May 19, 1931. J. J. CARNEY 1,806,387

CHIMNEY CLEANER

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Fig. 1.

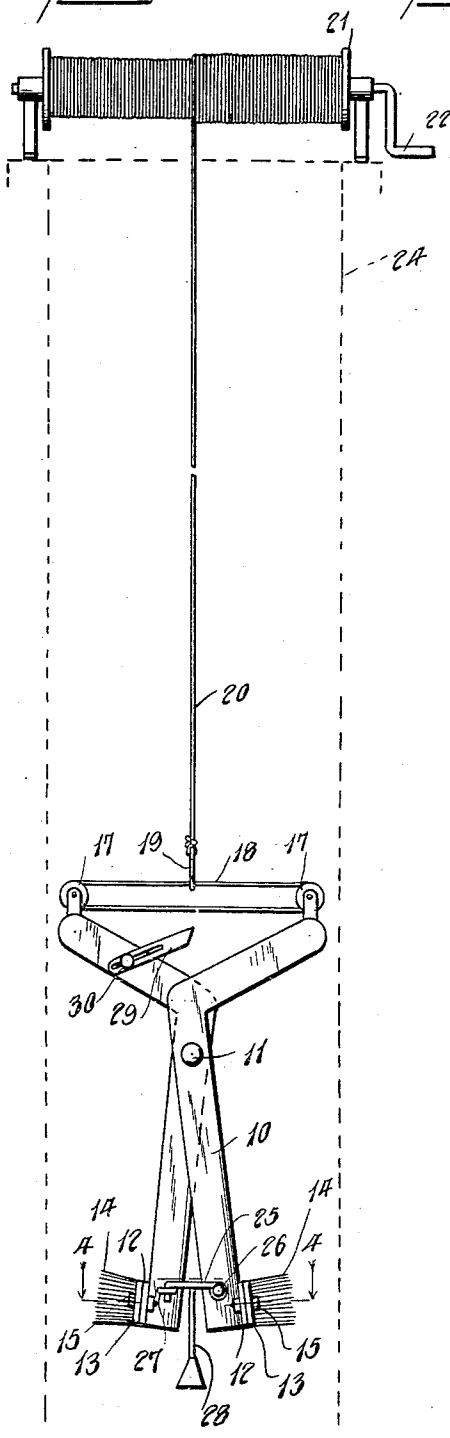
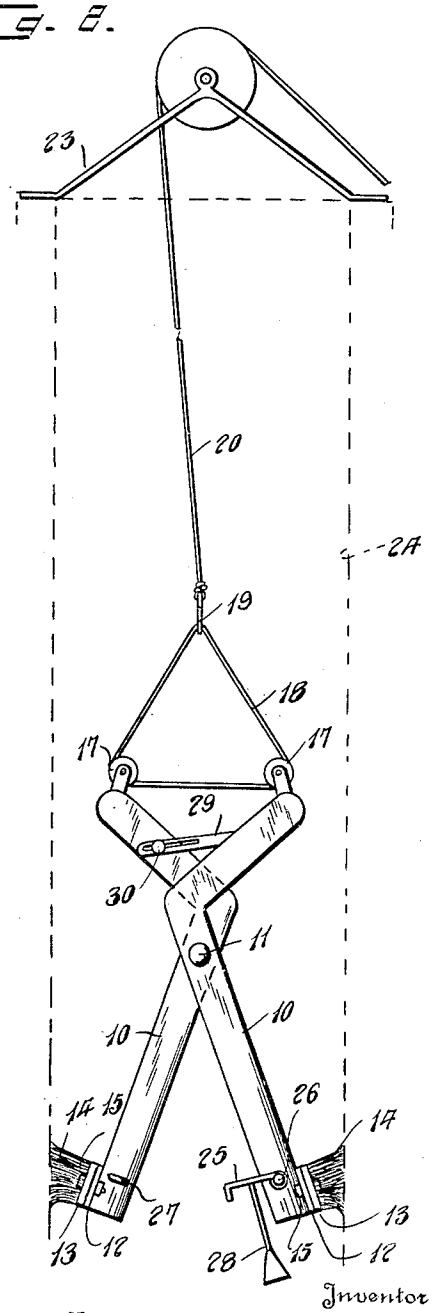


Fig. 2.



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Fig. 3.

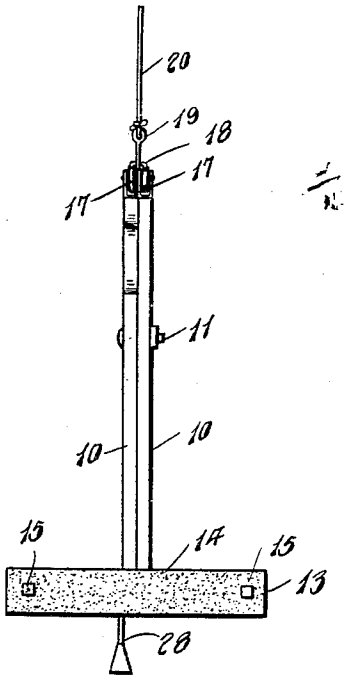


Fig. 4.

