(No Model.)

O. C. McDANNELL.

STOVE PIPE THIMBLE.

No. 335,291. Patented Feb. 2, 1886.

Fig. 1.

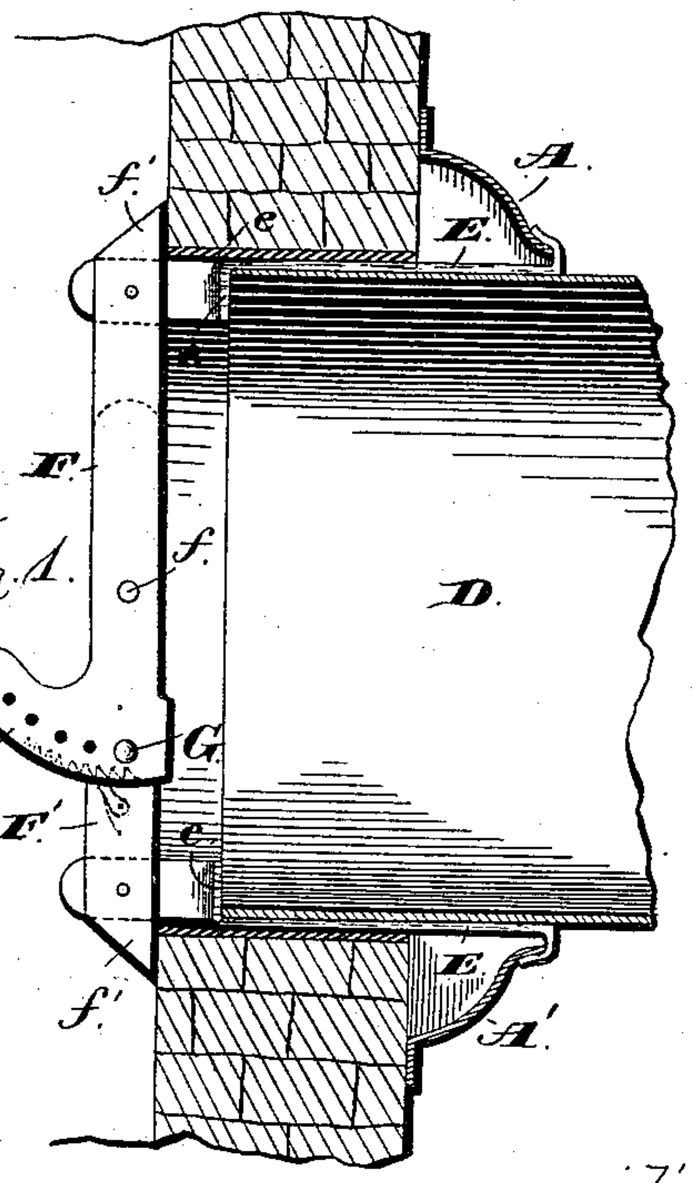


Fig. 2.

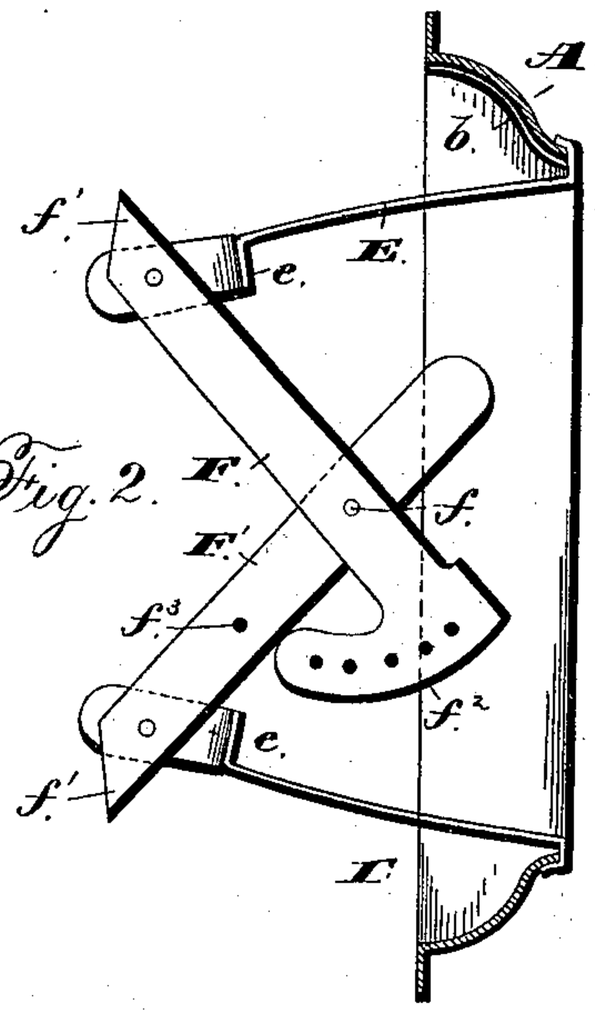


Fig. 3.

