May 17, 1949. R. DOZIER 2,470,152

INSIDE FLUE STOP

Filed Dec. 13, 1946

Fig. 1.

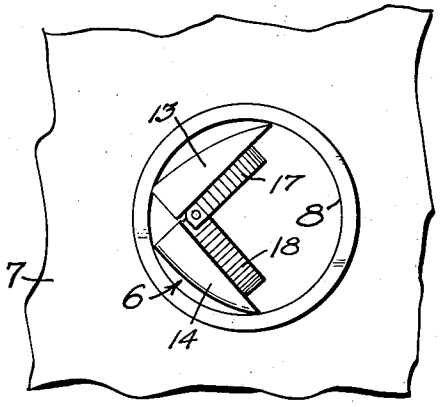


Fig. 2.

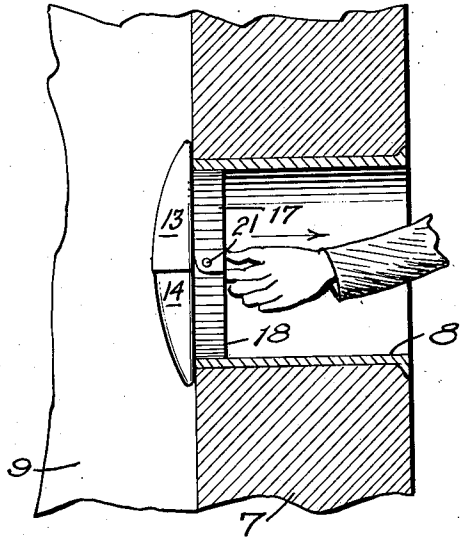


Fig. 3.

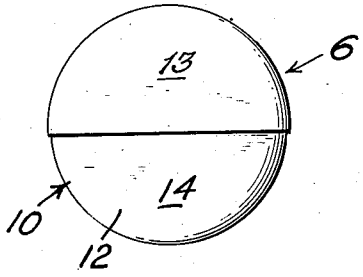


Fig. 4.

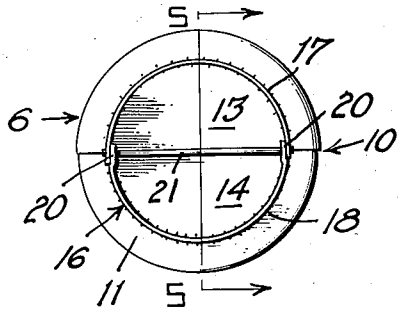
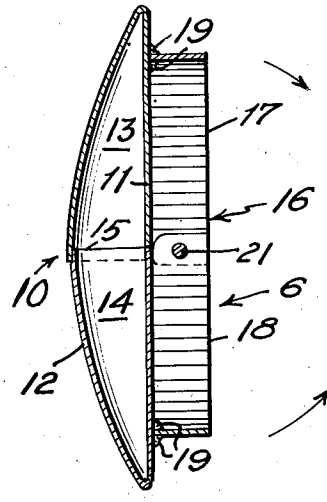


Fig. 5.



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INSIDE FLUE STOP

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4 Claims. (Cl. 126—319)

1

This invention relates to a closure adapted to be detachably mounted inside of a flue or chimney for closing a lateral opening thereto, such as a stovepipe opening which opens at one end into the flue or chimney and at its opposite end to the interior of an enclosure.

It is the primary object of the present invention to provide a flue stop or closure for closing a stovepipe opening or the like at the chimney or flue end thereof so as to prevent soot, rainwater or the like from accumulating in the opening and seeping past the closure disposed at the outer end of the opening, to thus eliminate the staining of walls resulting from moisture and soot escaping from a stovepipe opening into a room or other enclosure.

Still a further aim of the invention is to provide a flue stop or closure of extremely simple construction capable of being applied to the inner end of a stovepipe opening by being inserted therethrough from the opposite end of said opening and which, when applied, will effectively seal the chimney or flue end of the opening.

