

No. 622,221.

Patented Apr. 4, 1899.

H. GOODWIN.
FLUE STOPPER.

(Application filed Apr. 2, 1898.)

(No Model.)

Fig-1-

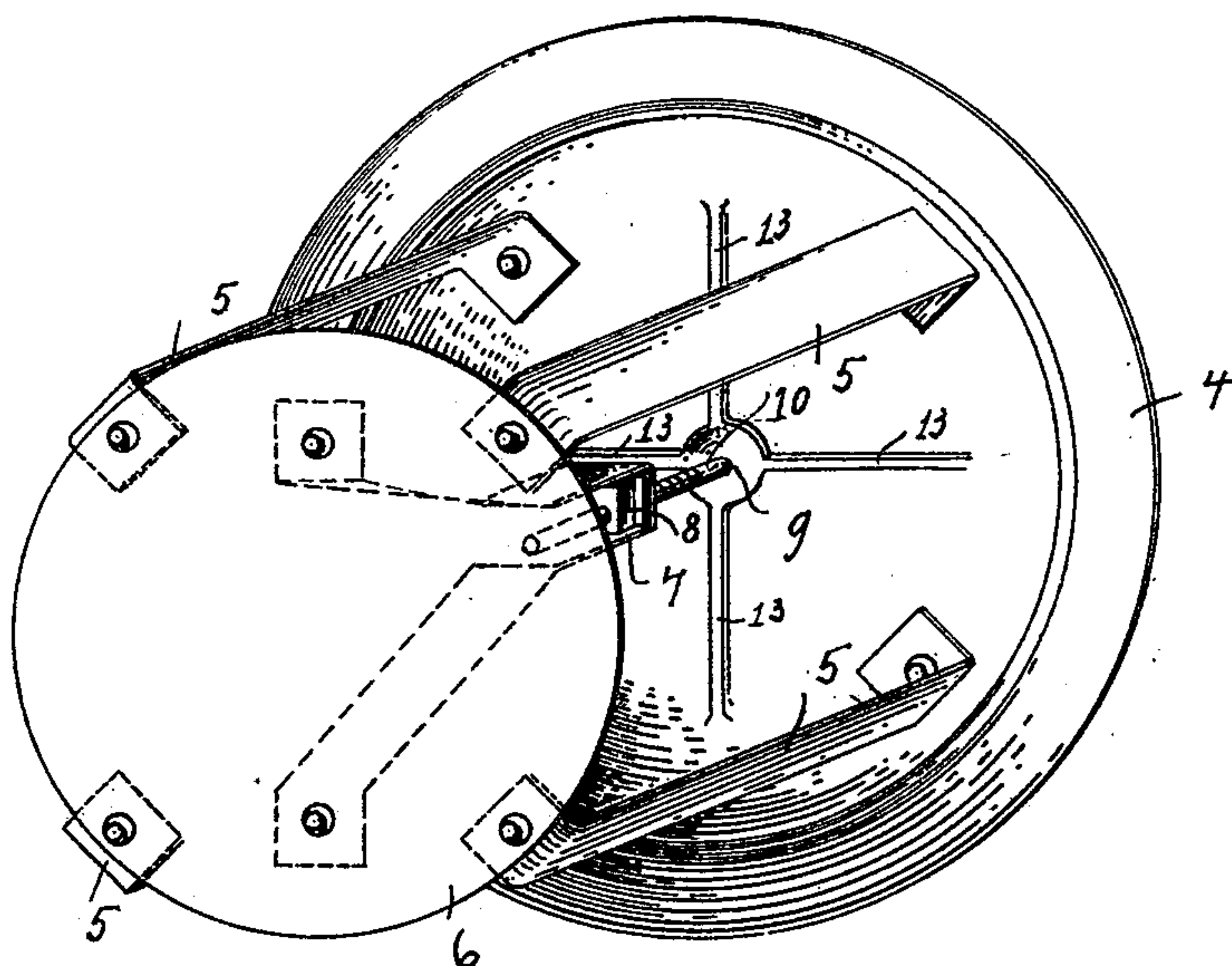
