

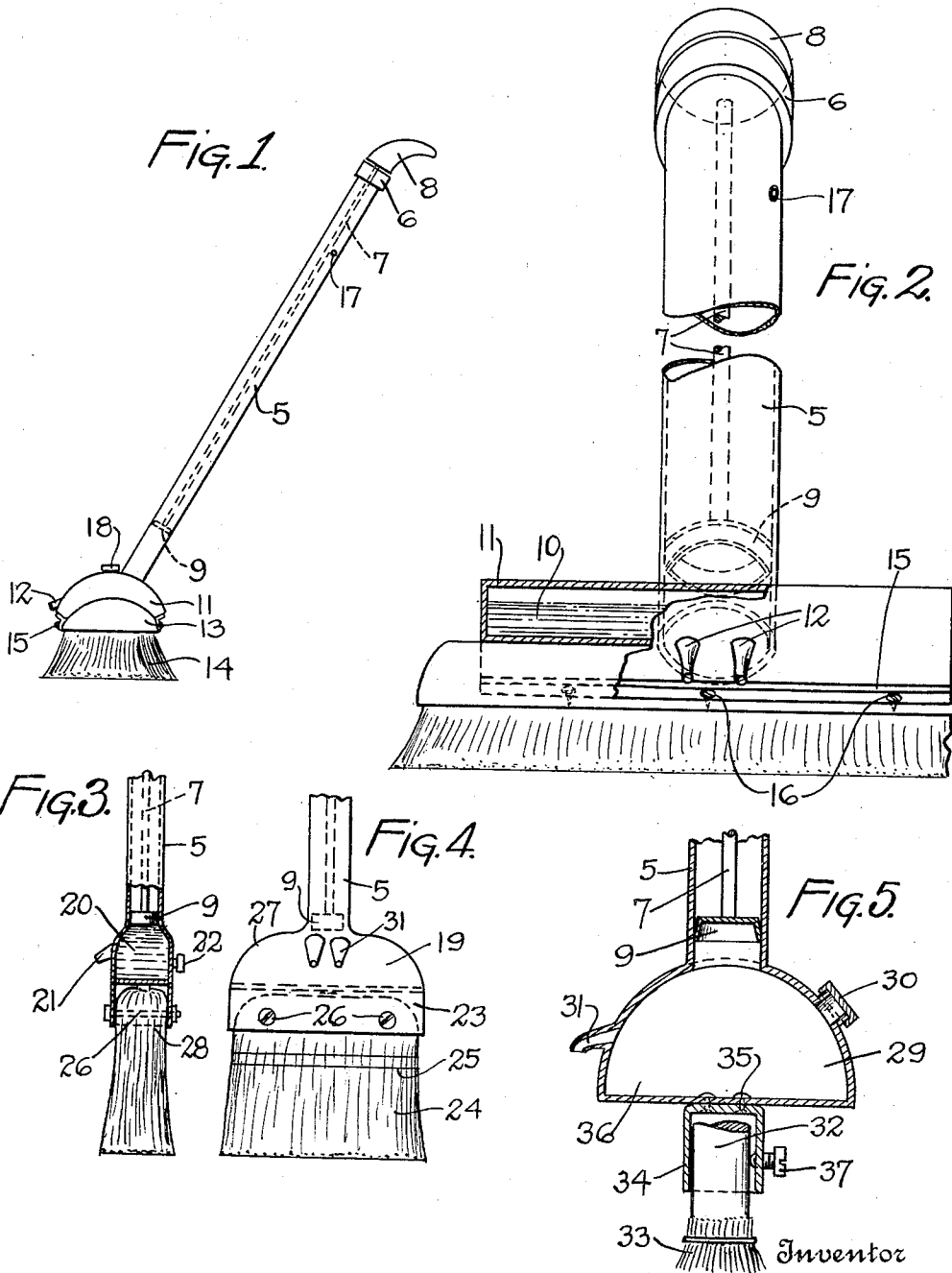
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COMBINATION SPRAYER AND SWEEPER

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COMBINATION SPRAYER AND SWEEPER

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This invention relates to sprayers and sweepers and in particular to a type adapted for use in household work wherein a water container is employed in connection with a brushing element to keep down dust during sweeping.

A particular object of my invention is to provide a combination sweeper and sprayer which may be manipulated first as a sprayer and then as a sweeper, the parts being so combined that interchange is unnecessary and the elements are so arranged that the sprayer part may be attached to a new sweeper or broom, as the latter wears out.

A still further object of my invention is to provide a device which is applicable to various forms of brooms or brushes and which may be employed during the sweeping operation to effectively spray the surface to be swept so that the atmosphere will not become dust laden.

A still further and equally important object of my invention is to provide in connection with a sweeper or broom, a spray device through the medium of which a disinfectant mixture may be dispensed so that floors, sidewalks and other surfaces may be kept clean and sanitary.

With the foregoing 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:—

Figure 1 is a view in side elevation of a combination broom and sprayer device constructed in accordance with my invention.

Figure 2 is a view in front elevation of the sweeper shown in Figure 1, the same being broken away to illustrate the construction thereof.

Figure 3 is a modified form of my invention with parts thereof shown in section.

