Aug. 9, 1955 A. SVEBEL 2,714,847

FLUE ACCELERATOR

Filed March 13, 1953

Fig. 1

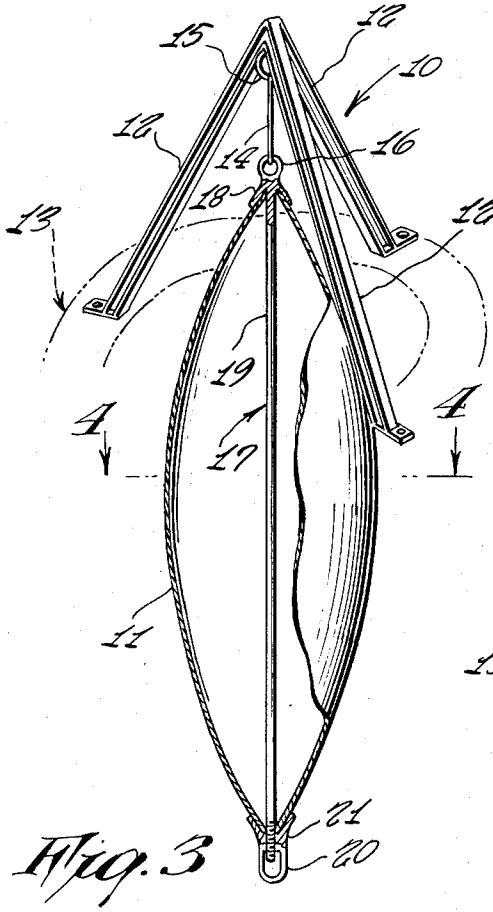


Fig. 2

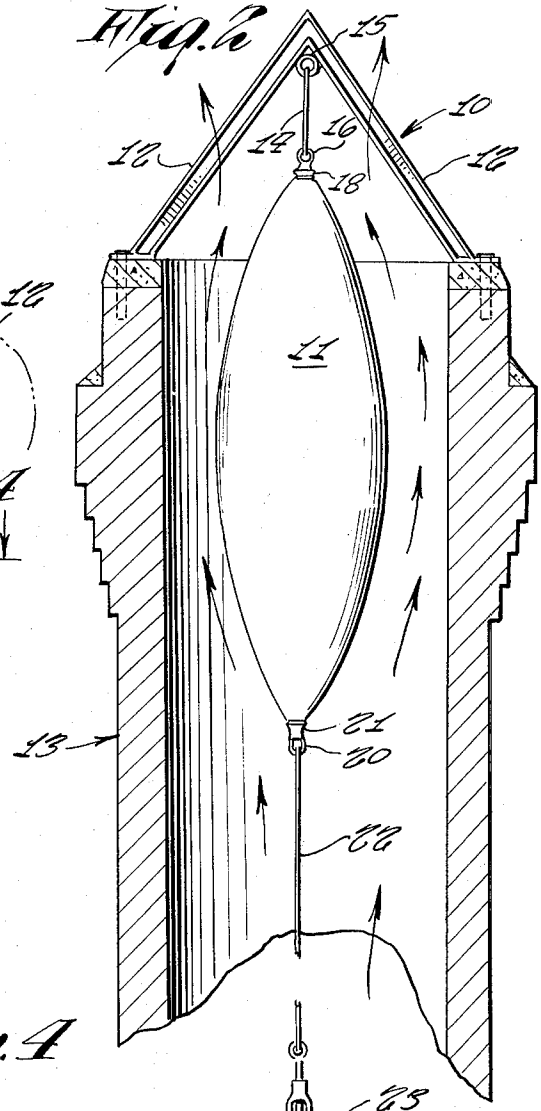


Fig. 3

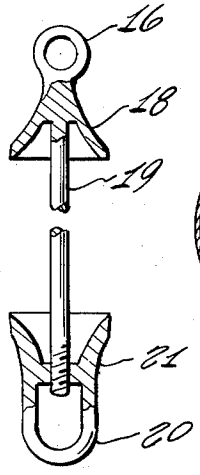
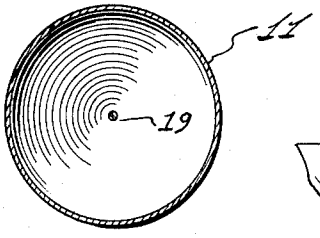
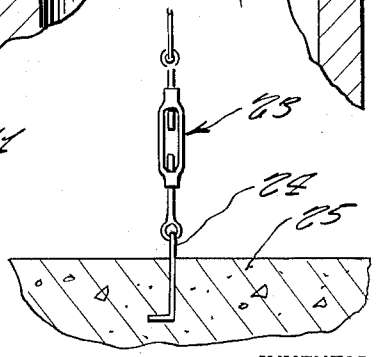


Fig. 4





INVENTOR.
ALBERT SVEBEL
BY
Carl Miller
ATTORNEY

United States Patent Office

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FLUE ACCELERATOR

Albert Svebel, New York, N. Y.

