

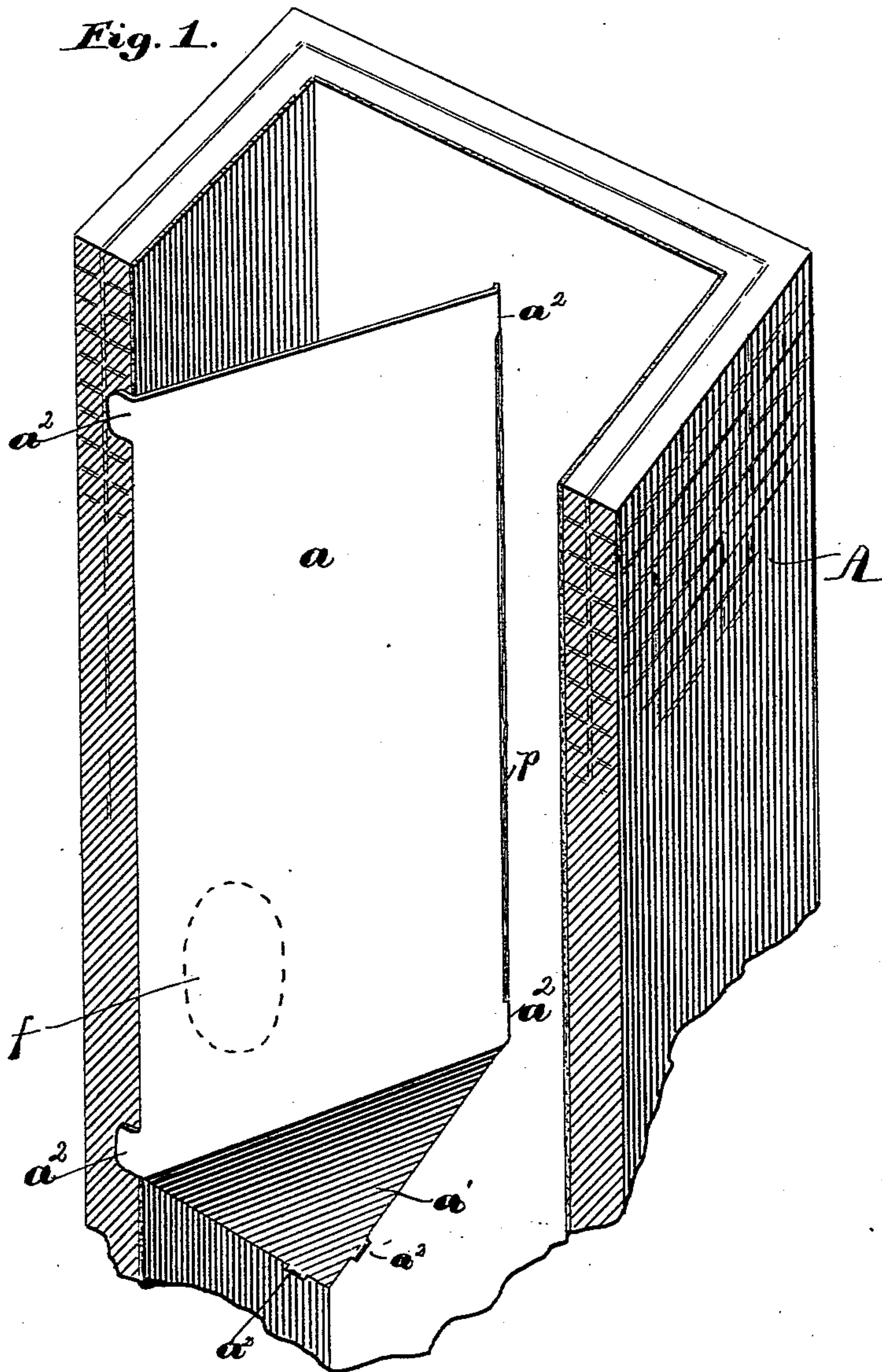
(No Model.)

