

J. L. TRESSLER & W. H. LOOMIS.  
Parlor Mantel-Grate.

No. 221,756.

Patented Nov. 18, 1879.

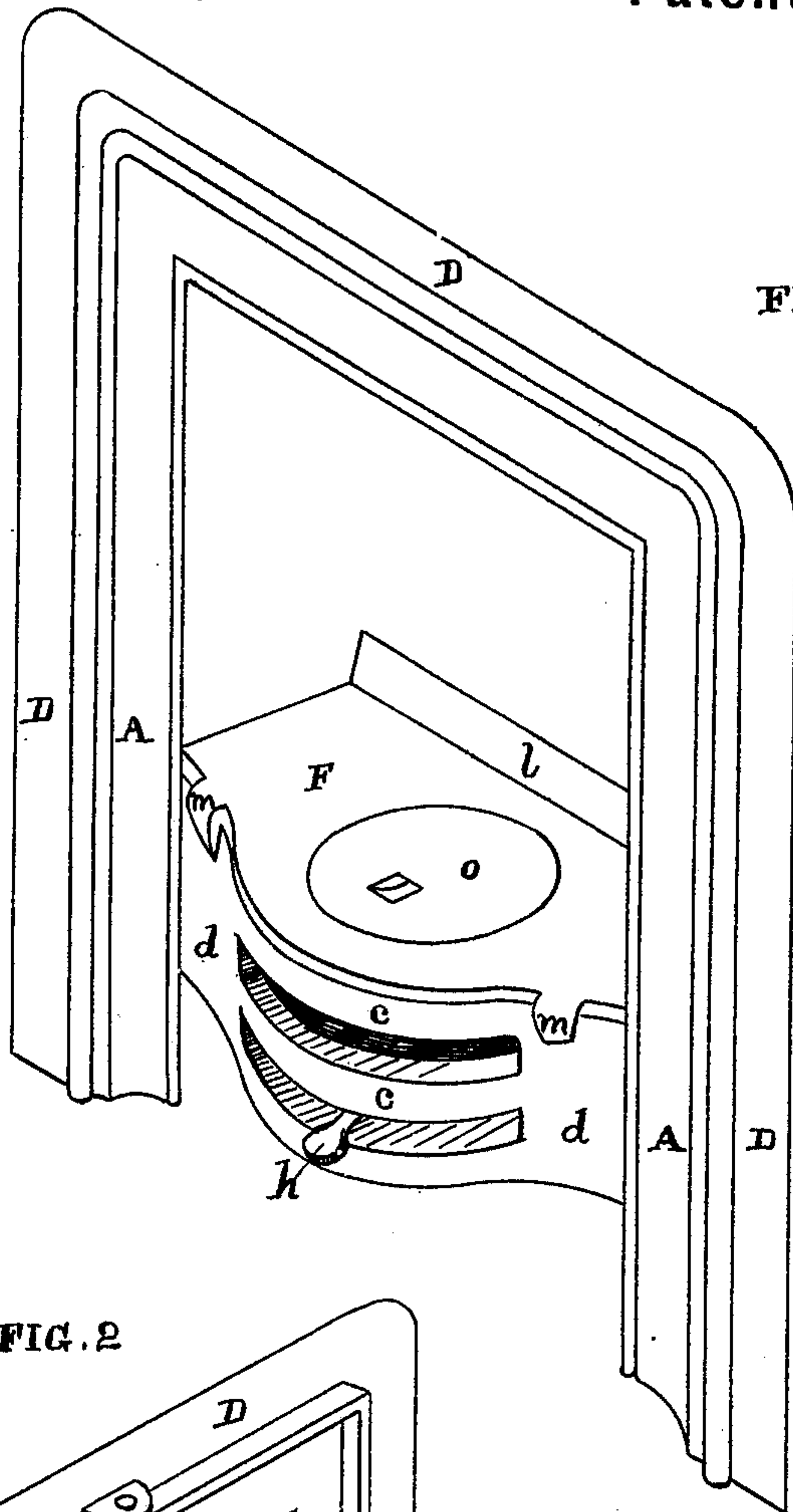
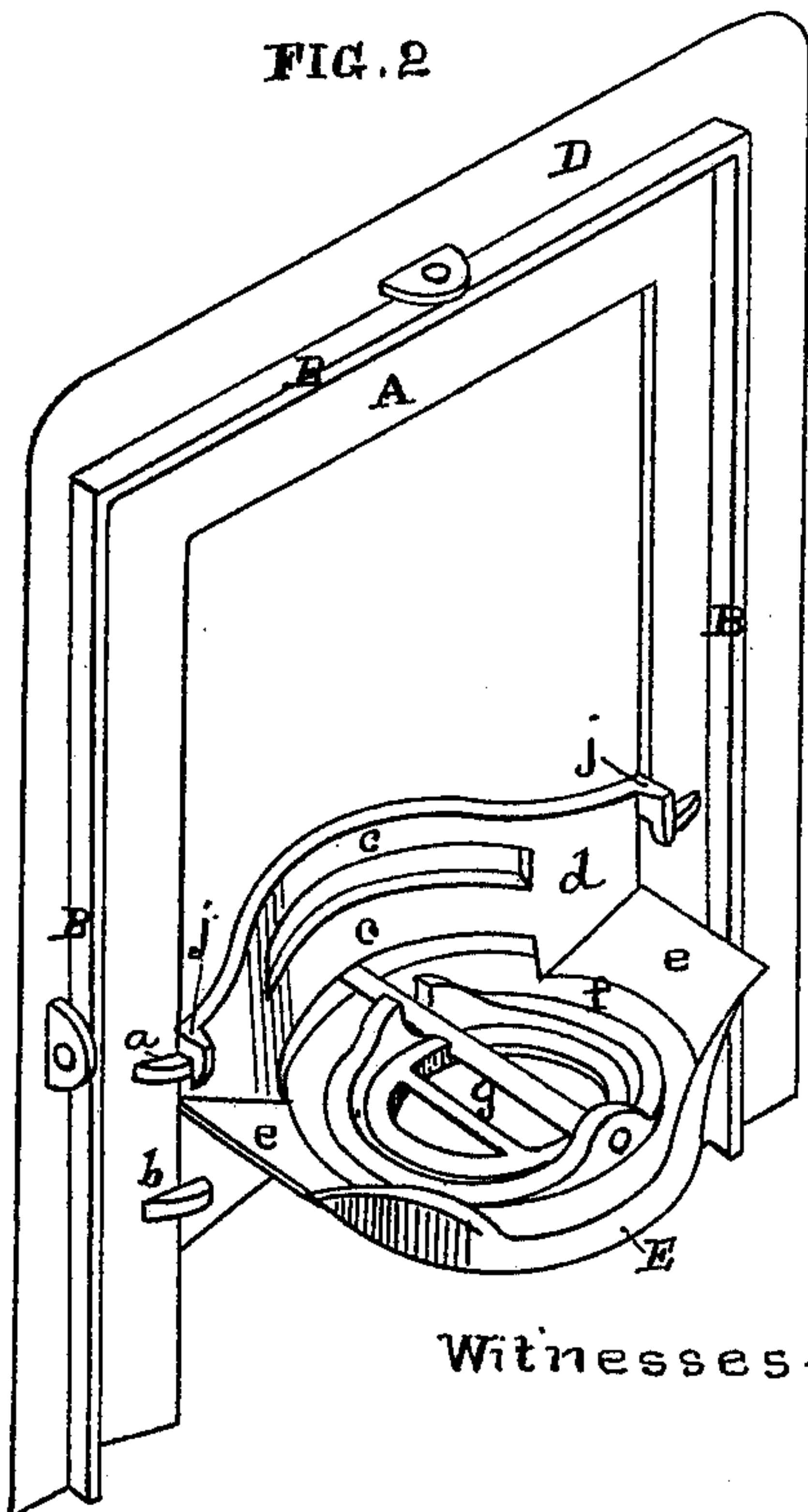