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4 Claims. (Cl. 98—58)

This invention relates to flues and more particularly to flue accelerators.

It is an object of the present invention to provide a flue accelerator which will increase the flow of gases through the flue and therefore increase the flue draft of the chimney in general.

Other objects of the invention are to provide a flue accelerator bearing the objects above in mind which is of simple construction, is inexpensive to manufacture, has a minimum number of parts, is easy to install and efficient in use.

For other objects and a better understanding of the invention reference may be had to the detailed description used in connection with the accompanying drawing, in which:

Figure 1 is a perspective view shown partly in section of a flue accelerator embodying the principles of the present invention;

Fig. 2 is a side view thereof showing the accelerator in operative use in a chimney;

Fig. 3 is an enlarged side elevational view shown partly in section of the bubble tie rod and

Fig. 4 is a transverse sectional view taken along the line 4—4 of Fig. 1.

Referring now more in detail to the drawing, in which similar reference numerals identify corresponding parts throughout the several views, there is shown a flue accelerator, referred to collectively as **10**, and including a hollow copper or steel bubble **11** substantially as illustrated.

A plurality of suspension beams **12** are suitably secured to the top edge of chimney **13** at their lower ends and come together at their upper ends to form the supporting structure, shown in Fig. 1. A supporting cable **14** extends downwardly from the top of the supporting structure by means of an eye **15** secured to the upper ends of beams **12**. The bottom of cable **14** is connected to the eye portion **16** of a tie rod **17** piercing the bubble **11** along its longitudinal axis.

The tie rod **17** in addition to the eye **16** includes a flange **18** adapted to receive the upper end of the bubble therewithin, a rod portion **19** extending through the bubble and outwardly of its lower end and a second bottom eye portion **20** having a flange **21** receiving the bottom of bubble **11**. The eye and flange **21** are internally threaded and adapted to be screwed on to the externally threaded lower end of rod **19** substantially as illustrated.

An anchoring cable **22** is secured at its upper end within the eye **20** and is connected at its lower end to a turn buckle **23**. The bottom of turn buckle **23** is connected to a steel anchoring bar **24** embedded in concrete **25**.

It will be noted that the bubble **11** is substantially cigar-shaped with a diameter which is half the inside diameter of the chimney **13**. The bubble **11** will be suspended in a brick or metal chimney **13** approximately four feet above its top.

The suspension beams **12** are preferably formed of steel and are bolted to the top of chimney **13** at their lower ends, and will be spaced preferably 120 degrees apart.

The turn buckle **23** will permit the tensioning of anchoring cable **22** and suspension cable **14** as will be obvious.

Due to the elliptical or cigar-shaped bubble **11** which is in the center of the chimney opening, the rising gases of the flue will be squeezed at the largest diameter of the bubble and again released as the flue gases pass the position of the bubble, as shown in Fig. 2. This action will increase the flow of the gases and therefore increase the flue draft of the chimney in general.

While various changes may be made in the detail construction, it shall be understood that such changes shall be within the spirit and scope of the present invention as defined by the appended claims.

Having thus set forth and disclosed the nature of my invention, what is claimed is:

1. A flue accelerator comprising a substantially ellipsoidal-shaped body adapted for suspension within a flue along the major axis of the said body, supporting means at the top of the flue engaging the upper end of said ellipsoidal-shaped body, and tensioning means connected to the bottom of said ellipsoidal-shaped body, said major axis being concentric with the longitudinal flue axis, said tensioning means comprising a steel anchoring bar embedded in the base of the chimney, including a turnbuckle connected to the anchoring bar and a cable connecting the turnbuckle and the ellipsoidal-shaped body, whereby the turnbuckle can be adjusted to vary the pull on the ellipsoidal-shaped body.

2. A flue accelerator as in claim 1, wherein said ellipsoidal-shaped body is hollow having top and bottom openings with a tie rod extending through said openings, said tie rod at its upper end above said body having an eye receiving said cable and a concave flange receiving the top of said body, the bottom of said tie rod extending through the bottom opening in said member and being externally threaded to receive an internally threaded cable shackle screwed to the tie rod bottom, said cable shackle having a concave portion adapted to receive the lower end of said body, said cable being connected to said shackle.

3. A flue accelerator as in claim 2, wherein the major diameter of the ellipsoidal body is approximately one-half the diameter of the flue with the upper portion of the said body protruding above the top of the flue.

4. A flue accelerator comprising an ellipsoidal body having tapering lower and upper ends, said body being adapted for suspension within a chimney flue with the major axis of the body being parallel to the longitudinal flue axis, in combination with means for suspending said body comprising a three legged frame having a common apex, a pivoted rod suspended from said apex, the three legs of said frame bearing upon the chimney cap, said rod pivotally connected to the upper body end, and including a lower cable pivotally attached to the lower body end and provided with means for applying downwardly directed tension upon the body.

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