April 22, 1941. J. D. KENNEDY 2,239,562

FIREPLACE SCREEN

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Fig. 1.

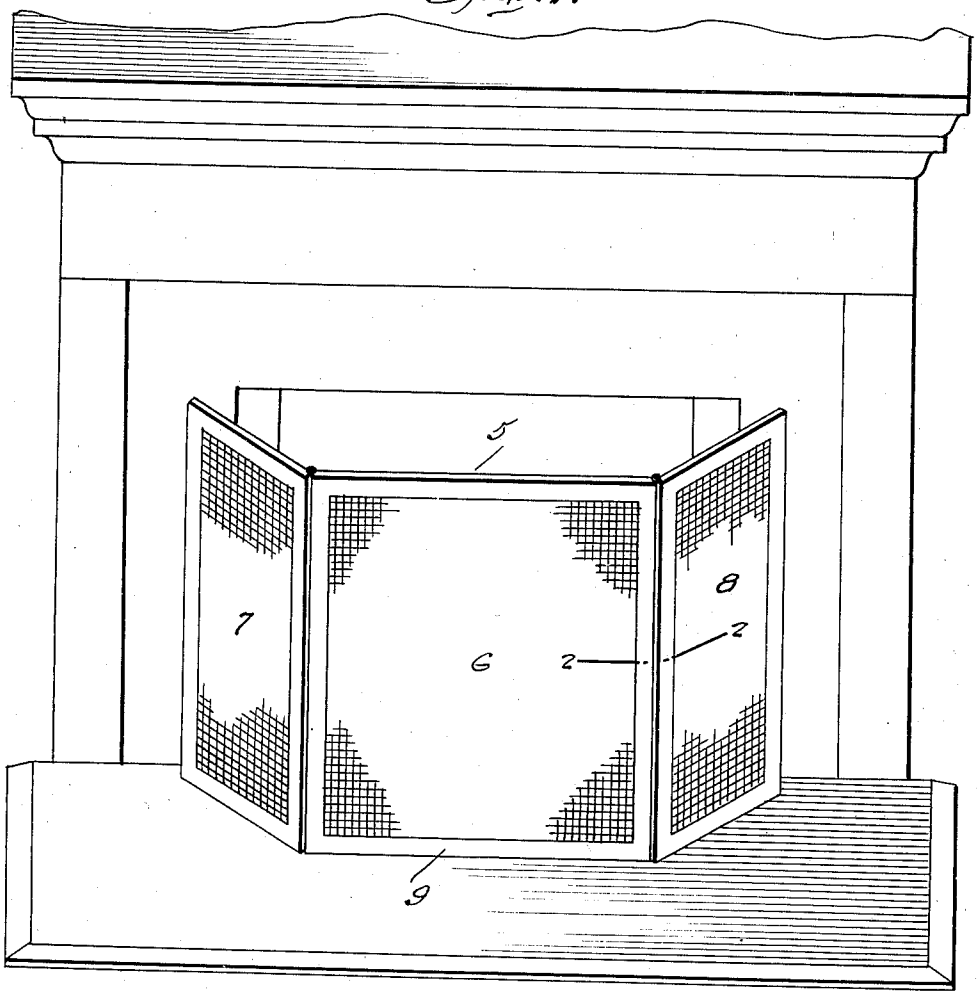


Fig. 2.

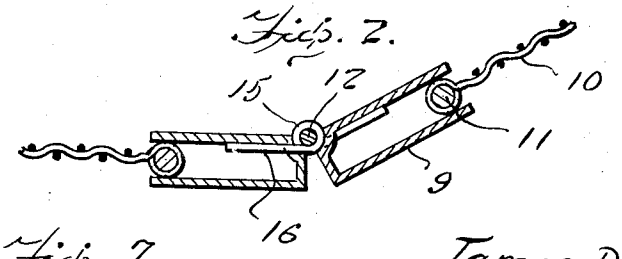
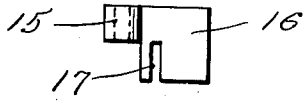


Fig. 7.



Inventor

James D. Kennedy

By Clarence A. O'Brien and Hyman Berman

Attorneys

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Fig. 3.

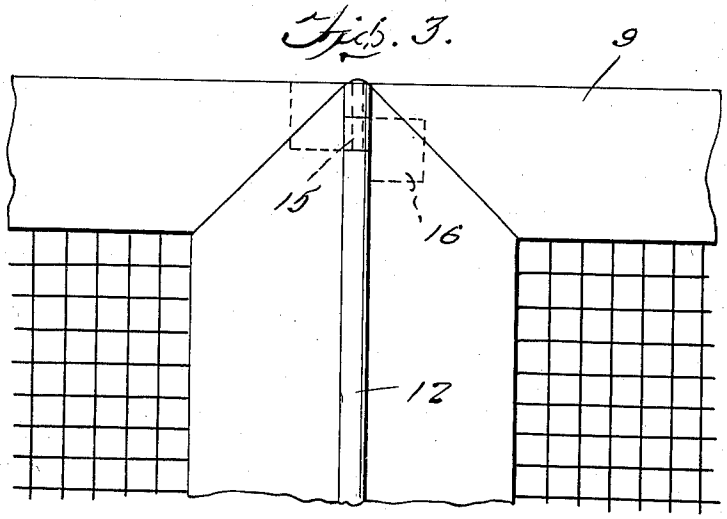


Fig. 4.

