

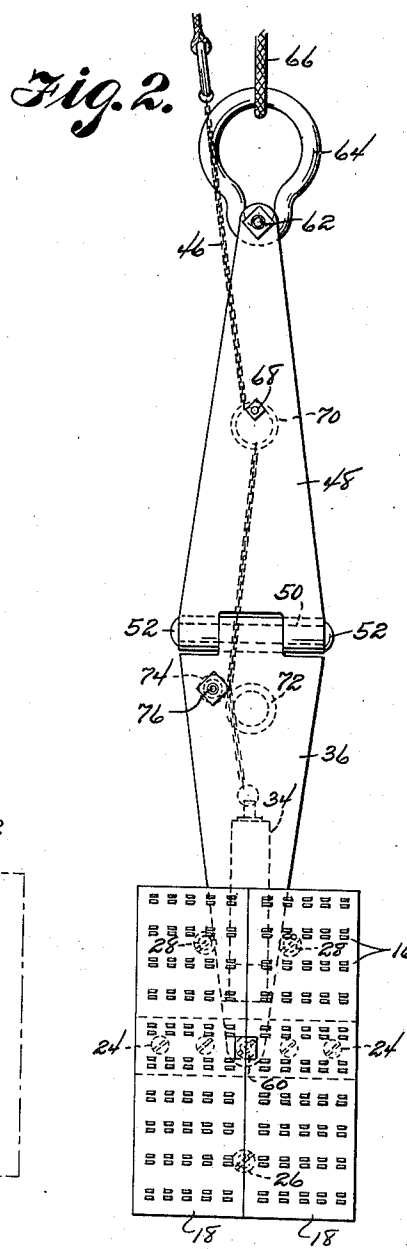
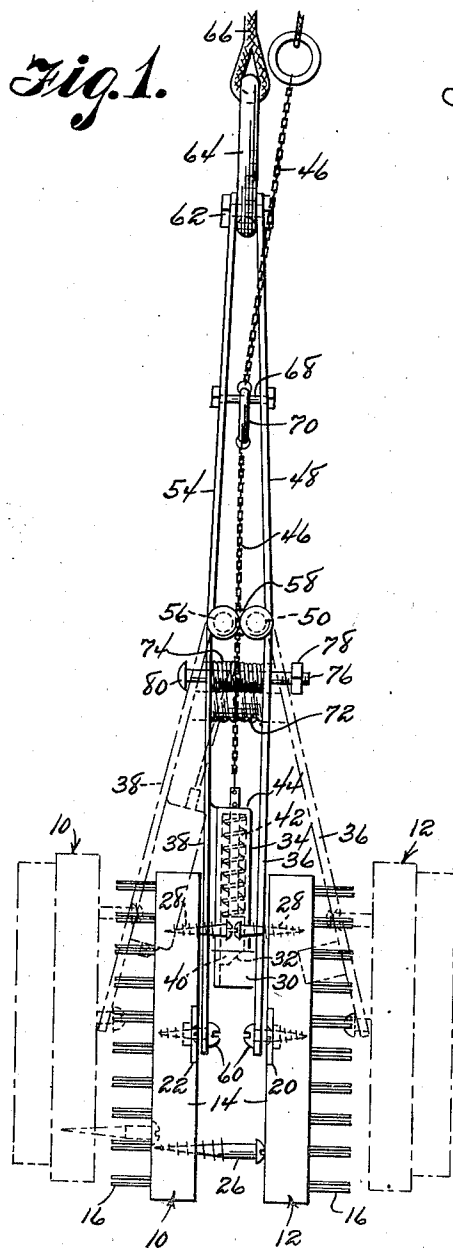
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CHIMNEY CLEANING DEVICE

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CHIMNEY CLEANING DEVICE

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1 Claim. (Cl. 15-163)

My invention relates to the art of cleaning chimneys, and has among its objects and advantages the provision of an improved chimney cleaning brush.

5 An object of my invention is to provide a brush of the type described embodying a pair of brush units resiliently urged apart to have brushing action on opposed chimney walls in which novel means are incorporated for adjusting the brush units to a chimney of predetermined size and in which the brush units may be latched in closely compacted relation to facilitate lowering of the device to the bottom of the chimney preparatory to expanding the brush elements and drawing the device upwardly of the chimney.

In the accompanying drawing:

Figure 1 is a side elevational view of a device in accordance with my invention; and

Figure 2 is a similar view taken from a position at right angles to Figure 1.

