

A. A. LONG.
 FOUNTAIN BRUSH.
 APPLICATION FILED JUNE 13, 1908.

933,477.

Patented Sept. 7, 1909.

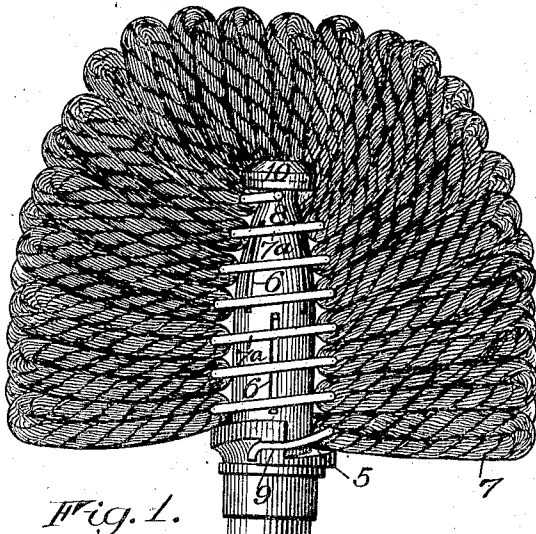


Fig. 1.

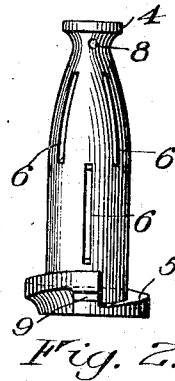


Fig. 2.

Fig. 4.

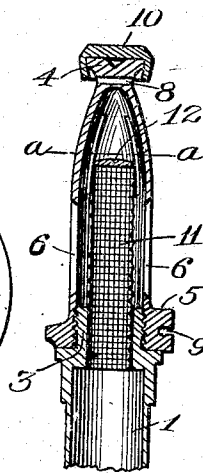
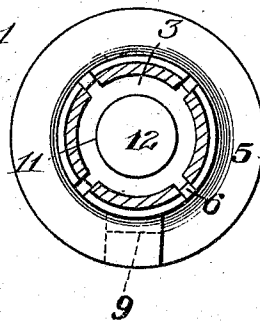


Fig. 3.

Witnesses

Walter D. Pasme
 H. H. Simms

By

Inventor
 Adam A. Long
 Church & Rich
 His Attorneys

UNITED STATES PATENT OFFICE.

ADAM A. LONG, OF ROCHESTER, NEW YORK, ASSIGNOR TO LONG & MANN CO., OF ROCHESTER, NEW YORK, A CORPORATION OF NEW YORK.

FOUNTAIN-BRUSH.

933,477.

Specification of Letters Patent.

Patented Sept. 7, 1909.

Application filed June 13, 1908. Serial No. 432,273.

To all whom it may concern:

Be it known that I, ADAM A. LONG, of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Fountain-Brushes; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the reference-numerals marked thereon.

The present invention relates to fountain brushes of the type in which the brush material is mounted about a hollow perforated head in order that the cleaning fluid may be constantly conducted to the object to be cleaned, and it has for an object to provide means for securing the brush material to the head in such a manner that the cleaning fluid will not issue from the head with great force at any one place but will be equally distributed from all portions.

Another object is to construct the brush so that the head will be entirely covered in order to prevent scratching or otherwise marring the object cleaned.

Still another object is to divide the stream of fluid into such small particles that the pressure will be equal in all portions of the head.

To these and other ends the invention consists in certain improvements and combinations of parts all as will be hereinafter more fully described, the novel features being pointed out in the claims at the end of the specification.

In the drawings: Figure 1 is a side view of a cleaning device constructed in accordance with this invention, the brush material being removed on one side to show the manner of wrapping it about the head; Fig. 2 is a side view of the head; Fig. 3 is a longitudinal section; and Fig. 4 is a transverse section on line *a-a* Fig. 3.

In the embodiment of the invention herein shown, there is employed a tubular handle 1 which at one end 2 may be enlarged and adapted to be attached to the usual hose in any known manner, its other end, if desired, being reduced at 3 and externally threaded to receive the internally threaded end of a hollow brush head.

The brush head in the present instance tapers toward its outer end which is closed and surrounded by a shoulder 4 forming an

enlargement, while its opposite end is provided with a surrounding shoulder 5 preferably spirally formed for a purpose to be hereinafter mentioned. Between the two shoulders the head is smooth and is perforated as by slots 6 arranged in two series, the members of which occur alternately about the head.

The brush material is in this instance in the form of cordage 7 secured in loops about a pliable piece of wire 7^a or other similar material to form a strip. The strip is secured near the outer end of the head below the shoulder 4 as by being passed through a perforation 8. It is then wrapped spirally about the head which being smooth permits each wrapping to be forced into close contact with the one next above it so that practically no pronounced opening may be formed through which the fluid may flow with greater force. The other end of the strip is then secured preferably in a notch 9 formed between the two ends of the spiral shoulder 5, the walls of the notch being forced over the end of the wire 7 to clamp it in the notch. The shoulders 4 and 5 prevent the escape of fluid at the two ends of the head as the strip snugly hugs the shoulder 4 because of the tapering end of the head and the shoulder 5 permits a close fitting of the brush material because of its spiral formation.

