T. E. HARRIS.

STOVE-PIPE THIMBLE.

No. 184,240. Patented Nov. 14, 1876.

Fig. 1

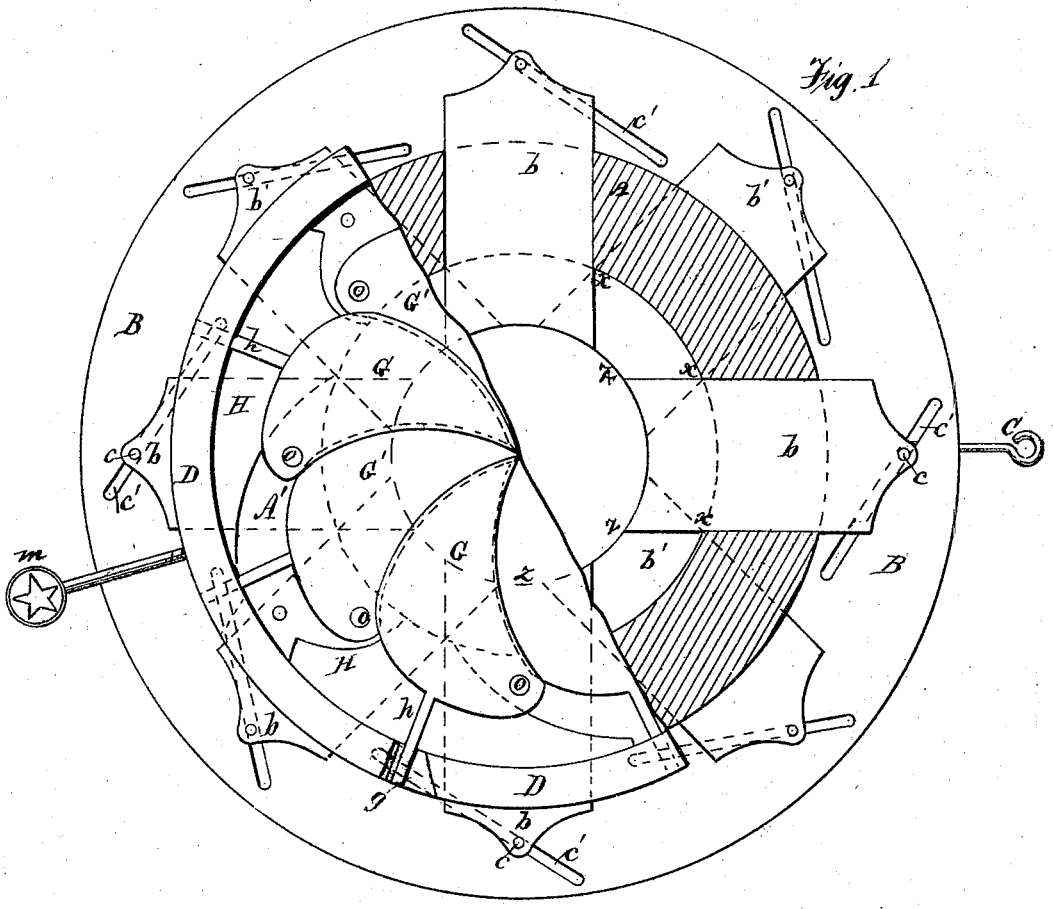
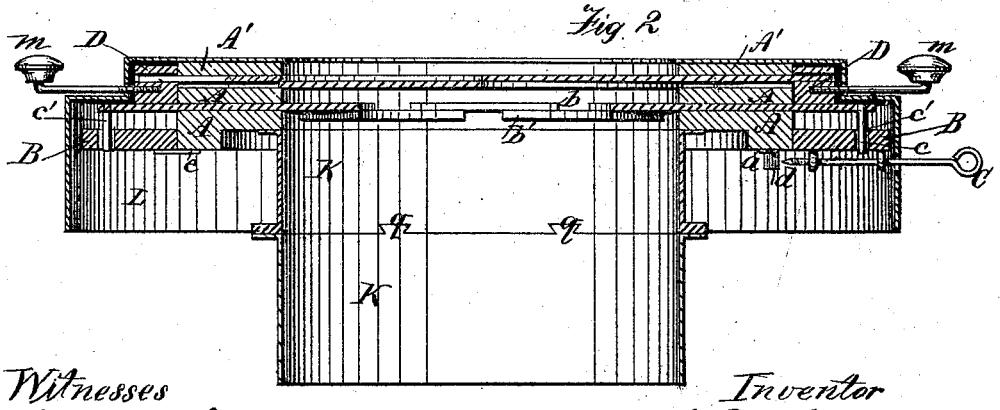


Fig. 2



Witnesses
Grenville Lewis.
M. Church

Inventor
T. E. Harris
By Hill, Ellsworth & Sheridan
His Attys

UNITED STATES PATENT OFFICE.

THEODORE E. HARRIS, OF GREEN BAY, WISCONSIN.

IMPROVEMENT IN STOVE-PIPE THIMBLES.

Specification forming part of Letters Patent No. **184,240**, dated November 14, 1876; application filed October 11, 1876.

To all whom it may concern:

Be it known that I, THEODORE E. HARRIS, of Green Bay, in the county of Brown and State of Wisconsin, have invented a new and Improved Stove-Pipe Thimble and Ventilator; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

My invention consists of an adjustable thimble for stove-pipes, and of a ventilator combined therewith.

In the drawing, Figure 1 shows a plan view, with the cover removed and one part broken away to disclose the others; and Fig. 2 is a transverse vertical section.