Various other objects and advantages of the invention will hereinafter become more fully apparent from the following description of the drawing, illustrating a preferred embodiment thereof, and wherein:

Figure 1 is an end view in elevation looking toward an end of a stovepipe or similar opening of a chimney or flue and showing the closure disposed therein and in the position that it will assume in passing through the opening in the course of being applied to or removed from the inner end thereof;

Figure 2 is a view taken substantially at a right angle to Figure 1 and showing the flue stop or closure in an applied position;

Figure 3 is a plan view looking toward the outer side of the stop or closure;

Figure 4 is a similar view looking toward the inner side thereof; and

Figure 5 is an enlarged cross sectional view taken substantially along a plane as indicated by the line 5—5 of Figure 4.

Referring to the drawing, for the purpose of illustrating the flue stop or closure, designated generally 6 and comprising the invention, a portion of one wall 7 of a chimney is illustrated in Figures 1 and 2 and is shown provided with a lined bore or opening 8 having an inner end which opens into a chimney or flue 9. The opposite end of the bore or opening 8 opens on the outer side of the wall 7 into an enclosure, such as a room of a house.

2

The stop or closure 6 includes a hollow shell, designated generally 10 having a substantially flat inner side 11 and a convex outer side 12 the edge of which merges with the edge of the side 11 and which may be formed integral therewith. The shell 10 is substantially circular, as clearly illustrated in Figures 3 and 4 and divided diametrically into an upper section 13 and a lower section 14. The edge portions of the sections of the inner wall 11 are disposed in abutting relationship, as seen in Figure 5, when shell 10 is extended, and the adjacent edges of the outer convex wall 12 are disposed in slightly overlapping relationship and with the lower section of the wall 12 inset slightly as seen at 15 to receive a portion of the upper section of the convex wall 12 which is disposed in overlapping relationship thereto and on the outer side thereof, as illustrated in Figure 5.

A relatively wide band or ring 16, formed of sections 17 and 18, is secured to and projects perpendicularly from the outer side of the inner wall 11. The sections 17 and 18 are secured in any suitable manner as by welding, as seen at 19 to the shell section 13 and 14, respectively. As best seen in Figure 4, the ends of the band section 18 are offset inwardly slightly to receive the ends of the band section 17 which are disposed thereover, as seen at 20 and so that the exterior of the band or ring 16 will be substantially smooth and circular. A rod 21 extends through the overlapping end portions of the band sections 17 and 18 and is preferably fixed in any suitable manner to and countersunk in the ends of the band section 17 and rotatably engaged with the ends of the section 18, so that the closure 6 can be folded on the rod 21 as a pivot from its extended position of Figures 2 to 5 to its folded position of Figure 1. It will also be readily apparent that the rod 21 will extend diametrically of the ring 16 and substantially in alignment with the juncture of the shell sections 13 and 14.

Assuming that it is desired to apply the closure 6 to the opening 8 for closing said opening at the inner or flue end thereof, the shell and band sections are folded on the rod 21 as a pivot and substantially to the position as seen in Figure 1, so that the folded closure 6 can be inserted in the opening 8 and with the rod 21 disposed longitudinally of said opening. With the closure 6 thus disposed, the operator grasps the rod 21 and passes the closure inwardly through the opening 8 and into the flue 9. With the closure 6 disposed within the flue 9, the closure can be turned to position the rod 21 at a right angle to the axis

to the opening 8 after which the rod is moved toward the opening 8 so as to engage an edge of either the shell sections 13 or 14 with the inner side of the flue wall to cause the closure sections to be rocked toward extended position, as illustrated in Figures 2 to 5. When the closure sections have been extended sufficiently so that the shell 12 cannot be drawn back into the wall or opening 8, the ring or band 16 is moved into the opening 8 by a pull exerted on the rod 21 and in being so moved, the edge portions of the shell sections 13 and 14, which are disposed remote from the rod 21, will engage the wall of the flue 9 for rocking the closure or stop 6 to its position of Figure 2 with the band 16 engaging the inner end of the opening 8 and with the marginal portion of the wall 11 bearing against the inner side of the flue 9 around said opening. The lower edge of the convex outer side of the upper shell section 13 will overlie the adjacent portion of the lower shell section so that soot, moisture or the like will flow over the convex shell wall 12 to fall or drip therefrom below the opening 8 so as to prevent soot or moisture from collecting in the opening or bore 8 and seeping into an enclosure located at the right hand end of the bore 8, as seen in Figure 2.

