

No. 853,177.

PATENTED MAY 7, 1907.

G. W. KNAPP.
FLUE HOLE STOPPER.
APPLICATION FILED DEC. 8, 1906.

Fig. 1.



Fig. 2.

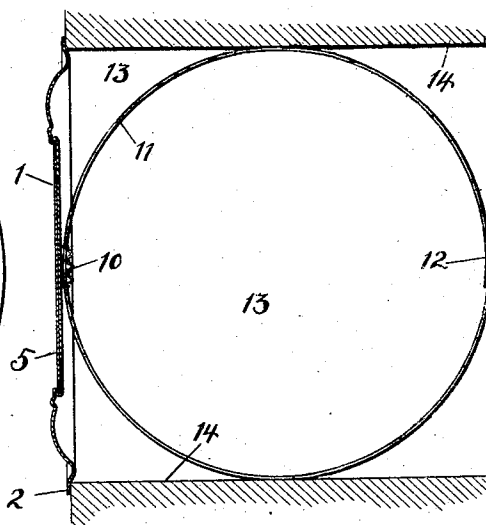


Fig. 3.

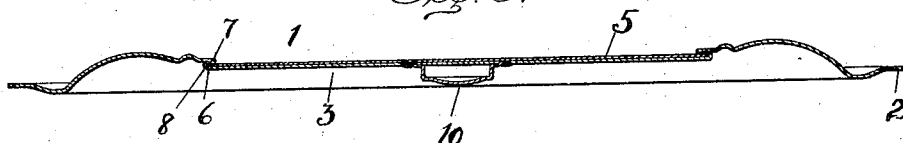


Fig. 4.

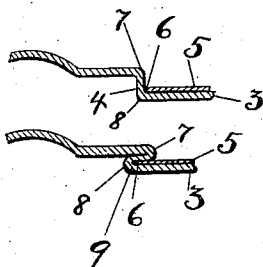
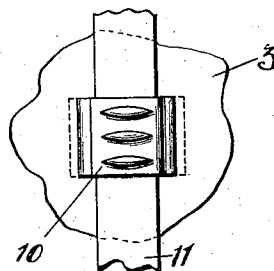


Fig. 5.



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UNITED STATES PATENT OFFICE.

GEORGE W. KNAPP, OF BALTIMORE, MARYLAND, ASSIGNOR TO NATIONAL ENAMELING AND STAMPING COMPANY, A CORPORATION OF NEW JERSEY.

FLUE-HOLE STOPPER.

No. 853,177.

Specification of Letters Patent.

Patented May 7, 1907.

Application filed December 8, 1906. Serial No. 346,834.

To all whom it may concern:

Be it known that I, GEORGE W. KNAPP, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Flue-Hole Stoppers, of which the following is a specification.

This invention relates to improvements in flue hole stoppers and has for its object to provide an ornamental cap or cover for the stove-pipe hole of a flue to be used during that portion of the year when the stove and stove-pipe are removed and not in use.

The present invention has particular reference to the construction of an imperforate sheet-metal stopper with means whereby an ornamental design or a picture on paper or similar material may be attached thereto without exposing the inner surface or any portion of said design or picture to the interior of the flue; and another object is to so construct the stopper that it may be formed from a single imperforate plate or sheet of material.

The accompanying drawing illustrates the invention in which—

Figure 1 shows a front view or elevation of the stopper. Fig. 2, illustrates a central vertical section of the same and also shows a portion of the flue and a device for securing the stopper in position over the flue hole. Fig. 3, shows an enlarged cross-sectional view of the stopper with the securing device removed. Fig. 4, illustrates two fragmentary sectional views of the stopper on an enlarged scale, to show how the ornamental design or picture is attached in place, and Fig. 5, illustrates a fragmentary rear view of the central portion of the stopper showing how the securing device may be attached thereto.

Referring to the drawing by numerals, 1, designates the stopper which, in the present instance has the form of a circular disk of sheet-metal pressed or otherwise made into an ornamental form. The rim edge, 2, of this disk is shaped so as to lie flat against the mouth of the flue opening as will presently be described.

After the disk has been formed it is customary to attach at the center thereof, an ornamental design or picture to produce an attractive appearance, and the present invention relates to the means for attaching the picture.

In the formation of the disk I provide at the center a depressed panel, 3, which entirely closes the center and around the panel is an annular wall, 4, as seen in the upper view of Fig. 4. This depression and annular wall form on the outer surface of the disk a concave annular shoulder, 7, and on the inner surface of the disk a convex circular shoulder, 8.

The ornamental sheet, 5, which may be of any suitable material, such for example as a fabric is placed in the depression, 3, the edge, 6, of which lies close against the annular wall, 4. After the ornamented sheet is placed in said depressed center panel and in contact with the surface thereof, suitable dies are employed to act on the disk, and the annular wall, 4, doubles on itself and takes the position shown in the lower view of Fig. 4, where the concave annular shoulder, 7, overlaps onto the rim edge, 6, of the ornamental sheet, 5. The doubling of the wall, 4, forms an undercut or channel, 9, and by compressing said parts the edge, 6, of the ornamented sheet is held in place.

It will thus be seen that the stopper is formed from a single sheet of metal and that the edge of the ornamented sheet has position in an undercut recess, 9, and is held therein by the compression of the walls of said undercut recess. It will be seen that the paper or other fabric having the picture is backed by the depressed metal panel, 3, and therefore the material of said picture is not exposed to the interior of the flue.

In order to hold the stopper in position in the flue-opening a loop, 10, is provided at the rear of the disk through which a spring ring, 11, passes freely and the ends, 12, of the ring freely overlap each other. The diameter of the ring is normally greater than the flue opening, 13, so that by forcing the ring into said opening the pressure of the spring ring against the wall, 14, of said opening will serve to hold the stopper flange or rim, 2, against the mouth of the flue opening.

It will be seen that the plate from which the stopper is formed is made from a single imperforate piece of sheet-metal and that the ornamental sheet of paper or other fabric is held thereto preferably by means formed integrally therewith.

Having thus described my invention what

I claim as new and desire to secure by Letters Patent is,—

5 A flue-stopper comprising an imperforate sheet-metal disk having a central depression closed by a sheet-metal panel, an annular wall around said panel and an undercut recess flush with the outer surface of the panel and extending all around, and an ornamented sheet of fabric in contact with the surface of
10 said panel and the circular edge of said sheet of fabric projecting into the said annular un-

dercut recess, whereby the ornamented sheet of fabric is held at the front of the panel without exposing any part of the back of the fabric material to the interior of the flue. 15

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE W. KNAPP.

Witnesses:

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