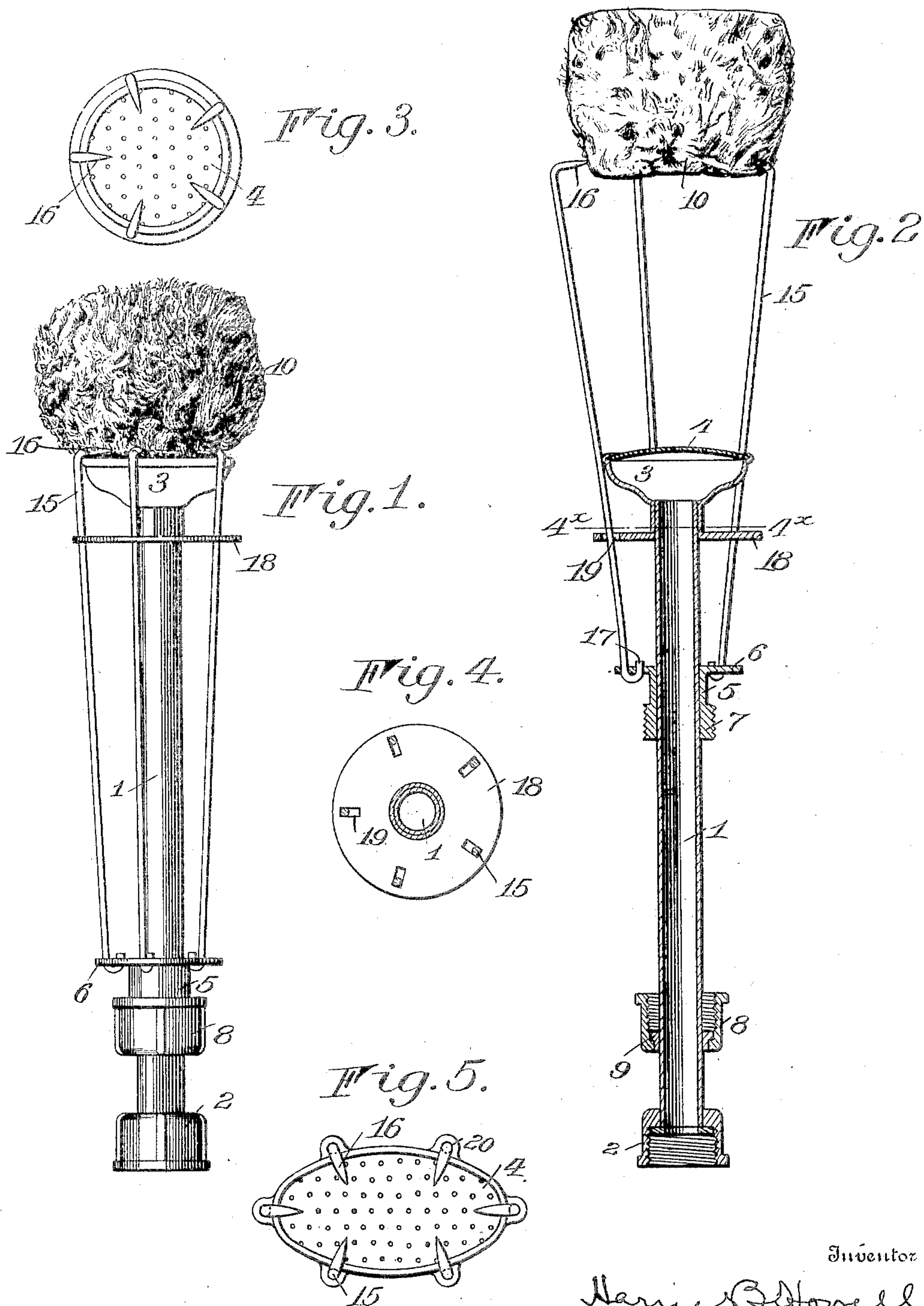


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H. B. HOWELL.
FOUNTAIN CLEANING DEVICE.
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FOUNTAIN CLEANING DEVICE.

No. 797,358.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HARRIE B. HOWELL, of the city of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Fountain Cleaning Devices; 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.

My present invention has for its object to provide a device for washing or cleaning highly-polished surfaces, such as carriages or similar objects, consisting generally of a nozzle and a swab-head which are so arranged that water or other washing liquid emitted from the nozzle passes outwardly through the head, keeping the latter free from dirt or foreign substances.

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

In the drawings, Figure 1 is a side elevation of a device constructed in accordance with my invention. Fig. 2 is a longitudinal sectional view of the nozzle, illustrating the application of the swab-head thereto. Fig. 3 is a top plan view of the nozzle with the head removed, and Fig. 4 is a horizontal sectional view taken on the line 4^x 4^x of Fig. 2. Fig. 5 is a plan view of a modification of the device.

A washing or cleaning device constructed in accordance with my invention embodies a nozzle comprising the tubular body 1, having at its inner end the threaded coupling member 2, by means of which it may be connected with any convenient source of supply and provided at its opposite extremity with the enlarged discharge end 3, which is closed by a face-plate 4, provided with perforations, as shown in Fig. 3.

Arranged on the body portion 1 of the nozzle is a movable collar 5, provided at one edge with an annular flange 6 and at its opposite end with threads 7, which are adapted to be engaged with corresponding threads arranged within an annular revoluble collar 8, also mounted on the nozzle and held in position thereon by a stationary rim or collar 9.