Various modifications and changes are contemplated and may obviously be resorted to, without departing from the spirit and scope of the invention as hereinafter defined by the appended claims.

I claim:

1. A flue stop adapted for closing the inner end of a stovepipe hole in a flue or chimney, said stop comprising a shell portion and a ring portion, said shell portion having a flat side to which said ring portion is secured and an opposite convex side, said shell portion being of substantially greater diameter than the ring portion and each of said portions being substantially circular, said shell portion and ring portion each being formed of pivotally connected substantially semi-circular sections, said stop being adapted to be folded for insertion through the stovepipe hole and into the interior of the flue or chimney to be turned in the flue or chimney for positioning the plane of the closure transversely to the axis of the stovepipe hole, and said closure being adapted to be thereafter extended for positioning said ring portion in the inner end of the stovepipe hole and with the marginal portion of the inner or flat side of the shell engaging the flue or chimney wall around said hole for closing the stovepipe hole at the inner end thereof, the adjacent edges of the sections of the shell portion being constructed and arranged to overlap when in extended position, and one of said shell sections being disposed above the other shell section and with the overlapped portion thereof overlying a portion of the lower shell section.

2. A flue stop adapted for closing the inner end of a stovepipe hole in a flue or chimney, said stop comprising a shell portion and a ring portion, said shell portion having a flat side to which said ring portion is secured and an opposite convex side, said shell portion being of substantially greater diameter than the ring portion and each of said portions being substantially circular, said shell portion and ring portion each being formed of pivotally connected substantially semi-circular sections, said closure or stop being adapted to be folded for insertion through the stovepipe hole and into the interior of the flue or chimney to be turned in the flue or chimney for positioning the plane of the closure transversely to the axis of the stovepipe hole, and said closure being adapted to be thereafter extended for positioning said ring portion in the inner end of the stovepipe hole and with the marginal portion of the inner or flat side of the shell engaging the flue or chimney wall around said hole for closing the stovepipe hole at the inner end thereof, said ring portion having its sections disposed with the ends thereof overlapped and pivotally connected, and certain of said ends being offset inwardly to provide a substantially smooth external surface.

3. A flue stop adapted for closing the inner end of a stovepipe hole in a flue or chimney, said stop comprising a shell portion and a ring portion, said shell portion having a flat side to which said ring portion is secured and an opposite convex side, said shell portion being of substantially greater diameter than the ring portion and each of said portions being substantially circular, said shell portion and ring portion each being formed of pivotally connected substantially semi-circular sections, said closure or stop being adapted to be folded for insertion through the stovepipe hole and into the interior of the flue or chimney to be turned in the flue or chimney for positioning the plane of the closure transversely to the axis of the stovepipe hole, and said closure being adapted to be thereafter extended for positioning said ring portion in the inner end of the stovepipe hole and with the marginal portion of the inner or flat side of the shell engaging the flue or chimney wall around said hole for closing the stovepipe hole at the inner end thereof, the adjacent edges of the sections of the shell portion being constructed and arranged to overlap when in extended position, and one of said shell sections being disposed above the other shell section and with the overlapped portion thereof overlying a portion of the lower shell section, said ring portion having its sections disposed with the ends thereof overlapped and pivotally connected, and certain of said ends being offset inwardly to provide a substantially smooth external surface.

4. A flue stop adapted for closing the inner end of a stovepipe hole in a flue or chimney, said stop comprising a shell portion and a ring portion, said shell portion having a flat side to which said ring portion is secured and an opposite convex side, said shell portion being of substantially greater diameter than the ring portion and each of said portions being substantially circular, said shell portion and ring portion each being formed of pivotally connected substantially semi-circular sections, said ring portion having the ends of its sections in overlapping relationship, and a rod extending diametrically of the ring portion and through said overlapped ends for pivotally connecting the sections of the shell portion and band portion.

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