M. JEZÖVA.

CHIMNEY COWL.

APPLICATION FILED JUNE 4, 1920.

1,358,314. **Patented Nov. 9, 1920.**

FIG. 1.

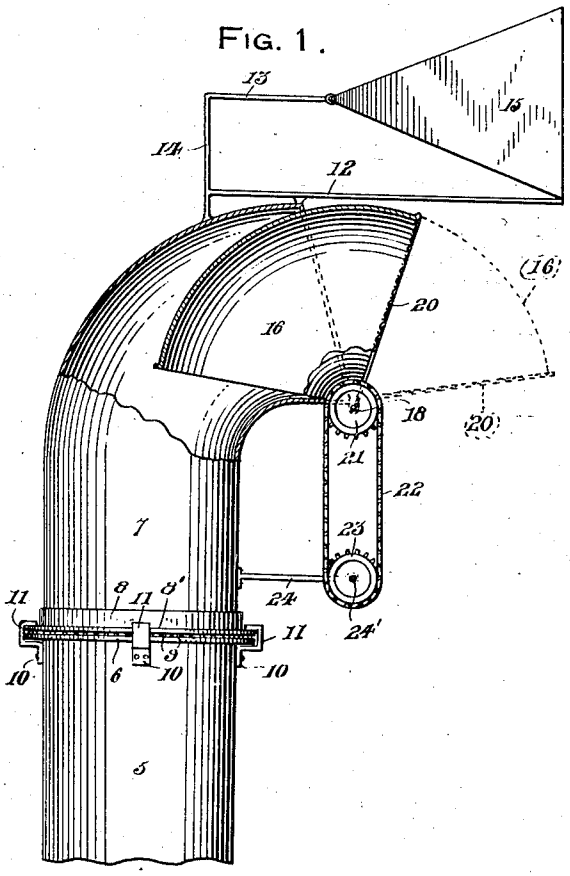


FIG. 3.

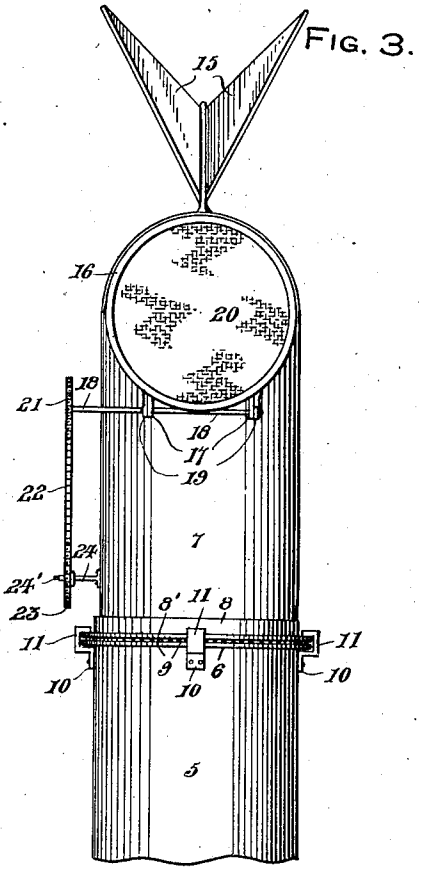


FIG. 2.

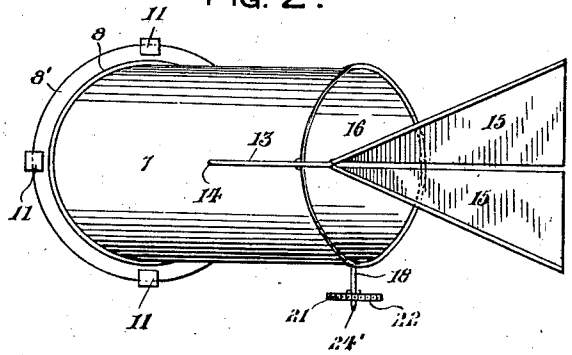
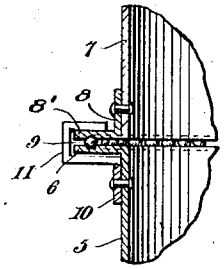


FIG. 4.



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CHIMNEY-COWL.

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Application filed June 4, 1920. Serial No. 386,533.

To all whom it may concern:

Be it known that I, MARY JEZŎVA, a citizen of Czechoslovakia, residing at Wallis, in the county of Austin and State of Texas, have invented certain new and useful Improvements in Chimney-Cowls, of which the following is a specification.

The present invention has particular reference to a chimney cowl that is revolubly mounted upon the upper end of a chimney and having a weather vane carried thereby to effect a rotation thereof.

A further object of the invention is to provide a chimney cowl having a manually controlled spark arresting outlet that is shiftable to vary the size of the outlet at will of the operator.

With the above general objects in view and others that will appear as the nature of the invention is better understood, the same consists in the novel form, combination and arrangement of parts hereinafter more fully described, shown in the accompanying drawing and claimed.

In the drawing, wherein like reference characters indicate corresponding parts throughout the several views,

Figure 1 is a side elevational view, partly in section, of the upper end of a chimney with the improved cowl operatively positioned thereon,

Fig. 2 is a top plan view of the same with the adjustable outlet of the cowl removed therefrom,

Fig. 3 is a front elevational view of the device, and

Fig. 4 is a fragmentary sectional view showing the ball bearing connection between the upper end of the chimney and the cowl.

