

1,011,598.

W. E. FITCH.
FIREPLACE DAMPER.
APPLICATION FILED MAR. 22, 1911

Patented Dec. 12, 1911.
2 SHEETS—SHEET 1.

Fig. 1.

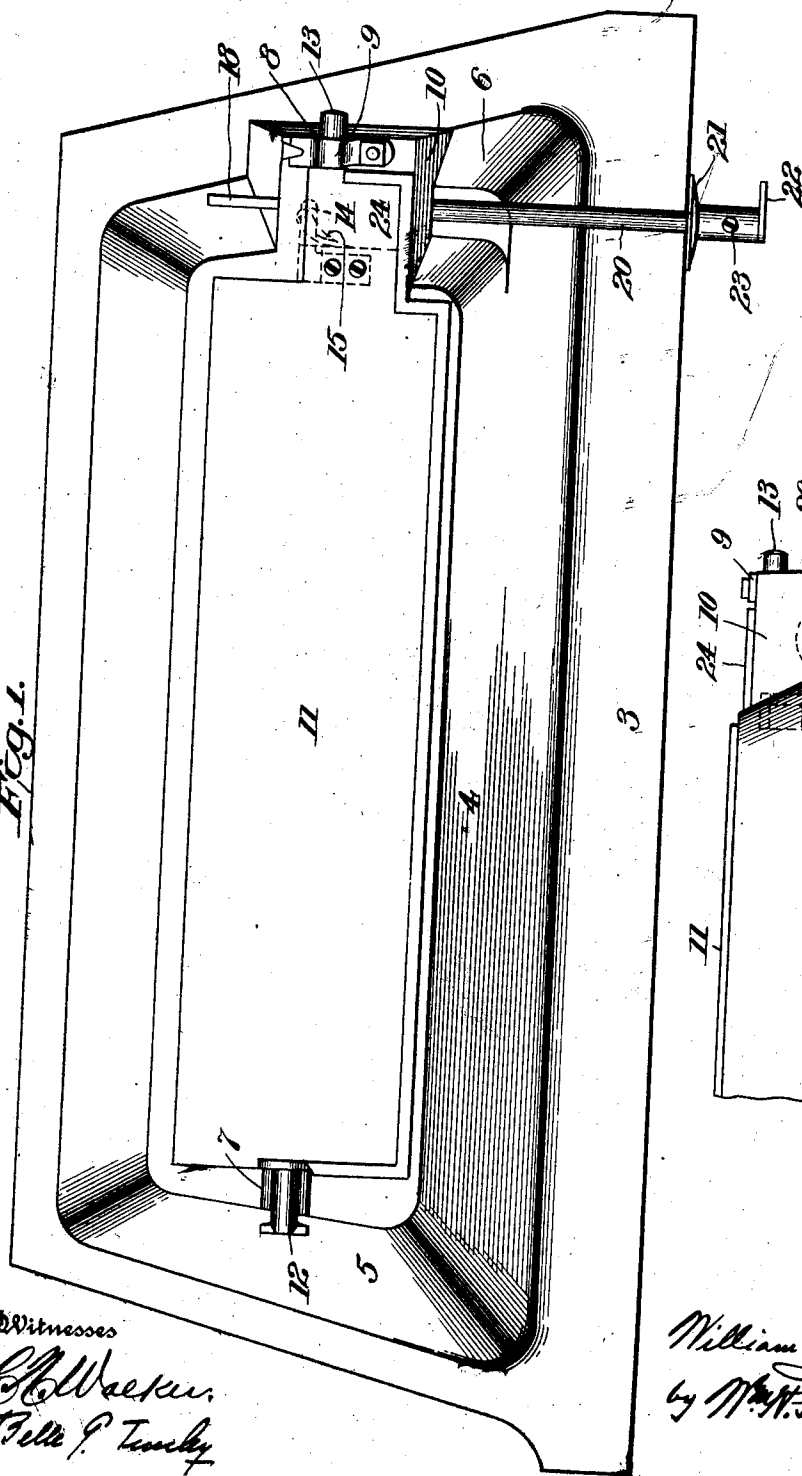
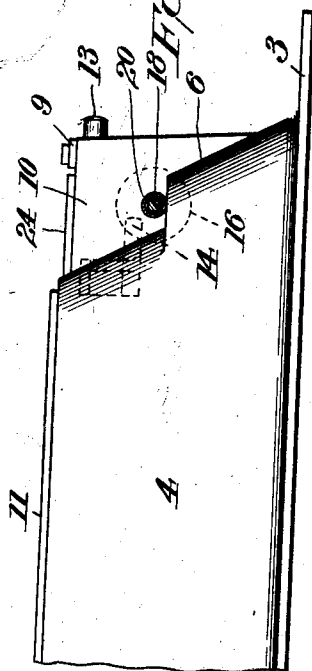


