No. 829,894. PATENTED AUG. 28, 1906.

L. RUSSELL.

FLUE STOPPER.

APPLICATION FILED AUG. 4, 1905.

Fig. 1.

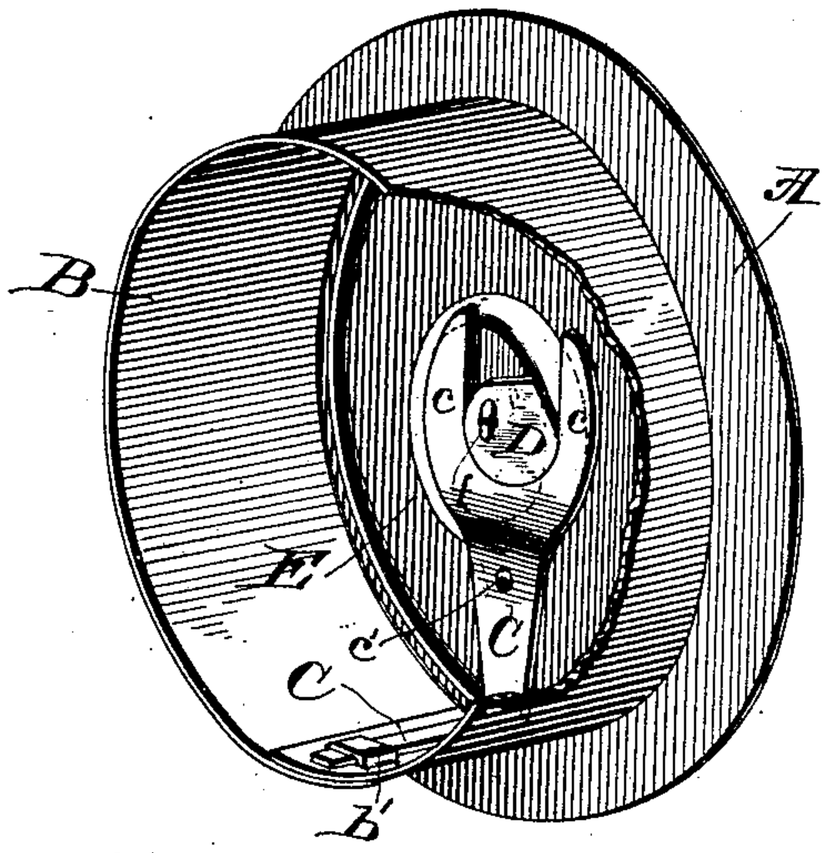


Fig. 2.

