No. 706,450. Patented Aug. 5, 1902.

C. J. QUINN.

CHIMNEY TOP.

(Application filed June 12, 1901.)

(No Model.)

Fig. 1.

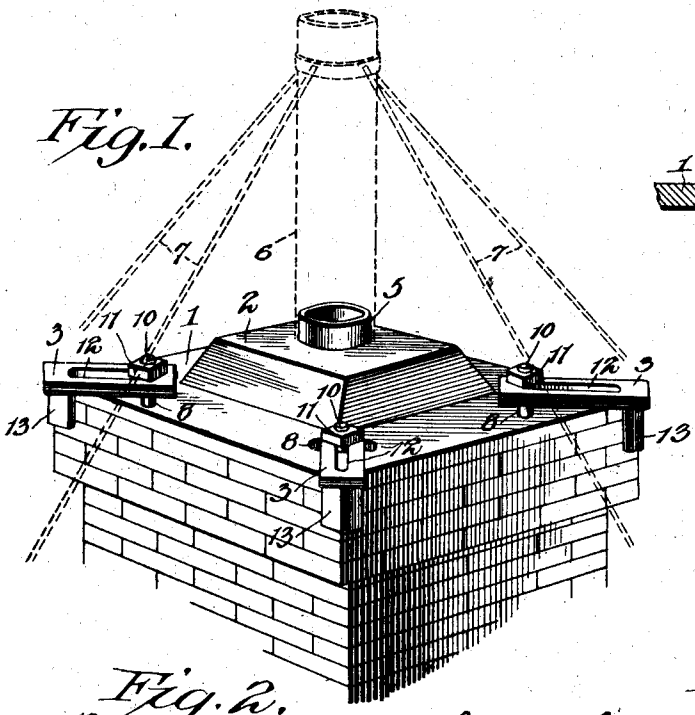


Fig. 5.

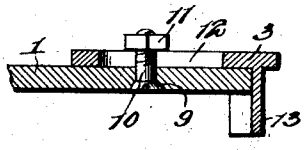


Fig. 2.

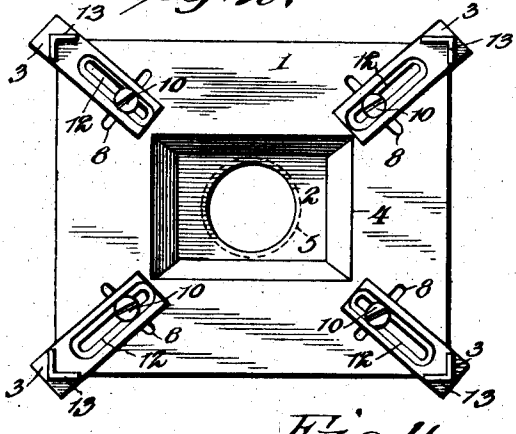


Fig. 3.

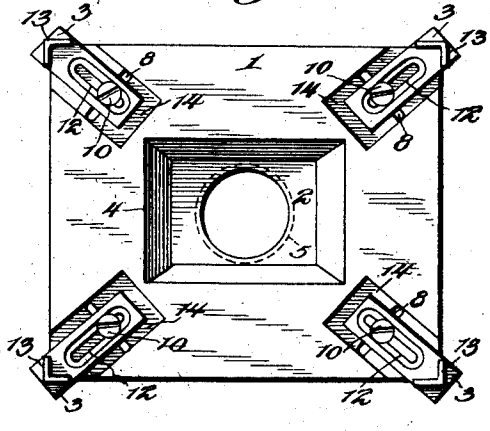
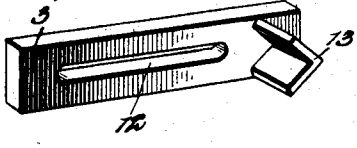


Fig. 4.



Witnesses:
Howard D. Orr.
R. M. Elliott.

C. J. Quinn, Inventor:
By E. G. Siggers.
Attorney.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

CHARLES J. QUINN, OF SCRANTON, IOWA.

CHIMNEY-TOP.

SPECIFICATION forming part of Letters Patent No. 706,450, dated August 5, 1902.

Application filed June 12, 1901. Serial No. 64,304. (No model.)