Fig. 2.



Witnesses
C. W. Walker
F. J. Tinsley

Inventor
William E. Fitch
by M. W. Finkel
Attorney

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Fig. 3.

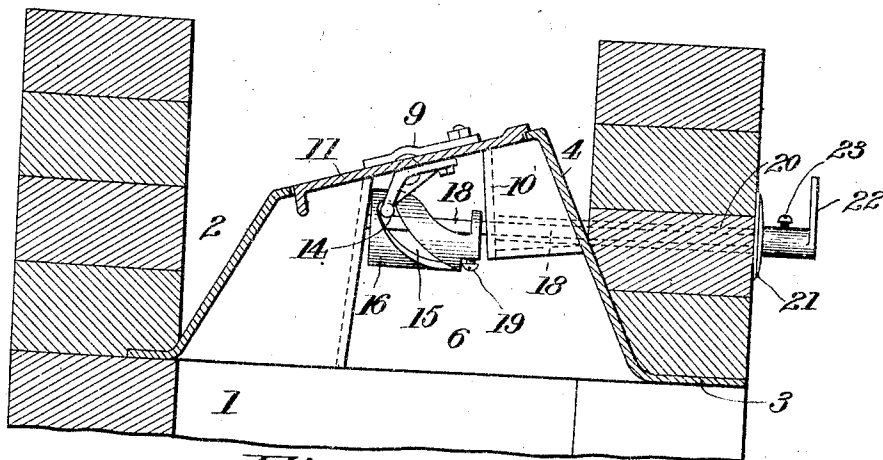


Fig. 4.

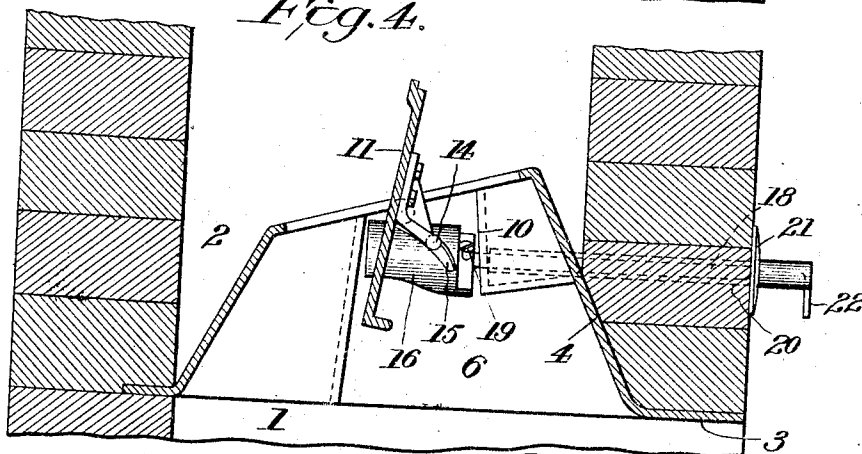
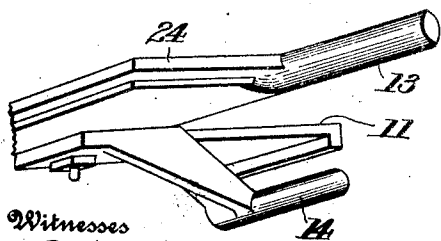


