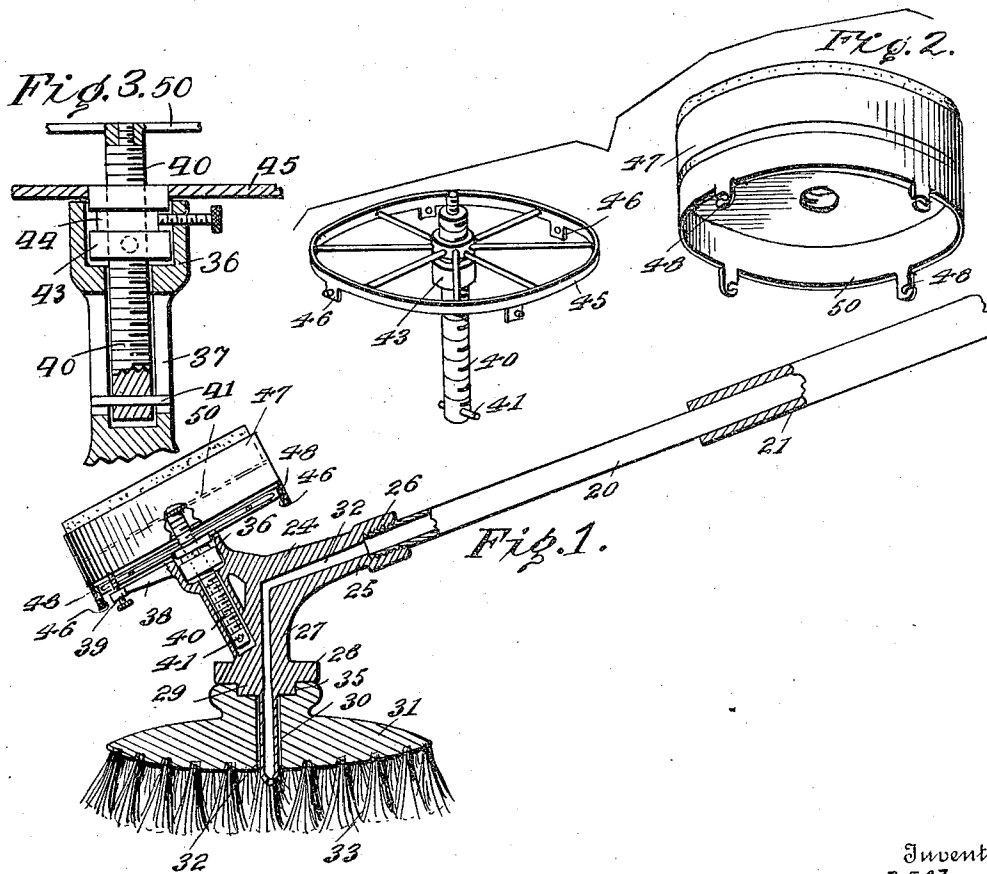


S. A. MIKOOOL.
WINDOW CLEANING MACHINE.
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SALEEM A. MIKOOL, OF FALL RIVER, MASSACHUSETTS.

WINDOW-CLEANING MACHINE.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, SALEEM ASSAD MIKOOL, citizen of the United States, residing at Fall River, in the county of Bristol and State of Massachusetts, have invented certain new and useful Improvements in Window-Cleaning Machines, of which the following is a specification.

My invention relates to devices primarily designed for washing and cleaning windows and the object of the invention is to provide a window-cleaning implement having thereon a window-cleaning brush through which water may be forced, and also having thereon and mounted in convenient relation to the brush, a soap carrier provided with devices whereby the soap may be fed outward as the exposed face of the soap is worn away.

My invention is shown in the accompanying drawings wherein:

Figure 1 is a longitudinal section enlarged of the window-washing brush and soap holder. Fig. 2 is a fragmentary perspective view of the soap-feeding mechanism, the soap case being detached from the case support. Fig. 3 is an enlarged view partly in section and partly in elevation of the soap-feeding mechanism.

Referring to these figures 20 designates a metallic pipe which forms the handle of the window washer and which is surrounded by a sleeve 21 preferably of wood. The pipe 20 extends beyond the handle 21 and is screw threaded at its end for engagement with a brush and soap holding member 24, as will be now described.

The member 24 comprises a shank 25 having a socket 26 at one end which is interiorly screw threaded for engagement with the upper end of the pipe 20. The shank 25 extends in line with the handle and is then bent at right angles as at 27 and is formed with a disk 28 and a central hub 29 from which extends a prolongation 30 forming the axis upon which the brush 31 rotates or is mounted. The shank 25 is tubular, as at 32, and this passage 32 extends up through the shank, through the bend 27 and through the prolongation 30, opening at the end of the same. The brush 31 is convex upon its outer face and provided with bristles 33. The center of the brush is formed with a passage 34 adapted to receive the prolongation 30, the back of

the brush being formed with a recess 35 adapted to receive the hub 29. It will thus be seen that when the brush is placed upon the prolongation 30 that it is in effect mounted upon an axis around which it is rotatable and that as this axis is hollow, water will be supplied to the face of the brush at the center thereof. I have also provided means for the support of soap or like cleaning composition to be used in conjunction with the brush 31, and to this end I have formed with the shank 25, the hollow socket 36 having the tubular prolongation 37 extending therethrough, the walls of the socket and prolongation being integral with the casting forming the shank 25, and thus being part of the member 24. Projecting out from one side of the socket 36 is the arm 38 carrying in its end the set screw 39. Located within the tubular extension 37 of the socket is a plunger rod 40 which is screw threaded along its entire extent and is provided with a transversely projecting pin 41 at its inner end, this pin extending out through a slot 42 formed in the tubular extension 37. The plunger rod is thus held from any rotation. By removing this pin, however, the plunger rod may be entirely removed from its engagement with the sleeve 43.