To all whom it may concern:

Be it known that I, CHARLES J. QUINN, a citizen of the United States, residing at Scranton, in the county of Greene and State of Iowa, have invented a new and useful Chimney-Top, of which the following is a specification.

This invention relates to chimney-caps, and more particularly to that class wherein adjustable means is provided to permit the cap to be properly fitted upon a chimney.

The object of the present invention is to present a simple form of clamping means for holding the chimney-cap in position upon a chimney irrespective of the size or contour of the chimney with relation to the cap—that is to say, to effect proper fitting of the cap upon the top of the chimney whether the same be somewhat larger or smaller than the cap or whether the contour of the chimney be true—that is, a true square or true rectangle.

Heretofore in devices of this character a salient defect has been that unless the chimney-top closely approximated the area of the chimney-cap plate the means employed for securing the cap in place on the chimney would be rendered inoperative for the purpose designed, the principal reason being that provision would be made for effecting adjustment of the holding means in one direction only, and in some instances no provision is made at all for adjustment. At best the adjustment provided has been limited in character, and for this reason, as above pointed out, unless the chimney-cap plate very nearly agreed with the size of the top of the chimney it could not be secured thereto. In the device of the present invention provision is made to permit the clamps or holding means of the cap-plate to be brought into contact with the corners of the chimney even if the chimney is considerably larger than the plate or the plate considerably larger than the chimney-top, and in addition to this means is provided whereby should the chimney-top be out of true—that is to say, if the chimney-top is not a true square or a true rectangle—the holding means will still be effective for performing the functions designed.

With these and other objects in view, as will appear in the further presentation of the case, the invention consists in the novel construction and combination of parts of a chimney-cap, as will be hereinafter fully described and claimed.

In the accompanying drawings, forming a part of the specification, and in which like numerals of reference indicate corresponding parts, I have illustrated a form of embodiment of my invention, together with a few modifications thereof, all capable of carrying my ideas into effect, it being understood that other forms of embodiment thereof may be employed without departing from the spirit of the invention, and in these drawings—

Figure 1 is a view in perspective, exhibiting a chimney supplied with a chimney-cap embodying the preferred form of my invention, the smoke-pipe communicating with the cap being indicated by dotted lines. Fig. 2 is a view in inverted plan of a modified form of the invention. Fig. 3 is a similar view of a still further modification of the invention. Fig. 4 is a detail view in perspective of one of the plates for holding the cap in place upon the chimney. Fig. 5 is a sectional detail view through one corner of the cap, showing more particularly the contour of the slot in which the clamp-holding screws or bolts work.

Referring to the drawings and to Fig. 1 thereof, 1 designates the base or cap plate, 2 a smoke-chamber carried thereby, and 3 the cleats or clamps associated with the plate for securing the same upon a chimney. The plate 1 is to be of any preferred contour, either square, rectangular, or polygonal; but for ordinary purposes it will be rectangular, as most chimneys are so shaped in cross-section. In the center of the plate is an opening 4, (shown in Figs. 2 and 3,) preferably rectangular in shape, and covering this opening is the smoke-chamber 2, the same being in this instance a hollow truncated pyramidal structure, either integral with the plate or secured thereto, as may be preferred, the upper face of the chamber being provided with an orifice surrounded by a collar or rim 5 to constitute a means of attachment for a smoke-escape pipe 6, (indicated in dotted lines in Fig. 1,) the pipe to be rendered rigid and held against vibration by guy-wires 7, (also indicated by dotted lines in the figure,) the wires to be secured to the pipe and to the

roof of a house supporting the chimney. The smoke-chamber 2, formed in part by the walls of the opening 4 and by the sides, ends, and top of the smoke-chamber, is, as stated, by preference pyramidal in shape, this form being advantageous, as it serves to concentrate the smoke and direct it toward the smoke-pipe, and, further, the inclined trend of the walls of the chamber increases the facility with which the structure may be cast, as it will be readily apparent that the drawing of the pattern of the cap from the molding-sand when made in this form will be easily accomplished. The invention, however, is not to be restricted to the exact shape of smoke-chamber herein shown, as other forms of smoke-chambers may be employed and still be within the scope of the invention.

