Sept. 3, 1929. A. W. MUMFORD 1,726,854

FIREPLACE SHUTTER AND SCREEN

Filed June 22, 1928

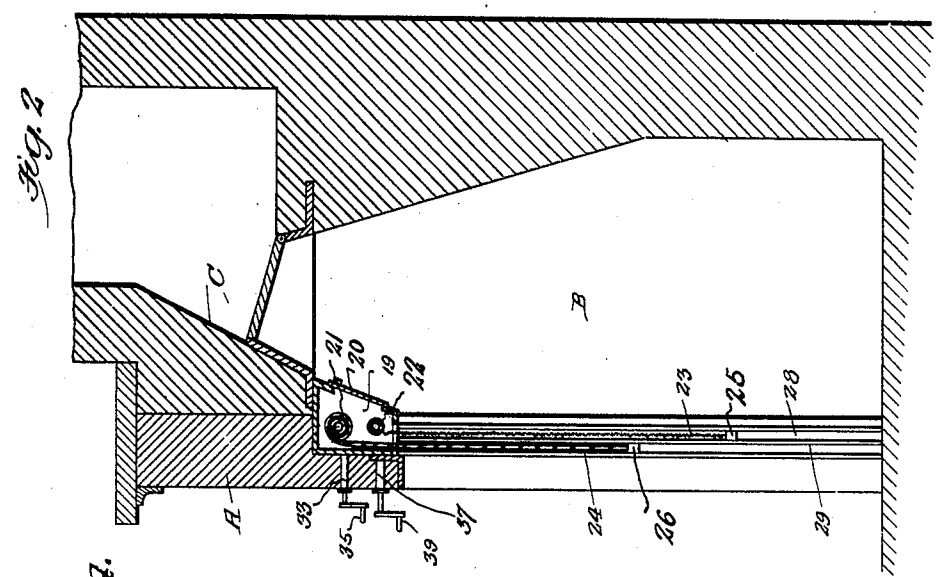


Fig. 2.

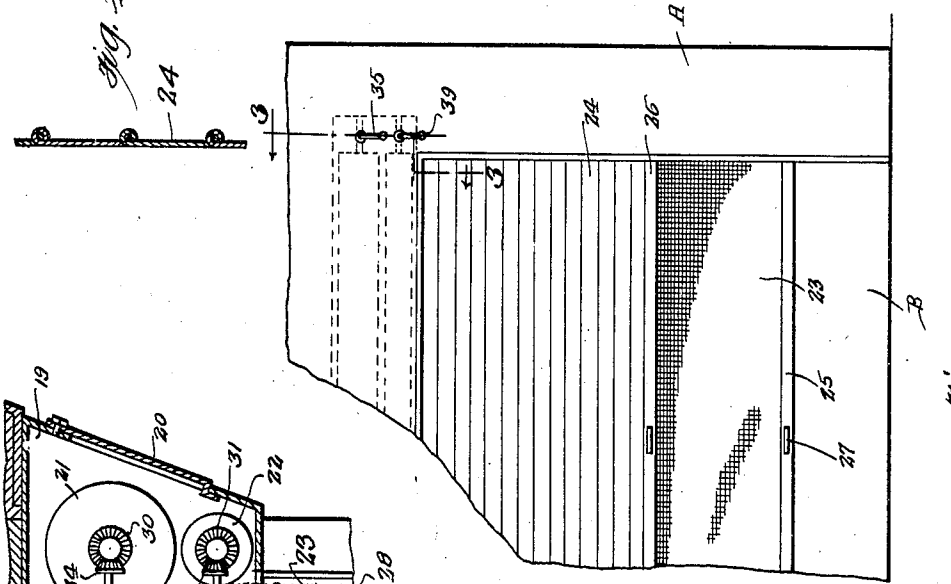


Fig. 1.

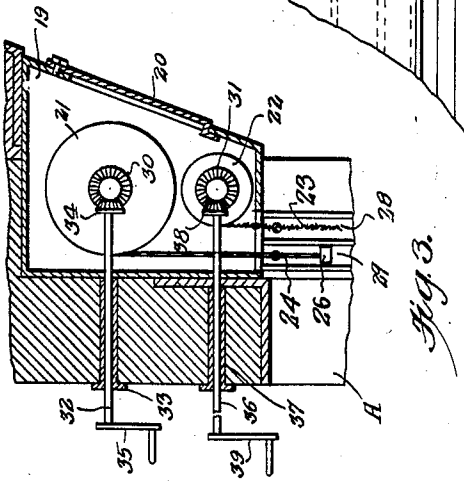


Fig. 3.

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UNITED STATES PATENT OFFICE.

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FIREPLACE SHUTTER AND SCREEN.

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The present invention relates to an improved fire place shutter and screen and has for its principal object to provide a structure that may be associated with a fireplace that is in the course of construction.

One of the important objects of the present invention is to provide a fire place shutter and screen that will replace the ordinary movable or portable screen which is unsightly and unhandy.