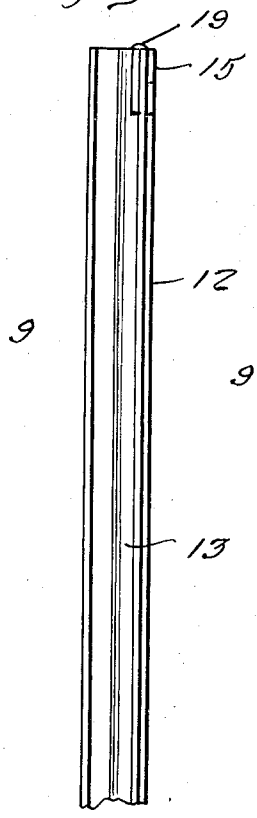


Fig. 5.

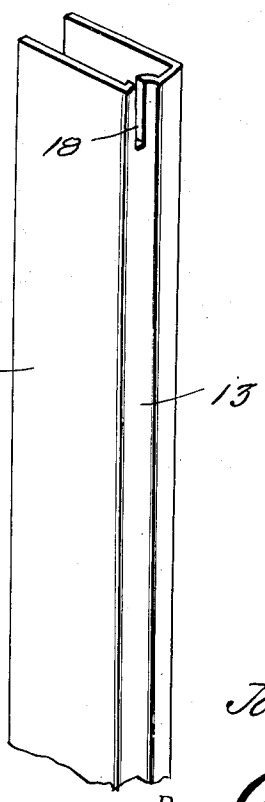
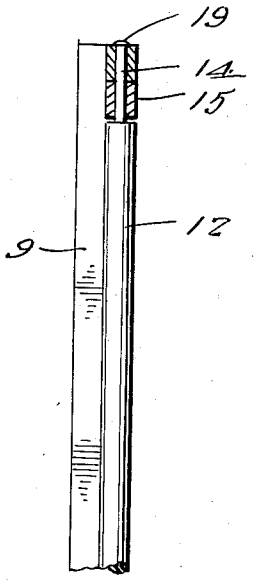


Fig. 6



Inventor

James D. Kennedy

By Clarence A. O'Brien and Hyman Berman

Attorneys

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UNITED STATES PATENT OFFICE

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FIREPLACE SCREEN

James D. Kennedy, Chattanooga, Tenn., assignor to Cahill Company, Chattanooga, Tenn.

Application February 1, 1940, Serial No. 316,827

9 Claims. (Cl. 126—202)

The present invention relates to fireplace screens and has for its primary object to provide a hinge structure for connecting a plurality of screen panels and whereby the hinge serves to seal the space between the connected edges of the panel. By reason of this construction sparks are prevented from escaping from the fireplace through the connected edges of the screen panels.

A further object is to provide a hinge construction of this character which is neat and attractive in appearance, relatively inexpensive to manufacture and otherwise well adapted for the purposes for which the same is intended.

Other objects and advantages reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming part hereof, wherein like numerals refer to like parts throughout, and in which—

Figure 1 is a perspective view of the screen shown in position in front of a fireplace,

Figure 2 is a sectional view through the hinged edge of the panels taken substantially on a line 2—2 of Figure 1,

Figure 3 is a fragmentary rear elevational view of a pair of the hingedly connected panels,

Figure 4 is a fragmentary elevational view of one of the channeled frames forming part of the panel construction,

Figure 5 is a perspective view of a portion of one of the channeled frames and illustrating the recess at one corner of the frame for accommodating the hinge pin,

Figure 6 is a fragmentary edge elevational view of one of the channeled frame members and with parts broken away and shown in section, and

Figure 7 is a detail of one of the bearings for the hinge pin.

Referring now to the drawings in detail the numeral 5 designates a fireplace screen generally and which is constructed of a plurality of screen panels and including a center panel 6 and side panels 7 and 8. Each of the panels is constructed of a channeled frame 9 within which the edge portion of the metallic screening 10 is inserted and secured in position in the channel by means of a rod 11 about which the edge of the screen is wound, as more clearly shown in Figure 2 of the drawings, and the parts may be secured in their assembled position by soldering or the like.

The vertical edges of the center panel 6 are hingedly connected to the adjacent edges of the side panels 7 and 8 by means of a hinge structure which includes a hinge pin 12 extending throughout the height of the panels and which is conformably seated in the channel 13 formed at the inner corner of the abutting edges of the channel members 9.

