Oct. 1, 1946. E. R. LOVELY 2,408,665

CHIMNEY TOP

Filed Nov. 15, 1943

Fig. 2.

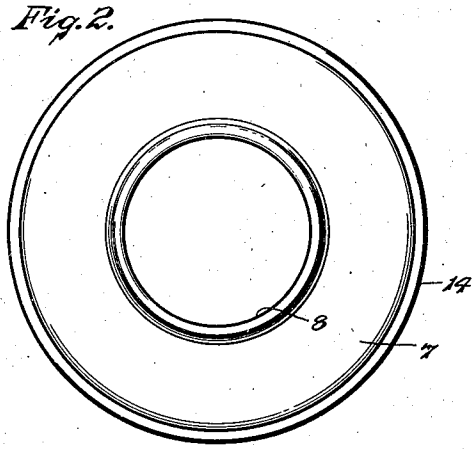


Fig. 1.

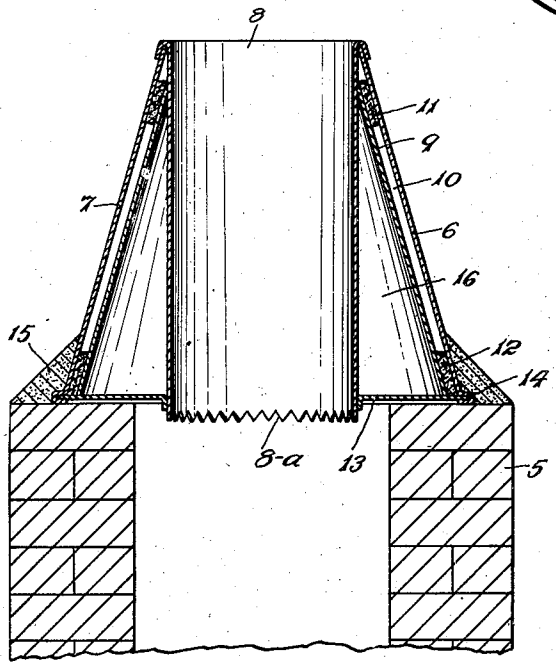


Fig. 4.

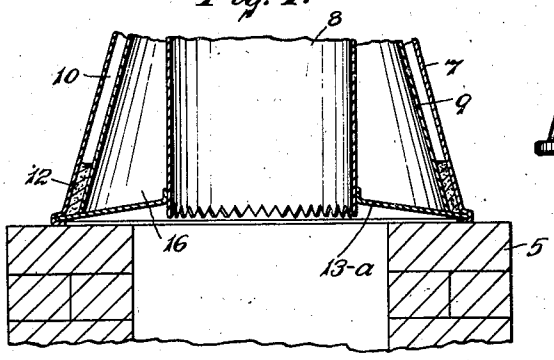
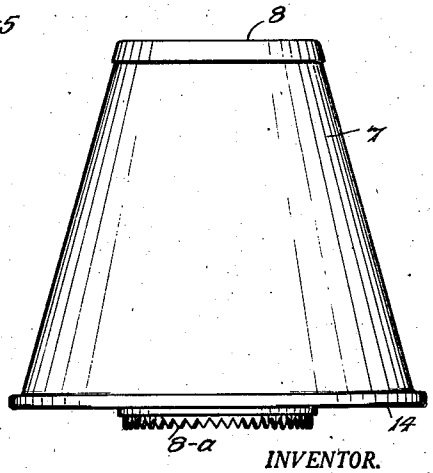


Fig. 3.



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CHIMNEY TOP

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8 Claims. (Cl. 98—67)

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This invention relates to attachments for the tops of chimneys, flues and the like, and is particularly intended for improving draft conditions within the chimney.

An object of my invention, therefore, is to provide an attachment which can be easily installed upon the top of a chimney and which will operate to minimize the effects of atmospheric conditions upon the inside of the chimney so as to provide maximum efficiency in the combustion of fuel and eliminate the formation of objectionable deposits upon the inner wall of the chimney or flue.

A further object of the invention, is to provide such a chimney attachment which can be mounted upon the top of a chimney and secured thereon without requiring sizing or fitting.

A still further object is the provision of a top for a chimney which can be installed thereupon regardless of differences in the shape and size of the inside of the chimney.

Further objects and advantages of the present invention will be more clearly understood from the following description and from the accompanying drawing in which:

Fig. 1 is a side view, in central vertical section, showing a portion of a chimney with my improved device attached thereto.

Fig. 2 is a plan view of my improved device.

Fig. 3 is a side view thereof in elevation.

Fig. 4 is a view, similar to Fig. 1, but showing a modified form of my invention.

As shown in the drawing, the numeral 5 denotes a chimney, of a type which is commonly constructed of brick, and the numeral 6 denotes my improved chimney top.