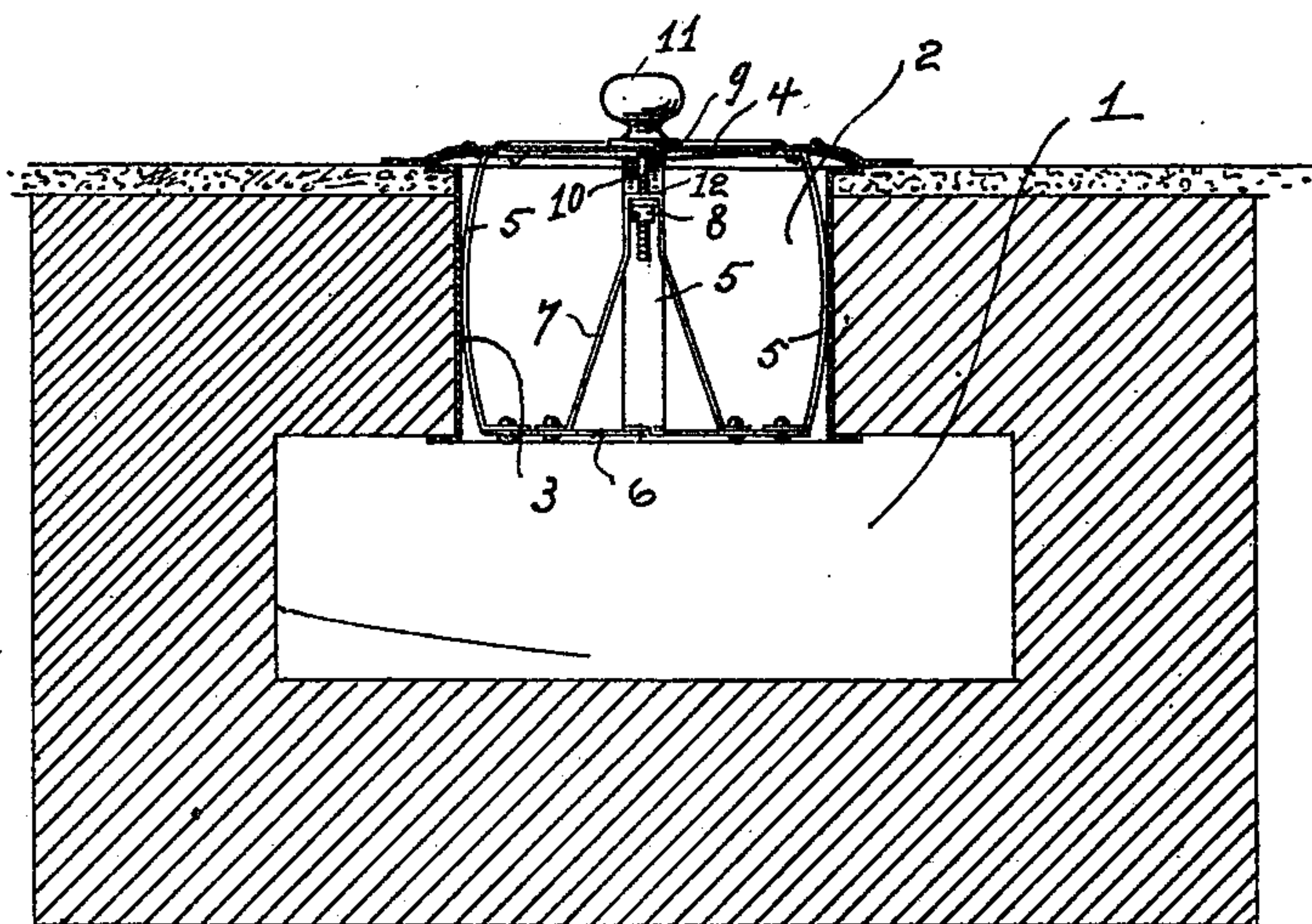


Fig-2-



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FLUE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 622,221, dated April 4, 1899.

