

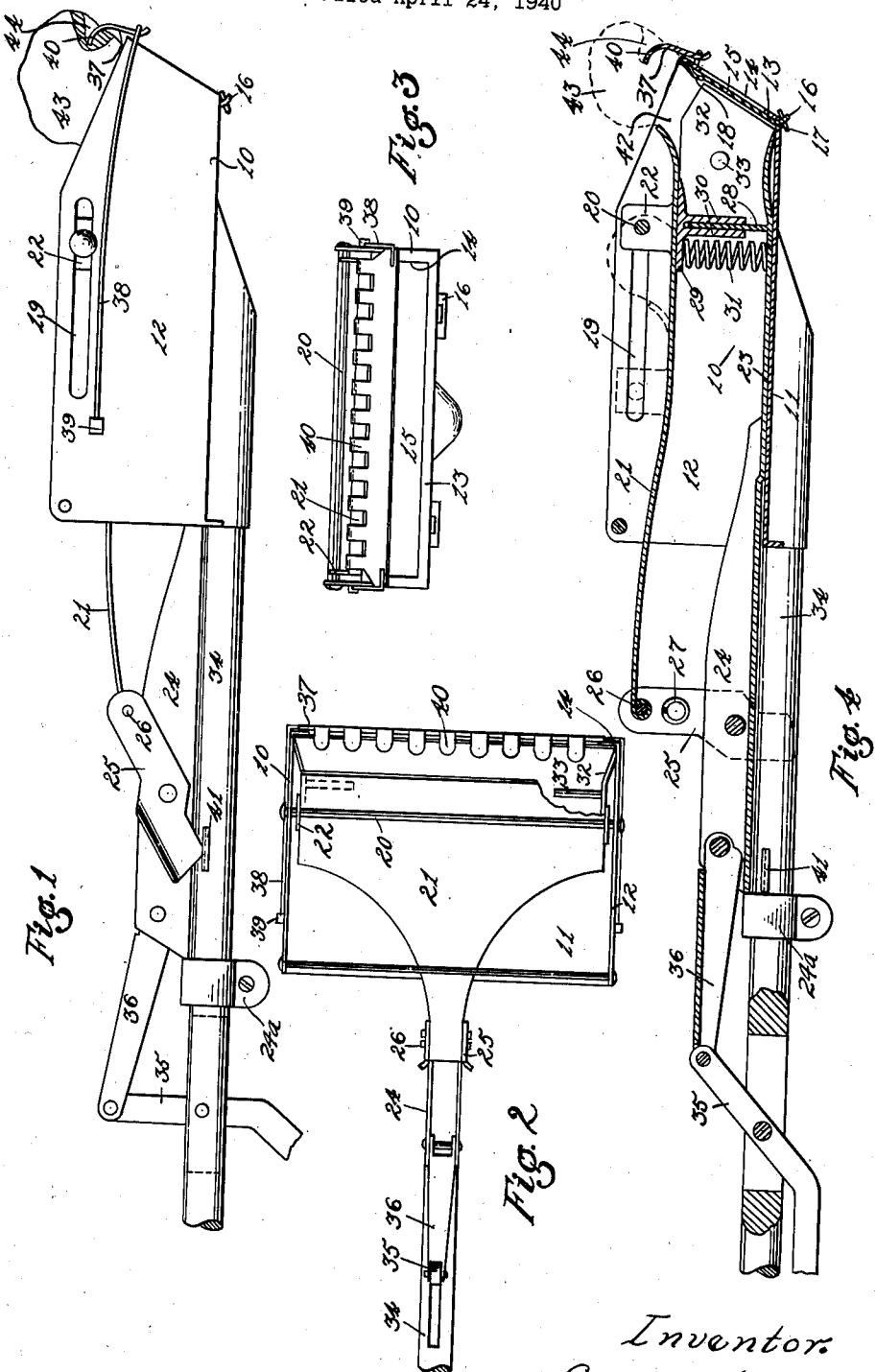
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## WALL CLEANING APPARATUS

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Inventor:  
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## WALL CLEANING APPARATUS

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3 Claims. (Cl. 15—219)

