

No. 865,023.

E. P. DOTY.
CHIMNEY TOP.
APPLICATION FILED DEC. 26, 1906.

PATENTED SEPT. 3, 1907.

Fig. 1.

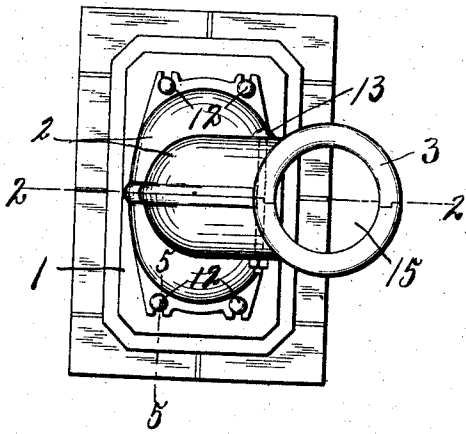


Fig. 3.

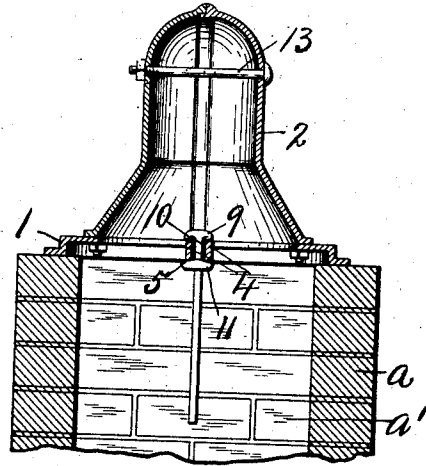


Fig. 2.

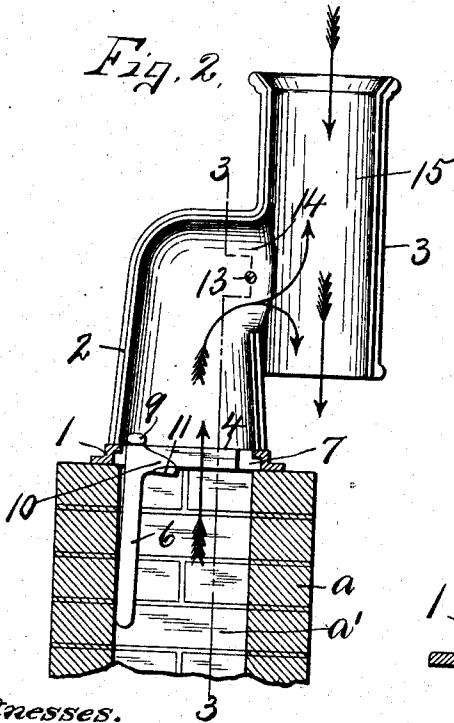


Fig. 4.

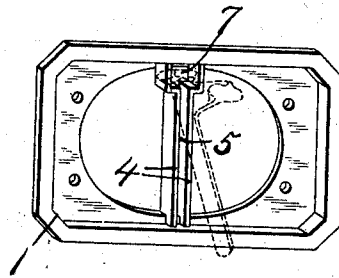


Fig. 6.

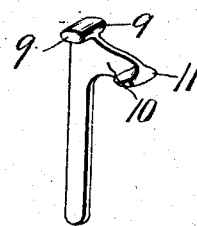
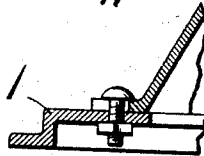


Fig. 5.



Witnesses.

A. C. Thomas.
W. C. Chase

Inventor.
E. P. Doty

By.
Howard P. Driscoll
Attorney.

UNITED STATES PATENT OFFICE.

ELLSWORTH P. DOTY, OF MERIDIAN, NEW YORK.

CHIMNEY-TOP.

No. 865,023.

Specification of Letters Patent.

Patented Sept. 3, 1907.

Application filed December 26, 1906. Serial No. 349,395.