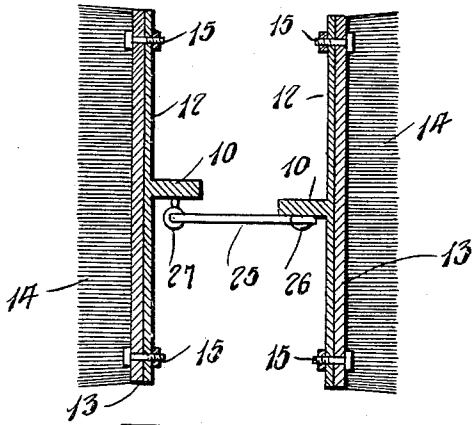


Fig. 5.

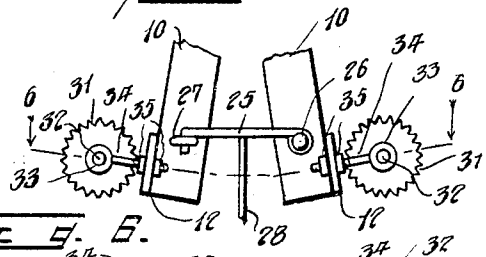


Fig. 6.

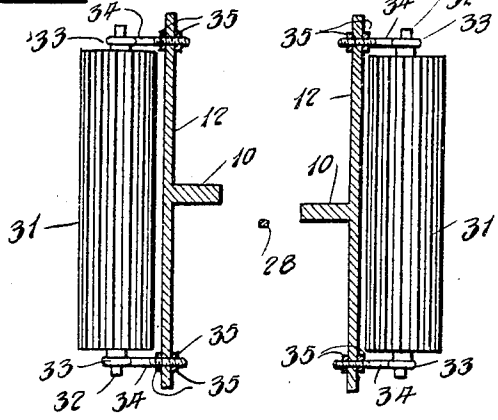


Fig. 7.

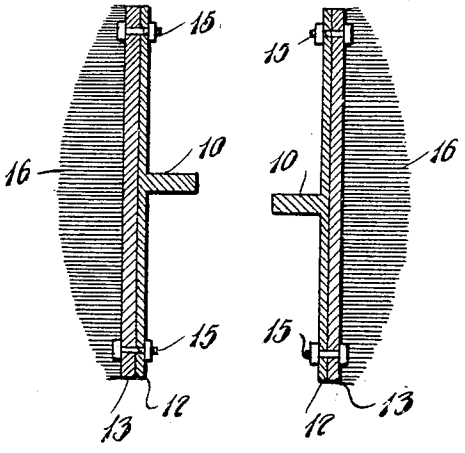
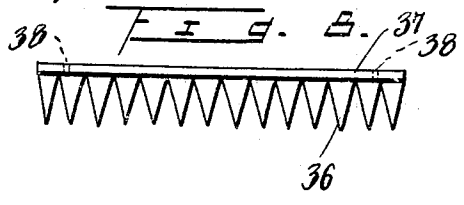


Fig. 8.



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UNITED STATES PATENT OFFICE

JAMES J. CARNEY, OF BETHEL, VERMONT

CHIMNEY CLEANER

Application filed June 4, 1929. Serial No. 368,243.

This invention relates to a chimney cleaning apparatus.

It is aimed to provide a novel, exceedingly simple and inexpensive construction which will prove efficient in use and durable in operation.

It is particularly aimed to provide a construction having means whereby the parts are held against separation until the bottom of the chimney has been reached.

Another object is to provide a construction wherein the limit of spreading of the cleaning element is limited by means which is adjustable according to the width of different chimneys.

It is also aimed to provide a novel construction which may interchangeably employ latches, knives, scrapers, rollers or other tools according to the particular needs of the chimney, in removing soot, or other deposits.

Additional objects and advantages will become apparent from a consideration of the description following taken in connection with accompanying drawings illustrating an operative embodiment.

In said drawings:—

Figure 1 is a view illustrating the apparatus in connection with a chimney and in the act of being lowered,

Figure 2 is a view of the same parts as Figure 1, showing the windlass in a different position, at right angles to that in Figure 1 and showing the cleaning parts in operative relation and being raised,

Figure 3 is a view in elevation of the cleaning device taken at a right angle to the positions of Figures 1 and 2,

Figure 4 is a cross sectional view taken on the line 4—4 of Figure 1,

Figure 5 is a fragmentary elevation showing the use of a modified form of cleaning tool,

Figure 6 is a cross sectional view taken on the line 6—6 of Figure 5,

Figure 7 is a view similar to Figure 4 but taken through modified brushes, and

Figure 8 is a detail of a knife or scraper which may be used instead of the brushes and roller.