Briefly described, the present invention has for its primary object to provide a cowl attachment for chimneys that is revolubly mounted upon the upper end of the chimney, the meeting edges of the chimney and cowl being flanged and loosely clamped together with friction bearing balls arranged between the meeting flanges. The cowl embodies an elbow pipe carrying a weather vane to effect rotation thereof. A controllable outlet device is shiftably mounted in the outlet end of the elbow section and is manually controlled by chain and sprocket mechanism for varying the size of the outlet opening of the elbow pipe, while a spark arresting screen extends over the outer end of the shiftable section to prevent the escape of sparks and cinders.

Referring more in detail to the accompanying drawings there is illustrated a cowl attachment for chimneys, embodying a chimney 5 as best illustrated in Figs. 1 and 4 as having a peripheral outwardly directed flange 6 at its upper end. The cowl embodies an elbow pipe 7 having an annular angle bracket 8 secured to the lower peripheral edge thereof with the outer wall 8′ overlying the chimney flange 6, the flange 6 and wall 8′ being provided with opposed circular grooves for the reception of bearing balls 9 to reduce friction between the parts 5 and 7 and to permit a free relative revoluble movement thereof. A bracket, of the form best illustrated in Fig. 4 has the leg 10 thereof secured to the chimney 5 while the U-shaped extension 11 carried by the leg incloses the flange 6 and wall 8′ to maintain the parts against separating movement, as clearly shown in Figs. 1, 3 and 4.

To effect rotation of the cowl or elbow pipe 7 upon chimney 5, a weather vane is mounted upon said elbow pipe and embodies a frame structure including a relatively long lower rail 12 secured to the elbow pipe 7 and a relatively short upper rail 13 connected to the lower rail 12 by the vertical arm 14. Substantially V-shaped vane blades 15 connect the free ends of the rails 12 and 13 and diverge in the manner illustrated in Figs. 2 and 3 so that the wind engaging the faces of the blades 15 will effect a shifting movement of the elbow pipe 7 in line with the wind so that the outlet end of the elbow pipe 7 is reversely positioned relative to the direction of the travel of the wind.

Means is associated with the outlet end of the elbow pipe 7 for controlling the discharge area thereof, and also for arresting the flying sparks, and includes a segment shaped pipe section 16 open at each end and having the apex thereof provided with bearings 17, as shown in Fig. 3 secured to the shaft 18 that is journaled in brackets 19 secured to the lower open edge of the elbow pipe 7. The inner end of the segment shaped pipe section 16 is open as shown in Fig. 1 while the outer end thereof is closed by a reticulated wall or screen 20. In order to effect a shifting movement of the pipe section 16 a sprocket wheel 21 fixed to the

outer end of the shaft 18 as shown in Fig. 3 is connected by a sprocket chain 22 to the sprocket wheel 23 journaled upon the shaft 24 carried by the lower end of the elbow pipe 7, an operating crank being received upon the end 24′ of the shaft 24, and by rotating the sprocket wheel 23 in either direction, such motion is communicated by the chain 22 and wheel 21 to the shaft 18 with a consequent shifting movement of the pipe section 16.

When it is desired to control the outward draft of the chimney 5, the segment shaped pipe section 16 is moved in either direction, as for instance to the dotted line position of Fig. 1 wherein the rear open end of the pipe section 16 registers with the fully open outlet end of the elbow pipe 7, the stack then being permitted a maximum draft area. By shifting the pipe section 16 inwardly, to the full line position shown in Fig. 1 the outlet area of the chimney 5 is reduced by the inner open end of the section 16 moving in proximity of the lower curved wall of the elbow pipe 7, thus reducing the draft area. The shifting of the pipe section 16 is manually controlled while the revoluble shifting movements of the elbow pipe 7 upon the chimney 5 is entirely automatic in its operation and is controlled by the weather vane 15. The reticulated wall 20 closing the outer end of the pipe section 16 prevents the escape of live sparks and cinders.

While there is herein shown and described the preferred embodiment of the present invention, it is nevertheless to be understood that minor changes may be made therein without departing from the spirit and scope of the invention as claimed.

What is claimed as new is:—

1. A chimney cowl comprising in combination with a chimney, an elbow pipe section revolubly mounted at its lower end upon the upper end of the chimney, a weather vane associated with said elbow pipe section, and an adjustable pipe section in the outer end of the elbow pipe arranged to vary the size of the outlet of the elbow pipe.

2. A chimney cowl comprising in combination with a chimney, an elbow pipe section revolubly mounted at its lower end upon the upper end of the chimney, a weather vane associated with said elbow pipe section, an adjustable pipe section in the outer end of the elbow pipe arranged to vary the size of the outlet of the elbow pipe, and means for shifting the adjustable pipe section.

3. A chimney cowl comprising in combination with a chimney an elbow pipe section revolubly mounted at its lower end upon the upper end of the chimney, a weather vane associated with said elbow pipe section, an adjustable pipe section in the outer end of the elbow pipe, and chain and sprocket mechanism associated with the adjustable pipe section and adapted to be operated to shift said pipe section for varying the size of outlet of the elbow pipe.

4. A chimney cowl comprising in combination with a chimney, an elbow pipe revolubly mounted upon the upper end of the chimney, a segment shaped pipe section pivotally mounted at the apex thereof in the lower side of the outlet end of the elbow pipe, chain and sprocket mechanism associated with said pivot for manually shifting the pipe section to vary the outlet area of the elbow pipe, and a reticulated wall closing the outer end of the pipe section.

In testimony whereof I affix my signature.

MARY JEZŎVA.