Figure 4 is a view in front elevation of the

broom and spraying device as illustrated in Figure 3, and

Figure 5 is a view in sectional elevation of another form of my invention which permits use of a broom stub.

Referring to the drawing in detail, 5 indicates a tubular handle, the upper end of which is closed through the medium of a cap 6 through which passes a piston rod 7. This piston rod beyond the cap 6 is secured to a suitable handle or operating member 8 and at its lower end carries the piston 9 which fits closely the inner wall of the tube 5 and is arranged to compress the air in the tube 5 so that liquid 10, held in the sprayer tank 11, may be ejected through the nozzle 12.

I have shown two of these nozzles in the construction illustrated in Figures 1 and 2 but any number may be employed and they may be of any shape, preferably tapering to a small opening at their outlet end so that a fine spray is provided. These nozzles 12 are directed downwardly so that the spray or liquid emitting therefrom strikes the surface to be swept in advance of the broom.

The broom consists of the usual broom back 13 and bristles 14, as illustrated in Figures 1 and 2, the broom back in this instance being of the elongated type and having secured thereto, the sprayer tank 11 through the medium of the angle bracket 15 and screws 16. The tube 5 is provided with an opening 17 for vent and oiling purposes and the sprayer tank 11 is provided with a filling neck and cap 18. Any suitable liquid may be employed in the sprayer tank such as water, disinfectant or cleansing fluid and it is evident that manipulation of the handle 8 will either force the liquid through the nozzle 12, should the tube 5 be filled with the liquid as well as the sprayer tank or the action of the piston 9 will compress the air and force the liquid out through the nozzle so that all of the liquid in the sprayer tank is utilized.

In the forms of my invention shown in Figures 3 and 4, the same tube 5 constitutes a handle and has cooperating therewith the piston rod 7 and piston 9 as before described, the departure in construction occurring at the lower end of the tube 5 which is shaped as

at 19 to constitute a liquid chamber 20, from which emerge the nozzles 21 to permit spraying of the liquid. The chamber 20 is filled through the medium of the filler cap 22 and the fluid receptacle side walls are extended as at 23 to provide a saddle which fits over the upper end of the usual type of straw broom 24, which is suitably bound as by the wires 25 and is held in position between the side walls 23 by the bolt 26.

The ordinary straw broom is made use of in this invention by sawing the broom stick portion off so that the upper part of the broom 24 fits between the side walls 23 and is held securely in place by the bolt 26. If desired, the end walls 27 of the receptacle 19 may also be extended to the lower edge of the side walls 23 to provide a receptacle in which the upper end of the broom fits, as indicated by the numeral 28 in Figure 3.

Referring to the form of my invention illustrated in Figure 5, the tube 5 which serves as a handle in all instances, houses the usual piston rod 7 and piston 9. The lower end of the tube opens into a fluid receptacle 29 which is filled through the cap closure 30 and the contents of which is forced out through the nozzle 31, or nozzles, in the event that more than one is used, these nozzles being substantially the same as the nozzles 21 and 12 hereinbefore referred to.

In order to adapt the type of sprayer illustrated in Figure 5 to use with a broom, a short stub of the broom handle 32 is left on the broom 33 and this stub is arranged to fit up into a cup 34 of cylindrical formation which, through the medium of the rivets 35 is secured to the bottom 36 of the fluid receptacle 29. The broom stick 32 is secured in position within the cup 34 by the adjusting screw 37 and when the broom has become worn, it may be readily replaced by another.

It is evident also that instead of the bolt 26 and set screws 37, use may be made of suitable clamps for holding the broom in place, which clamps may be instantly released for the replacement of another broom or brushing member.

It is evident, therefore, that I have provided a combination sprayer and brush or broom, the parts of which may be used separately as a sprayer and as a brush for a broom. It is also evident that the containers for the liquid are adapted to fit the concaved upper surface of a soft brush and are arranged to fit over the upper end of a straw broom. My improved sprayer can easily be adjusted to any brush or broom and the apron portions 23, indicated in Figures 3 and 4, act as a water shed or shield to drain off any water that may drip from the nozzle 31 and prevent the same from getting into the upper fibers of the broom.

My improved device also promotes cleanliness by preventing the dust from permeating

the atmosphere during sweeping of the floors, sidewalks or other surfaces.

While I have illustrated and described my invention with some degree of particularity, I realize that in practice various alterations therein may be made without departing from the spirit of the invention or the scope of the appended claim.

What I claim is:—

The combination with the elongated, curved back of a sweeping member, of an elongated chamber fitting over said back, conforming to the curvature thereof and constituting a liquid receptacle, extensions on the receptacle engaging said back, nozzles protruding from the chamber and extending beyond said back and through which the liquid is sprayed in the path of the sweeping member, a tubular handle on the receptacle, a piston in the handle for compressing the liquid in the receptacle and forcing the same through said nozzles, a piston rod, one end of which is substantially the same diameter as and constitutes a continuation of said handle, for operating said piston, and means in said receptacle extension for securing the receptacle to the sweeping member back.

In testimony whereof, I have signed my name to this specification this 27th day of May, 1930.

MANDEL GREENBERG.