

Nov. 10, 1925.

1,560,973

J. J. CHÉRON

FOUNTAIN BRUSH

Filed Nov. 21, 1922

2 Sheets-Sheet 1

Fig. 1

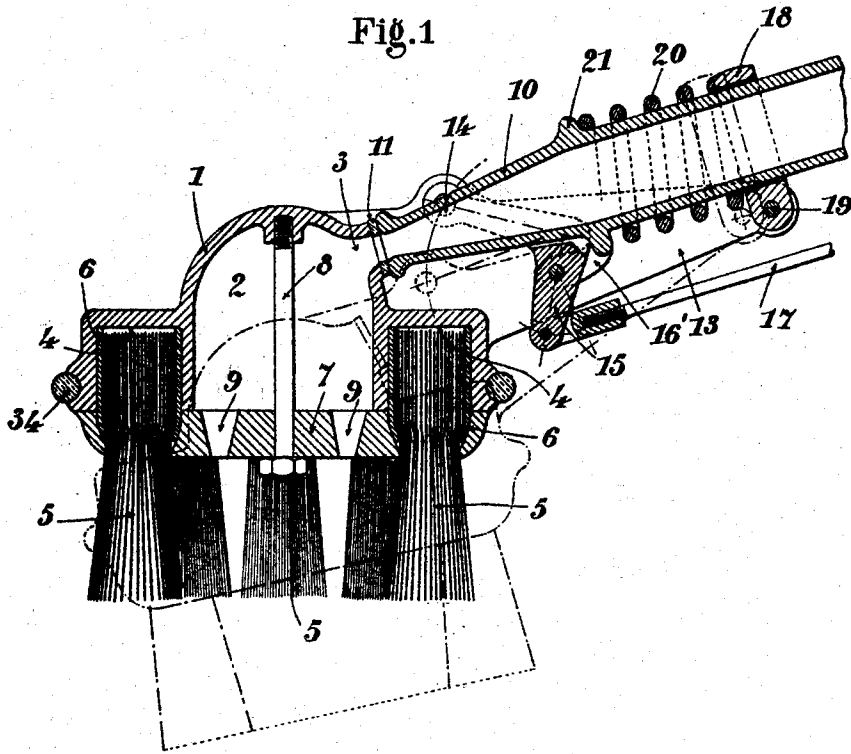
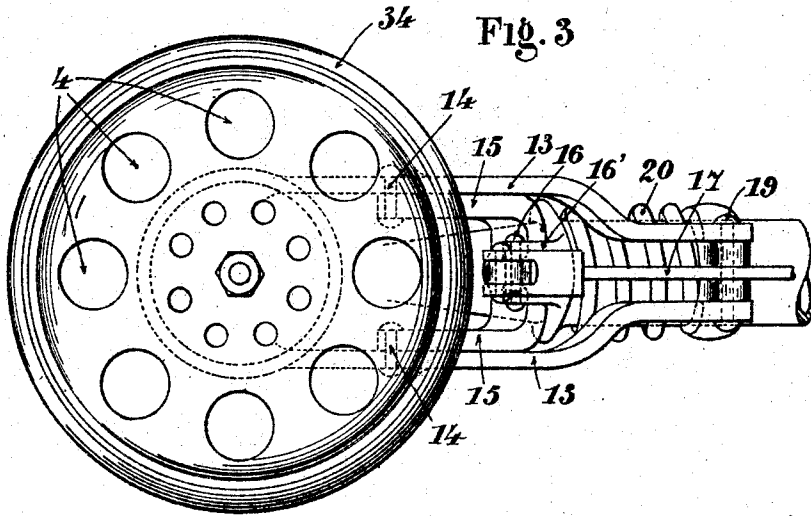