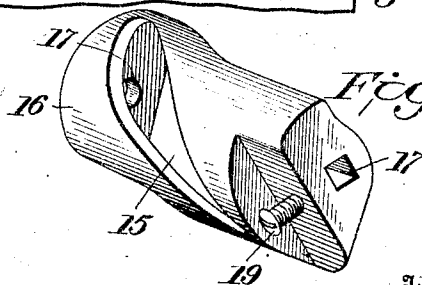
Fig. 5.



Witnesses

C. A. Wacker
R. L. J. Finley

Fig. 6.



Inventor

William E. Fitch
by W. H. Finley

Attorney

UNITED STATES PATENT OFFICE.

WILLIAM E. FITCH, OF LOUISVILLE, KENTUCKY.

FIREPLACE-DAMPER.

1,011,598.

Specification of Letters Patent.

Patented Dec. 12, 1911.

Application filed March 22, 1911. Serial No. 616,245.

To all whom it may concern:

Be it known that I, WILLIAM E. FITCH, a citizen of the United States, residing at Louisville, in the county of Jefferson and State of Kentucky, have invented a certain new and useful Improvement in Fireplace-Dampers, of which the following is a full, clear, and exact description.

This invention relates to dampers of the kind that are built in the throats of chimneys in fireplaces, and particularly to those dampers known in the trade as "dome dampers", wherein a dome-like casting which is designed to be built in the masonry of the chimney, has a pivoted damper door adapted to be opened and closed from outside the damper.

In prior constructions the door-actuating mechanism has been arranged outside the damper casting or body and hence, inaccessible, or, at least accessible only with difficulty, after the damper is built into the chimney.

The object of this invention is to provide for the arrangement of the damper-door-actuating mechanism within the damper body, so that it may be readily accessible for emplacement, removal and repairs without disturbing the setting; and I have herein illustrated one construction which meets these conditions efficiently, but wish to be understood as not limiting the invention to this precise construction, excepting as the same is hereinafter claimed.

In the accompanying drawings illustrating the invention, in the several figures of which like parts are similarly designated, Figure 1 is a top plan view of the dome damper, with the door closed, Fig. 2 is a front elevation of that end of the apparatus which contains the door-actuating mechanism, the operating rod being broken off, Fig. 3 is a cross-section of the upper part of a fireplace and the chimney throat with my damper in place, the damper door closed, and Fig. 4 is a similar view with the door fully open. Fig. 5 is a perspective view of one end of the door, and Fig. 6 is a perspective view of the cam for cooperation with the parts shown in Fig. 5 and constituting parts of the herein-referred to door-actuating mechanism.

1 may represent the upper part of the fireplace, and 2 the chimney throat.

The damper body comprises, in one casting, the arch-bar 3 and the sloping top or dome 4, open at top and bottom. The side

or end walls 5 and 6 of the dome may have any suitable bearings for the journals of the door, preferably an open bearing 7 on one and a closed bearing 8 on the other; the latter being provided with the cover 9 bolted in place. The end of the body next to the closed bearing has a pocket extension 10 to receive the door-actuating mechanism; the said extension being on the inside instead of the outside of the body and in open communication with the interior of the body beneath the door 11, so that the door and the door-actuating mechanism are readily accessible from within the fireplace below the body without displacing the body.

The door 11 has a flanged journal 12 at one end to cooperate with the bearing 7, and a straight journal 13 at its other end to cooperate with the closed bearing 8. Near the right-hand end the door has bolted or otherwise applied to its under side a lug 14 engaging a cam slot 15 in the cam 16. This cam is pierced longitudinally at 17 to receive an operating rod 18, and a set-screw 19 may be used to fix the cam upon the rod. The rod is long enough to have bearings in the front and back walls of the dome pocket extension 10, and to extend out through the masonry to the face of the fireplace. For ornamental and sheathing purposes the rod may be incased in a brass or other sleeve 20 having a front plate or escutcheon 21. An operating handle 22 is applied to the extreme outer end of the rod and incloses the same, and is held thereon by a set screw 23; and this handle may be of a character and so set on the rod as to indicate by its position whether the damper door is open or closed.

