No. 894,359. PATENTED JULY 28, 1908.

L. G. ANTHONY.

DUST LAYING BROOM.

APPLICATION FILED JAN. 5, 1907.

Fig. 1.

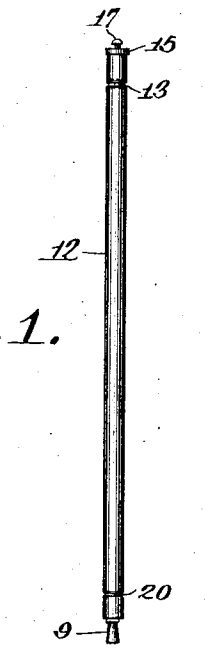


Fig. 3.

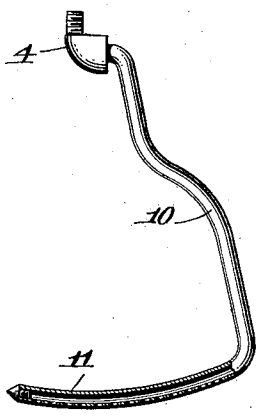


Fig. 4.

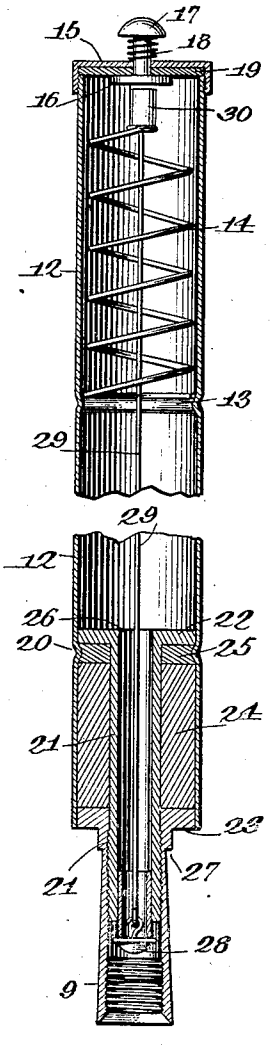
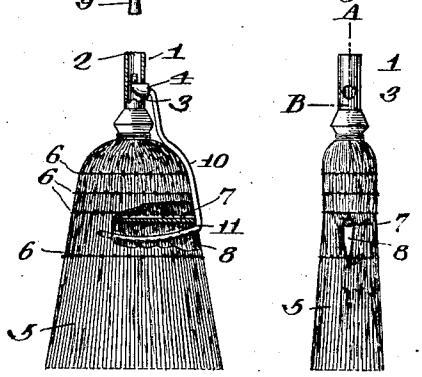


Fig. 2.



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UNITED STATES PATENT OFFICE.

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DUST-LAYING BROOM.

No. 894,359. Specification of Letters Patent. Patented July 28, 1908.

Application filed January 5, 1907. Serial No. 350,939.

To all whom it may concern:

Be it known that I, LEON GIBSON ANTHONY, of Lamoni, in the county of Decatur and State of Iowa, have invented a new and useful Improvement in Dust-Laying Brooms, of which the following is a full, clear, and exact description.

This invention relates to broom dampeners and has for its object the utilization of the handle of the broom as a reservoir to contain the liquid for dampening the strands, and a convenient means for discharging and distributing the same at the will of the operator.

A further object of this invention is to furnish an improved construction of dust moistening brooms, wherein desirable results not before obtained may be secured.

Reference is had to the accompanying drawings in which corresponding parts are indicated by similar characters.

Figure 1 is a side view of the broomhead with the distributer attached and handle detached, a portion of the strands being cut away over the opening 8 to show its construction. The support is also shown cut away on the line A B, Fig. 2. Fig. 2 is an edge view of the broomhead with the distributer removed. Fig. 3 shows the distributer. Fig. 4 is an enlarged vertical central section of the upper and lower ends of the handle, showing the interior working parts, the portion not shown connecting these ends being only a continuation of the half tubular wall and rod.

Giving a detailed description, 1 shows a support for the strands or straws of the broomhead. This support is made hollow at 2 and has a perforation 3 through its wall for the insertion of the elbow 4. It will be seen that it is only necessary for the hollow portion 2 to extend below the wall perforation 3, leaving the lower end of the support solid for a more secure attachment of the strands.

The strands 5 are sewed together in the usual manner as shown by 6, the lowest seam being made after a small rope 7 or other suitable material has been introduced between the strands to form an opening 8 into which the perforated portion of the distributer 11 may be placed.