The outer end of the head carries a yielding buffer 10 which preferably is in the form of a cap having a contracted mouth so that it will fit over and be held in the enlarged end. This buffer prevents the marring or scratching of an object cleaned with this device.

In order to prevent an extreme pressure in the head I mount therein a reticulated drum 11 which may be closed at its outer end 12 to provide a stop for the fluid under pressure and may be carried by the tubular hand piece 1 so as to be removable with the latter for cleaning. This head serves as a means for breaking up the stream passing through the hand piece and thus causes the pressure to be substantially equal in all parts of the hollow head so that there will be no tendency for the fluid to pass from any one point of the head more than another.

In use, the hand piece 1 is attached to a hose or any other fluid supply and the brush head is carried over the object to be cleaned.

The compact arrangement of the brush material prevents injury to the object to be cleaned and at the same time insures a steady well distributed supply of the cleaning fluid.

- 5 The device is inexpensive to manufacture and simple to operate, and its parts are so constructed that they are not liable to get out of order. It may be employed for cleaning vehicles, windows and other objects where a
10 constant flow of water is desirable.

What I claim is:

1. The combination with a perforated hollow brush head having a smooth exterior surface, of a strip of highly absorbent brush
15 material wrapped spirally about the head on the smooth exterior surface, the coils of the brush material lying in contact at their bases, side by side so as not to overlap.

2. The combination with a perforated
20 head having a smooth exterior surface and at its outer end tapered and provided with a surrounding shoulder, of a strip of highly absorbent brush material wrapped spirally about the head on the smooth exterior surface with the coils lying in contact at their
25 bases, side by side so as not to overlap.

3. The combination of a perforated hollow brush head closed at its outer end, having surrounding shoulders at its opposite
30 ends and being smooth between the shoulders with highly absorbent brush material in a continuous strip wrapped spirally about the head between the shoulders and secured at its two ends only.

- 35 4. The combination of a perforated hollow brush tapered toward one end, having shoulders at opposite ends, and being smooth between the shoulders, with highly absorbent brush material in a continuous strip wrapped
40 spirally about the head between the shoulders and having its coils lying in contact at their bases and side by side from one shoulder to the other.

5. The combination of a perforated hollow head having surrounding shoulders at
45 its opposite ends, one of said shoulders being spiral, with a continuous strip of brush material wrapped spirally about the head between the shoulders.

- 50 6. The combination of a perforated hollow head having its outer end closed and tapered having surrounding shoulders at its opposite ends and being smooth between the shoulders, the shoulder at the inner end being spiral, with a continuous strip of brush
55 material wrapped spirally about the head between the shoulders.

7. The combination of a perforated hollow head having its outer end closed and

tapered, having surrounding shoulders at its
60 opposite ends, and being smooth between the shoulders, the shoulder at the inner end being spiral, with a continuous strip of brush material wrapped spirally about the head
65 between the shoulders and having its inner end secured between the two ends of the spiral shoulder.

8. The combination with a perforated head formed with a notch in one end, of a strip of brush material wrapped spirally
70 about the head and embodying a binding wire having one end resting in the notch and secured by the compressed walls of said notch.

9. The combination of a hollow head having two surrounding series of longitudinally
75 extending slots, the members of which occur alternately about the head, and are arranged in different planes on the circumference of the body with brush material surrounding
80 the head.

10. The combination with a perforated hollow head, of brush material on the head, and a reticulated drum arranged within the
85 perforated portion of the head in spaced relation to the inner walls thereof to divide the stream of cleaning fluid.

11. The combination with a perforated hollow head, of brush material on the head, a tubular hand piece detachably secured to
90 the inner end of the head, and a reticulated drum carried by the hand piece and projecting into the perforated portion of the head in spaced relation to the inner walls thereof to divide the stream of cleaning fluid.
95

12. The combination with a perforated hollow head, having its outer end closed, of brush material on the head, and a reticulated drum arranged in the perforated portion
100 of the head to divide the stream of cleaning fluid and having its outer end closed.

13. The combination with a perforated hollow head, of brush material surrounding the head, and a fluid stop arranged within the
105 perforated portion of the head in the path of the fluid entering the same and in spaced relation to the inner walls of said head.

14. The combination with a perforated head having a smooth exterior surface, of brush material wrapped spirally about the
110 head and embodying a binding wire with cordage secured thereto, the bases of the coils of the brush material lying in contact and side by side.

ADAM A. LONG.

Witnesses:

RUSSELL B. GRIFFITH,
HAROLD H. SIMMS.