10 In the embodiment selected to illustrate my invention, I make use of brush units 10 and 12. Each brush unit comprises a back 14 and rows of steel bristles 16. Each unit is also preferably made up of sections 18, see Figure 2, which sections are arranged in edge-to-edge relation and recessed at 20 for the reception of a metal strap 22 having holes for the reception of screws 24 threaded into the sections 18 for connecting the same into a unitary structure. The width of the brush units when viewed according to Figure 2 is such as to readily pass into chimneys of standard construction. This is also true of the configuration illustrated in Figure 1, which view illustrates the units 10 and 12 latched in closely nested relation for passage into the chimney. Unit 10 is provided with a spacing screw 26, while both units 10 and 12 are provided with spacing screws 28 arranged to have abutting relation when the units are positioned according to Figure 1. Thus the screws 26 and 28 hold the units 10 and 12 in the parallel relation of Figure 1.

Unit 12 is provided with a loop 30 into which one end of a latch bolt 32 projects, which latch bolt is slidably related to a housing 34 associated with the unit 10. Loop 30 is welded to a hinge section 36, while housing 34 is welded to a hinge section 38. Thus the units 10 and 12 will be effectively latched in the position of Figure 1 when the latch bolt 32 projects into the loop 30. The latch bolt includes a head 40 against which one end of a compression spring 42 bears, with the opposite end of the spring abutting the end 44 of the housing 34 for urging the head 40 into the loop 30. Latch bolt 32 may be withdrawn from

the loop 30 through the medium of a pull chain 46.

Hinge section 36 is pivotally connected with a hinge section 48 through the medium of a bolt 50 having its ends upset at 52 to restrain the bolt from relative longitudinal movement. Hinge section 38 is pivotally connected with a hinge section 54 through the medium of a bolt 56, which is also upset at its ends in the same manner as the bolt 50. Hinge sections 36 and 48 and 38 and 54 respectively comprise two ordinary strap hinges. Bolts 50 and 56 are spaced sufficiently far to provide free accommodation for the pull chain 46. I connect the bolts in fixed, spaced relation through the medium of welded connections 58. Sections 36 and 38 have their lower ends provided with openings for loosely receiving screws 60 threaded into the units 10 and 12. To the free ends of the sections 48 and 54 I connect a bolt 62 for the reception of a ring 64 to which an operating rope or cable 66 is connected.

A pin 68 is also connected with the hinge sections 48 and 54, which pin passes through a ring 70 in the pull chain 46 to limit the movement of the pull chain. In other words, the brush assembly may be lowered to position with the units 10 and 12 latched in the compact relation of Figure 1, after which the pull chain is given a yank for withdrawing the lock bolt 32. A sudden yank on the pull chain easily withdraws the lock bolt and such withdrawal is easily determined by the sense of touch as the ring 70 is pulled upwardly into engagement with the pin 68.

Means for urging the units 10 and 12 apart or to the direction of the dotted line positions of Figure 1 comprises a relatively stiff compression spring 72 which has one end welded to the hinge section 36 and its opposite end welded to the hinge section 38. A smaller compression spring 74 is also in pressure relation with the two hinge sections, and each section is provided with an opening for loosely receiving a bolt 76 upon which the spring 74 is mounted. The bolt is provided with a nut 78 which may be adjusted to vary the effective length of the bolt, so that the nut 78 and the bolt head 80 constitute stop means for limiting the spread of the hinge sections 36 and 38 when the latch bolt 32 is withdrawn.

Two screws 28 are arranged on opposite edges of the hinge section 36 so as to restrain the unit 12 from relative pivotal movement about the axis of the screw 60. The two screws 28 associated with the unit 14 are also associated with the hinge section 38 in the same manner.

Spring 72 in combination with the smaller

spring 74 is of such tension as to effectively press the wire bristles 16 against opposite faces of the chimney for cleaning purposes. The bristles are of sufficient length and are spaced in such manner as to embody an effective brushing action. The spread of the hinge sections 36 and 38 may be predetermined through adjustment of the nut 78 for adjusting the units 10 and 12 to the requirements of a predetermined chimney. Limiting the spread of the units 10 and 12 is an important feature, particularly when cleaning chimneys having communicating flues and the like. In the absence of limiting means, the brush units are urged into the flue openings and frequently lodge therein so as to render dislodgement difficult and in some cases impossible.

Without further elaboration, the foregoing will so fully illustrate my invention that others may, by applying current knowledge readily adapt the same for use under various conditions of service.

I claim:

A chimney cleaning brush comprising two brush units, two strap hinges, each strap hinge having a first part thereof pivotally connected with one brush unit, the second part of each strap hinge being fixedly connected with the same part of the other strap hinge, a loop fixed to the first part of one strap hinge, a spring urged bolt slidably mounted on the first part of the other strap hinge, with the bolt arranged to be extended into said loop for holding the brush units in closely nested and inoperative positions, spring means acting on said first parts to pivot the latter and the brush units away from each other when said spring pressed bolt is withdrawn from said loop, a pull element connected with said spring urged bolt, and stop means fixed to the second parts of said strap hinges and operatively connected with said pull member to limit the relative movement of the pull member.

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