Sept. 12, 1933. D. M. RICKABAUGH 1,926,753

CHIMNEY CLEANING DEVICE

Filed Jan. 9, 1931

Fig. 1.

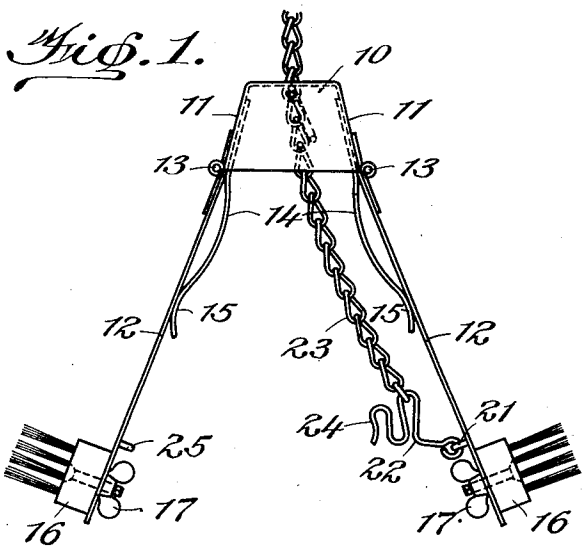
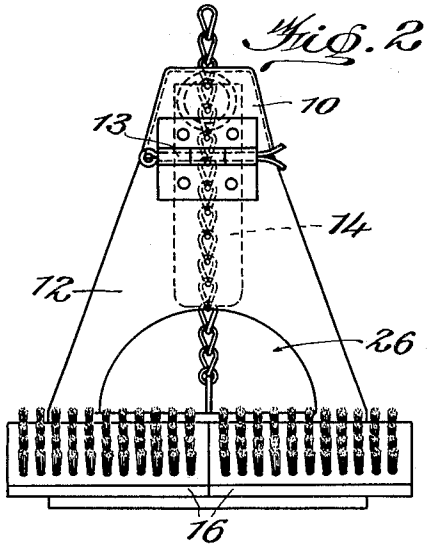


Fig. 2.



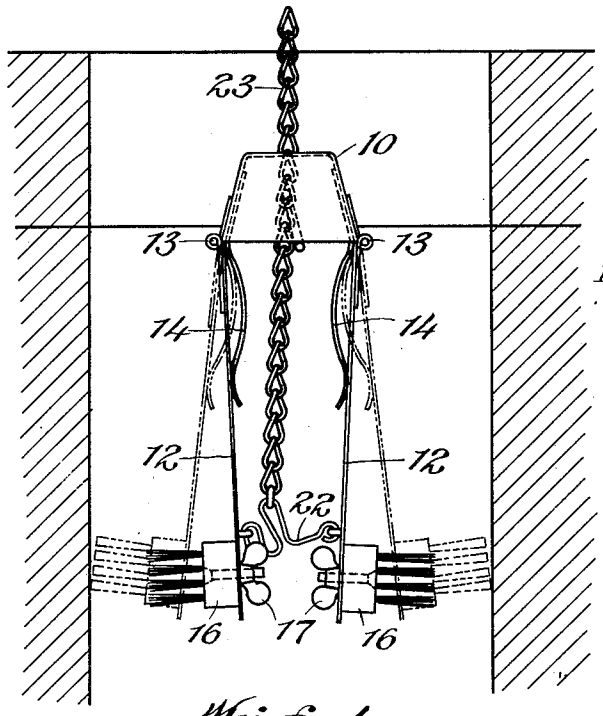


Fig. 4.

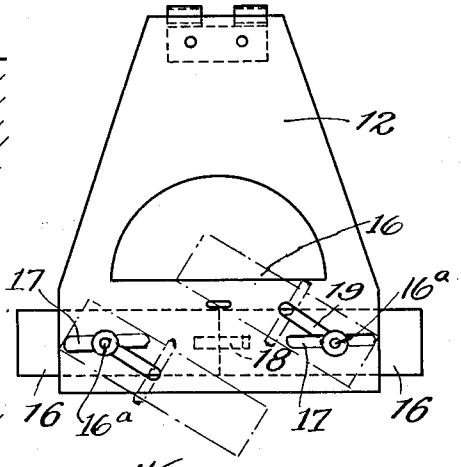


Fig. 3.

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UNITED STATES PATENT OFFICE

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CHIMNEY CLEANING DEVICE

David M. Rickabaugh, Altoona, Pa.

Application January 9, 1931. Serial No. 507,684

1 Claim. (Cl. 15—163)

This invention relates to chimney cleaning implements and has for its primary object an improved device that can readily be introduced into the opening in the chimney, then opened in such manner that the opposite inside walls of the chimney are engaged simultaneously and the coal dust, carbon barnacles, soot and all other foreign substances are effectively removed from the interior surfaces of the chimney through its use.

Another object of this invention is to provide a collapsible device that can be readily lowered into the chimney opening, then opened and through resilient means forced against the opposite walls of the chimney.