The said top preferably comprises a conical outer casing, or shell, 7 having a tube, or flue, 8 extending vertically therethrough and provided with serrations along the bottom edge thereof as indicated at 8—*a*. An inner shell 9 forms a partition between the walls of the flue 8 and the casing 6 to provide an insulating dead air space 10 around the inside of the said casing. The shell 9 is retained in position, relative to the casing 6, by means of spacers 11 and 12 which preferably consist of asbestos rings located near the top and bottom of the said shell and which seal the air space 10 to improve the insulating qualities thereof and thereby reduce thermal conductivity between the shell and the casing 6.

The bottom of the device is closed by means of a plate 13 which is secured to the casing by being clamped to the bottom edge of the casing, as at 14. This plate extends across the bottom of the

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device and has a central opening therein through which the flue 8 extends.

In the form illustrated in Fig. 1, the flue 8 projects partly below the bottom of the device and the chimney opening. If desired, the same device may be modified, as shown in Fig. 4, so that the bottom of the flue 8 will be flush with, or slightly above, the bottom of the device to permit installation regardless of the particular size and shape of the opening in the chimney. This may be accomplished by having the bottom 13—*a* coned upwardly so as to engage the sides of the flue above the bottom of the device.

My improved top may be secured to a chimney by any suitable means, such as by the use of mortar, as indicated at 15 to seal the bottom portion of the device against the top of the chimney.

In the operation of my device, the tube 8, being insulated from outside atmospheric conditions, attains a higher degree of heat than can be attained by the chimney itself. This causes a steady draft, through said tube, which maintains a draft within the chimney. Since the tube 8 is smaller than the opening inside the chimney, it also acts as an equalizing damper, or regulator, which controls the draft within the chimney and provides therein a condition which greatly increases the efficiency of the fuel combustion.

By providing a plurality of air spaces between the exterior of said device and the interior of the flue 8, the insulating qualities of said device are greatly increased and thereby serve to further prevent cold atmospheric temperatures from reaching the interior of the chimney and causing condensation therein.

Any slight amount of condensate that may form near the top of the tube 8 is evaporated upon the warm walls thereof and any condensate that is not so evaporated is prevented from dripping into the chimney by means of the serrations 8—*a* which collect the drops of condensate at the points thereof and hold them suspended there until they are evaporated by the warm air rising through the chimney. My device therefore prevents condensate from moistening the interior walls of the chimney and thereby reduces to a minimum the accumulation of soot, carbon, creosote and other inflammable substances, and consequently also reduces the possibility of chimney fires.

The serrations 8—a also serve to accelerate the evaporation of the condensate since they divide and break it up into a multiplicity of small drops.

I claim:

1. A chimney top attachment comprising a tapered outer casing, a tapered inner shell spaced from said casing to provide an insulating space therebetween, a bottom plate extending across the bottom of said outer casing and sealed to the edge thereof, and a tube extending through, and in sealing engagement with, said bottom plate and the tops of said shell and casing.

2. A chimney top device comprising a conical outer casing having a plate extending across and sealed to the bottom edge thereof, a tubular member in sealing engagement with the top of said casing extending downwardly therefrom through said bottom plate, and a conical inner shell resting upon said plate in spaced relation to said casing and with its top in sealing engagement with said tubular member to provide a plurality of insulating spaces between said casing and tubular member.

3. A chimney attachment comprising a casing having a conical outer shell and a bottom plate extending across and sealed to the bottom edge of said outer shell, an inner shell within and spaced from said outer shell and resting upon said bottom plate, a tube extending downwardly through said outer and inner shells and said bottom plate in contact with the tops thereof, and sealing rings located between said inner and outer shells at the top and bottom portions thereof.

4. An attachment for chimney tops comprising a tapered outer shell, a tapered inner shell within and spaced from said outer shell, a tube extending downwardly through said shells and in sealing engagement with the tops thereof, and a bottom plate extending from said outer shell across the bottom of said inner shell and connected to said tube at a point above the bottom edge thereof.

5. An attachment for a chimney comprising a casing, a tube extending vertically through said casing, and a plurality of serrations along the bottom of the tube for suspending drops of condensate to accelerate evaporation thereof.

6. An attachment for a chimney comprising a casing adapted to be mounted upon the top of the chimney, a bottom plate extending along the bottom of said casing, a tube extending vertically through said casing and bottom plate, and a plurality of serrations along the bottom of the tube providing points extending below the bottom plate for suspending drops of condensate to accelerate evaporation thereof and thereby prevent dripping into the chimney.

7. An attachment for chimney tops comprising a tapered outer shell, a tapered inner shell within and spaced from said outer shell, a tube extending downwardly through said shells and in sealing engagement with the tops thereof, and a bottom plate extending from said outer shell across the bottom of said inner shell to said tube at a point above the bottom edge thereof; the said bottom edge of the tube having serrations along the bottom thereof below the bottom of the said plate.

8. A chimney attachment of the character described comprising a casing adapted to rest upon the top of a chimney, a tube extending vertically through said casing and in sealing engagement therewith, a bottom plate extending across the bottom of said casing and sealed to the edge thereof and to said tube, the said bottom plate being disposed above the top of said chimney, and a drip edge on said tube below the bottom of said plate and above the top of the chimney.

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