To all whom it may concern:

Be it known that I, ELLSWORTH P. DOTY, of Meridian, in the county of Cayuga, in the State of New York, have invented new and useful Improvements in Chimney-Tops, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to certain improvements in chimney-tops or extensions and refers more particularly to a flue-extension having an offset-flue open at the top and bottom at one side of the main flue with which it communicates for the purpose of relieving the main flue from back-drafts or down currents, and at the same time permitting the escape of the products of combustion, as smoke, either through the top or bottom of the offset-flue.

The offset of the chimney-top is necessarily at one side of the main flue of the chimney and the extension is, therefore weighted, or overbalanced toward the side of the offset tending to tilt the chimney-top downwardly in the direction of such offset.

One of the essential purposes, therefore, of my present invention is to provide adjustable means co-acting with the inner side of the chimney-flue to counter-act this tendency to tilt, or rather to counteract the extra weight of the extension at one side of the axis of the main flue.

Other objects and uses relating to the specific structure of the chimney-top and its retaining means will be brought out in the following description.

In the drawings—Figure 1 is a top plan of my improved chimney-top shown as operatively mounted upon a chimney. Figs. 2 and 3 are sectional views taken respectively on lines 2—2, Fig. 1 and 3—3, Fig. 2. Fig. 4 is an inverted plan, in perspective, of the base of the chimney-top. Fig. 5 is an enlarged detail sectional view taken on line 5—5, Fig. 1. Fig. 6 is a perspective view of the detached bracket or retaining-bar for the chimney-cap.

My improved chimney-cap is adapted to be mounted upon the top of a suitable chimney, as —a—, having a flue *a'*, said cap being preferably made of cast iron or equivalent metal and consists of a base-section —1— and an angular flue section comprising two upright portions —2— and —3—.

The base-section —1— preferably consists of an open frame made in one piece and slightly larger in its outer dimensions than the cross sectional area of the flue —a'— and is adapted to rest upon the top of the chimney —a— with its central opening registering with the upper end of the flue —a'—. These flues are usually made rectangular in cross section and the base —1— is also rectangular in top plan and comparatively shallow vertically so as to form a convenient supporting base for the angular extension —2— and —3—, the

opening through said base being, in this instance, oval or oblong, as best seen in Fig. —4—.

The opposite sides of the open frame or base —1— are tied together by integral transverse bars —4— which are parallel and spaced apart a slight distance forming an intervening transverse slot or elongated opening —5— for the reception of one end of an adjustable bracket or retaining bar —6—, presently described. These bars —4— are offset laterally near one end a greater distance apart than the remaining portions of the bars so as to form an enlarged socket —7— in one end of greater transverse width than that of the slot —5— to permit the insertion and removal of the adjustable bracket —6— into and out of operative connection with the bars —4—, as will be hereinafter more fully described. The plate —1— may be secured to the top of the chimney in any well known manner, and constitutes a convenient means for holding the top bricks of the chimney from loosening, but its essential use in this particular case is to afford a convenient means for attaching the extension to the chimney and for receiving the bracket —3— which holds the extension in operative position. This bracket —6— consists of a comparatively long bar of cast iron or similar metal of substantially the same transverse width or thickness as the slot —5— in which it is adjustable, the upper end of said bar being widened to form oppositely projecting lugs or bearings —9— of greater transverse width than the slot —5—, but of slightly less transverse width than the socket —7— at one end of the slot so as to permit this end of the bar to be inserted from the bottom upward through the socket —7— to bring the lugs or projections —9— into registration or engagement with the upper edges of the bars —4— when the bracket —6— is adjusted lengthwise of the bars —4— from the socket —7—. This bracket —6— is also provided with a laterally projecting arm —10— sliding in the slot —5— and having opposite laterally projecting shoulders —11— in a plane below the shoulders —9— for engagement with the underside of the bars —4—, as best seen in Figs. 2 and 3.