P. J. MITCHELL.  
DRAFT APPLIANCE FOR CHIMNEYS.

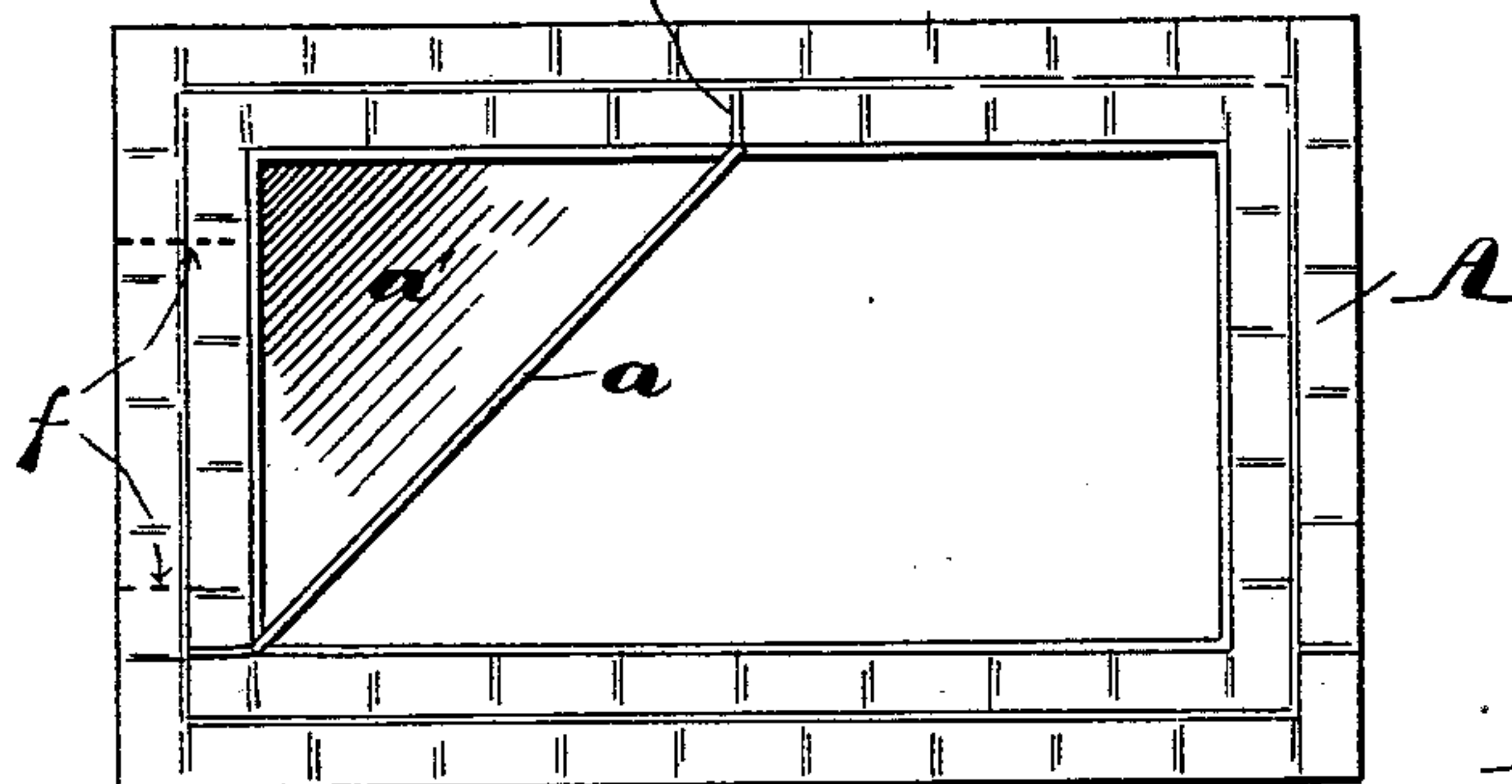
No. 560,169.

Patented May 12, 1896.

*Fig. 1.*



*a² Fig. 2.*



*Witnesses:*  
*Walter E. Lombard.*  
*Thomas F. Drummond.*

*Inventor:*  
*Patrick J. Mitchell,*  
*by Lewis Gregory, Attys.*



# UNITED STATES PATENT OFFICE.

PATRICK J. MITCHELL, OF BOSTON, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO JAMES J. BARRY, OF JAMAICA PLAIN, MASSACHUSETTS.

## DRAFT APPLIANCE FOR CHIMNEYS.

SPECIFICATION forming part of Letters Patent No. 560,169, dated May 12, 1896.

Application filed March 2, 1896. Serial No. 581,518. (No model.)

