Aug. 1, 1939. F. W. FRENCH 2,168,121

CEILING AND WALL CLEANER

Filed May 10, 1937

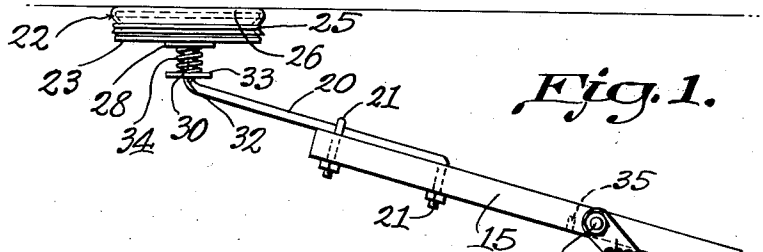


Fig. 1.

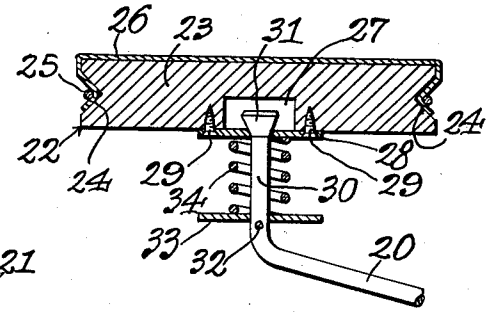
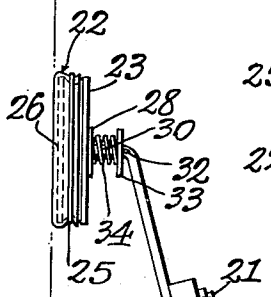


Fig. 3.



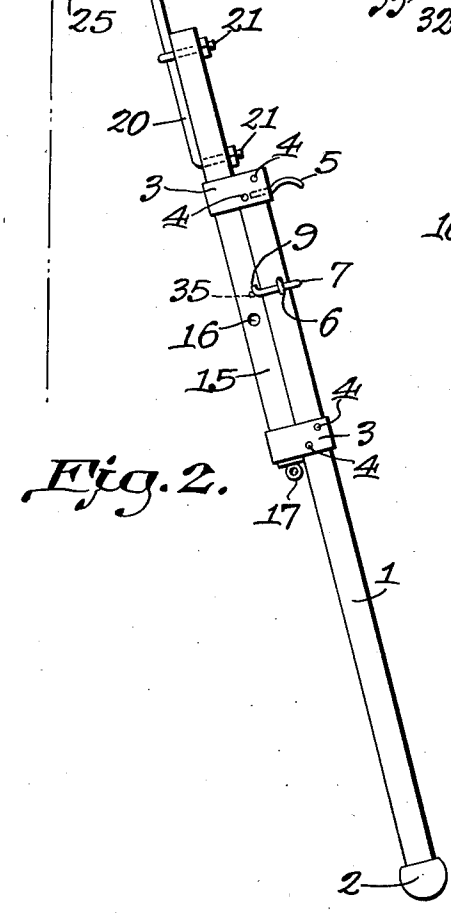


Fig. 2.

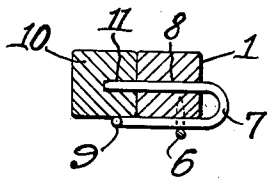


Fig. 4.