It will be observed that the lug 14 and the cam 16 are arranged within the body, and not outside of it, and while concealed from view, they are readily accessible for setting, repairs, and the like. By loosening the screw 19 the rod 18 may be withdrawn and then the cam drops off. So, also, by unbolting the lug from within, said lug may be removed, and in either case the door itself may be slipped from its bearings in the dome or body and be removed without disturbing the body. Indeed the connection of the lug 14 with the cam 16 is such that the door may be removed without disturbing the rod or cam, by simply lifting the door from its loose or open bearing 7 and then sliding it lengthwise toward such bearing so as to free the journal at its other end

from the closed bearing 8, the lug 14 having only a slip connection with the cam 16.

The provision of the pocket-like extension 10 of the body, serves to locate the cam, and its front and back walls resist any end thrust to which the cam may be subjected; but obviously this extension may, if desired, be omitted or modified. The door has the end extension 24 to cover the pocket extension, and the lug 14 is bolted or otherwise fixed to said extension. 24.

The operation would seem to be obvious, but it may suffice to state that by turning the rod the door may be opened to any extent and held so open by the friction between the lug and the cam, until by a reverse turn of the rod the door is closed.

This damper differs essentially from prior constructions in the following, among other, particulars, namely: Its door-actuating mechanism is exposed inside of the dome or body, thus making it possible to adjust the damper rod to proper position after the body is in place, and to facilitate repairs when required. The door can be removed and replaced at will, without tearing out the body, so as to give free access to the flue when cleaning out and repairing. The damper may be set with the door in place, or the door may be placed in position after the body has been installed.

Within my invention as hereinafter claimed, are variations in structural features and arrangement, with respect to the single illustration contained in the specification and drawings.

What I claim is:—

1. A fireplace damper, having a body adapted to be set in the masonry of a fireplace and provided with a pocket extension at one side opening within the body, a pivotal door hung in said body, and door-actuating mechanism arranged within the pocket extension of the body beneath the door and accessible from within the fireplace below the body without displacing the body.

2. A fireplace damper, having a body

adapted to be set in the masonry of a fireplace and provided with a pocket extension at one side opening within the body, a pivotal door hung in bearings in said body and capable of lengthwise movement therein to set and remove it, and a door-actuating mechanism arranged within the pocket extension of the body beneath the door, a part of said actuating mechanism being carried by the door and the remainder supported in the body and the whole accessible from within the fireplace from below the body without displacing the body or door.

3. A fireplace damper, having a body adapted to be set in the throat of a chimney and provided with a pocket extension at one side opening within the body, a door pivotally and slidably mounted in bearings in said body, a lug applied to the underside of said door and projecting downwardly and longitudinally relatively thereto, and a cam mounted within the pocket extension of the body next to the lug and engaging the lug to open and close the door, the lug having a slip connection with the cam to permit the setting and removal of the door without disturbing the body.

4. A fireplace damper, having a body provided with an interior pocket-like extension at one side, a cam arranged within said extension and confined therein against endwise escape, a rod mounted in said extension and upon which the cam is fixed so as to turn with it, a door pivotally mounted in the top of said body, and a lug on the underside of the door, engaging the cam in the extension, the rod extending outwardly from the body, said extension being in open communication with the body beneath the door and thereby rendering the door and its actuating mechanism accessible without displacing the body.

In testimony whereof I have hereunto set my hand this 20th day of March A. D. 1911.

WILLIAM E. FITCH.

Witnesses:

LOVEDEY R. HADDEN,
E. H. WILHELM.