Aug. 5, 1952 M. R. HANSEN 2,605,693

VENTILATING CAP FOR CHIMNEYS AND THE LIKE

Filed Feb. 10, 1950

Fig. 1.

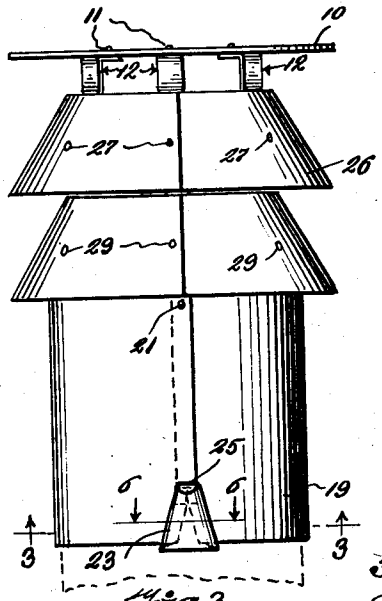



Fig. 2.

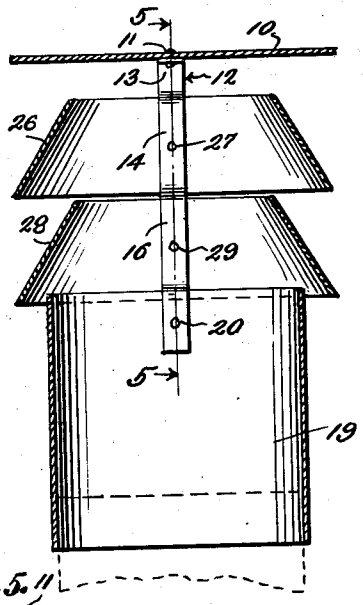



Fig. 3.

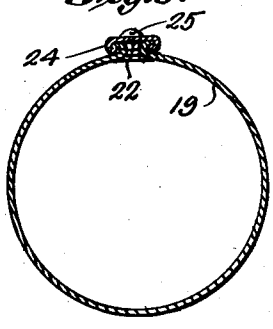



Fig. 5.

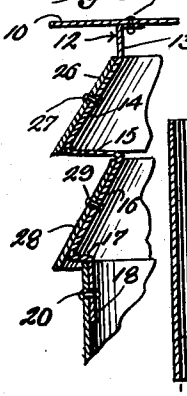



Fig. 4.

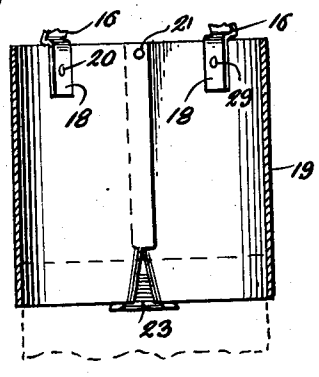



Fig. 7.

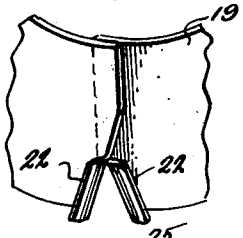



Fig. 6.

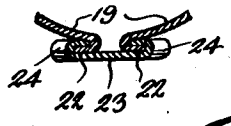
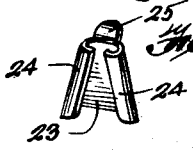



Fig. 8.

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2,605,693

## VENTILATING CAP FOR CHIMNEYS AND THE LIKE

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Application February 10, 1950, Serial No. 143,539

1 Claim. (Cl. 98—84)

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The present invention relates to ventilating caps for chimneys and the like and it consists in the combinations, constructions and arrangements of parts herein described and claimed.

Generally the invention comprises a ventilating cap for chimneys and the like and consists of a top cap which is circular in shape and which lies in a horizontal plane. Ribs, preferably three in number, are affixed to the top cap and depend therefrom. The ribs are bent in such manner as to each present a pair of integrally formed outwardly extending brackets, the sides of each of which form a thirty degree angle with a perpendicular line. To the lower end of each of the ribs there is affixed a vertically extending cylindrical base member formed of a single piece of sheet material fastened with a rivet or the like only adjacent its upper ends. The lower ends are bent outwardly on an angle to form a pair of channels for the reception of a like channeled member which, when forced into position in the first-mentioned channels, will act to draw the lower edges of the base member together to thereby lock the same in position upon a chimney or the like.

It is accordingly an object of the invention to provide a device of the character set forth which is simple in construction, inexpensive to manufacture and yet effective and efficient in use.

A further object of the invention is the provision of a device of the character set forth having means for causing an updraft in a chimney upon which the same may be mounted regardless of the direction of the wind.

Another object of the invention is the provision of a device of the character set forth which may be readily placed in operative position without the use of tools of any kind.

A further object of the invention is the provision, in a device of the character set forth, of novel means for locking the same in position upon a chimney or the like.

A still further object of the invention is the provision, in a device of the character set forth, of novel means for preventing the formation of soot therein.