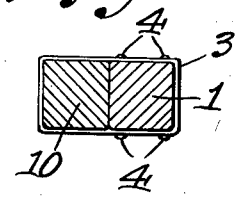
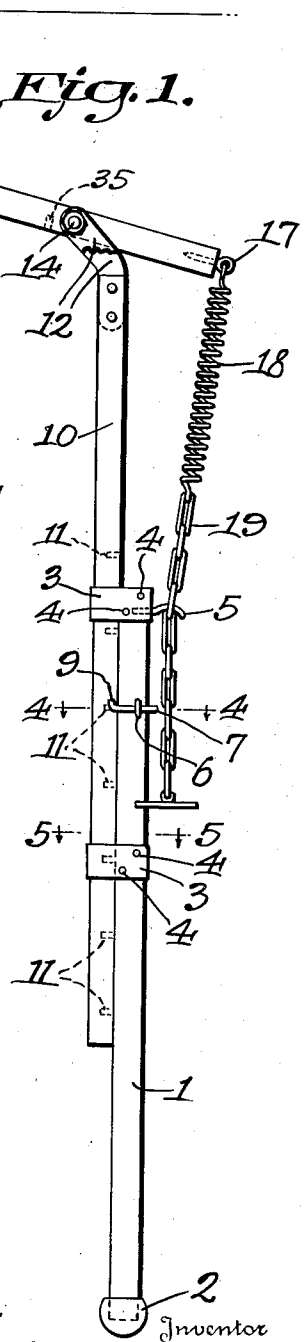


Fig. 5.



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CEILING AND WALL CLEANER

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Application May 10, 1937, Serial No. 141,797

1 Claim. (Cl. 306—20)

This invention aims to provide a novel means for cleaning or working otherwise upon a wall or ceiling. The invention aims so to construct the device that, at the will of an operator, it may be used on a horizontal ceiling or on a vertical wall. The invention aims, further, to provide novel means for adjusting the device as to length, and for holding the cleaner yieldably in such a position that it may be used to work upon the ceiling or wall advantageously.

It is within the province of the disclosure to improve generally and to enhance the utility of devices of that type to which the present invention appertains.

With the above and other objects in view, which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, may be made within the scope of what is claimed, without departing from the spirit of the invention.

In the accompanying drawing:

Fig. 1 shows in side elevation, a device constructed in accordance with the invention, parts being assembled as they will appear whilst the ceiling is being cleaned;

Fig. 2 is a side elevation showing the device as it will be assembled whilst a vertical wall is being worked upon;

Fig. 3 is a section taken through the cleaner;

Fig. 4 is a section on the line 4—4 of Fig. 1;

Fig. 5 is a section on the line 5—5 of Fig. 1.

In carrying out the invention, there is provided a main staff 1, which may be shod at its lower end with a foot 2 of rubber or other material to prevent marring. Transverse, loop-shaped guides 3 are attached to the main staff 1 in spaced relation longitudinally of the staff, one of the guides being located at the upper end of the staff. The guides 3 are held in place by securing elements 4, and the upper guide may be held in place, additionally, by a hook or keeper 5, secured in the upper guide and extended into the upper part of the main staff 1. Intermediate its ends, and near to its upper end, the main staff 1 is supplied with an eye 6 on one side, which may be a staple. The main staff 1 has a transverse bore 8, adapted to receive the inner arm of the U-shaped latch 7, the outer arm of which is longitudinally slidable in the eye 6. At one end, the outer arm of the latch 7 is provided with a projection 9 adapted to engage the eye 6 and preventing the latch from being detached completely from the eye 6.

The device includes an extension 10 provided on its inner surface with longitudinally spaced seats 11, in any of which the end of the inner arm of the latch 7 may be mounted. To the upper end of the extension 10, fork pieces 12 are secured. In the fork pieces 12, a pivot element 14 is mounted.

The numeral designates an arm which, when used as shown in Fig. 1, is a lever of the first order. Intermediate its ends, the arm 15 is provided with an opening 16, adapted to receive the pivot element or bolt 14. In the inner end of the arm 15 there is an anchor eye 17 to which is detachably connected the upper end of a pull spring 18, carrying, at its lower end, a flexible element 19, such as a chain, any link of which may be engaged with the keeper 5.

An extension rod 20 is secured, at 21, to the outer end of the arm 15 and constitutes part thereof.

