T. MARTIN.

CHIMNEY CAP.

APPLICATION FILED MAR. 20, 1909.

935,213. **Patented Sept. 28, 1909.**

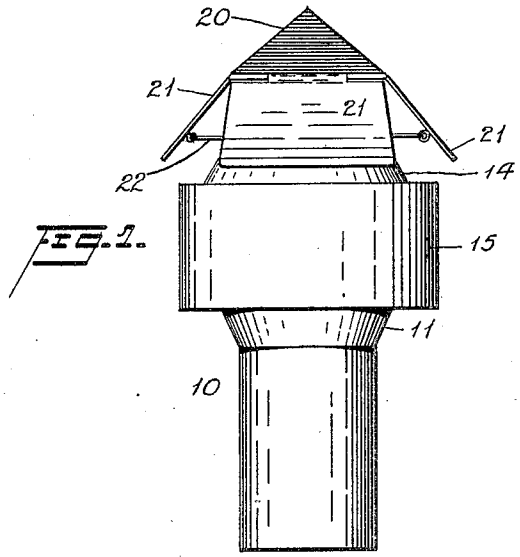

FIG. 1.

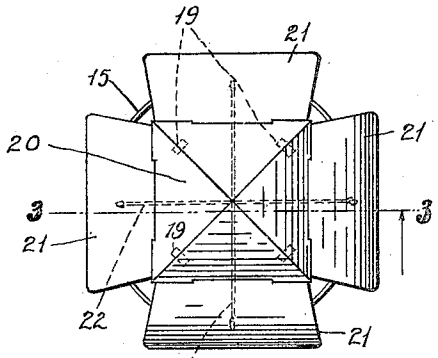

FIG. 2.

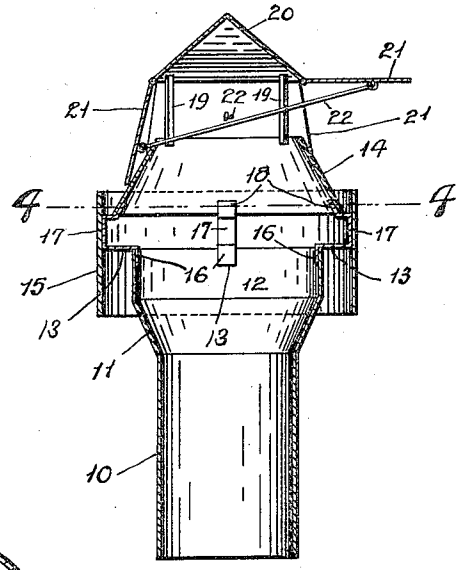

FIG. 3.

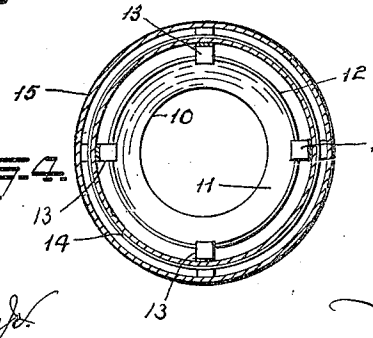

FIG. 4.

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CHIMNEY-CAP.

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Application filed March 20, 1909. Serial No. 484,753.

To all whom it may concern:

Be it known that I, THEOPHIL MARTIN, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain Improvements in Chimney-Caps, of which the following is a specification.

The objects of this invention are to provide a chimney cap which shall give a good draft notwithstanding any wind that may be blowing; to prevent such wind having any effect on the chimney cap by closing the chimney cap against such wind; to enable the chimney cap to automatically close against the wind and at the same time open to a larger extent upon the opposite side so that the capacity or passage of the chimney cap is not restricted; to secure a simple and inexpensive construction, and to obtain other advantages and results as may be brought out in the following description.

Referring to the accompanying drawings, in which like numerals of reference indicate corresponding parts in each of the several figures, Figure 1 is a side elevation of a chimney cap of my improved construction, and Fig. 2 is a plan of the same; Fig. 3 is a central vertical section, taken on line 3—3 of Fig. 2, and Fig. 4 is a transverse horizontal section, taken on line 4—4 of Fig. 3.

In said drawings, 10 indicates a cylindrical sheet metal lower portion of my improved chimney cap, adapted to be inserted into or connected with a chimney upon which the cap is to be placed. Said tubular portion 10 preferably flares at an upper point as at 11, and beyond said flaring has a cylindrical upper end 12. Brackets 13 fixed to the upper edge of the said cylindrical top 12, at suitably distant points around its circumference, support above the whole lower portion of the chimney cap an upper portion 14 which is of the shape of a truncated cone and open at both ends. The lower end of said truncated cone 14 is larger than the cylindrical top 12, and said lower end lies at a distance above the said cylindrical top 12, so that a horizontal opening or passage is provided therebetween.