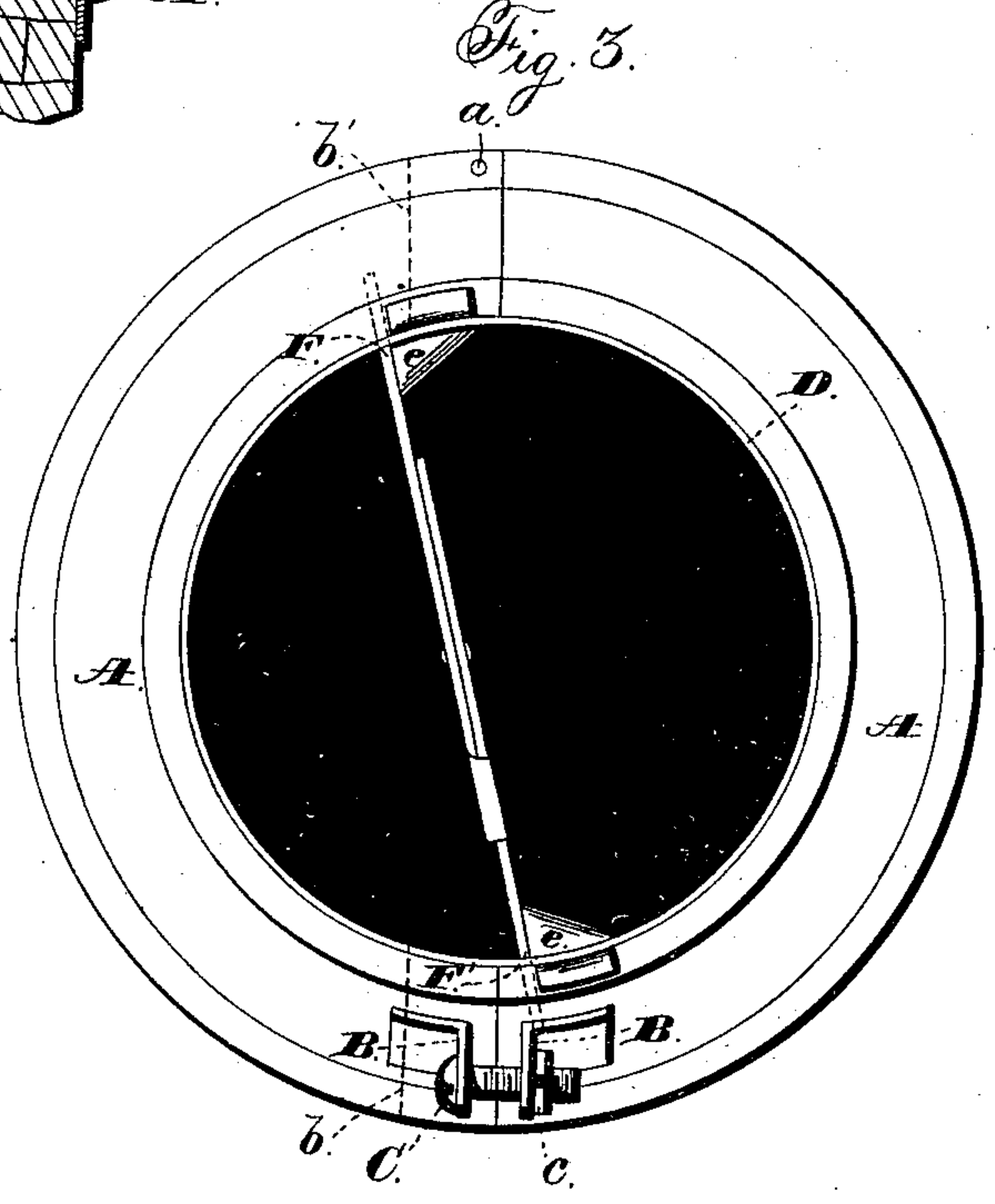
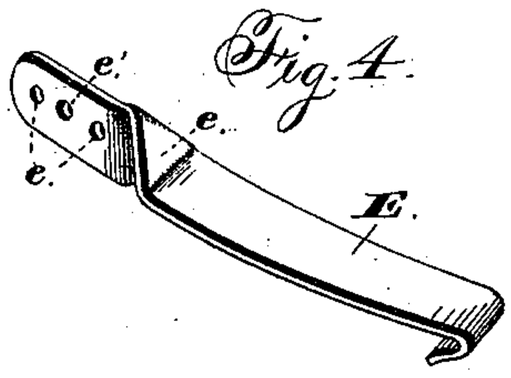


Fig. 4.



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UNITED STATES PATENT OFFICE.

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STOVE-PIPE THIMBLE.

SPECIFICATION forming part of Letters Patent No. 335,291, dated February 2, 1886.

Application filed June 29, 1885. Serial No. 170,069. (No model.)

To all whom it may concern:

Be it known that I, OTTO C. McDANNELL, of Lowell, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Stove-Pipe Thimbles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in stove-pipe thimbles.

The object is to provide a thimble which will lock the pipe in its position therein, and which may be adjusted to and securely locked in flues of different sizes.

A further object is to provide an adjustable thimble of neat appearance and a durable and inexpensive construction.