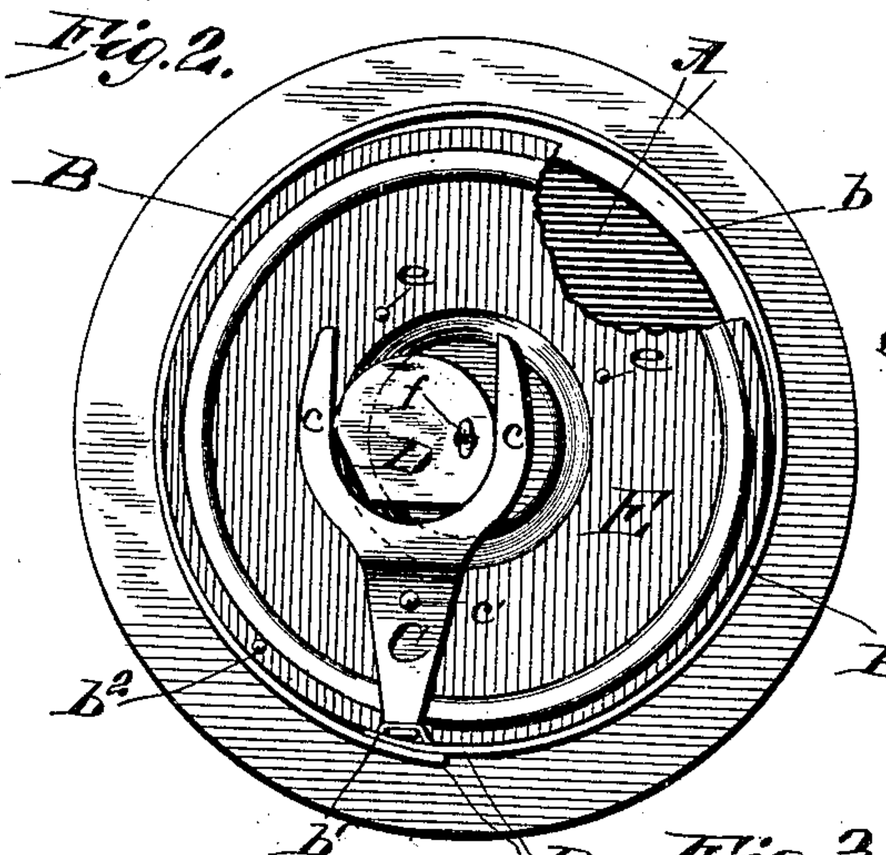


Fig. 5

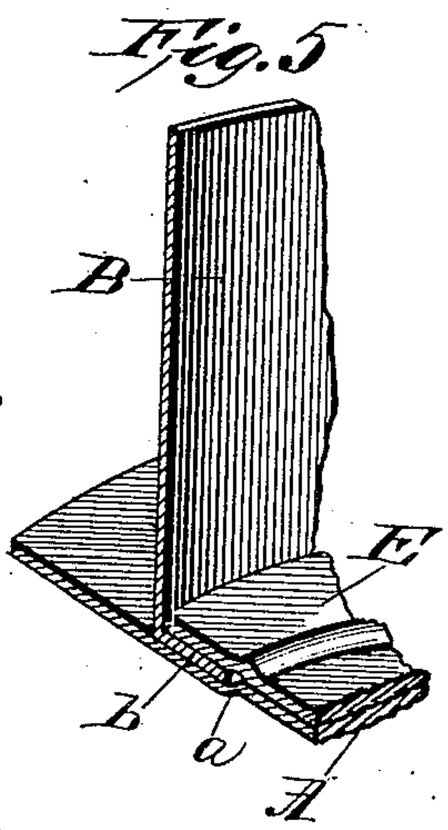


Fig. 6.

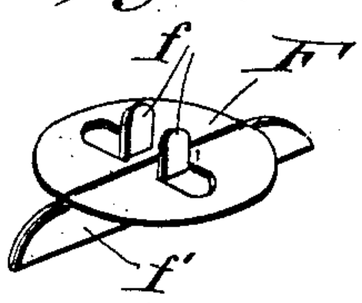


Fig. 3.

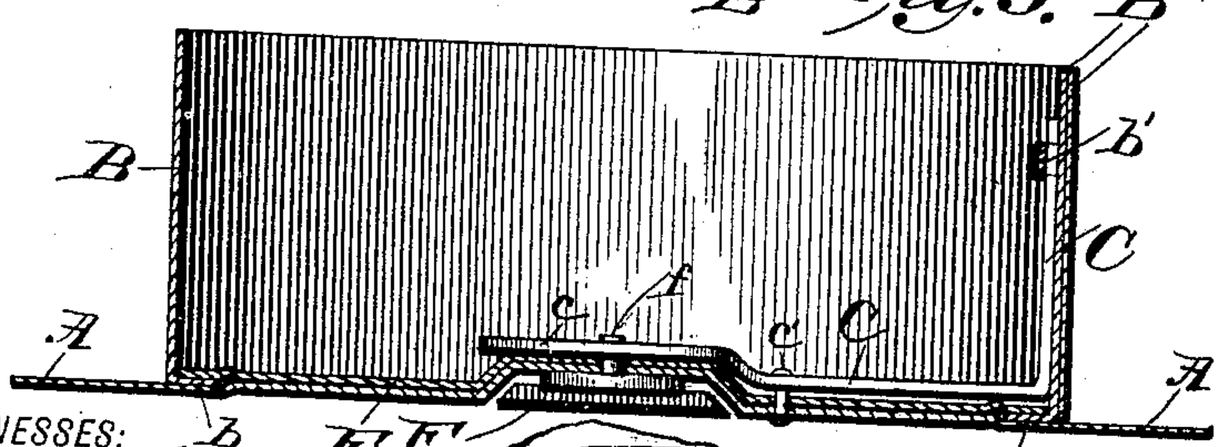
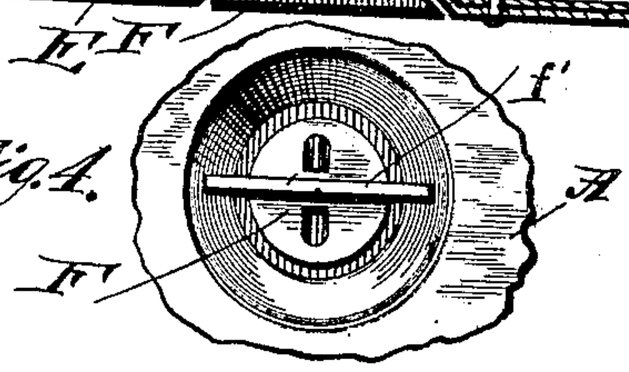


Fig. 4.



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FLUE-STOPPER.

No. 829,894. Specification of Letters Patent. Patented Aug. 28, 1906.

Application filed August 4, 1905. Serial No. 272,675.

To all whom it may concern:

Be it known that I, LOREN RUSSELL, a citizen of the United States, and a resident of Carthage, in the county of Hancock and State of Illinois, have invented an Improved Flue-Stopper, of which the following is a specification.

My invention is an improvement in devices adapted to be inserted in the mouths of flues after removal of a stovepipe or other smoke-conductor therefrom for the purpose of excluding dust or dirt and preventing soot from entering the apartment.