The principal object of my invention is to produce a thimble which shall be capable of adjustment to any size of pipe, and which shall fit closely thereto, and at the same time shall be capable of closing when the pipe is removed, and it is desirable to close the opening left by the removal of the pipe.

In carrying out my invention I provide a ring, of the form shown in section at A A A′, in Fig. 2. The central opening of this ring should be of a size equal to or slightly larger than the largest size of pipe which may be used. Horizontally through this ring are two sets of slots, of width and thickness to admit the slide *b b′*. These slides are arranged in the slots radially, and the construction of the slots and their slides is such that, when the slides are all drawn back, so that their inner ends are flush with the inner surface of the ring A, their edges shall coincide, and their inner ends, which are made concave, as shown in Fig. 1, shall form a continuous circle. The two sets of slides are shown in Fig. 2, the lower being marked *b′*, and the upper *b*. The front edges of the upper touch the lower, as shown at *x*, Fig. 1.

It will be borne in mind that these slides have free motion in and out in radial lines, that the upper fit snugly on the lower, and as they may be made of thin sheet metal, they form within the ring A A, where they overlap, a thin, tight, annular partition between the inner edge of the ring A and the pipe which they inclose. This is shown in Fig. 1, where *x x x* is the inner edge of the ring A, and *z z z*, the pipe concentric therewith. The space between these two concentric circles is covered by these thin slides, which overlap each other, as shown in the dotted lines, and the concave front edges of which, as also represented, embrace the pipe *z z z*. This ring A is supported on the pipe K, being riveted to an outwardly-turned flange thereon. Around the ring A is fitted a thin ring, B, in which are slots *c*, slightly inclined to the tangent of the ring. In these slots work pins *c′*, which are fixed in the outer ends of the slides *b b′*. The ring B may be oscillated by means of the rod C, which passes through ears in the ring B. The rod C is threaded, and may be screwed forward till the pointed end bears against the flange *d*, by which the ring B may be held in any given position. It is obvious from this description, that, by moving the rod C right or left, the slides *b b′* may be drawn out or forced in, and the circle *z z z* enlarged or contracted to fit any given size of pipe. The number of slides may be varied at pleasure, according to the amount of variation contemplated in the size of the pipe. When, however, the pipe is withdrawn, it is not contemplated that the slides *b b′* should advance sufficiently to cover entirely the whole aperture. That would be impracticable in this construction. But, in order that this requirement may be provided for, and the apparatus be complete in itself, and not need removal or replacement by any sort of cover whatever, I have provided another set of covers. (Shown at G G′ in Fig. 1.) These covers are also made in two sets, an upper and lower, the latter marked G′ and the former G. They are pivoted, as shown at *o*, G′ to A, and G to to A′, which is the upper part of the solid ring. It will be observed that when the levers *h*, on the rear ends of the covers G G′, are swung to the right, the said covers are turned away from the central opening. All the covers G′ are in the same plane. When they are turned inward a sufficient distance, their points slightly chamfered to fit closely, meet at the center, but leave between themselves spaces uncovered. These are closed by the covers G G, which swing closely over G G′, turning in precisely the same manner, till they meet. Underneath G G are pieces

H H, made of the thickness of G′ G′, and curved to fit the rear of the latter when these are swung back. The levers *h*, extend outward into slotted openings, in a ring shown in plan in Fig. 1, and in section in Fig. 2, and marked D. This ring fits snugly around A A′, and may be turned to a limited extent by the knobs *m*, which are on arms that project through the case. The slots *g* on large ring D, allow the levers *h*, sufficient play, and the oscillation of the ring opens or closes the covers G G′. These rings may all be made of cast metal, and the covers may be mounted or plated to suit the taste of the maker. Over the whole is a cover, L, which may also be mounted, as may be desired. The case L is screwed to the ring A′, and the ring B is held in place on A, by a clip, *e*. The pipe K may be held on K′ by dovetail lugs *q q*, so as to be removable, if necessary. The pipe K′ is fixed in the chimney or wall, through which the stove-pipe is to be carried, and should be as large as the opening in the ring A. It will be observed that the cover G G′ may be opened or closed readily, and may, if desired, be used as a ventilator, when the pipe is not in place.

I am aware that a stove-pipe thimble, with a hole for the pipe, made expansible by means of pivoted wings, is not new, and that such an opening has been covered by folding doors.

I claim as my invention—

1. A thimble for stove-pipes, in which the central opening is adjustable in size, by means of the radially-arranged slides *b b′*, as set forth.

2. In combination with the slides *b b′*, the ring B, and the slots therein, and pins on the radially-arranged slides, as set forth.

3. The ring A A, slotted as shown, in combination with the slides *b b′*, as set forth.

4. In combination with the slotted ring B, and the slides, the threaded rod C, and flange *d*, as set forth.

5. The covers G G′, pivoted as shown, and made capable of swinging inward to cover the central opening, as set forth.

6. The combination of the covers G G′, levers *h*, and ring D, as set forth.

7. The ring A A′, covers G G′, pivoted therein, lever *h*, and ring D, as set forth.

8. The pipe K, supporting the ring A, and pipe K′, the parts being connected as shown at *q q*, as and for the purpose described.

9. The combined adjustable thimble and cover, consisting of the radially-arranged slides, and the pivoted covers G G′, all in one case, and arranged to operate as set forth.

T. E. HARRIS.

Witnesses:
FRANK MCKENNY,
MELVILLE CHURCH.