Referring specifically to the drawings, the device comprises two levers 10 generally of L-form which are pivoted together as at 11. The lower ends of the levers have cross bars 12 integral therewith or otherwise provided thereon to which the backs 13 of brushes having bristles 14, are detachably fastened as by means of removable bolts 15. These brushes may have their bristles 14 of any desired material, that is vegetable matter as usual in the form of Figures 1 to 4 or steel or metal in the form of the bristles 16 of Figure 7, the parts otherwise being similar to Figures 1 to 4 and bearing the same reference characters. The bristles 16 may also be rounded as shown in Figure 7.

The outer ends of the upper portions of the levers 10 carry rollers 17 over which an endless loop 18, of flexible material, is trained. Fastened to the loop, as by means of a ring 19 looped on the loop, is a cable or flexible element 20 which is operable from a windlass 21 of conventional form, manually operable through the medium of a crank 22, and supported as by means of brackets 23 removably resting on top of a chimney suggested in dotted lines at 24.

When the device is lowered into a chimney as shown in Figure 1, a latch 25 pivoted at 26 on one of the levers 10 engages an eyelet or staple 27 on the other lever 10, thus holding the levers against separation at their lower ends whereby the brushes 14 are held away from the chimney, in the lowering of the device. The latch 25 has an arm 28 depending therefrom which is adapted to strike the bottom of the chimney, elevates the latch 25 to disengage it from the element 27 so that upon an upward movement on the part of cable 20, the brushes will be spread into the relation shown in Figure 2 so as to brush or clean the engaged wall of the chimney on the upstroke of the device through operation of the windlass.

In order that the levers 10 will not unduly spread so that the brushes will extend into cavities and the like in the walls and prevent upward movement, an adjustable arm 29 is fastened by a screw and elongated slot connection as at 30 to one of the arms to such a

position as to abut it by the other arm as shown in Figure 2.

As suggested in Figures 5 and 6, ribbed or toothed rollers 31, preferably of metal, may be used in lieu of the brushes 13—14, such rollers having trunnions 32 journaled in the eyes 33 of bolts 34 detachably secured by nuts 35 in and to the previously mentioned arms 12.

Instead of the brushes and rollers as previously referred to, the steel wire brushes 16 may be used, especially where the chimney may have a round or curved wall.

Further, where the deposits on the wall of the chimney is difficult to dislodge or remove, a knife or scraper as shown in Figure 8 may be used. This knife or scraper has teeth 36 which are adapted to engage the surface to be cleaned and it has a plate 37 provided with apertures 38 through which bolts such as 15 may secure the same to the arms 13.

The device may also be readily shifted from engagement with walls of a chimney to engagement with walls thereof at a right angle to those first engaged and this result is accomplished for instance by simply repositioning the windlass 21 at a right angle to its position shown in Figure 1 and thereupon operating the cable which will result in the device correspondingly shifting its position ninety degrees.

Various changes may be resorted to provided they fall within the spirit and scope of the invention.

I claim as my invention:—

1. In a cleaning device of the class described, a plurality of relatively movable cleaning members, means to normally hold said members separated and in cleaning position, means for holding said members from separation for descent into a chimney, means to release said holding means by coaction with the bottom of the chimney in order to release the cleaning members for operative engagement with the chimney walls, and means adjustably secured to one cleaning member and engageable with the other cleaning member to positively limit the movement of said members into cleaning positions, said means including an arm secured to one member and engageable with the other member when the members are spread.

2. A device of the class described comprising two levers generally of L-shape, means pivotally connecting said levers together, said levers at their lower ends having cross arms, cleaning devices carried by said arms, rollers at the upper ends of the levers, an endless loop trained over said rollers, a draw means attached to the loop, a latch carried by one of the levers and engaging the other lever to maintain the cleaning elements against separation as the device is lowered into a chimney, a pendant on said latch to engage the bottom of the chimney to thereby retract the latch, and means to limit the outward movement of the cleaning members.

3. A device of the class described comprising two levers, means pivotally connecting said levers together, cleaning devices carried at the lower ends of said levers, an endless loop of flexible material movably connected to the upper ends of the levers, a draw means extending from the loop, a latch carried by one of the levers and engaging the other lever to maintain the cleaning elements against separation as the device is lowered into a chimney, and a pendant on said latch to engage the bottom of the chimney to thereby retract the latch, and means adjustably secured to one lever and engageable with the other lever to limit the spreading movement of the levers when raised.

4. A device of the class described comprising two levers, means pivotally connecting said levers together, cleaning devices carried at the lower ends of said levers, an endless loop of flexible material movably connected to the upper ends of the levers, a draw means extending from the loop, a latch carried by one of the levers and engaging the other lever to maintain the cleaning elements against separation as the device is lowered into a chimney, a pendant on said latch to engage the bottom of the chimney to thereby retract the latch, and an arm provided with a longitudinal slot for adjustably securing it to one lever and engageable with the other lever to limit the outward movement of the cleaning members when disposed in a chimney.

In testimony whereof I affix my signature.

JAMES J. CARNEY.