My invention is more particularly an improvement upon the flue-stopper for which I have received Letters Patent of the United States, No. 772,255. In the present invention I have made changes which are important from the standpoint of economical construction and also in view of other advantages.

The details of construction, arrangement, and combination of parts are as hereinafter described, and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view, a portion being broken away, of my improved flue-stopper. Fig. 2 is a plan view of the flue-stopper, a portion being broken away and the movable parts being adjusted differently from the same parts as shown in Fig. 1. Fig. 3 is a transverse section of the flue-stopper. Fig. 4 is a detail plan view of the central outer portion of the flue-stopper. Fig. 5 is an enlarged detail section of a portion of the flue-stopper. Fig. 6 is a perspective view of the thumb-piece.

A indicates the face or head plate of the flue-stopper, and B the circular elastic sheet-metal band, which is adapted to be inserted in the mouth of a flue. This band is provided at its base with an inturned flange *b*, it being in this respect different from the elastic band employed in my aforesaid patented invention, the flange in that case projecting outward and being adapted to fit loosely beneath an annular plate forming an attachment of the rim or edge of the face or head plate. Such inturned flange *b* lies between the head-plate A and the edge of an inner plate E, which is riveted to the head-plate at *e*. (See Fig. 2.) The band B is pivoted to the two plates A E at b^2. (See Fig. 2.) The said plate E constitutes a permanent and fixed attachment of the face or head plate A. Both plates A E may be corrugated circularly as well as radially for the purpose of giving them increased strength and rigidity. The plate A is provided with an offset at *a*, whereby an annular space is left between the offset portion and the edge of the inner plate E, as shown best in Fig. 5, such space being sufficient to receive the aforesaid flange *b* of the elastic band B and to permit it to slide freely therein. The elastic band B is divided transversely, and its ends lap one upon the other, as in my former invention, as illustrated in Figs. 1 and 2. A right-angular lever C, having forks *c*, is pivoted at *c'* to the plates A E and engaged at its outer end with a keeper or loop *b'*, forming an attachment of the inner lap of the elastic band B, while its forked end embraces an eccentric D, which is connected with the two plates A E at the center thereof by means of a thumb-piece F. (See Figs. 4 and 6.) By rotating the eccentric D by means of the thumb-piece the lever C is oscillated on its pivot *c'*, with the result that the elastic band B is contracted or expanded, as the case may be. As shown in Fig. 1, the lever is adjusted in such position as to contract the band B circumferentially to its fullest extent, and in Fig. 2, the eccentric D being thrown in the opposite position, the lever is shifted correspondingly and the band B is expanded correspondingly to its fullest extent. It will be understood that the contracted position is the one required when the flue-stopper is to be inserted in the mouth of a flue and that the second position (shown in Fig. 2) is the one required after such insertion, whereby the band B is thrust into firm frictional contact with the surrounding portions of the flue, so that the flue-stopper is held securely in place.

The thumb-piece F (see Fig. 6) is formed of a sheet-metal blank having rounded ends, angular lateral projections, and tongues *f* produced by cutting the blank on each side of the center and bending the partly-severed parts outward. The blank is bent or folded at the middle in line with the angular projections to form a transverse rib or thumb-piece proper on the outer side. In applying the device F the tongues *f* are passed through the registering holes in the plates A E and eccentric D and then turned outward and bent down on the latter, as shown in Figs. 1 and 2. By this means the thumb-piece is produced very cheaply and the tongues *f* form the pivot of the eccentric as well as connect it with the plates A E.

It is desirable for several reasons that the thumb-piece F shall lie flush with the face of the head-plate A, and for this purpose both such plate and the inner plate E are provided with corresponding depressions at the central point to receive the said thumb-piece, as shown in Figs. 3 and 4.

Among the advantages attained by the new construction and arrangement above described it will be noted that the thickness of the rim of the face or head plate A is greatly reduced as compared with my former invention, the said rim or edge comprising a single thickness of sheet metal, so that the flue-stopper will lie closer to the wall than before, while the thumb-piece F lies flush with the rim of the plate, as shown in Fig. 3.

What I claim is—

The improved flue-stopper hereinbefore described comprising a face or head plate A having a central depression and its rim portion offset at *a*, an inner plate E lying flat upon the central portion of said head-plate and having its rim spaced from the corresponding portion of the head-plate so that a narrow annular space is formed between them, the elastic sheet-metal band B, the same being divided transversely and one end thereof pivoted to said plates and the other left free so that the diameter of the band may be changed as required, the base portion of the band being inturned and arranged in the space between the two plates, a lever pivoted centrally to the inner plate and having its outer end connected with the free end of the elastic band, and an eccentric and thumb-piece secured together and pivotally secured to said plates, the eccentric operatively engaging the inner end of said lever and the thumb-piece lying within the central depression and flush with the exterior face of the head-plate, substantially as described.

LOREN RUSSELL.

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