Sept. 2, 1924. 1,507,473

G. F. DRAY

FIREPLACE

Filed Nov. 5, 1923

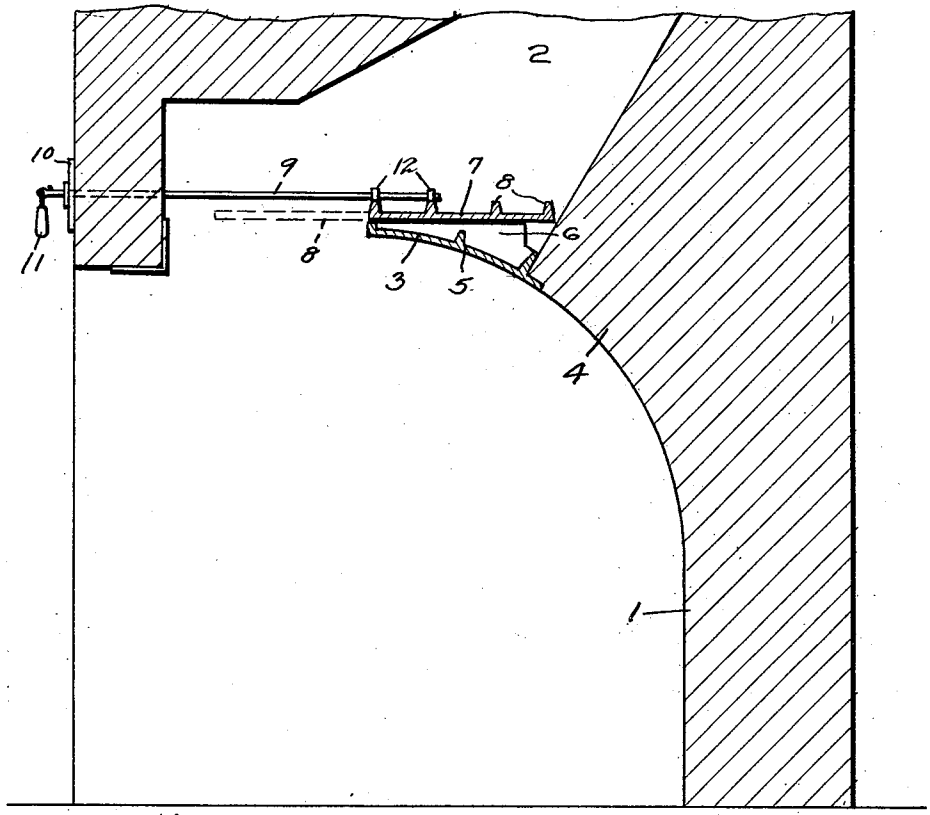


Fig. 1.

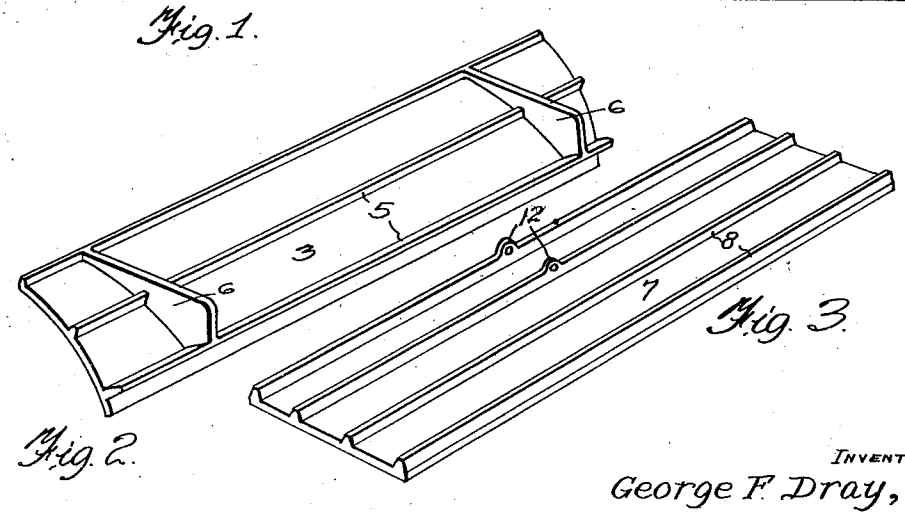


Fig. 3.