Outside the adjacent ends of the upper and lower portions of my improved chimney cap is a cylindrical band 15 open at its top and bottom and being of considerably larger diameter than the bottom of the upper portion 14. This band 15 is of much greater vertical length than the distance between the upper and lower portions of the chimney cap, so that it overlaps or extends past the adjacent ends of said upper and lower portions, and particularly extends down over the lower portion so as to wholly inclose the cylindrical top 12 thereof. The said band 15 is supported upon the brackets 13, each of which after being fastened to the top of the lower portion, as at 16, bends radially outward and then upward to form a support 17 which can be attached to the inside of the band; the bracket then bends radially inward again and is adapted to be fastened to the lower edge of the upper portion 14, as at 18. There is thus, by the construction above described, a wide annular opening left between the band 15 and cylindrical top 12 of the lower portion of the chimney cap, and a narrower annular opening at a higher point between the band 15 and bottom edges of the upper portion 14.

From the top of the upper portion 14 posts 19 extend vertically upward and serve to support a pyramidal cupola 20 which substantially covers the top of the said upper portion 14, but at a considerable distance above. To the lower horizontal edge of each of the four sides of the pyramidal cupola 20 is hinged a shutter 21, which shutter as it swings inward is adapted to clear the top edge of the band 15 and lie against the conical surface of the upper portion 14. Each shutter extends across one side of the chimney cap and is shaped at its ends to abut against the adjacent ends of the next shutters, so that if all four were lowered at the same time they would close tightly together. Opposite shutters are, however, connected by a light rigid bar 22 pivoted at its opposite ends to the inner surfaces of the shutters and extending through the chimney cap between the posts 19. These bars 22 are of such length as to normally hold both shutters at the opposite ends of a bar half way open, as shown in Figs. 1 and 2, and when one shutter is closed as by the wind the other shutter is forced wide open, as shown in Fig. 3. It will therefore be seen that either all the shutters stand halfway open or else if there is a wind blowing one or two of them are partially or wholly closed, while the others are open to widest extent.

In operation, an upward current between the band 15 and the lower portion of the chimney cap continues upward to the upper

portion 14 and induces a draft in the chimney. In calm weather, the shutters 21 provide an escape on all four sides of the chimney cap. In case of a wind, however, the shutters close the same out of the chimney cap, as above described, at the same time affording an outlet from the chimney on the opposite side of the chimney cap. Under these conditions, upward draft through the band 15 cannot become choked, but may relieve itself upward around the lower edges of the upper portion 14. By my improved construction, therefore, a strong draft is always provided which cannot be effected by horizontal wind.

Having thus described the invention, what I claim is:

1. In a chimney cap, the combination with a tubular lower portion, a tubular upper portion having its lower end at a distance above the lower portion, a band open at both ends extending around and overlapping the adjacent ends of said upper and lower portions at a distance therefrom, the upper end of said band terminating below the upper end of the upper portion, a cupola on said upper portion, pairs of diametrically opposite shutters depending from the lower edges of said cupola, and bars pivotally connecting the opposite shutters of each pair.

2. In a chimney cap, the combination with a tubular lower portion, an upwardly tapering tubular upper portion having its lower end larger than said lower portion and at a distance above the same, a band open at both ends extending around and overlapping the adjacent ends of said upper and lower portions at a distance therefrom, the upper end of said band terminating below the upper end of the upper portion, a cupola above said upper portion smaller in plan than the lower end of said upper portion, pairs of diametrically opposite shutters hinged to the lower edge of said cupola and adapted at their lower ends to swing clear of the top of said band against the outside of said upper portion, and bars each pivoted at its opposite ends to the inner sides of the shutters of a pair.

3. In a chimney cap, the combination of a tubular lower portion having an enlarged upper end, an upper portion having the form of a truncated cone and being larger at its lower end than the said upper end of the lower portion, said adjacent ends of the upper and lower portions being separated by an open space, a cylindrical band open at both ends extending around and overlapping said adjacent ends of the upper and lower portions at a distance therefrom, the upper end of said band terminating below the upper end of the upper portion, brackets secured to said band and adjacent ends of the upper and lower portions and holding them in relative position as stated, a pyramidal cupola at the upper end of the upper portion, shutters hinged to the edges of said cupola and adapted to swing free of the top of said band against the sides of the upper portion, and bars each pivoted at its opposite ends to the inner surfaces of two opposite shutters.

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