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Feldmann

[11] **3,782,837**

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[54] **FOUNTAIN BRUSH**

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[52] **U.S. Cl.** **401/281,** 401/289

[51] **Int. Cl.** **A46b 11/04**

[58] **Field of Search** 401/40–43, 401/281–289, 270, 274, 275, 280, 203–205, 14; 15/419; 222/480

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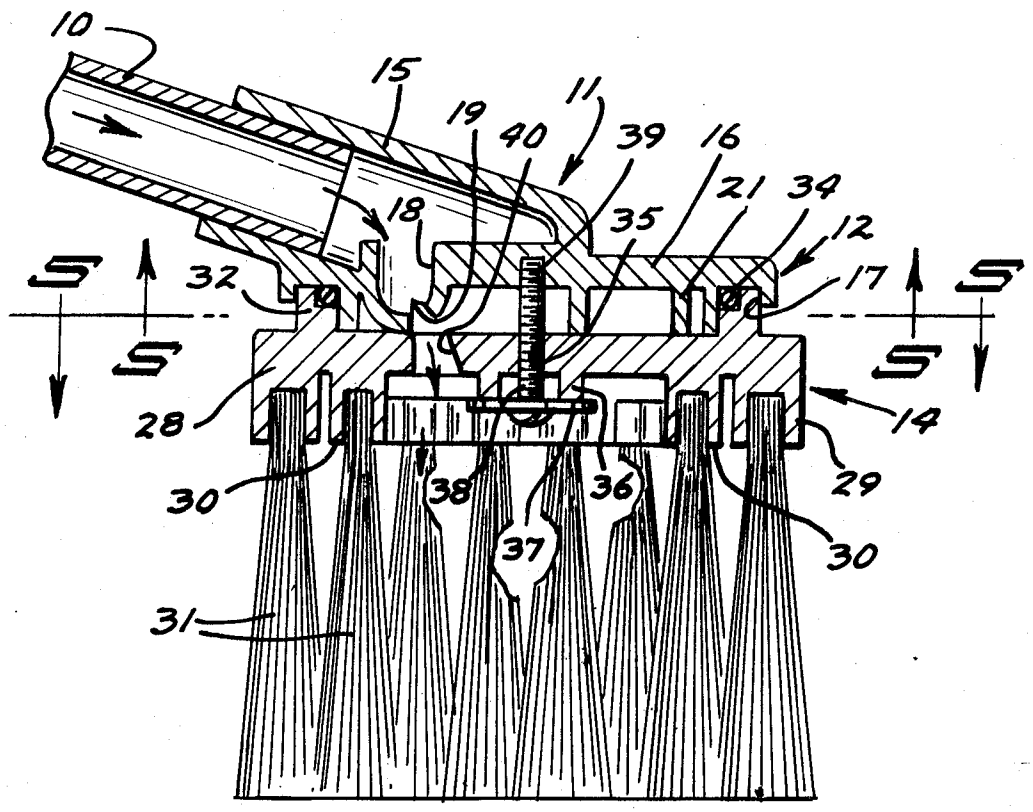
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[57] **ABSTRACT**

A fountain brush unit wherein an oblong brush is mounted at one end of an elongated tubular handle, the other end of which is adapted to be connected to a source of water, the brush being mounted for selective adjustment between positions aligned with or perpendicular to the handle and wherein the brush is provided with various openings in the back thereof whereby, in at least one position of the brush, water may flow through the brush in a jet stream and in at least one other position water is dispersed as a spray.