In the present illustrations I have shown the swab-head as formed by the sponge 10, and the securing devices therefor consist of a plurality of arms 15, each of which is provided with a talon or inwardly-extending sharpened end 16. These arms are preferably constructed of spring-metal wires or rods provided with the upturned ends 17, which extend through apertures in the rim 6, located adjacent the apertures through which their respective arms are passed, forming a single means of attaching the arms to the collar 6, whereby their rotary movement and the displacement of their prongs 16 are prevented. Arranged on the outer end of the nozzle and in proximity to the enlarged end 3 is located a guide frame or holder in the form of a flange 18, which is provided with elongated radially-extending apertures 19, which embrace the sides of the arms to prevent them from being rotated about the nozzle, and also engaging the outer sides thereof when the securing devices are in their normal position to hold the upper ends of the arms in engagement with the edge of the head 3.

In using the device for washing purposes the operator may attach the nozzle to a hose-pipe in the usual manner, and the water, being admitted therethrough, will flow outwardly through the sponge or swab-head 10, thus preventing the lodgment of dirt or foreign matter thereon. If it is desired to obtain an unobstructed stream of water for any purpose either before or after the use of the swab-head, the latter may be removed by disengaging the collar 8 from the head 5 and moving the latter longitudinally on the body of the nozzle to the position shown in Fig. 2, when the head may be disengaged from the prongs and the arms returned to their normal position, as shown in Fig. 3.

In the modified form of construction illustrated in Fig. 5 I have shown the nozzle as formed oval in shape, as it has been found in practice that a nozzle so constructed may be more conveniently employed for certain classes of work than one which is circular. In this figure I have also shown the spring-arms secured by eyes or perforated projections 20, which are mounted on the nozzle and may be employed in lieu of the guide frame or flange 18.

In the illustrations I have shown the discharge end of the nozzle as being formed with

a spray-head which is larger in diameter than the rim or collar to which the lower ends of the arms are attached, so that as the securing devices are moved outward relatively to the end of the nozzle the arms will be separated, permitting the swab-head to be easily removed therefrom.

By arranging the securing devices or arms so that they may be moved longitudinally relatively to the nozzle and providing them with the inwardly-extending prongs permits the swab-head to be secured at or near the side adjacent the nozzle, thus leaving its outer end and sides unobstructed.

By constructing the device as illustrated the nozzle having a long body portion forms a convenient handle for the swab-head and the latter may be manipulated thereby, if desired, without connecting it to a source of liquid-supply.

I claim as my invention—

1. The combination with a nozzle, an enlarged discharge end thereon, and a swab-head seated thereon, of a plurality of fingers supported on the nozzle and disposed radially of the enlarged end and means for moving them relatively to engage and disengage the head.

2. The combination with a nozzle, an enlarged end thereon, and a swab-head seated thereon, of a sleeve movable longitudinally of the nozzle and a plurality of arms disposed radially of the end and attached at one end to the sleeve and adapted to engage the head and means for moving their opposite ends relatively toward and from each other during the longitudinal movement of the sleeve on the nozzle.

3. The combination with a nozzle, an enlarged discharge end thereon and a swab-head seated thereon, of a sleeve movable longitudinally of the nozzle and a plurality of arms attached to the sleeve and having the prongs at their outer ends adapted to engage the head and means bearing against the arms for moving the prongs relatively toward and from each other when the sleeve is moved on the nozzle.

4. The combination with a nozzle having an enlarged discharge end and a swab-head seated thereon, of a sleeve movable longitudinally of the nozzle and of smaller diameter than the discharge end thereof, a plurality of arms

attached to the sleeve and having prongs extending over the end of the nozzle and a frame on the nozzle engaging the outer and lateral edges of the arms to cause their relative movement toward each other and limit their rotary movement about the nozzle.

5. The combination with a nozzle having an enlarged discharge end and a swab-head cooperating therewith, of a sleeve movable longitudinally of the nozzle, a plurality of spring-arms attached to the sleeve and having prongs at their outer ends, and a frame secured to the nozzle and engaging the outer edges and the sides of the arms.

6. The combination with a nozzle having an enlarged end provided with a perforated face and a porous head seated thereon, of a sleeve smaller in diameter than the end of the nozzle and movable longitudinally on the nozzle, spring-arms attached to the sleeve and provided with prongs extending over the enlarged end of the nozzle and a frame engaging the outer sides of the arms.

7. The combination with a tubular nozzle having a discharge end, and a swab-head cooperating therewith, of a sleeve movable longitudinally on the nozzle, attaching devices connected to the sleeve and engaging the head and means cooperating with the sleeve to secure it on the nozzle and hold the attaching devices in operative position.

8. The combination with a tubular nozzle having a discharge end and a swab-head cooperating therewith, of a sleeve movable longitudinally on the nozzle, a plurality of arms attached to the sleeve and adapted to detachably engage the head and a relatively stationary securing device mounted on the nozzle and adapted to engage the sleeve.

9. The combination with a tubular nozzle having a discharge end and a swab-head cooperating therewith, of a threaded sleeve movable longitudinally on the nozzle, a plurality of arms attached to the sleeve and adapted to detachably engage the head and a relatively stationary nut revolubly mounted on the nozzle and adapted to engage the sleeve to secure the arms in operative position.

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