A further object of this invention is to provide adjustable steel wire brushes, together with means for holding the device in a collapsed position while being introduced into the chimney opening.

With these and many other objects in view which will become more readily apparent as the nature of the invention is better understood, the same consists in the novel construction, combination and arrangement of parts, as will be hereinafter fully pointed out, illustrated and claimed. It will be quite readily understood by those skilled in the art to which this invention belongs, that the same is quite susceptible to various changes and modifications, without departing from the spirit or scope of the invention but a preferred and practical embodiment of the invention is shown in the accompanying drawing in which:—

Fig. 1 shows an elevationed view of my invention when in its extended position.

Fig. 2 shows a side elevation of the device illustrated in Fig. 1 of the drawing.

Fig. 3 shows a view of one of the brush carrying plates and the means through which the brushes are adjusted to engage different sized chimney openings.

Fig. 4 shows a cross sectioned view of a chimney, having my improved cleaning device positioned therein, ready to be opened, through the medium of the supporting chain. The position the brushes occupy, with reference to the chimney walls being shown in dotted lines.

Similar reference numerals refer to similar parts throughout the several figures of the drawing.

This invention in its present form consists, primarily of an inverted cup shaped top designated by the numeral 10, to the opposite sides 11 of which are attached, pendent diverging brush carrying elements, 12, through the medium of hinges 13, as shown in Fig. 1 of the drawing.

The inverted cup shaped top 10 is further provided with a plurality of resilient elements 14 which are attached to the inside surface of the cap 10 through the medium of rivets, or similar means, as indicated in Fig. 2 of the drawing.

The free end 15, of the resilient member 14 is adapted to engage the inside surface of the pendent brush carrying element 12 as shown in Figs. 1 and 4 of the drawing.

The elements 14 provide the necessary means for keeping the brushes 16 in constant contact with the inside surface of the chimney when the device is being used for cleaning flues.

Each independent brush carrying element 12 is provided with means for carrying a plurality of brushes 16 as shown in Figures 2 and 3 of the drawing. To that end each of said elements 12 is provided with inclined slots 19, in each of which may be positioned, at different elevations, the clamping bolt 16*a* carried by the back 20 of the brush, as shown in Figure 1 of the drawing. The clamping bolt 16*a* carried by the brush is adapted to receive a wing nut 17 so that when the bolt 16*a* is fitted in a slot 19, the wing nut may be tightened to hold the brush at any desired position as shown in Figure 3. When the brushes 16 are in alinement a dowel pin 18, or its equivalent, may be used to maintain the brushes in the relations shown by the full and dotted lines in Figure 3. However, by removing the dowel pin 18 it will be apparent that each brush may be adjusted to a dot and dash line position indicated in Figure 3. Obviously, brushes of greater or less length than those shown in the drawing may be used, and by manipulation of the wing nuts 17 the brushes can be set at any desired angle for cleaning purposes, and to suit the size of the chimney being cleaned.

Attached to one of the brush carrying elements 12, is an eye bolt 21, which is engaged by a double inverted U shaped hook, preferably formed from a cylindrical rod 22. This double inverted U shaped hook provides a means for attaching the combined suspension and operating chain 23, as well as means for keeping the assembly in a collapsed position as shown in Fig. 4 of the drawing, wherein the hook 24 is shown engaged with an eye bolt 25, securely fastened to the brush carrying element 12.

To operate this improved chimney cleaning device, the brush carrying members are pressed together and the hook 24 is engaged with the

eye bolt, as illustrated in Fig. 4 of the drawing.

The assembly is then placed in the opening at the top of the chimney, and permitted to descend through the medium of the suspension chain 23. When the desired position is reached in the chimney, the whole assembly is given a quick jerk, through the medium of the suspension chain and the hook 24 is disengaged and the brushes engage the opposite sides of the chimney as shown in Fig. 4 of the drawing.

Through the medium of the resilient elements the brushes are kept in contact with the walls of the chimney as the cleaning device is gradually raised within the chimney, the soot, coal dust, etc., which is removed by the brushes, passes out over the brushes through the openings 26 in the brush carrying element 12 as indicated in Fig. 2 of the drawing.

Having thus described my invention what I claim and desire to be secured by Letters Patent is:—

A chimney cleaning device comprising a body element, a pair of brush carrying arms mounted on said body element for relative inward and outward movements, means constantly tending to urge said arms relatively outward, a keeper carried by one of said arms, a latch carried by the other of said arms for engagement with said keeper to hold the arms against relative outward movement, a flexible suspension element for the device extending slidably through the body element and connected with said latch for manual manipulation to disengage said latch from said keeper to permit relative outward movement of the arms, and a stop on said flexible suspension element for engagement with the body element to limit upward movement of the suspension element through the body element, whereby the suspension element is effective both to disengage the latch and to support the device as an entirety following disengagement of the latch.

DAVID M. RICKABAUGH.