Fig. 2.

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Patented Sept. 2, 1924. 1,507,473

UNITED STATES PATENT OFFICE.

GEORGE F. DRAY, OF SANTA ANA, CALIFORNIA.

FIREPLACE.

Application filed November 5, 1923. Serial No. 672,951.

To all whom it may concern:

Be it known that GEORGE F. DRAY, a citizen of the United States of America, residing at Santa Ana, in the county of Orange and State of California, has invented new and useful Improvements in Fireplaces, of which the following is a specification.

The object of the invention is to provide a fireplace equipped with means whereby the length of the arched back may be lengthened or shortened so that the fireplace may be regulated to suit the character of fire carried therein, it having been found in practice that where the back of the fireplace is left too low, the greater part of the heat given off by the fire will pass out through the flue and not radiate to the room desired to be heated. On the other hand, if the back of the fireplace is carried too high, the result will be that the fire will smoke, but the higher the back is carried the more heat is thrown off into the room. Accordingly, the present arrangement of varying the height of the arched back enables adjustment to suit the character of fire, the arch being short when an intense fire is in the fireplace and high when a low fire is carried therein.

With this general object in view, the invention consists in a certain construction and combination of parts of which a preferred embodiment is illustrated in the drawings without limiting the scope of the invention.

In the drawings:

Figure 1 is a vertical sectional view of a fireplace embodying the invention.

Figure 2 is a perspective view of the arch plate.

Figure 3 is a perspective view of the extension or damper.

The fireplace 1 is of usual brick construction and at its forward end communicates with the flue 2, the arch plate 3 being disposed as a continuation of the brick arch 4, occupying a portion of the rear of the flue at the point of communication with the fireplace. The arch plate 3 is provided with longitudinal strengthening ribs 5 and with transverse ribs 6, the latter being of triangular configuration and having their upper edges disposed in a horizontal plane to support in such a plane the extension or damper 7 which is preferably a flat casting having longitudinal strengthening ribs 8.

If the fire in the fireplace be a hot fire, the damper 7 is arranged over the top of the plate 3 to provide a large point of communication between the fireplace and the flue 2 so that the products of combustion may pass freely into the flue without giving off any smoke into the room to be heated. If the fire in the fireplace be a low fire, it is desired that all of the available heat be given off to the room but if the same area of communication between the fireplace and the flue is maintained, most of the heat will pass up the flue. Therefore, when the fire be a low fire, the damper 7 should be moved forwardly to restrict the point of communication between the fireplace and the flue. To provide for such forward movement of the damper, an operating rod 9 is provided extending through the front wall of the fireplace through a guide plate 10 and is terminally equipped with an operating handle 11, the rod being connected with the damper 7 by means of lugs 12 on the latter. When the damper 7 is moved forwardly, the height or length of the back of the arch is increased and thus practically all of the available heat of the fire is radiated into the room, only the products of combustion tending to create smoke passing through the restricted passage between the forward edge of the damper 7 and the rear face of the front wall of the fireplace.

The invention having been described, what is claimed as new and useful is:

1. The combination with a fireplace formed with an arched back and having a flue, of a transverse arch plate arranged in continuation of the arch of the fireplace, and a damper slidably mounted upon the arch plate for movement into and out of a position in extension of the arch of the fireplace.

2. The combination with a fireplace formed with an arched back and having a flue, of a transverse arch plate arranged in continuation of the arch of the fireplace, said arch plate being provided with transverse ribs of which the upper edges are horizontally disposed, a damper slidably mounted upon the upper edges of the ribs of the arch plate, and an operating member having an exterior exposed handle, said operating member being connected with said slidable damper for movement of the same into and out of a position in continuation of the arch.

In testimony whereof he affixes his signature.

GEORGE F. DRAY.