

W. F. GREENLEE.
 WATER GUARD FOR CHIMNEYS.
 APPLICATION FILED JULY 28, 1908.

960,088.

Patented May 31, 1910.

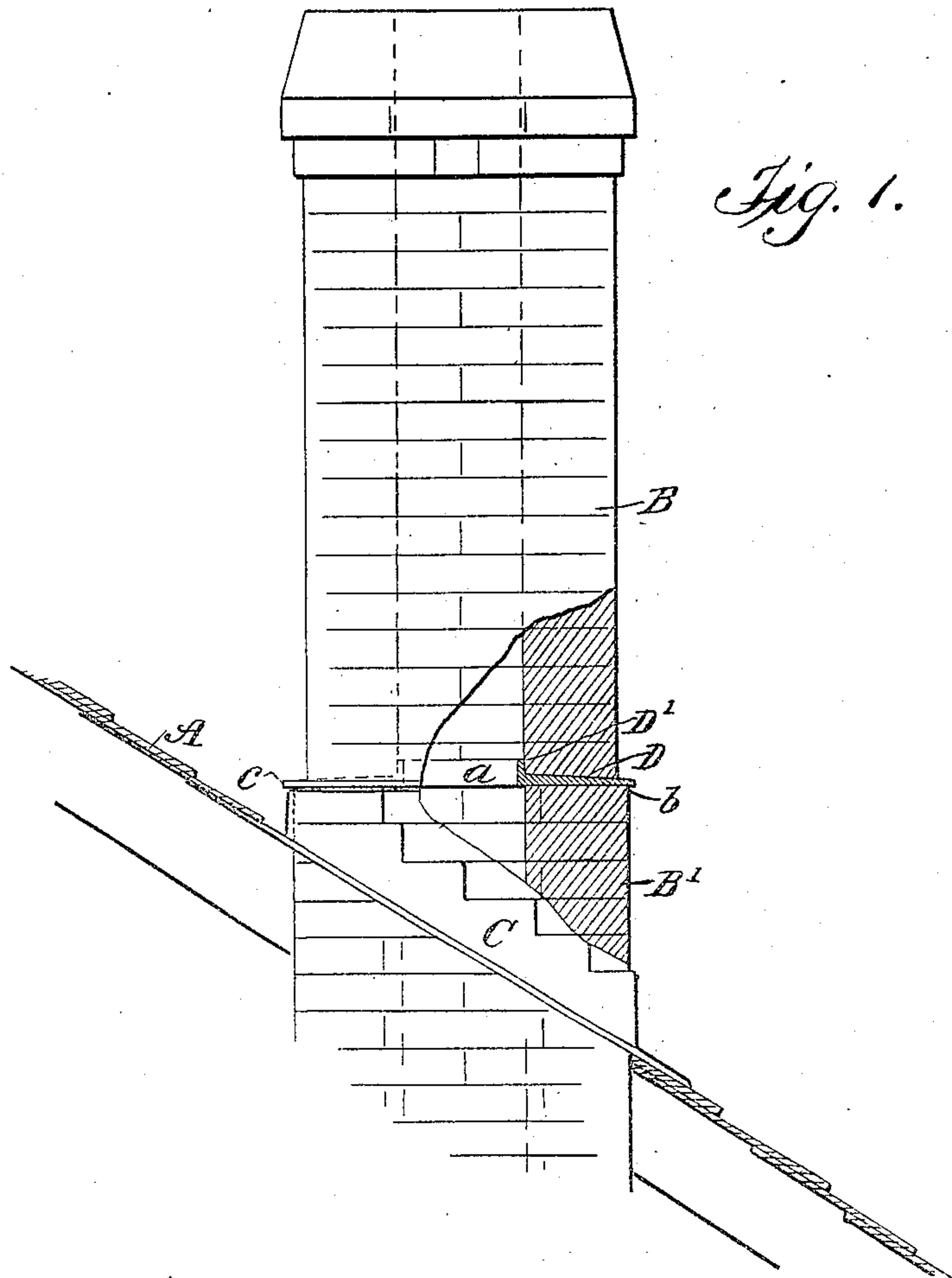
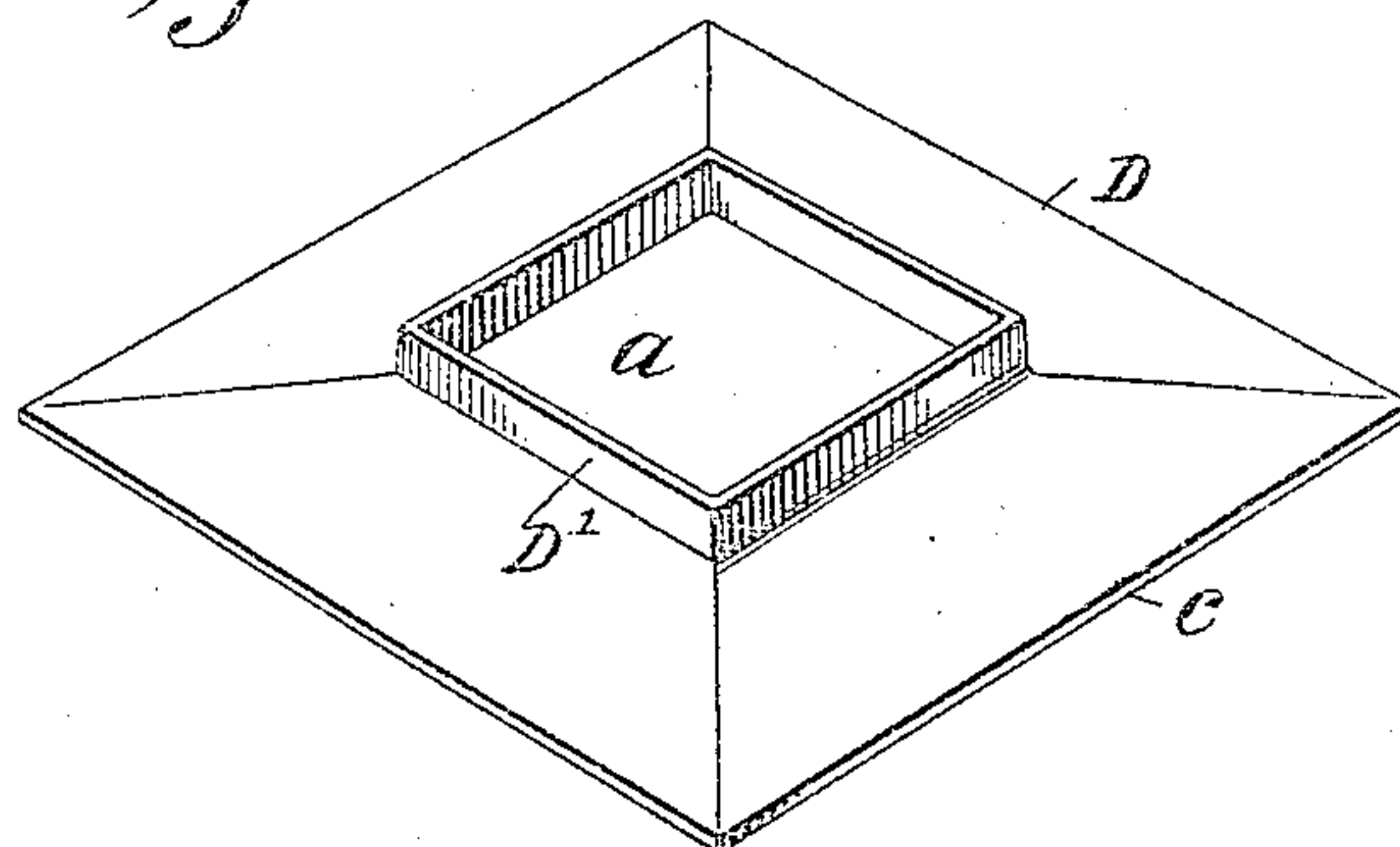


