May 26, 1959 G. W. ANDRIOT ET AL 2,888,226

FIRE SCREEN SUPPORT

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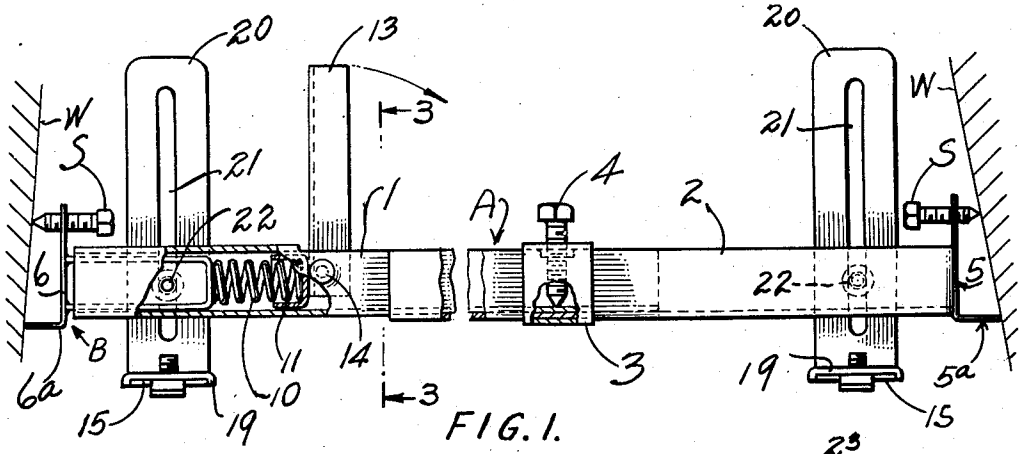



FIG. 1.

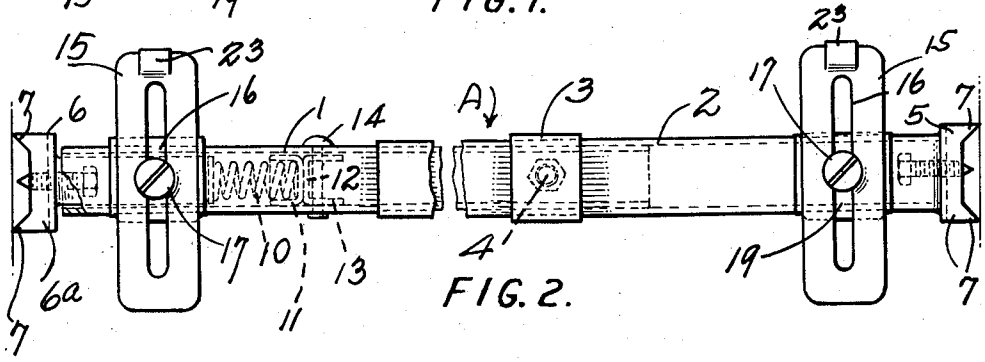



FIG. 2.

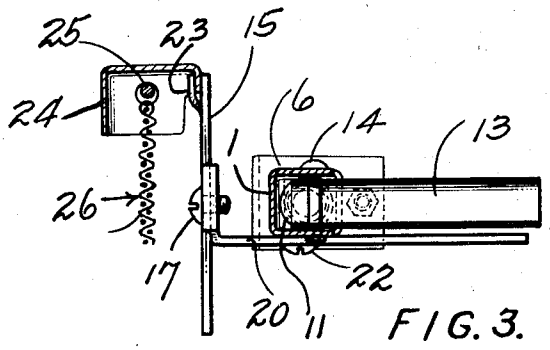



FIG. 3.

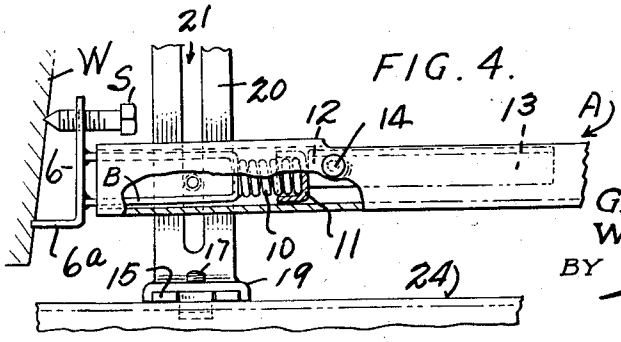



FIG. 4.

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FIG. 5.