3 Claims, 7 Drawing Figures



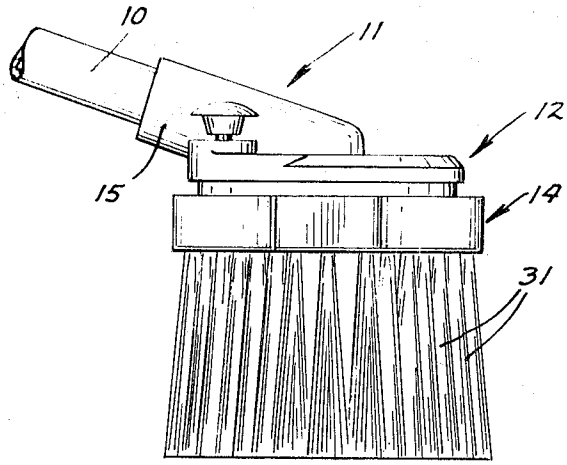


FIG. 2

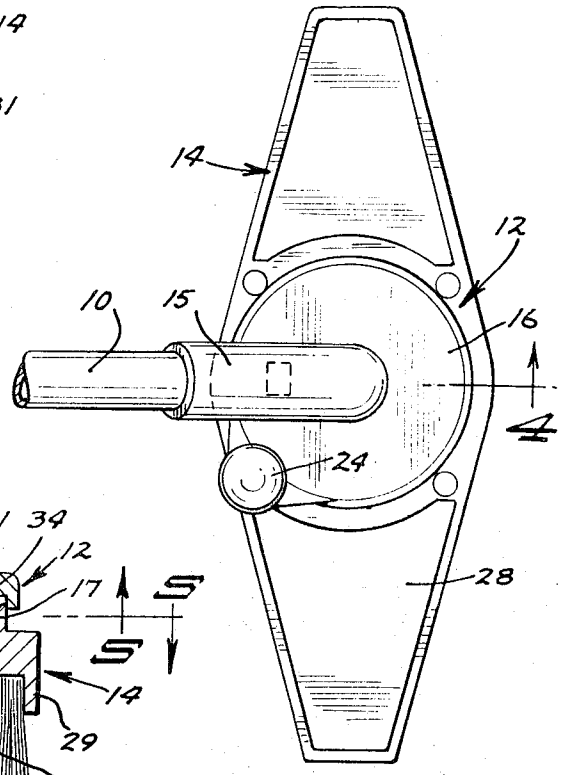


FIG. 1

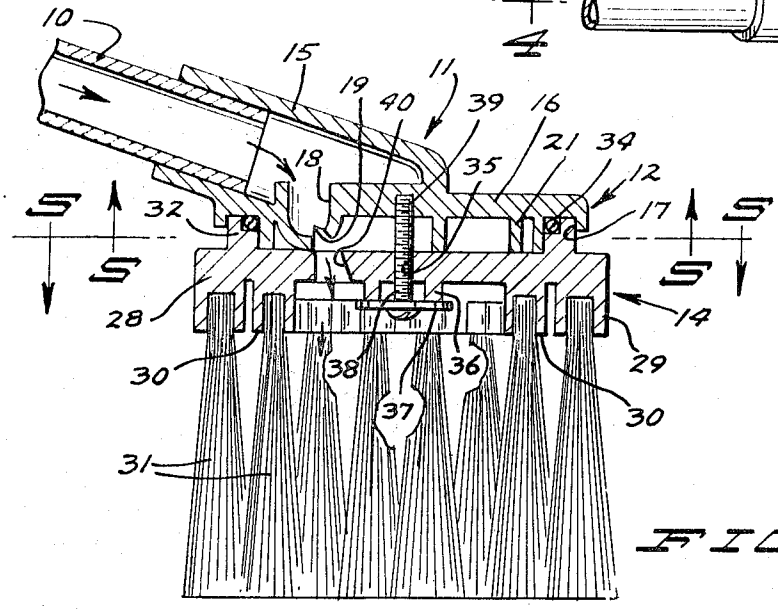