Fig. 2.



WITNESSES

L. Sanford Hendler

Wm. J. Patton

INVENTOR

William F. Greenlee

BY

Wm. J. Patton

ATTORNEYS

UNITED STATES PATENT OFFICE

WILLIAM F. GREENLEE, OF ATCHISON, KANSAS.

WATER-GUARD FOR CHIMNEYS.

960,088.

Specification of Letters Patent.

Patented May 31, 1910.

Application filed July 28, 1908. Serial No. 445,743.

To all whom it may concern:

Be it known that I, WILLIAM F. GREENLEE, a citizen of the United States, and a resident of Atchison, in the county of Atchison and State of Kansas, have invented a new and Improved Water-Guard for Chimneys, of which the following is a full, clear, and exact description.

In the erection of brick draft chimneys for dwelling houses, it is found difficult to prevent rain water from passing down the walls of the chimneys, and soiling the ceilings and side walls of rooms through which the chimneys pass. Practical experience has shown, that this leakage is largely due to the porosity of the brick that forms the chimney, which becomes soaked and by the capillary action of contiguous plaster that forms the inner walls of building, water during a heavy rain fall saturates said plaster walls, frequently causing the mortar to loosen from the laths, thus seriously damaging the walls.

To overcome the defects in the ordinary construction of brick chimneys is the object of my invention, the latter consisting in the peculiar construction of a water guard and its special combination with the walls of a chimney.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in both views.

Figure 1 is a transverse sectional view of a house roof in part, a chimney shown partly broken away at one side, and a partly sectional edge view of the improved water guard built into the chimney; and Fig. 2 is a perspective view of the improved water guard.

In the drawings which illustrate the construction and application of the invention, A indicates a roof, which in this example of house construction is formed of rafters and shingles, although it is to be understood that the improvement is applicable to the chimneys of houses having a different roof construction.

B represents a brick chimney, and C the usual sheet metal flashing, which is secured on the exterior of the chimney at or near the roof A, whereon it is also secured, for preventing water during rain storms from following down the chimney on the outer surface thereof, and thus passing into the

upper rooms through which the chimney passes.

At a suitable point near to the roof A, the improvement is embedded in the walls of the chimney; and as represented in Fig. 2, said improvement consists of a rectangular shaped metal plate D preferably but not necessarily cast into form. The guard plate D is centrally apertured, said aperture *a*, which is rectangular in contour has a rectangular flange D'. From the flange D' the upper surface of the plate D inclines downwardly, slightly toward each edge thereof which is parallel with a respective side of the flange D', as shown in the sectional portion of the guard plate in Fig. 1. It will be noted that the portion B' of the chimney which is adjacent to the inclined roof A is of somewhat greater diameter than the main portion of the chimney.

In building the chimney, when the walls thereof have the offset *b* formed by an increase of diameter as specified, the improved guard plate D is seated upon the top course of brick that terminates the portion B' of the chimney, the flange D' being flush at the inner surface thereof with the inner surface of the chimney so far as the latter is erected. It will be noted in Fig. 1 that the improved guard plate D, when in position, projects slightly beyond the lower portion of the chimney upon which it rests, thus providing an overhanging flange *c*. Upon the guard plate D the main portion of the chimney B is erected, as shown in Fig. 7, and may have the diameter thereof reduced as therein indicated. It will be seen that rain which may saturate the brick and the mortar joints between them, cannot pass the flange D', but will be conducted outwardly upon the top surface of the guard plate, above the flashing C, and the latter will prevent water from passing down the outer surface of the chimney as usual, so that rain that may saturate the chimney will be prevented from contacting with the walls and ceilings of rooms through which the chimney is built.

It is to be understood that the position of the chimney on the roof is not material, as the improvement may be combined therewith whether the chimney is positioned on the comb or the side of a pitched roof. Furthermore, the improved guard plate may be combined with a chimney that is not built with an off-set, and afford as good results as

is obtained when the shoulder *b* is formed on chimneys.

Having described my invention, I claim as new and desire to secure by Letters Patent:

5 A water guard for a chimney, comprising a plate having a central opening for registering with the draft opening of the chimney, said opening having a marginal upwardly extending flange adapted to engage
10 the inner wall of the chimney, the upper

surface of the plate being inclined downwardly from the central opening to the outer edge thereof for the purpose specified.

In testimony whereof I have signed my name to this specification in the presence of 15 two subscribing witnesses.

WILLIAM F. GREENLEE.

Witnesses:

MARION M. BALDWIN,
THOMAS J. SEEVER.