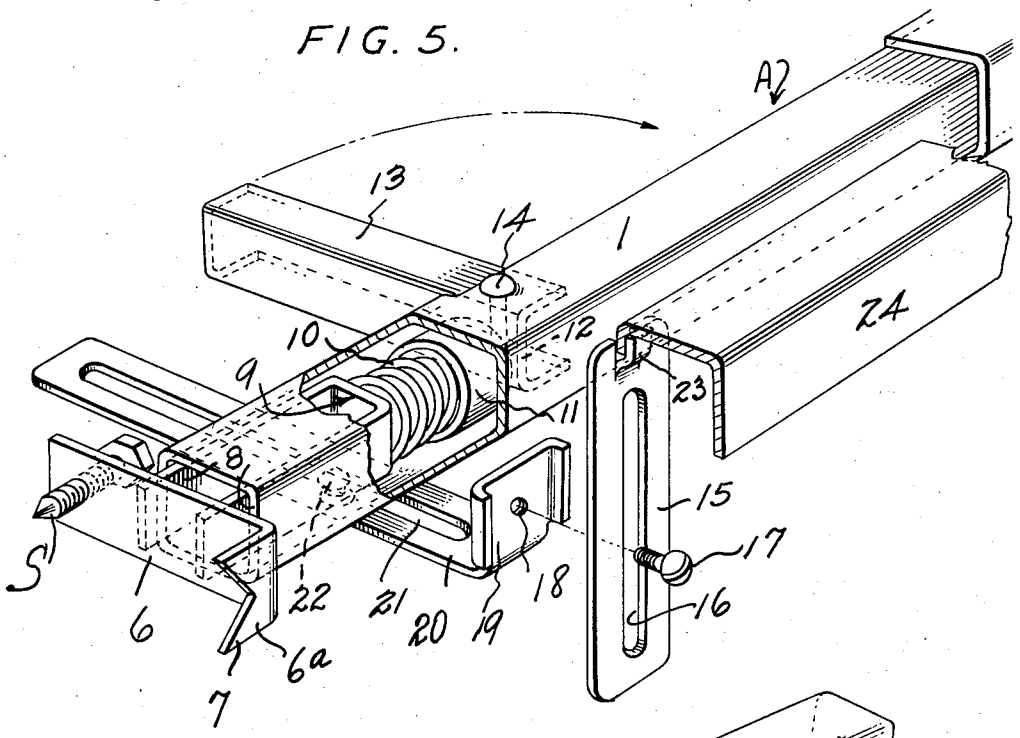
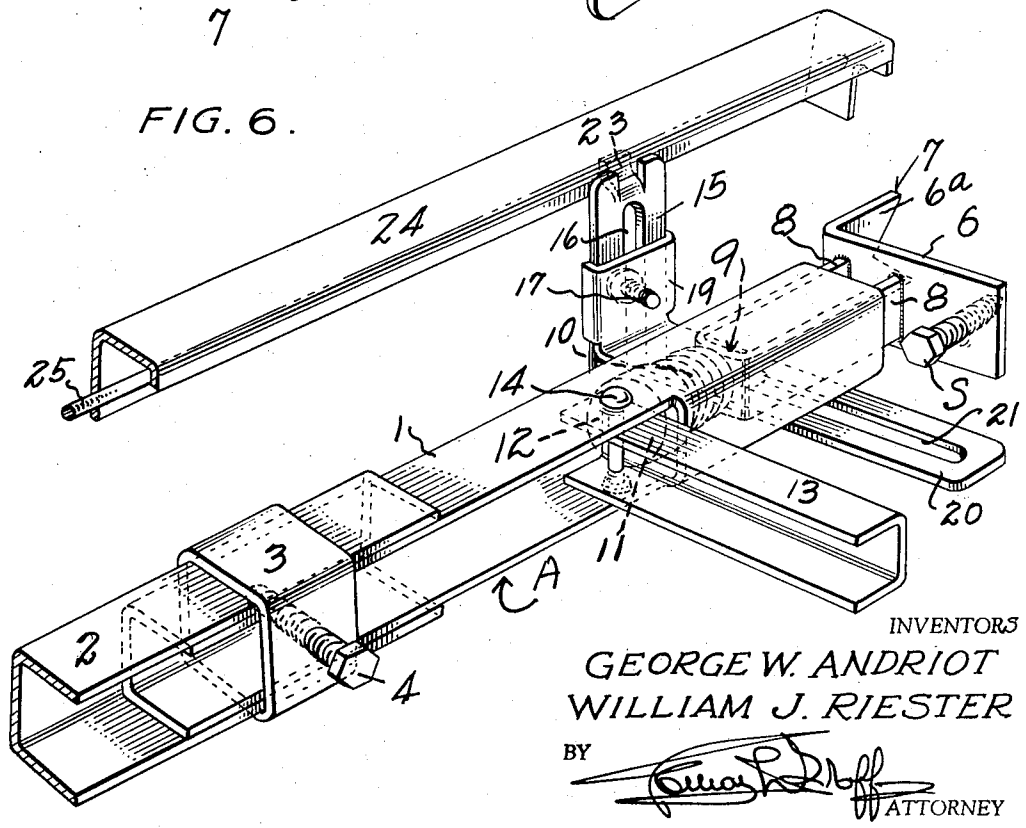