Fig. 3



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2 Sheets-Sheet 2

Fig. 2

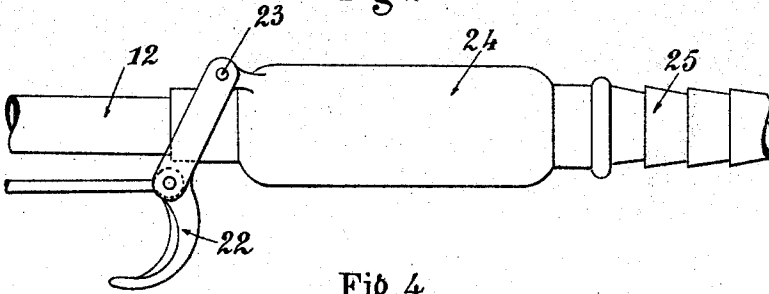


Fig. 4

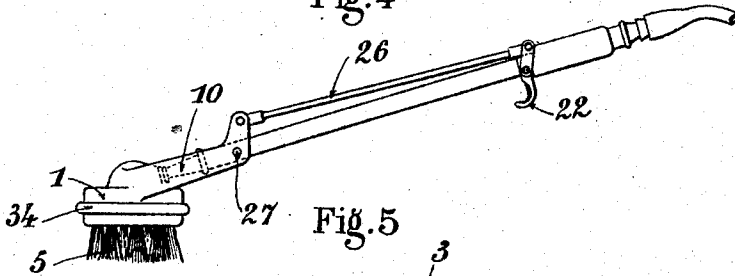


Fig. 5

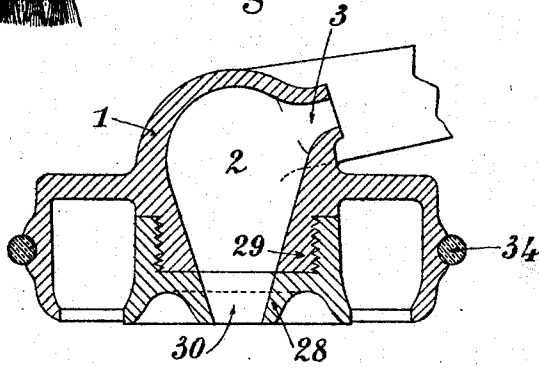
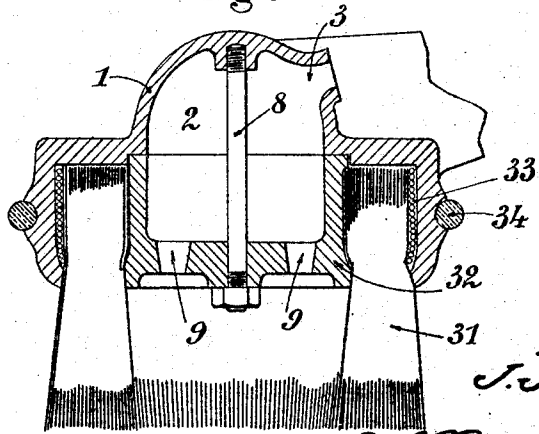


Fig. 6



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UNITED STATES PATENT OFFICE.

JULES JEAN CHÉRON, OF PARIS, FRANCE.

FOUNTAIN BRUSH.

Application filed November 21, 1922. Serial No. 602,438.

To all whom it may concern:

Be it known that I, JULES JEAN CHÉRON, citizen of the French Republic, residing at Paris, in the Republic of France, have invented new and useful Improvements in Fountain Brushes, of which the following is a specification.

The present invention has for its object a fountain brush, characterized in that it is constituted by removable brush portions secured to a head either by a system of pressing or clamping, or simply by tightening. Holes are provided in order to give passage to the water which enters the head through the handle of the latter. A special swinging device permits of moving the head aside in order to use the handle as an ordinary nozzle.

The water which flows between the bristles of the brush permits of accomplishing there-with a simultaneous washing and brushing of the objects to be cleaned.

In the accompanying drawing which shows by way of example various methods of carrying out the invention:

Fig. 1 represents in lengthwise axial section, the brush which is the object of the invention. In dot-and-dash lines is indicated the position in which the head may be swung when the apparatus is used as an ordinary nozzle.

Fig. 2 is a side view, on a smaller scale, of the trigger which serves to control the swinging movement of the head relatively to the handle.

Fig. 3 is an inverted plan view of the brush, the brush portions being supposed to be removed.

Fig. 4 shows the system of adjusting the head by means of a push rod.

Fig. 5 shows a modified form of the device for securing the brush portions of the brush upon the head.

Fig. 6 shows a modified form in which instead of separate brush portions there is only a single removable element.

As shown in the drawing, the brush is formed of a head 1 which has on the one hand a central cavity 2 wherein is effected through the orifices 3 the inlet of water and on the other hand various recesses 4 in which are disposed the brush portions formed of bristles, cut pieces of india rubber, or any other material. These brush portions are made by pressing the bristles

or india rubber parts into ferrules 6, preferably of brass.

These brush portions being inserted in the recesses 4 are held in place by the disc or plate 7 secured to the head by the locking bolt 8. This disc is provided with the orifices required for the passage of the brush portions as well as with the holes 9 whereby the water entering into the cavity 2 is caused to flow outwards, towards the bristles of the brush. These water jets are directed towards the points of the bristles so as to constantly clean them.