The ends of the hinge pin are reduced, as shown at 14 and upon which are pivotally mounted the bearings 15 formed on the edge of an anchoring plate 16, the lower edge of which is provided with a notch 17 adapted for interfitting engagement with the notch 18 formed in the end portion of the groove 13. The interfitting notches 17 and 18 secure the anchoring plate 16 in position on the panel frame members 9 and the ends of the hinge pin 12 are upset as shown at 19 to retain the bearing for the anchoring plate of the hingedly connected panels against displacement on the hinge pin.

The groove 13 is of arcuate form in cross section, as more clearly shown in Figure 2 of the drawings, and is substantially equal to one-fourth of the circumference of the hinge pin 12 so that when the channel members 9 of two of the panels are hingedly connected the hinge pin 12 will seal the space between the hinged corners of the frames and thus prevent any possibility of sparks escaping from the fireplace through the hinged edge of the panels. Likewise, by reason of this hinged construction the panels may be folded flatwise against each other for storage purposes.

It is believed the details of construction and advantages of the device will be readily understood from the foregoing without further detailed explanation.

Having thus described the invention, what I claim is:

1. A hinged connection for a pair of frames comprising a hinge pin recessed in adjacent edges of the frames, said hinge pin closing the space between the frames, bearings for the hinge pin and anchoring plates extending radially from the bearings and projecting into the frames, said plates and said frames having interfitting notches in the edges thereof for securing the bearings to the frames.

2. A hinged connection for a pair of frames, each frame having a slotted opening therein, a hinge pin overlapping the meeting edges of the frames for closing the space therebetween and bearings for the hinge pins having anchoring plates projecting radially therefrom, said plates having edgewise engagement with the opening of the frame.

3. A hinged connection for a pair of frames, each frame having a vertical recess in one wall and provided with an opening in the wall of the

recess, a hinge pin conformably fitted in the recesses of adjoining frames and hingedly connecting the same, said hinge pin closing the space beneath the space between the frames and bearings for the hinge pin having anchoring plates projecting radially therefrom, said plates having edgewise engagement with the opening of the frame.

4. A hinged connection for a pair of frames, said frames being of channel form, and having a vertical recess in one corner and provided with an opening, a hinge pin conformably fitted in the recesses of adjoining frames and hingedly connecting the same, said hinge pin closing the space between the frames and bearings for the hinge pin having anchoring plates projecting radially therefrom, said plates having edgewise engagement with the opening of the frame.

5. A hinged connection for a pair of frames, said frames being of channel form and having a vertical recess in one corner, and provided with a slotted opening, a hinge pin conformably fitted in the recesses of adjoining frames and hingedly connecting the same, said hinge pin closing the space between the frames and anchoring means for securing the pin to the frames, said anchoring means comprising a bearing for the pin also conformably fitted in the recesses of adjoining frames and a plate extending radially from the bearing and having edgewise engagement in the opening of the frame.

6. A hinged connection for a pair of channeled frames, each frame having a vertical recess in one corner, a hinge pin conformably fitted in the recesses of adjoining edges of the frames and hingedly connecting the same, said hinge pin closing the space between the frames and anchoring means for securing the pin to the frames, said anchoring means comprising a bearing for the pin, also conformably fitted in the recesses of adjoining frames and a plate extending radially from the bearing, said frame and said plate having interfitting notches for securing the plate thereto.

7. A hinged connection for a pair of frames, each frame having a vertical recess in one wall and provided with a slotted opening in one wall of the recess, a hinge pin conformably fitted in the recesses of adjoining frames and hingedly connecting the same, said hinge pin closing the space between the frames and having anchoring plates projecting radially therefrom, said plates having edgewise engagement with the slotted openings of the frames.

8. A hinge connection for a pair of frame members, said frame members being of channel form and having an external vertical recess in one corner, each recess being provided with a slot, a hinge pin positioned in the recesses of the respective frames to close the space between adjacent edges of the frames, a pair of bearings journalled on the pin, flat plates projecting radially from the bearings and inserted in the slots of the frames, a notch on each plate adapted to receive an edge of the slot to prevent withdrawal of the plates from the frames and means for securing the bearings and pin against relative longitudinal movement.

9. A hinge connection for a pair of frame members, said frame members being of channel form and having an external vertical recess in one corner, each recess being provided with a slot adjacent each end, a hinge pin positioned in the recesses of the respective frames to close the space between adjacent edges of the frames, a pair of bearings journalled on the pin adjacent each end thereof, flat plates projecting radially from the bearings and inserted in the slots of the frames, a notch on each plate adapted to receive an edge of the slot to prevent withdrawal of the plates from the frames and means for securing the bearings and pin against relative longitudinal movement and also serving to retain the plates and pin against longitudinal movement relative to the frame.

JAMES D. KENNEDY.