Fitting within the socket 36 and surrounding the protruding end of the plunger rod 40, is the screw threaded sleeve 43 which is circumferentially grooved upon its exterior, as at 44. A pin 45 projecting into the socket 36 engages this groove so as to hold the sleeve in rotatable engagement with the socket. Said screw may be removed to permit the removal of the sleeve at the same time that the plunger is removed. This provides for cleaning the parts when necessary and also provides for an easy replacing of the parts when repairs are to be made. The sleeve, of course, projects beyond the socket and is provided with a disk or wheel-like member 45 adapted to form a support for the soap box. To this end the circumference of the member 45 is formed with lugs 46 having pins which engage with lugs on the soap box 47.

The box 47 is not provided with a bottom, at least when in use, and it is provided upon its lower edge with downwardly projecting lugs 48 having bayonet slots in which the pins passing through the lugs 46 engage, so

as to hold the box 47 upon the member 45. Attached to the outer end of the screw threaded rod 40 is the disk 50 which fits the box 47 and acts as a movable bottom therefor when the box is in place upon my apparatus. It will be obvious that with this construction, a rotation of the member 45 will act to screw the supporting member downward upon the screw threaded rod 40 and that the plunger disk 50 will hence have a movement relative to the box which will act to force the soap out of the box dependent upon the extent to which the supporting member 45 is turned. It will thus be seen that the soap or other cleaning composition may be gradually protruded from the outer end of the box to any extent desired. When the soap has been entirely exhausted it is only necessary to remove the empty soap case or box 47 and replace it with a filled one.

In order to hold the supporting member 45 and the soap box thereon from any rotation relative to the plunger rod 40, I have provided the arm 38 having thereon the set screw 39 which engages with supporting member 45. If it were not for this arm and set screw, the box and support would be liable to be rotated in either direction as the soap is applied to the window, thus oftentimes forcing the soap outward too much or inward beyond the edges of the box or case.

It will be seen that by my arrangement I have provided a soap carrier which is oppositely disposed to the cleaning brush 23 and that this soap carrier is so constructed that the soap may be fed forward as it is used or in other words, so constructed that the inclosing casing around the soap may be withdrawn below the face of the soap, as desired.

In operation the extremity of the tubular handle 20 is connected to a hose pipe leading to any suitable source of supply, preferably a tank containing water under pressure so that water may be forced under pressure through the brush 31. In the practical use of the invention the window is first rubbed with soap and then the handle turned around and the window thoroughly scrubbed by means of the brush. After the window has been scrubbed it may be washed down by opening the cock 22 and allowing a plentiful supply of water to flow forth. As the soap is worn away it may be fed outward by rotating the member 45, thus causing the plunger disk 50 to force the soap out of the box.

Having thus described the invention, what is claimed as new is:

1. In an implement of the character described, a handle, a tubular head mounted thereon and longitudinally slotted, a screw threaded plunger rod supported in said tubular head, a removable pin passing through the plunger rod and engaging in said slot, a soap case support having screw threaded engagement with the rod, and detachable means for engaging the support with the head but permitting its rotation.

2. In an implement of the character described, a head mounted thereon and formed with a socket having a tubular prolongation, said prolongation being longitudinally slotted, a screw threaded rod supported in said prolongation and extending out through said socket, a transverse pin extending through the rod and into the slot in the prolongation, preventing the rotation of the rod and its removal from the head, a sleeve surrounding the rod and fitting in said socket, means for detachably holding the sleeve in the socket but permitting its rotation, a plunger disk mounted on the plunger rod, a soap case support disposed on said sleeve, and means on the circumference of the support for detachably engaging a soap case.

3. In an implement of the character described, a handle, a head mounted thereon and formed with a socket having a tubular prolongation, said prolongation being longitudinally slotted, a screw threaded rod supported in said tubular prolongation and extending out through said socket, a removable transversely extending pin through the rod engaging with said slot, a plunger disk mounted on the rod, a sleeve surrounding the rod and fitting in said socket, said sleeve being circumferentially grooved, a removable pin engaging the groove in the sleeve, a circular soap case support mounted on the sleeve and provided with upwardly extending lugs, a soap case open at its bottom and having means engaging said lugs to clamp the case upon the support, and means whereby the sleeve and support may be held from rotation relative to the plunger rod.

In testimony whereof, I affix my signature in presence of two witnesses.

SALEEM A. MIKOOL. [L.S.]

Witnesses:

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