Application filed April 2, 1898. Serial No. 676,158. (No model.)

To all whom it may concern:

Be it known that I, HILAND GOODWIN, of Wauseon, county of Fulton, and State of Ohio, have invented certain new and useful Improvements in Flue-Stoppers; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form part of this specification.

My invention relates to an adjustable flue-stopper of that character employed in closing the opening in chimneys when the pipe is withdrawn.

The object of the invention is to provide an inexpensive closure with means for securing the same frictionally within a flue-opening, comprising a fore-plate, an inner plate independent, straps marginally connecting the same, a stirrup carried by the inner plate, and a threaded bolt carried by the outer plate, said bolt screwing into an orifice in the stirrup, whereby when the bolt is revolved the plates are brought together and the stops are flexed outwardly against the wall of the flue.

In the drawings, Figure 1 is an elevation of the stopper as seen looking from the rear side, it being understood that the front plate may be of any desired face ornamentation. Fig. 2 is a longitudinal central section of the stopper shown as inserted within the flue-opening of the chimney, the chimney being in horizontal section.

The usual flue-stopper comprises a face-plate and spring-arms to impinge against the wall of the opening to the flue. I have discovered that a considerable proportion of fires is due to the fact that under excessive pressure, due to expansion of the atmosphere in the flue when in condition of receiving more than ordinary heat, the flue-stopper is forced out of place, either partially or entirely, thereby allowing the heat, and in many instances the flame, to escape through the flue-opening, and in often causing a fire. It is true it may result in frequent charring before the final blaze; but the result is inevitable. I have avoided this possibility by, first, providing for so frictionally securing the face-plate that

displacement is impossible, and, second, in providing a supplemental plate that shall be in close alinement with the inner wall of the flue and so nearly its diameter that the heat and flame are caused to pass the opening and ascend the chimney.

1 designates the chimney; 2, the opening, usually provided with a thimble 3. The face-plate 4 is of the usual or any preferred face or ornamentation, and to the inner side and marginally thereof is secured a plurality of metal straps 5. I prefer to employ four of these straps, although a greater or less number may be employed, if desired. The opposite ends of the straps 5 are secured near the margin of the plate or disk 6 of very nearly the diameter of the flue-opening 2, and the straps 5 are of a length to cause the face-plate 4 and plate 6 to be separated practically the distance of the thickness of the chimney-wall, so that when the stopper is inserted the disk 6 will coincide, or nearly so, with the inner face of the chimney-wall, and thereby prevent any tendency to drafts through the opening.

To the plate 6 there is secured a stirrup 7, which projects outwardly toward the face-plate and receives a nut 8, the stirrup being reduced to hold the nut from revolution, and projecting through an orifice 9 centrally of the face-plate is a threaded rod 10, having a knob 11 upon its outer end. With this construction, the stopper being inserted within the opening 2, the knob 11, and also threaded rod 10, is revolved to run the threaded rod into the nut 8 to flex the straps 5, so that they will bear with any desired amount of friction centrally of their lengths against the wall of the opening 2, as clearly shown in Fig. 2. It will be seen that by this provision there is full compensation made for openings of varying diameters, and that the stopper may be secured with any desired frictional resistance.

What I claim is—

A flue-stop, comprising the thimble, a face-plate having ribs leading from a central aperture therein, combined with a disk 6 and flexible straps connecting the latter with the inner face of said plate, a yoke bent near its middle, forming two right angles, thence each arm of the yoke outwardly inclined and having their angled ends secured to the disk 6, a

threaded rod with knob thereon, said rod disposed in registering apertures in the yoke and face-plate, and a nut on the threaded end of the rod, said nut being prevented from rotation by the parallel portions of the yoke, as
5 shown and described.

In testimony that I claim the foregoing as

my own I hereby affix my signature in presence of two witnesses.

HILAND GOODWIN.

Witnesses:

WILLIAM WEBSTER,
JEANETTA HISLOP.