With these ends in view my invention consists in certain features of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a sectional view showing the thimble adjusted within a flue. Fig. 2 is a similar view showing the thimble in adjustment for entering the flue. Fig. 3 is a view in front elevation with the pipe locked within the thimble, and Fig. 4 is a detached view of one of the parts.

A A′ represent the circular half-sections which form the thimble. They are hinged together at one end, as shown at *a*, and are provided with perforated lugs or ears B at the opposite end, through which lugs or ears a clamp-screw, C, extends, and by means of a threaded nut, *c*, adapted to register with the thread of the screw, serves to draw the sections together into snug contact with the pipe D. The ends of one of the half-sections are preferably provided with extensions *b*, adapted to fit beneath the corresponding ends of the other half-section, in order to cover breaks between the ends which occur when the pipe D chances to be somewhat larger than the inner periphery of the thimble.

Two inwardly-extending spring-metal bars E have their outer ends secured to the inner periphery of the thimble at points diametrically opposite. One of the bars is preferably secured near the hinge end of one of the half-sections A, preferably the lower, and the other near the locking end of the same. The bars E are preferably dovetailed into the edges of the section A, but may be riveted thereto or otherwise secured. Said bars E are provided with laterally-extending shoulders *e*, located at such distances from their outer ends as it is desirable to have the stove-pipe enter the flue, their object being to form stops for the inner end of the pipe.

As a matter of convenience and economy, I construct the bar E of a thin strip of sheet metal—sheet-iron, for example—and form the shoulder *e* thereon by first bending the strip at right angles, and then with a half-turn of the inner portion fold it back onto itself, as shown in Fig. 4. The inner ends of the bars E are thus turned with their edges toward each other, and are provided with a series of perforations, *e′*, for pivotally securing a pair of levers, F F′, thereto at the desired depth within the flue. The levers F F′ are pivoted to each other at a point, *f*, about midway between the bars E. The ends of the levers toward the lining of the flue are beveled, as shown, terminating in sharp points *f′* toward the front. The adjacent ends of the said levers lap past each other a considerable distance, the end of lever F being provided with a perforated sector-bar, f^2 adapted to bring its series of perforations as the levers are rocked on their pivots successively over a perforation, f^3, in the lever F′, thereby admitting of the introduction of a pin or key, G, for locking them in the desired adjustment.

While the above-described construction forms a convenient locking device, I do not wish to limit myself strictly thereto, as it is evident that other devices might be used with nearly, if not quite, the same advantage—for example, the sector-bar f^2 might be provided with ratchet-teeth on its outer edge, and the bar F′ have a pawl adapted to engage the teeth and admit of a free movement of the levers in the direction which increases the angle between them, as shown in dotted lines Fig. 1, and automatically lock them against the opposite movement.

The rocking of the levers on their common pivot and on their pivotal connections with the bars E serves to spread the bars apart or

draw them together, according to the direction in which they are rocked. This arrangement admits of the bars being spread apart to fit flues of various diameters.

When the pivotal point *f* is drawn outwardly as far as possible, the inner ends of the bars E are drawn toward each other, and the projecting points *f'* are withdrawn from their positions of engagement with the walls of the flue. This position is represented in Fig. 2, and the thimble, as here shown, is ready for adjustment within the flue.

When inserted with the back of the thimble in contact with the face of the wall, the levers F F' are rocked into position, bringing the points *f'* into engagement with the lining of the flue or their front edges into engagement with the inside wall of the chimney-flue. If brought into contact with the lining, they may be forced into it and form retaining-stops, as effectual as when lapped over the inner edges of the pipe-flue. When thus adjusted, the thimble is locked in position by the pin G or other device, as explained, and the pipe placed in position within the thimble. The half-sections A A' may now be drawn together into snug contact with the pipe, and thereby lock it therein. A cover of any ordinary form may be inserted within the thimble, to close the pipe-flue when the pipe is withdrawn.

It is evident that slight changes might be resorted to in the construction of the several parts described without departing from the spirit and scope of my invention; hence I do not wish to limit myself strictly to the construction herein set forth; but,

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the thimble, of bars secured thereto and arranged to extend within the flue, of a jointed lever pivoted to the bars for locking the thimble to the wall of the flue, and devices for locking the sections against movement.

2. The combination, with the thimble and the receding spring-bars secured thereto, of the levers pivoted to the inner ends of the bars and to each other, substantially as set forth.

3. The combination, with the thimble and the spring-bars secured thereto, provided with a series of openings, of the connected levers secured to pins passing through one of the openings in each bar, to secure different adjustments to suit different depths of pipe-flue, substantially as set forth.

4. The combination, with rim of the thimble, of receding shouldered bars secured thereto and a hinged connection between the inner ends of the bars, substantially as set forth.

5. The spring-bars consisting of thin strips of metal bent and folded into shape to form shoulders, and having their inner section turned at right angles to the outer section, in combination with a thimble secured in the outer ends of the spring-bars, and jointed lever, substantially as described, secured to the inner ends of said bars, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

OTTO C. McDANNELL.

Witnesses:
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