The numeral 22 designates a cleaner, which may be constructed as desired. If preferred, the clearner 22 embodies a block-like body 23 having a circumscribing groove 24 receiving a retractile band 25, holding a flexible cover 26 on the body 23. In the lower surface of the block-like body 23 there is a recess 27, bridged over by a cover plate 28 held in place by securing elements 29. The extension rod 20 of the arm or lever 15 has an end portion 30 disposed at an acute angle to said rod. The end portion 30 of the rod 20 passes through the cover plate 28, and is provided with a head 31. located in the recess 27. The general construction is such that the cleaner 22 is connected to the part 20 by what amounts to a ball and socket joint.

A retainer or pin 32 is mounted in the part 30 of the extension rod 20, and is engaged by an abutment plate 33 slidably mounted on the part 30 of the extension 20. A compression spring 34 surrounds the part 30 of the extension rod 20, one end of the compression spring 34 engaging the abutment plate 33, and the opposite end of the spring engaging the cover plate 28 which is secured to the body portion 23 of the cleaner 22.

In practical operation, when a ceiling is to be worked upon, the parts may be assembled as shown in Fig. 1 of the drawing. Under such circumstances, the extension 10 is received for sliding adjustment in the loop-shaped guides 3 of the main staff 1, the staff and the extension constituting a handle. The effective length of the handle may be altered by engaging the inner arm of the latch 7 in any of the seats 11 which are formed in the inner edge of the extension 10. The arm or lever 15 is fulcrumed intermediate its

ends on the pivot bolt 14, which is carried by the fork pieces 12 on the extension 10. The arm or lever 15 can tilt vertically. The downward movement of the part of the lever 15 which carries the cleaner 22 is limited by the resiliency of the spring 18. The angle at which the arm or lever 15 is held yieldably, with respect to the extension 10, is governed and adjusted by engaging any of the links of the chain 19 with the keeper 5. The cleaner 22 may be moved along the ceiling and in this way the cleaning operation may be carried out. The spring 34 functions to keep the cleaner 22 yieldably at right angles to the end portion 30 of the extension rod 20 on the arm or lever 15, but the cleaner is tiltably mounted so that it will accommodate its working surface to the ceiling, regardless of the position in which the extension 10 and the main staff 1 may be, with respect to the vertical, or with respect to the ceiling, more properly speaking.

When it is desired to clean a side wall, the parts are arranged as shown in Fig. 2 of the drawing. Under such circumstances, the extension 10 is removed from the staff 1, and is removed from the lever or arm 15, by taking out the pivot bolt 14. The arm 15 then is shoved down into the guides 3 on the staff 1, as shown in Fig. 1, it being noted that the inner surface of the arm 15 is provided with any desired number of seats 35, corresponding to the seats 11 of Fig. 1, and adapted to receive the end of the inner arm of the latch 7. The construction is such that, when the device is arranged as shown in Fig. 2, the arm 15 is detachably assembled with the main staff 1.

The device is simple in construction, but it affords a convenient means whereby the workman can clean either a ceiling or a side wall. The pressure which the cleaner 22 exerts, either upon the ceiling or the side wall, is regulated not only by the pull spring 18, but by the compression spring 34 as well, although the pull spring 18 is relied upon primarily to afford the necessary pressure when a ceiling is being cleaned.

What is claimed is:

In a device for cleaning walls and ceilings, a staff, a guiding means on the staff, an extension slidably adjustable in the guiding means, longitudinally of the staff, the staff and the extension having latch parts cooperating to hold the extension in adjusted positions longitudinally of the staff, a lever, a cleaner mounted on the outer end of the lever, a fulcrum element connecting the lever intermediate its ends with the extension, a pull spring, means for connecting one end of the pull spring to the staff, to vary the combined length of said means and the pull spring, and a connection between the opposite end of the pull spring and the inner end of the lever: the extension being removable from the guiding means, the fulcrum element being removable, the pull spring being detachable from the lever, the lever being of substantially the same cross section as the extension, and the connection being disposed entirely within a space of the same cross section as the cross section of the lever, all whereby the lever can be mounted in the guiding means, in place of the extension: the latch parts of the extension being substantially duplicated on the lever, whereby the lever, when taking the place of the extension, may be held in adjusted positions, longitudinally of the staff.

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