FIG. 6.




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# FIRE SCREEN SUPPORT

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Application April 8, 1957, Serial No. 651,206
2 Claims. (Cl. 248—251)

This invention relates to fire screens and more particularly to novel supporting means for attaching a hanging fire screen in front of, or inside, the opening of a fireplace constructed of any of the usual materials.

An object of the invention is to provide a means for supporting a fire screen in front of, or inside, a fireplace opening, without drilling, tapping, or otherwise penetrating any part of the fireplace, such means supporting the fire screen with essentially constant force throughout the range of temperatures encountered in fireplace openings.

A further object of the invention is to provide a fire screen supporting unit embodying a spring pressed adapter or anchoring element which may be manually tensioned to render the support readily adaptable to fireplace openings of varying widths or heights and which can be easily installed in fireplaces having straight, tapered, or irregular surfaced side walls.

With the foregoing and other objects in view, which will more readily appear, the invention consists of the novel construction and arrangement of parts as shown in the accompanying drawing, in which:

Fig. 1 is a top plan view of the adapter with a part of the spring housing cut away to expose the spring in its uncompressed state with its movable member, and actuating means.

Fig. 2 is a front elevation view of the adapter shown in Fig. 1 illustrating typical adjustable brackets for supporting the fire screen in front of, or inside, the fireplace opening.

Fig. 3 is a detail cross-section taken on line 3—3 of Fig. 1, and has added a cross section of a typical hanging fire screen.

Fig. 4 is a detail top plan view like the left hand end of Fig. 1.

Fig. 5 is a front detail perspective view looking toward the right in Fig. 4.

Fig. 6 is a rear detail perspective view of the construction shown in Fig. 5.

Similar references designate corresponding parts throughout the several figures of the drawing.

The invention consists essentially of a primary screen supporting element A adjustable to fit a fireplace opening of variable dimensions and held in position by a compressed spring acting on an adapter in the form of a movable anchoring element B and having adjustable brackets to support a fire screen in any desired position in front of, or inside, a fireplace opening.

As will be seen from the arrangement shown in Fig. 1, the primary supporting means A preferably consists of two rigid members 1 and 2 slidably connected, adjustable in length by telescoping one inside the other, and intended to be horizontally disposed. While these members are shown as being of channel formation, it will of course be understood that they may be round or square, or a combination of a solid rod or bar and a hollow member and a channel member, without departing from the spirit of the present invention.



The members 1 and 2 are held in adjusted position by an embracing movable clamp 3. This clamp includes a screw 4 which is threaded into the back of the clamp while its tip will engage the web of the member 1, for example, to press it against the web of the member 2, as will be seen from Fig. 1. By locating the screw 4 as described, it will be obscured when the support is mounted. The primary function of this clamp and screw is to initially adapt or set the members or sections 1 and 2 substantially to the width of the fireplace opening.

The member 2 of the support A is provided at one end with an angular anchor plate 5 whose front flange 5a is substantially parallel to the general plane of members 1 and 2 while the rearwardly extending portion is provided with a set screw S.

The member 1 is also provided with an angular anchoring plate 6 having the front flange 6a and a screw S. As will be seen from Figs. 2, 5 and 6, the flanges 5a and 6a are provided with points or teeth 7 intended to penetrate or dig into the material of the side walls of the fireplace or like opening.

A distinctive feature of the invention is to mount the adjustable anchoring plate 6 in a manner that it fully compensates not only for any differential spacing of the side walls of fireplaces but also enables the support A to be effectively and automatically held in place regardless of temperature changes occurring in the fireplace.