This invention relates to improvements in a device for holding wall paper cleaning compound and is an improvement on the device illustrated and described in Patent No. 1,999,462, issued to Casper and Anthony Kenne, said device consisting of a casing or container for supporting a cleaning compound such as is used for cleaning wall paper by hand, and including a slot in one end of one side of the casing, and means for forcing the material from within the casing and outwardly through said slot to form a cleaning portion extending laterally from the surface of the casing, and means for turning and kneading the material, the end member adjacent to the forward side of the slot being inclined outwardly and forwardly so as to permit the material to be forced laterally from the side surface of the casing as it is moved longitudinally within the casing. Some difficulty has been experienced in forcing this material laterally and over the inclined end surface in that the material has a tendency to curve outwardly and rearwardly so that it could not be withdrawn properly, and in such position that the rolling and kneading effect could be produced to the best advantage.

It is, therefore, the object of my invention to provide an additional means wherein the forward side of the protruding portion of the cleaner may be held and retained against outward and lateral movement, permitting the back side to advance so that the laterally projecting cleaning portion will assume a more desirable shape and position, and further to provide means for reinforcing the front side of the cleaning portion to prevent shearing of the portion over the outer edge of the front end member as the cleaning portion is moved rearwardly over the surface to be cleaned.

My invention consists in the construction, arrangement and combination of the various parts of the device, whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claims, and illustrated in the accompanying drawing, in which:

Figure 1 is a side elevation of a wall paper cleaner device involving my improvement;

Figure 2 is a top view of the same;

Figure 3 is an end view; and

Figure 4 is a detail longitudinal sectional view showing the manner in which my improved device is used in conjunction with the cleaning portion of the cleaner.

In the drawing I have used the reference numeral 10 to indicate generally a substantially rectangular casing 10 having a bottom 11, side members 12 and a front end member 13, said

end member being preferably provided with an opening 14 and a hinged plate 15 supported adjacent to the inner face of the member 13 and hinged to the bottom plate 11 by projecting lugs 16 through suitable openings 17 in said bottom member, the end member 13 being inclined at substantially an angle of 60° from the horizontal, the plate 15 being provided with a transversely arranged and inwardly extending rib 18. The side members 12 are each provided with a horizontally arranged slot 19 for receiving a transversely arranged rod 20 on which is supported a top member 21 by means of upwardly extending lugs 22.

Slidably mounted on top of the bottom 11, and within the casing, is a plate 23 having a rearwardly extending portion 24 provided with a split looped portion 24a slidably mounted on the handle 34, hereinafter described. Pivottally mounted to each side of the portion 24 is a lever device 25, said lever devices having their upper ends pivotally connected to the outer end of the top 21 by means of a pin 26. A spring 27 is provided for yieldably holding the lower ends of the members 25 against movement from each other. The inner end of the member 23 is provided with an upwardly extending portion 28 to form an end member for the rear end of the casing.

Slidably mounted on the upper edge of the member 28 is a plate 29 having downwardly extending plates 30 slidably mounted on the plate 28. A spring 31 provides means for holding the plate 29 yieldably against the under surface of the plate 21, the plates 30 and the end member 28 forming what I shall term a plunger, the plate 28 also having forwardly extending side members 32 for scraping the sides of the members 12. Supported by each of the members 32 is an inwardly extending pin 33.

The bottom member 11 is provided with a handle member 34 to which is pivotally mounted the lever 35, said lever having a link 36 pivotally connected to the rear end of the portion 24, thus providing means whereby when the lever 35 is actuated, the member 24 will be moved longitudinally of the plate 11 and carry with it the top plate 21.

Supported transversely across the front side of the outer edge of the end member 13 is what I shall term a retarding bar 37 having its ends supported by means of spring wires 38 supported adjacent to the outer surfaces of the wall members 12, at the points 39, thus providing means whereby the bar 37 is yieldably mounted. The

upper edge of the bar 37 is provided with a series of inwardly and upwardly curved teeth 40.