The water is brought into the cavity 2 by the nozzle 10 which bears through the intermediary of the packing member 11 upon the inlet 3 of the head 1. This nozzle is located at the end of the handle 12 and is connected with the head 1 by means of the following device: The head 1 is provided with two cheeks 13. Upon these cheeks is pivoted at 14 one end of a bell-crank lever 15 forming a fork which is mounted so as to swing at 16 relatively to a lug 16' carried by the nozzle 10. The other end of the bell-crank lever is actuated by a control rod 17.

A collar 18 sliding on the handle 12 is pivoted at 19 between the two cheeks 13 of the head and it is constantly acted upon by a spring 20 which presses at its other end upon a flange 21 on the nozzle. The rod 17 ends in a trigger 22 (Fig. 2) pivoted at 23 to the handle 12. This handle carries a handle portion 24 and a coupling part 25 for attaching the water hose.

It is observed that with this apparatus the head 1 of the brush will always tend to make contact by its orifice 3 with the end of the nozzle 10, this being due to the action of the spring 20; and thus the water entering the head will leave it through the holes 9. If it is desired to use the apparatus as an ordinary hose, the trigger 22 is pulled. The rod 17 being thus actuated will rock the bell-crank 15 on the point 16, and this will cause the other end of the lever to act at the points 14 upon the cheeks 13 of the head; the latter now drops and the orifice of nozzle 10 is uncovered. It is observed that in this movement, by reason of the form and the position of the bell-crank lever 15, the lowering of the head is effected at the same time that the head is moved somewhat away from the front of the nozzle; the collar 18 acted upon at 19 by the cheeks 13 slides

upon the handle and compresses the spring 20. The device now occupies the position shown in the dot-and-dash lines in the drawing.

5 If the trigger 22 is released, the spring 20 which has just been compressed will now expand and will act on the sliding collar 18 so as to bring back, by a reverse movement, the device to the position shown in full lines in Fig. 1, in which the orifice 3
10 of the head 1 presses through the intermediary of the packing member 11 upon the end of the nozzle 10; the water entering through said nozzle will now proceed without leakage at the joint into the cavity 2.

15 In Fig. 4 is represented a modified form of the control of the swinging movement of the head; wherein the rod 26 instead of acting by traction in the case of the rod 17, acts by pushing and causes the head 1 to swing about the pivot 27. A spring device, not shown, keeps the parts in the normal position shown on the drawing.

20 In Fig. 5 is represented a modified form of the device for holding the brush portions 5 in the recesses 4. A socket 28 having the shape indicated in the drawing is substituted for the plate or disc 7 of Fig. 1 and is screwed to a boss 29 upon the head 1, the interior of the boss forming the cavity 2, whilst the socket 28 has a hole
30 for the delivery of water.

In Fig. 6 is represented a brush comprising a single removable element 31. The india rubber or the bristles of which the brush is made are held upon a core 32 by a binding of iron wire 33, and are then inserted into the head 1 and secured by the bolt 8. The head is still provided with the cavity 2 wherein the water enters through the orifice 3; the core 32 is provided with holes 9 for the outflow of the water along the bristles of the brush.

45 In all these figures, 34 is a rubber ring which serves to protect the objects to be cleaned from being struck by the metal part of the brush.

Various constructional modifications in

detail can obviously be made in the apparatus described without departing from the invention. 50

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

1. A fountain brush comprising a hollow head, a hollow handle through which water may be supplied and adapted to communicate with the hollow head, brushing elements secured to the hollow head, a ring member slidably mounted on the handle and upon which the hollow head is pivotally mounted, a spring acting on said ring member, for pressing the hollow head against the discharge end of the handle, an operating rod and a bell crank lever which is pivoted on the handle and pivotally connected to the operating rod and hollow head. 55

2. A fountain brush comprising a hollow head having an outlet opening, a hollow handle through which water may be supplied and adapted to communicate with the hollow head, an annular recess formed in the head about the outlet opening, bristles set in said recess, a perforated plate covering said outlet opening, the periphery of said plate being beveled and serving to clamp the bristles in said recess, and means for removably securing said plate to the hollow head. 60

3. A fountain brush comprising a hollow head having an outlet opening a hollow handle through which water may be supplied and adapted to communicate with the hollow head, an annular recess formed in the head about the outlet opening, bristles set in said recess, a perforated plate covering said outlet opening, the periphery of said plate being beveled and serving to clamp the bristles in said recess, said plate being provided with a number of recesses for said bristles, and means for removably securing said plate to the hollow head. 85

In testimony whereof I have signed my name to this specification. 90

JULES JEAN CHÉRON.