The shape and construction of the distributer is shown in Fig. 3. 4 shows the hollow elbow threaded at its upper end to correspond to the coupling 9 in the handle. Bent portions of a tubular extension of the elbow are shown by 10 and 11, the portion 11 being closed at the end and perforated by a number of small holes, their combined outlet, however being not greater than the smallest place in the passage-way extending upward to the reservoir, which passage-way is formed when the distributer and handle are properly attached to the broomhead.

The wall of the tubular handle 12 has an indentation 13 extending around it, forming a seat for the spring 14.

The upper end of the handle is covered by a cap 15 which has a central perforation closed by the valve 16, a portion of which extends upward through the opening in the cap forming the thumb button 17. A spring 18 surrounds the thumb button thus holding the valve 16 in place. A suitable washer 19 closes the end of the handle against the passage of air and liquid when the cap is screwed down.

The lower end of the handle is preferably closed by a plug constructed as shown. A bead 20 is made around the handle, projecting inwardly. A plug is then formed of a threaded, hollow bolt 21 having a head 22 which fills the tube above the bead, and an adjustable nut 23 below the bead. Before the nut is adjusted, a wooden plug 24 in connection with solder or packing 25 or other suitable material should be introduced to fill the space between head and nut.

The opening 26 is formed by the hollow bolt and therefore extends through the plug, the coupling 9 being an extension of the nut 23 and having a portion 27 of its outside diameter reduced, preferably in a tapering manner as shown, for convenience in attaching.

To further explain the object of reducing the diameter of the coupling in this manner, it may be said that in connecting the handle to the broomhead it is desirable to have the coupling exactly fill the hollow of the support in order to prevent wabbling, or side play, at the joint when sweeping. This makes the connection difficult, unless the distributer is exactly in position, as the threads in the coupling refuse to engage those of the distributer. By reducing the diameter of the coupling as shown a side play or wabble of the handle is permitted at the time the threads engage each other, disappearing as the thicker portion of the coupling is drawn into the opening thus making the joint secure.

The valve 28 closing the plug perforation

26 is hooked in a detachable manner to an extension rod 29. This rod extends upward until it almost touches the valve 16 in the cap. The adjustable nipple 30 is placed on the upper end of the rod for adjusting purposes and to furnish a bearing for the spring 14.

The assembling of the parts and their operation may be described as follows: The threaded end of the elbow 4 is inserted in the perforation 3 then the perforated portion 11 is pushed into the opening 8. The distributer will then be attached to the broomhead as shown in Fig. 1. The handle may then be attached to the broomhead by inserting the coupling 9 into the hollow 2 of the support and screwing to the elbow 4 of the distributer. To release the liquid press the button 17. This opens the valve 16 admitting air, also depresses the rod 29, opening the valve 28. Without being hindered by air pressure the liquid continues running and discharging itself through the perforations at 11 until pressure is removed from the button 17 when the valves assume their normal position and the discharge ceases. After being discharged the liquid finds its way to the working ends of the strands keeping them saturated to the extent desired by the operator.

Having described my invention what I claim as new and desire to secure by Letters Patent is—

1. In a dust laying broom, the combination of a broomhead having a hollow tubular support and having an opening formed between its strands parallel with the seams, the tubular support being provided with an opening in its side, a distributing pipe having its upper threaded end in said tubular support, the said pipe extending outward through the opening in said support and downward alongside the broomhead and inward into the opening in the broomhead, the part within the said opening being perforated for the passage of fluid to the broomhead and a handle having a reservoir therein, the lower end of the handle being screw threaded to receive the upper end of the distributing pipe.

2. In a dust laying broom, a broomhead having a hollow tubular support and having an opening formed between its strands parallel with the seams, the tubular support being provided with an opening in its side for a distributing pipe, the said pipe having its upper threaded end in said tubular support and extending outward through the opening in the support and downward alongside the broomhead and inward into the opening in the broomhead, the part within said opening being perforated for the passage of fluid to the broomhead, in combination with a handle containing a reservoir with two valves, one in the upper and one in the lower end thereof, means by which both valves may be simultaneously opened when pressure is applied to the said upper valve and seated independently of each other when pressure is removed, and means for attaching to the said distributing pipe whereby handle and broomhead may be connected and a passageway formed from the reservoir to the strands of the broom substantially as described.

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Witnesses:
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