It will now be seen upon reference to Fig. 2 that the shoulders —9— and 11— engage respectively the upper and lower edges of the bars —4— in different vertical planes, one in advance of the other lengthwise of the slot —5—.

The bracket —6— is assembled upon the plate or base —1— before the latter is placed upon the chimney and as soon as the base —1— is properly registered with the flue *a'*— the bracket —6— is adjusted so that its depending arm engages the inner face of one side of the flue —a—; that is, one edge of the bracket —6— is brought against the inner side of the chimney some distance from the top or plate —1—, the shoulders —11— engaging the underside of the plate —1— or

bars —4— some distance inwardly from the vertical plane of contact of the lower end of the bracket —6— with the inside of the chimney and toward the weighted side —3— of the extension —2—. This adjustment of the bracket —6— is usually made before the extension —2— is placed upon its base —1—, that is, the base is securely locked in place by the bracket —6— and then the extension —2— is secured to the base —1— by suitable clamping bolts —12—, as best seen in Figs. 1 and 5. These upright extensions —2— and —3— are preferably made in sections for convenience of casting, being divided vertically through their longitudinal centers and having their meeting edges provided with lapping joints, as best seen in Fig. 3, the opposite sections being drawn together by one or more clamping bolts 13— located preferably at the junction of the uprights 2— and —3— and are further held together by the one-piece base-plate —1— and clamping bolts 12.

The upright portion —3— communicates through a branch passage —14— with the lower upright —2— and is formed with a vertical opening —15— extending therethrough from top to bottom and terminating in planes above and beneath the branch passage —14— so as to afford a direct vertical passage at one side of the flue *a'*— for back-drafts or down currents of air, thereby preventing such back-drafts or down currents from entering the chimney flue.

The base-plate —1— and bracket —6— are first assembled in the manner previously described, after which the base-plate is placed upon the top of the chimney with the bracket —6— depending into the flue —*a'*—, said bracket being adjustable lengthwise in the slot —5— until its outer edge or lower end comes in contact with one side of the flue, the shoulders 9 and 11— engaging respectively the upper and lower edges of the bars —4— at different distances from the vertical plane of the side of the flue which is engaged by the bracket. The flue extensions —2— and —3— which are divided vertically through their longitudinal centers are then placed upon and secured to the base-plate

—1— by the bolts —12—; that is, the base of the lower flue —2— is secured to the base plate —1— while the upper flue portion —3— is offset to the side of the flue opposite to that which is engaged by the bracket —6—, thus producing an over-balancing weight at one side of the extension tending to tilt the extension and its base —1— upon the adjacent edge of the base-plate, but such tilting tendency is counter-acted by the bracket —6— engaging the adjacent side of the flue or chimney —*a*—.

By extending the upright flue —3— above and below the branch —14— leading from the lower portion —2— of the chimney top and leaving the opposite ends of such upright —3— open at the bottom as well as at the top, it is obvious that any down current of air entering the top of the extension —3— simply passes out through the bottom of such upright —3—, thereby creating a draft past the branch opening 14— which draws the smoke upwardly and downwardly through the lower upright 2— and from the chimney, thus preventing back-draft through the chimney.

What I claim is:

1. A chimney-top comprising a base-frame mounted on the top of the chimney around its flue and provided with a transverse slot, a bracket having one end adjustably connected to and interlocked with the sides of the slot, and its other end depending into and engaging one side of the chimney-flue, a tubular extension secured to the base-frame and having a lateral passage, a second extension integral with the first named extension and provided with a vertical opening therethrough at one side of the opening in said first-named extension and communicating with the lateral passage.

2. A chimney-top having two intercommunicating passages disposed side by side in different vertical planes, one of the passages being open at the top and bottom, and a bracket in the lower end of the other passage adjustably interlocked with the chimney-top and engaging the inner side of the chimney-flue.

In witness whereof I have hereunto set my hand this 18th day of December 1906.

ELLSWORTH P. DOTY.

Witnesses:

DORA Q. DOTY,
HOMER E. DOTY.