FIG. 1.

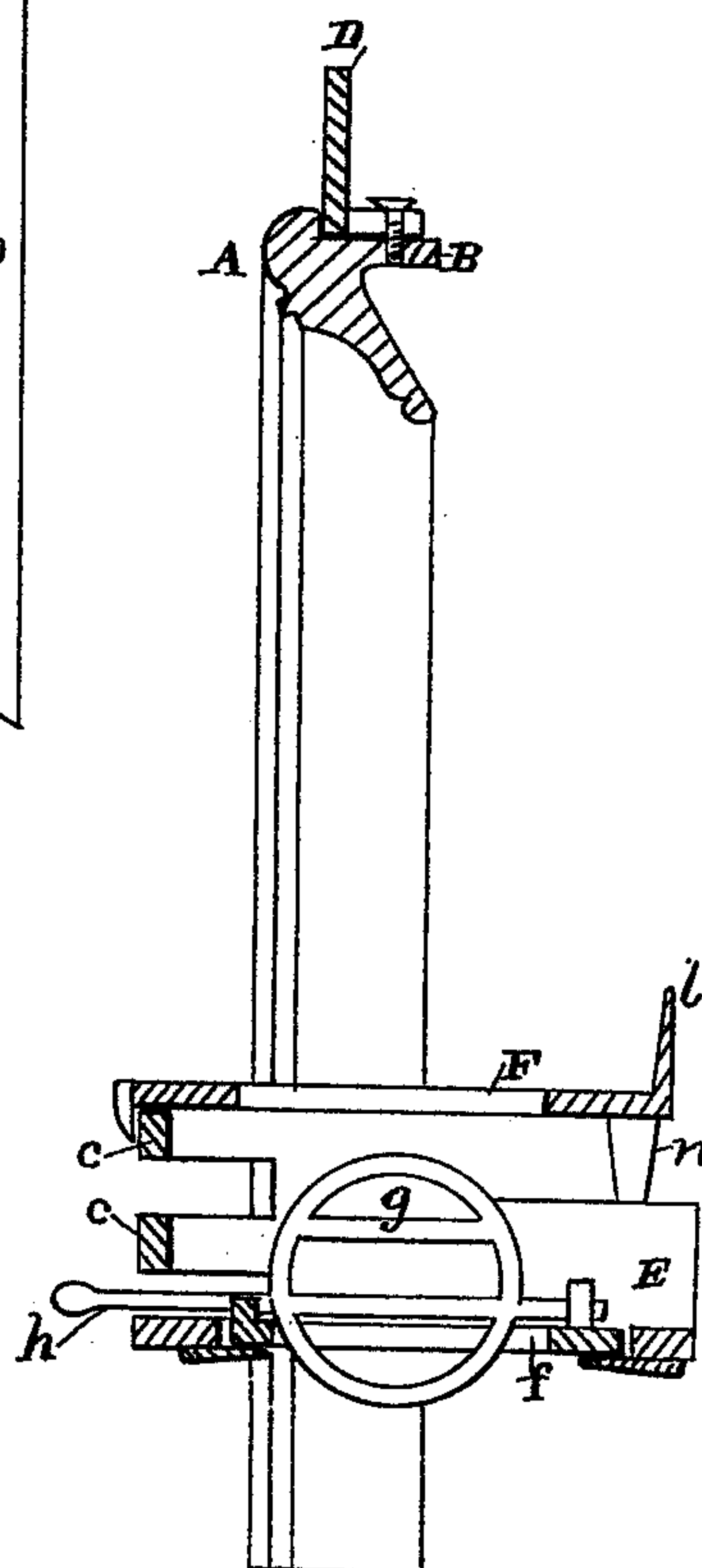
FIG. 2.



Witnesses

Geo H. Strong.  
Frank A. Brooks

FIG. 3.



Inventors  
John L. Tressler and  
William H. Loomis.  
By Dewey & Co. attys



# UNITED STATES PATENT OFFICE.

JOHN L. TRESSLER AND WILLIAM H. LOOMIS, OF ALAMEDA, CALIFORNIA.

## IMPROVEMENT IN PARLOR MANTEL-GRATES.

Specification forming part of Letters Patent No. **221,756**, dated November 18, 1879; application filed April 21, 1879.

*To all whom it may concern:*

Be it known that we, JOHN L. TRESSLER and WILLIAM H. LOOMIS, of the town and county of Alameda, and State of California, have invented an Improved Parlor Mantel-Grate; and we hereby declare the following to be a full, clear, and exact description thereof, reference being made to the accompanying drawings.

Our invention consists in the use of a peculiarly-formed basket having side curved flanges and a peculiarly-closed front, whereby the fire is confined to the central portion of the grate and the fuel is directed toward the center.

It also consists in the employment of a cooking attachment, secured to the grate and made removable, provided with a hole or plate, by means of which ordinary cooking operations may be performed.