Still a further object is to provide a fire place shutter and screen that will prevent the smoke from the fire in the fire place entering the room, this being prevented by lowering the shutter.

Still a further object is to provide a fire place shutter and screen of the above mentioned character which is simple in construction, inexpensive, strong and durable, and further well adapted to the purpose for which it is designed.

Still a further object is to provide a fire place shutter and screen which includes a pair of rollers on which are wound respectively the screen and shutter, means being provided for independently actuating the rollers.

Other objects of the invention will become apparent as the nature of the invention proceeds and when taken in connection with the accompanying drawings, forming a part of this application.

In the accompanying drawing, wherein like numerals designate like parts throughout the several views:

Figure 1 is a fragmentary front elevation of a fire place, wherein the present invention is built into the same, the shutter and screen being shown in a partly lowered position.

Figure 2 is a vertical sectional view therethrough.

Figure 3 is a sectional view taken approximately on the line 3—3 of Figure 1, showing the housing for the upper and lower rollers and the actuating means therefor, and

Figure 4 is a sectional view through the flexible metallic shutter.

In the drawings, wherein for the purpose of illustration is shown the preferred embodiment of my invention, the screen or shutter is illustrated as being associated with a fire place, undergoing construction, and in this respect the housing 19 is supported against the inner face of the fire place at the top of the fire place opening B, and the rear wall of this housing is disposed at an incline to form a continuation of the forward wall of the flue or smoke passage C. This rear wall is provided with an opening that is normally closed by the closure 20. Arranged within the housing 19 are the upper and lower rollers 21 and 22, on which are adapted to be wound the flexible metallic shutter 24 and screen 23 respectively. The lower edges of these members are reinforced by suitable bars illustrated at 25 and 26 respectively, and these bars are provided with hand gripping means, shown at 27. The side edges of the screen and flexible shutter are operable within suitable guides 28 and 29 respectively that are arranged vertically at the sides of the fire place opening B and the bottom of the housing 19 is provided with an opening in the front portion thereof that extends for substantially the full length of said housing to permit the screen and shutter to pass therethrough.

The actuating means for the rollers arranged in the housing 19 comprises a bevelled gear 30 that is secured on one end of the upper roller supporting shaft. A similar bevelled gear 31 is associated with the lower roller. A transverse shaft 32 extends through a suitable guide sleeve 33, arranged in the front side of the top portion of the fire place A and the inner end of this shaft carries a bevelled pinion 34 that has meshing engagement with the bevelled gear 30. An actuating crank 35 is associated with the outer end of this shaft 32 as clearly shown in Figure 3.

A similar shaft 36 extends through a sleeve 37 arranged in the front side of the fire place below the sleeve 33 and the inner end of the shaft 36 carries a bevelled pinion 38 that meshes with the bevelled gear 31 while an actuating crank 39 is associated with the outer end of this shaft 36.

When not in use, the screen and shutter may be wound on the respective rollers and concealed within the housing. When it is desired to completely cover the fire place opening, the actuating cranks may be actuated to lower the screen and shutter, so that the reinforcing bars 25 and 26 will touch the floor.

A structure of the above mentioned character will not present an unsightly appearance, and furthermore, due to its simplicity, the parts can be readily and easily actuated,

and access to the rollers in the housing can be had through the opening provided in the housing when the closure is removed.

While I have shown the preferred embodiment of my invention, it is to be understood that various changes in the size, shape and arrangement of parts may be resorted to, without departing from the spirit of the invention or the scope of the appended claims.

Having thus described my invention, what I claim as new is:

1. In a fire place closure, a casing supported against the inner face of the fire place at the open top of the fire place opening, the rear wall of the casing being disposed at an incline to form a continuation of the forward wall of the flue, said rear wall being provided with an opening, a removable cover plate therefor, the bottom of the casing being formed with an opening that extends for substantially the entire length thereof, a roller journaled for rotation within the casing, a flexible shutter secured at its upper end to the roller and adapted to be normally wound therearound, said shutter being adapted for slidable movement through the opening formed in the bottom of the casing, guides for the side edges of the shutter arranged at the sides of the fire place opening, and actuating means for the roller to unwind the shutter.

2. In a fire place closure, a casing supported against the inner face of the fire place at the top of the fire place opening, the rear wall of the casing being disposed at an incline to form a continuation of the forward wall of the flue, said rear wall being formed with an opening, a removable cover plate therefor, the bottom of the casing being formed with a longitudinally extending slot, rollers journaled for rotation in the casing, a screen secured at its upper edge on one of the rollers and adapted to be wound therearound, a shutter secured at its upper edge on the other roller and adapted to be wound therearound, said screen and shutter being adapted for movement through the slot in the bottom of the casing, guides for the side edges of the screen and shutter respectively arranged at the sides of the fireplace opening, and actuating means operable at the front of the fire place for operating the rollers to unwind the screen and shutter respectively.

In testimony whereof I affix my signature.

ANSON W. MUMFORD.