*To all whom it may concern:*

Be it known that I, PATRICK J. MITCHELL, of Boston, county of Suffolk, and State of Massachusetts, have invented an Improvement in Draft Appliances for Chimneys, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

10 This invention relates to appliances for creating or improving the draft of a chimney, particularly a chimney wherein a single flue rising through several floors of a building is provided with a funnel-opening for a stove or  
15 heater on several floors, one above another. In flues of this nature much difficulty is experienced in obtaining good drafts, principally because the flue will draw mostly from the upper funnel-openings or floors, and again  
20 the presence of an air-space of one or more floors in depth below any funnel-opening tends to lessen the draft at said opening.

The object of my invention is to provide a device which may not only be built into a  
25 chimney when the latter is constructed, but also and preferably one which is capable of being conveniently placed in a chimney already built for improving the draft of any of its flues.

30 My improved draft device consists of a preferably metal plate, for the best results rectangular and oblong, provided at its edges with suitable means for securing it cornerwise in a flue to thereby divide the flue into  
35 independent parts or sections at or near the funnel-opening, the lower end of this plate being tapered or pointed to enable the plate to be bent or curved inwardly to fit the corner of the flue and thereby form a sort of  
40 pocket through which the funnel-opening enters. This device thus positioned diverts the column of air rising from below to the opposite side of the flue until it is beside the funnel-opening or pocket at such distance as will  
45 enable it to proceed without interfering with the draft of said opening, it then acting to increase the draft out from the top of the pocket formed by the draft device, so that the draft through the funnel-opening is not only pro-  
50 tected from interference by the column of air rising from below, but said draft is really in-

creased by drawing suction of the said column of air, as described.

In the drawings, Figure 1, in sectional perspective, shows a draft device embodying my  
55 invention placed in position in the flue; and Fig. 2, a horizontal section through a flue of a chimney, showing the device in position.

Referring to the drawings, A indicates a chimney of usual construction and shown as  
60 containing but a single flue, the side of the chimney being broken away to expose the draft device *a* embodying my invention arranged in position without the flue.

My novel draft device, as shown, consists  
65 of an oblong plate, preferably with straight sides and provided with a lower tapering or pointed end *a'*.

I preferably provide the plate *a* with suitable fastening devices or ears *a<sup>2</sup>*, which may  
70 be inserted in recesses or pockets formed in the walls of the chimney, as shown, or may be shortened and simply sprung into the creases between the bricks, the natural resiliency of the metal of which the device is made being  
75 then sufficient to hold the device in position. The lower pointed end *a'* is then bent inwardly into the extreme corner of the flue, as shown, said pointed end being also, as shown, pro-  
80 vided with one or more of the fastening devices *a<sup>2</sup>*.

The device is arranged, as described, directly opposite a funnel-opening, of which one is shown at *f* in dotted lines, Fig. 1, and for the best results the joint between the draft  
85 device and the interior of the flue will be made air-tight by use of mortar or other packing material, (indicated at *p*.) The device thus placed forms an open-top pocket in the flue immediately back of the funnel-opening, the  
90 result being that any column of air rising in the flue from below is diverted by the inclined end or pocket-bottom *a'* to the opposite side of the flue away from the funnel-opening *f*, and as said column of air rises in the flue  
95 above the top of the device *a* it creates a sort of draft or suction to increase the draft from the pocket, and therefore through the funnel-opening *f*.

The device may be of material of such flexi-  
100 bility as will enable it to be inserted through the funnel-opening *f*, but preferably a por-



tion of the brickwork surrounding the funnel-opening will be removed to give free access for placing the device in position.

The device is adapted to be placed in any of several flues of a single chimney and at each floor thereof, and the particular shape of the pointed end *a'* will be varied to fit the corner, according to the particular angle at which the device is placed.

My invention is not limited to the particular shape shown.

I claim—

1. The within-described draft-plate for chimneys, the same being provided with a lower pointed end to adapt it for fitting the corner of a flue, substantially as described.

2. The within-described draft-plate for chimneys, the same being provided with a lower pointed end adapted to be bent inwardly to fit the corner of the flue and provided at its edges with suitable fastening devices to

enable said plate to be secured in position, substantially as described.

3. The within-described flexible draft-plate, the same being provided with a lower pointed end to adapt it for fitting the corner of a flue, substantially as described.

4. The combination with a flue and with a funnel-opening entering said flue, of a draft-plate arranged cornerwise in said flue opposite said funnel-opening, and provided with a lower pointed end bent inwardly into and to fit the flue-corner, to thereby form an open-top pocket into which said funnel-opening enters, substantially as described.

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

PATRICK J. MITCHELL.

Witnesses:

FREDERICK L. EMERY,  
THOMAS J. DRUMMOND.