Other and further objects of the invention will become apparent from a reading of the following specification taken in conjunction with the drawing, in which:

Figure 1 is a side elevational view of an embodiment of the invention,

Figure 2 is a vertical sectional view of the device shown in Figure 1,

Figure 3 is a sectional view taken along line 3—3 of Figure 1,

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Figure 4 is fragmentary vertical sectional view of a base member forming a part of the invention,

Figure 5 is a fragmentary sectional view taken along line 5—5 of Figure 2,

Figure 6 is an enlarged sectional view taken along line 6—6 of Figure 1,

Figure 7 is a fragmentary perspective view illustrating a male latch member forming a part of the invention, and

Figure 8 is a perspective of a female latch member likewise forming a part of the invention.

Referring more particularly to the drawing, there is shown therein a circular top plate 10 which extends in a horizontal direction and to which is fastened in spaced relation by means of rivets 11 or the like three dependent ribs 12.

Each of the ribs extends vertically downwardly, as indicated at 13 in Figure 5, to join an upper bracket having an angular side portion 14 and a substantially horizontal lower portion 15. The upper bracket is integrally connected to a like bracket having an angular portion 16 and a substantially horizontal portion 17 to the latter of which is integrally connected a vertically dependent portion 18. It will be seen that the angular portions 16 and 14 form substantially thirty degree angles with the vertical members 13 and 18.

A cylindrical base member 19 is provided and is formed of a single piece of sheet material. The base member 19 extends vertically and is affixed, by means of rivets 20 or the like, to the dependent feet 18. The ends of the base member 19 overlap, as indicated in Figures 4 and 7, and are attached to each other at their upper ends by means of a rivet 21.

The lower ends of the base member are bent angularly and outwardly, as indicated at 22, to form male latch members which are adapted to be received in a latch plate 23 whose sides are bent inwardly, as indicated at 24, to form female latch members and whose top has an integrally formed finger piece 25 for manipulating the same.

Mounted upon the portions 14 of the upper bracket members is a frustro-conically shaped upper draft ring 26 which is affixed to the brackets by means of rivets 27 or the like. A lower draft ring 28 is also frustro-conical in shape and is affixed to the portions 16 of the lower bracket members by means of rivets 29 or the like.

It will be seen that the outer peripheries of the top plate 10, the upper draft ring 26 and the lower draft ring 28 all lie in the same vertical plane and it will be seen that the inner

peripheries of the draft rings **26** and **28** are each of a lesser diameter than the diameter of the base member **19**. Likewise, it will be seen that due to the vertical portions **13** of the ribs **12**, that the plate **10** is spaced from the upper end of the draft ring **26**.

While it is necessary to have a rivet **21** at the point indicated in order to allow for expansion and contraction at the lower end of the base member **19**, it will be apparent that instead of the rivets **11**, **20**, **27** and **29**, that the parts fastened together by such rivets may be spot welded or fastened together in any other suitable manner.

In operation, it will be apparent that the base member **19** may be placed around the upper end of a chimney or the like and that thereafter the latch plate **23** may be engaged over the latch members **22** in such manner that the channeled ears **24** receive the members **22**. Due to the fact that the members **24** and **22** slope downwardly and outwardly, it will be apparent that by forcing the plate **23** in a downward direction by means of the finger piece **25** that the lower ends of the base member **19** will be drawn together to thereby bind the same in position upon the chimney and against accidental displacement therefrom.

Due to the fact that the top plate **10** is spaced from the upper end of the upper draft ring **26** it will be seen that it will be extremely difficult for soot to form on the under side of the plate **10** due to the fact that there will be a passage of combustion gases or wind through the space thus provided.

It will also be seen that due to the Venturi effect of the upper and lower draft rings in combination with the base member and top plate that, regardless of the direction of wind against the assembly, that a vacuum will be definitely created at all times within the base member **19** to thereby prevent any downdraft from occurring in the chimney upon which the device may be placed.

It will also be seen that rain and snow are prevented from entering the chimney upon which this device may be placed due to the fact that the air carrying the same will at all times cause an updraft in the base member **19** regardless of the direction from which the snow or rain may be coming. Again, heat from the gases of combustion impinging upon the upper and lower draft rings and the plate **10** will prevent any accumulation of snow or ice thereon.

While but one form of the invention has been shown and described herein, it will be readily apparent to those skilled in the art that many minor forms of the invention may be made without departing from the spirit thereof or the scope of the appended claim.

What is claimed is:

A device of the character described comprising a circular top plate, a plurality of spaced ribs dependent from said top plate and each bent to provide a pair of angular outwardly extending brackets, a frustro-conically shaped upper draft ring affixed to one of the brackets of each rib, a like lower draft ring affixed to the other of said brackets of each rib, a vertically extending hollow cylindrical base member having overlapping ends, a rivet interconnecting said overlapping ends adjacent the upper edge of said base member, said base being affixed to the lower portions of the ends of the ribs, downwardly and outwardly extending channels formed in the lower ends of the base member, a channeled frictionally held plate adapted to engage said channels in the base member whereby to contract and latch the base member to a chimney or the like, and a handle for said latch plate.

MERYLE R. HANSEN.

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