The operation of the device is as follows:

The free end of the lever 35 is first moved forwardly causing the link 36 to be moved rearwardly and the plunger to be moved rearwardly, together with the top plate 21. A chunk of cleaner is then placed in the casing with the material forced against the plunger and around the pins 33. The lever 35 is then moved rearwardly, causing the member 24, the plate 23 and the plate 21 to be moved forwardly. The lower ends of the members 25 will then engage lugs 41 carried by the handle 34, causing the plate 21 to be advanced at a higher rate of speed than the plate 23, tending to force the top of the material within the casing downwardly and forwardly. Further advancement of the member 24 will cause the members 25 to pass over the members 41 at the time the rod 20 reaches its forward limit of movement in the slot 19, after which further movement of the member 24 will cause the plunger to be advanced relative to the plate 21 and the material to be forced against the plate 15 and thence outwardly and laterally through the slot 42 and between the inner edges of the plates 21 and 15 to form a protruding cleaner portion 43. As the material is forced outwardly through the slot 42 the front surface of the cleaner portion 43 will engage the teeth 40, which will tend to retard the outward movement of the front face of said protruding portion and to cause the back face of said protruding portion to be advanced slightly relative to the front face, so that the member 43 will assume the position illustrated in Figure 4. The upper face of the member 43 may then be applied to the ceiling of a building to be cleaned, after which a rearward stroke of the handle 34, together with the cleaning portion 43, will cause the surface to be cleaned and the dirt to cling to the upper portion of said cleaner 43. This rearward movement will tend to move the protruding cleaner portion forwardly over the end of the members 40. Because of the fact that the bar 37 is mounted on yieldable wires 38, the said members 40 will also yield forwardly somewhat so as to prevent the upper surface of the protruding portion 43 from being sheared from the lower portion on a line even with the ends of the members 40. We find, also, that by providing the upper edge of the bar 37 with teeth, that reinforcing portions 44 are formed in the cleaner between the teeth 40 which greatly assist in relieving the material of the shearing effect which would otherwise take place if the upper edge of the bar 37 were smooth. In other words, the bar 37 and the teeth 40 provide a yieldable and simple flexible support for the forward surface of the cleaning portion. I find, also, that the cleaning portion is more readily disengaged at the time that the cleaning portion is drawn into the case 10 by the rearward movement of the plunger and the member 21. This rearward movement of the plates 21 and 30 causes

the portion 43 to be moved rearwardly away from the teeth 40 and the plate 15 to be positioned as shown in dotted lines in Figure 4. Rearward movement of the free end of lever 35 will then cause the plate 21 to move forwardly, which in turn will cause the portion 43 to be worked downwardly into the casing and that portion carrying the dirt, to engage the under plate 15 at the time the material is again forced outwardly through the slot 42, so that a rolling and kneading effect is produced. This part of the operation is substantially the same as disclosed in the aforementioned issued patent, and my present invention pertains only to the bar 37 and the teeth 40 so as to decrease the shearing effect and to cause the cleaner portion 43 to assume a better shape than is possible by means of the plate 19 illustrated and described in said patent.

Devices of this class are commonly known to the trade as wall paper cleaners. They, however, are useful in the cleaning of such things as window shades, lamps, tapestries, tinted walls, pictures, kalsomined walls, etc.

I claim as my invention:

1. A wall paper cleaning apparatus, comprising a casing for holding a cleaning compound, having a slot in one end of one of its sides, a plunger for forcing cleaning material within said casing towards its open end and outwardly through said slot, a retarder adjacent to the forward side of said slot having spaced teeth projecting rearwardly and over said slot to retard the corresponding side of the forward portion of said cleaner as it is moved outwardly to produce a rolling effect and to stiffen and support the outwardly projecting portion as the cleaning operation takes place.

2. An apparatus for cleaning wall paper, comprising a casing for holding a cleaning compound, having a slot in one end of one side, a plunger for forcing the cleaner within said casing towards its open end and outwardly through said slot to form a laterally projecting cleaning portion, a retarder bar adjacent to the front side of said slot having spaced teeth projecting rearwardly and over one side of said slot to engage and enter the forward side of said laterally projecting cleaning portion, spring wires having one end secured to each side of said casing and an opposite end of each wire secured to a corresponding end of said bar, to provide a yieldable support for the front side of said cleaning portion as the cleaner is moved rearwardly during the cleaning operation.

3. An apparatus for cleaning wall paper, comprising a casing for holding a cleaning compound, having a slot in one end of one of its sides, means within said casing for forcing cleaning compound therein toward the open end of said casing and outwardly through said slot to form an outwardly projecting cleaning portion, a retarder having spaced teeth extending outwardly from the edge of said end of the casing and curved rearwardly over said slot, for the purpose stated.

CASPER KENNE.