred form of such a device is shown in Figs. 1, 2, 3 and 4. It comprises a plate 26 welded or otherwise rigidly secured to the support 15. The plate 26 has one edge bent as shown in Fig. 4, to form a longitudinal guide 27. A horizontal guide member 28 is welded or otherwise rigidly secured to each plate 26, 27 near the upper end thereof. A flat horizontal bar 29 is slidably disposed in each guide member 28 and adapted to be moved longitudinally therein. A slide 30 is vertically movable in the guide 27 of each plate 26. A link 31 has its lower end secured by a pivot 32 to each slide 30. The upper end portion of each link 31 has a pin or rivet 33 rigidly secured thereto and operatively disposed in an inclined slot 34 in one of the flat bars 29. Another link 35 has one end portion pivotally connected by a rivet 36 with an intermediate portion of each link 31 and its other end portion pivotally connected by a rivet 37 with the upper end portion of the adjacent plate 26.

The links 31 and 35 serve as supporting means to prevent the bars 29 from sagging when said bars 29 are moved outwardly into the position shown by full lines in Fig. 3. When said flat bars are pushed inwardly the links 31 and 35 will assume a position substantially as shown by dotted lines in Fig. 3.

As a simplified form of the construction shown in Figs. 1 to 4, I may dispense with the parts 26 and 27 and 30 to 37 inclusive and may weld the guide member 28 directly to the upright support 15, as shown in Fig. 6. When this is done the guide members 28 and bars 29 are preferably made stronger and heavier to minimize danger of sagging when the bars are pulled out to position the screen outwardly from the fireplace. Fig. 6, shows the bar 29 in maximum extended position.

The outer end portions of the bars 29 have portions 38 that are bent at right angles and upright bars 40 are adjustably secured thereto by bolts 39. The upper end portions of the bars 40 are connected by bolts 41 with bar members 42 that are connected by other members 43 with a bar 44. Preferably the bar 44 is of angle shaped cross section and said bar 44 extends across the front of the fireplace 13. Preferably the inturned end portions 42, 43 of the bar 44 are formed by removing the upper flange of the angle bar from these two end portions and making two right angle bends. This leaves the members 42 spaced inwardly from the bar members 44 as shown in Fig. 2.

The collapsible curtains 45 are supported on two rods 46 and 47 positioned back of the vertical portion of the bar 44 and underneath the horizontal flange of said bar 44. The outer ends of the two rods 46 and 47 are preferably threaded into nuts 48 that are welded to the end pieces 43. The inner end portions of the rods 46 and 47 are supported in a bracket 49 that is preferably welded to the bar 44. Preferably the inner end portions of the bars 46 and 47 are slidable in holes in the bracket 49 and are overlapped as shown in Fig. 2, so that the two adjacent edges of the flexible metal curtains may be overlapped when drawn into a closed curtain position.

If the means used for supporting the flexible metal draw curtains is to be made adjustable to fit fireplaces of different width than a construction as shown in Figs. 7 and 8 or Fig. 9, is provided. In Figs. 7 and 8, I show the bar member formed of two pieces 50 and 51 that fit telescopically into a slide 52 by which they are supported in end to end alignment. The slide 52 is long enough to support the bar members 50 and 51 without sagging and to allow for several inches adjustment longitudinally. The bracket member 49 which supports the ends of the rods 46 and 47 is, in this instance, secured to one of the bar members 51 or 52. However, it may be secured to the slide 52. The structure of Fig. 9, is similar to that of Figs. 7 and 8 except that the slide 53 is made of angle shape to fit over bar members 54 of angle shape. Only one of the bar members 54 is shown.

The operation of the screen means shown in Figs. 1 to 9 has been hereinbefore explained. The side supports are quickly and easily installed by expanding them against the top and bottom walls of the fireplace combustion chamber. The draw screens are supported in such a manner that they can be drawn to the side to leave the fireplace open, can be drawn to center to close the front of the fireplace and can be moved toward or away from the fireplace as desired. The supports do not require any alteration of the fireplace in installation, are quickly and easily removable and do not leave the fireplace in a mutilated condition when removed.

The foregoing description and accompanying drawing clearly disclose a preferred embodiment of my invention but it will be understood that this disclosure is illustrative and that changes in the invention may be made within the scope and spirit of the following claims.

I claim:

1. Fireplace screen means for supporting a metal fireplace screen, comprising supports rigid with a fireplace; and screen carrying means carrying said screen and adjustably supported by said supports for movement of said screen toward and away from said fireplace.

2. Fireplace screen means for supporting a metal fireplace screen, comprising supports rigid with a fireplace, bar means adapted to carry said collapsible metal screen; and brackets carrying said bar means and adjustably supported by said supports for movement toward and away from the fireplace.

3. Fireplace screen means for supporting metal fireplace screens, comprising supports rigid with a fireplace; guide members carried by said supports; substantially horizontal brackets slidably supported by said guide members for longitudinal movement in directions substantially perpendicular to the front wall of the fireplace; and bar means carrying the screens and supported by the brackets for movement toward and away from the fireplace.

4. Fireplace screen means for supporting metal fireplace screens, comprising two upright supports positioned at opposite sides of a fireplace and expansible into rigid engagement with the top and bottom wall of a fireplace; brackets adjustably supported by said supports for movement in directions substantially perpendicular to the front wall of the fireplace; and bar means carrying the screens and supported by the brackets for movement therewith.

5. Fireplace screen means for supporting metal fireplace screens, comprising supports rigid with a fireplace; guide members carried by said supports; substantially horizontal brackets slidably supported by said guide members for longitudinal movement in directions substantially perpendicular to the front wall of the fireplace; link members pivotally connected with said brackets adapted to brace said brackets when said brackets are extended; and bar means carrying the screens and supported by the brackets for movement toward and away from the fireplace.

6. Fireplace screen means for supporting metal fireplace screens, comprising supports rigid with a fireplace; guide members carried by said supports, substantially horizontal brackets slidably supported by said guide members for longitudinal movement in directions substantially perpendicular to the front wall of the fireplace; screen carrying bar means; and vertically adjustable devices connecting said bar means with the outer and end portions of said brackets.

7. Fireplace screen means for supporting metal draw screens, comprising an upright support, bolt and nut means cooperating with said support and extending below the support adapted to engage the bottom wall of a fireplace to hold the upper end portion of said support in clamped engagement with the upper wall of the fireplace, and a slide member on the lower end portion of said support normally hiding said bolt and nut means.

JAMES F. SHANNON.