Figure 1 is a perspective view of the front of the grate. Fig. 2 is a rear view of the grate. Fig. 3 is a vertical section.

A is a grate-front, which is cast in the ordinary manner; but, in addition to this, we form upon its edge a flange, B, which is made to project inward from a vertical plane, as shown. The exterior face-plate, D, is bolted to this flange, or it may be cast in one piece with the flange and grate-front, if desired, when made of metal. If the front is made of marble it will fit in the same manner against the flange B, but will not be secured by bolts.

The arch, when built, will fit closely against the flange, so as to make a perfectly tight joint, and this will not be affected even by the shrinkage of the setting when it dries.

By this construction we are enabled to build the ordinary grate in a perfectly smoke and gas tight manner. There will be no leakage caused by the shrinkage of the mortar, and none of that discoloration of the mantel caused by the escape of smoke, which has hitherto never been prevented in the most expensive mantels of ordinary construction.

In the lower part of the inner side of the grate-front are formed or bolted the lugs *a b*, two on each side, as shown, which are intended for holding in place the basket and the stove-lid attachment, as hereinafter described.

The basket E, in which the fire is made, we

form in a peculiar manner. The grate-bars *c*, extending across the front, are curved, as shown, outwardly, and do not extend all the way across the grate, but at each end is formed a solid or closed portion, *d*. The bottom of the basket is made circular, and at each side is formed an upwardly and outwardly curving flange or plate, *e*, reaching from the circular bottom up to the fire-brick on the sides. A circular grate-bar, *f*, resting on flanges on the bottom of the grate, revolves or slides round in a horizontal plane, and is provided with flanges, on which rests another circular grate-bar, *g*, provided with a spindle, *h*, working in lugs or journals in the circular bar *f*, and projecting through the front of the grate, as shown. This whole basket is hung on the lower lugs, *b*, on the grate-front by means of the hooks *j*, the rear and sides then being in contact with the fire-brick of the fire-place in the usual manner. As the ends *d* of the front are closed, and the flanges *e* on the sides of the basket are also closed or solid, the air is forced to come into the fire at the center below and in front. The peculiar sloping shape of the flanges *e* is such as to direct the fuel from the sides toward the center as the fire settles down, and no cold air is allowed to enter at these sides.

It is well known that in grates of ordinary construction it is found impossible to keep the fuel at the farther sides of the grates in a state of combustion, and that the fire is usually brightest and best at the center. It is customary, therefore, to put in fire-bricks or loose brick of any kind at the two sides of the grate, so that the fuel will be confined to the center, where it will burn. The flanges formed in our grate do away with the necessity of placing bricks in the grate by confining the fire to the center, keeping out the cold air from the corners and directing the fuel to the center of the fire-place.

As an attachment, we form a plate, F, having a rear flange, *l*, and hooks or lugs *m*, the latter of which fit over the lugs *a* on the grate-front and hold the attachment in position. The rear legs, *n*, rest on the flanges *e*, and the plate is thus held steady.

A central hole is made in the plate F, which is provided with a cover, *o*, so that kettles or pots may be placed over the fire, and the plate



then answers the same purpose as an ordinary cooking-stove. The plate F does not extend clear to the back of the grate, an opening being left behind for the smoke, and its flange prevents the smoke from curling over the edge.

By taking hold of the spindle *h* the grate-bottoms *f g* may be rotated in a horizontal plane, so as to jar the ashes through. By turning the spindle the central circular grate, *g*, will revolve on said spindle in a vertical plane, thus lifting it up, so the grate may be cleaned, and any lumps or clinkers can pass through to the ash-pan below.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The basket E, having curved flanges *e*,

horizontal grate bars *c*, and closed portions *d*, in combination with the rotary grate-sections *f g* and spindle *h*, substantially as and for the purpose herein described.

2. The basket E, with its curved flanges *e* and tilting grate-sections, in combination with the removable cooking-plate F, having legs *n*, lugs *m*, rear flange, *l*, and centrally-placed opening provided with a lid, *o*, substantially as herein described.

In witness whereof we have hereunto set our hands.

JOHN L. TRESSLER.  
WM. H. LOOMIS.

Witnesses:

CHAS G. YALE,  
FRANK A. BROOKS.