Accordingly, as will be observed from Figs. 1–6, the plate 6 is a movable plate and to that end includes a stem or yoke portion secured to the rear face thereof and slidable in member 1. This yoke portion in the arrangement shown is of substantially U-shaped formation and includes arms 8—8 whose ends are welded or otherwise secured to the inside face of the plate 6 while the bight or web 9 of the yoke constitutes an abutment for a spring 10. This spring is provided at its end opposite the abutment 9 with a cap 11 which is engaged by the inner end 12 of a hand lever 13 pivoted at 14 to the frame member 1. In its relaxed condition, shown for example in Fig. 5, the spring 10 maintains the plate 6 in a projected position which enables the opposite anchor plates 5 and 6 to be postioned at the proper locations on the side walls of the fireplace. Once the positioning is obtained by the adjustment of members 1 and 2 and the clamp 3, then the lever 13 is moved from the position shown in Figs. 1, 5 and 6, to the position shown in Fig. 4, for example, wherein the lever is parallel to and preferably located within the member 1. The effect of moving the lever 13 is to compress the spring 10 and therefore firmly project the anchor plate 6 into the wall W of the fireplace opening. The force of the compressed spring therefore will not only rigidly and securely maintain the support 1 in its proper position, compensating for taper or irregularity in the walls, but also provides a source of take-up for the expansion and contraction of the parts due to temperature changes.

The members 1 and 2 may be conveniently provided with the screen mounting brackets 15 which are provided with the slot 16 to receive a screw 17 which in turn may enter a threaded opening 18 in the upright channel portion 19 of a horizontally adjustable bracket arm 20. This bracket arm is slotted as at 21 to cooperate with set screw 22 to enable the bracket arm 20 to be moved forwardly or rearwardly relative to the support A. The upper portion of the screen mounting bracket 15 may be provided with suitable struck out lugs 23 to receive the rear downturned flange of a screen supporting member 24. As shown in Fig. 3, for example, this member may be provided with a screen supporting rod 25 from which the screen 26 is suspended.

It may also be noted that in addition to the functions above-described, the present arrangement has the ad-

vantage of permitting the owner of the present invention to readily remove the support from the fireplace either for cleaning, or removing to another fireplace. In other words, the present invention has the advantage of being a self-contained, self-supporting and self-attaching device which gives the owner numerous advantages without the necessity of supporting the screen through the aid of brackets or the like that must be drilled or otherwise fitted into masonry.

From the foregoing it is believed that the various advantages of the invention will be readily understood, and it will, of course, be apparent that changes may be resorted to within the scope of the present invention.

We claim:

1. A self-adjusting support for hanging a fire screen at a fireplace opening defined in part by opposite side walls, said support including a pair of slidably telescoped sections, a fixed anchor plate secured to the outer end of one section for engaging one side wall, an adjustable anchor plate slidably supported on the outer end of the other section for engaging the other wall, a spring disposed within said other section for constantly projecting the adjustable anchor plate to wall gripping position, lever means supported by said other section for compressing the spring, a horizontally disposed bracket supported by each of said sections for adjustment transversely thereof, and an upright screen-carrying bracket mounted on the outer end of each of said horizontal brackets for vertical adjustment relative thereto.

2. A self-adjusting support for hanging a fire screen in a fireplace opening having opposite inwardly converging side walls, comprising a pair of elongated sections of U-form in cross section and which in operative position have the legs thereof horizontally disposed outwardly relative to the said fireplace opening, said sections being of different widths and having adjacent end portions thereof in telescoping relation, a tubular clamp surrounding said telescoping end portions, a screw threaded



through the inner wall of said clamp and whose free end is engageable with the inner wall of the bight of one section for forcing same against the bight of the other section for holding said sections in any adjusted position, an anchor plate rigid with the outer end of one section and disposed in right angular relation thereto, a second anchor plate at the outer end of the other section and disposed in right angular relation thereto, said second anchor plate being rigidly secured to the ends of the legs of a U-shaped yoke slidably disposed in the outer end portion of said other section, a coil spring disposed within said other section having one end thereof engaged with the bight of said U-shaped yoke, a cap supported on the other end of said spring, a lever of channel form having one end thereof disposed within said other section with the opposite side walls thereof engaged with the opposite side walls of the section, said lever being pivoted to the opposite walls of said other section for swinging movement on the open side of the section, and the pivotal connection between said other section and said lever having the axis thereof disposed nearer the bight of the lever than the inner end thereof, whereby said spring is compressed upon swinging of the lever to a position within said other section for yieldably urging said anchor plates toward said walls.

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