At each corner of the plate 1 and extending in this instance at an angle of forty-five degrees to each side and end is a slot 8, the edges of the lower walls of which are inclined or cut away, as shown at 9 in Fig. 5, to seat the head of a bolt 10, which extends upward above the plate 1 and is engaged by the cleat 3, a nut 11, carried by each plate, serving to clamp the cleat firmly in position. The object for having the bolts inset as described is to permit the under surface of the plate to present an unbroken plane, so that a tight juncture between the chimney-top and the plate may be effected; but it is to be understood that these bolts may project beyond the under face of the plate, as when the plate is set upon the chimney there is always provided a bed of mortar to render the union between the plate and the chimney smoke-tight, and in this bed of mortar the bolt-heads would sink.

Each cleat 3 comprises a rectangular piece of metal having a slot 12 extending through the greater portion of its length and having at one end a V-shaped clamping-lug 13, the members of which are pitched at an angle preferably of about forty-five degrees to each other, these lugs to bear against the corners of the chimney, as clearly shown in Fig. 1. The cleats and lugs are by preference made integral; but they may be made of separate pieces suitably assembled. The lugs are to project beyond the face of the cleat such distance as when positioned upon the chimney they will bear against the second row of bricks from the top or coping; but it is to be understood that they may be made longer or shorter and still be within the scope of the invention. As shown in Fig. 1, the cleats rest upon the top of the cap-plate 1; but should it be desired to place them on the under side of the cap-plate this may be readily effected by simply reversing their positions, as shown in Fig. 2. When this is done, the bed of mortar, to which reference has been made, will fill the space between the under side of the plate 1 and the top of the chimney, so that the slight elevation of the plate from the chimney by the cleats bearing thereon will not be objectionable. When the cleats are positioned upon the under side of the plate, the ends of the bolts will project above the top of the plate, and on these ends the nuts 11 will be screwed. Instead of having the cleats positioned as shown in Figs. 1 and 2—that is to say, either bearing upon the upper side or the under side of the cap-plate—the cleats may be housed in recesses 14, as shown in Fig. 3, these recesses being disposed diagonally in the plate and of such depth that when the cleats are placed therein they will lie flush with the under side of the plate. The recesses are to be of greater width than the cleats, whereby to permit of lateral adjustment through the slots 8, while the slots 12 of the cleat will permit of lengthwise adjustment. If desired, in some instances the corners of the upper side of the plate may be provided with recesses 14, disposed and coacting with the cleats in the same manner as that shown in Fig. 3, and as such an arrangement will be readily understood illustration is deemed unnecessary.

From the foregoing description it will be readily understood that in placing the cap-plate upon a chimney it is immaterial whether the chimney be a true square or rectangle, as if it is out of true the two adjustments provide for the cleats—that is to say, the lateral adjustment through the slots 8 and the lengthwise or longitudinal adjustment through the slots 12 will permit of the clamping-lugs 13 being brought into exact and rigid contact with the four corners of the chimney. In seating the cap upon a chimney-top a bed of mortar or cement is just spread upon the top row of bricks. The cap is then placed in position, and cleats are then adjusted to bring the clamping-lugs tightly against the corners of the chimney, and the nuts 11 are then tightened to clamp the cleats in place. To remove the cap from the chimney, it will only be necessary to loosen the nuts 11 and break the cap loose from its attachment with the bed of mortar.

From the foregoing it is thought that the construction, operation, and many advantages of the herein-described invention will be apparent to those skilled in the art without further description, and it will be understood that various changes in the size, shape, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

What I claim is—

1. In a chimney-top, a rigid cap-plate and radial chimney-engaging clamps which are longitudinally and laterally adjustable independent of the cap-plate.

2. In a chimney-top, a cap-plate provided with diagonally-disposed corner-slots, in combination with cleats having means for engaging the slots, and corner-clamping lugs carried by the cleats.

3. In a chimney-top, a cap-plate provided

with diagonally-disposed slots, slotted cleats carrying corner-clamping lugs, bolts passed through the slots of the plate and the cleats, and nuts carried by the bolts.

4. A chimney-cap having chimney-engaging clamps which are adjustable laterally and longitudinally, the cap and each clamp having crossed slots, and adjustable fastenings piercing the respective crossed slots of the clamps and cap.

5. A rigid polygonal chimney-cap having chimney-engaging clamps located at the corners thereof and both laterally and radially adjustable independent of the cap.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

CHARLES J. QUINN.

Witnesses:
P. A. ROEDER,
D. B. MCCLURE.