FIG. 4

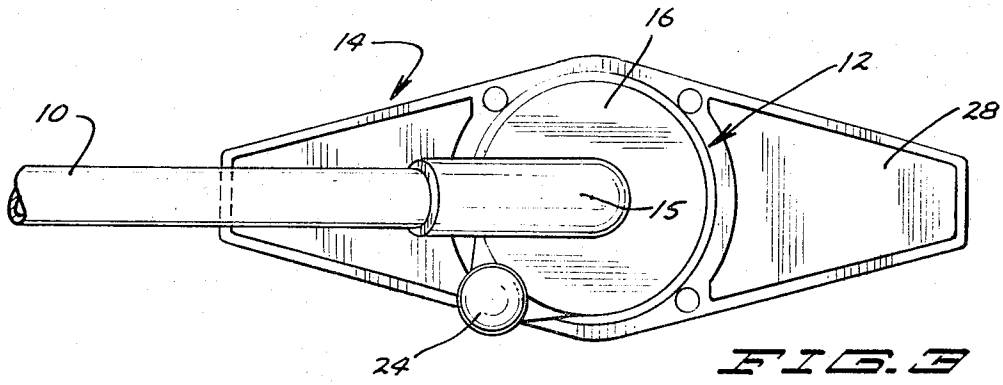
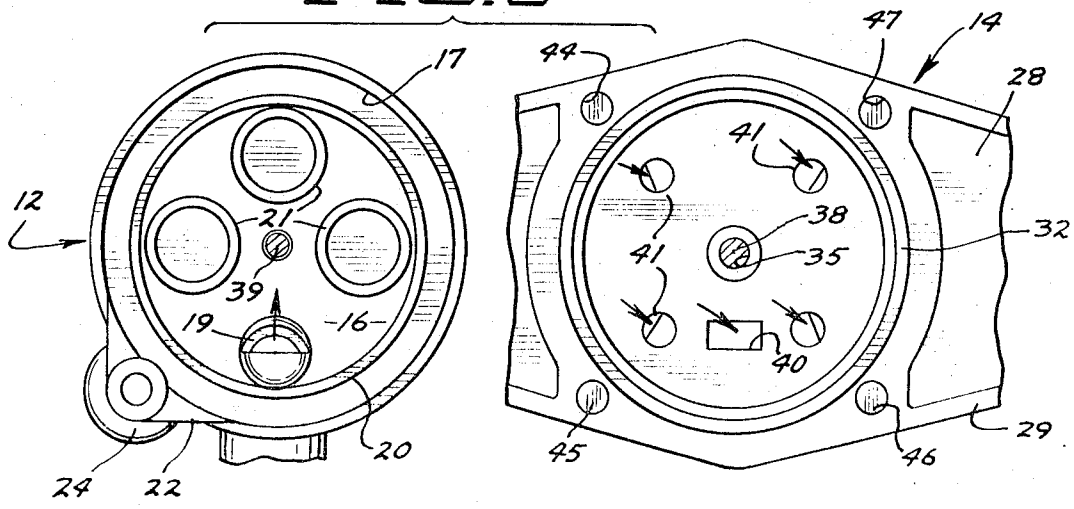


FIG. 3

FIG. 5



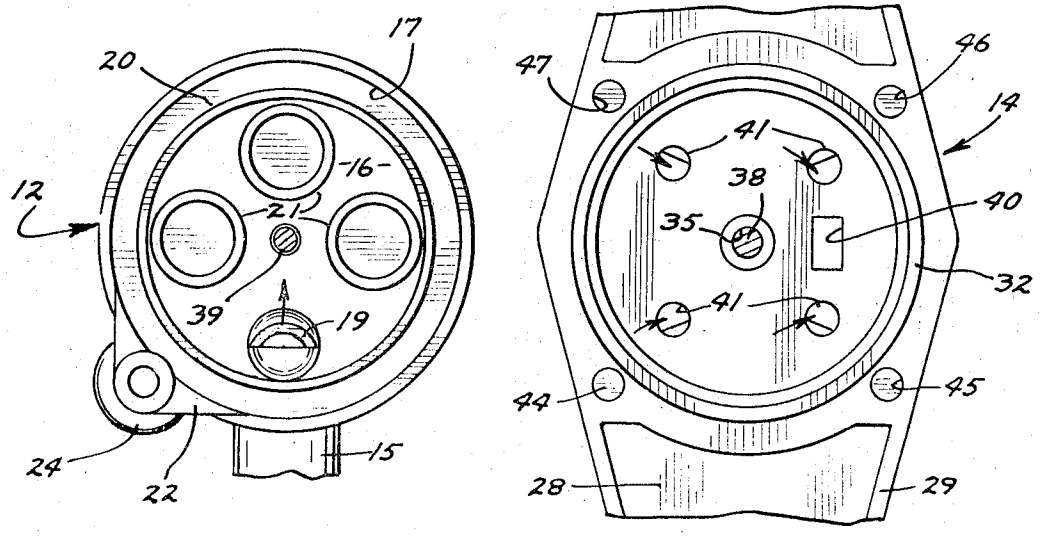


FIG. 6

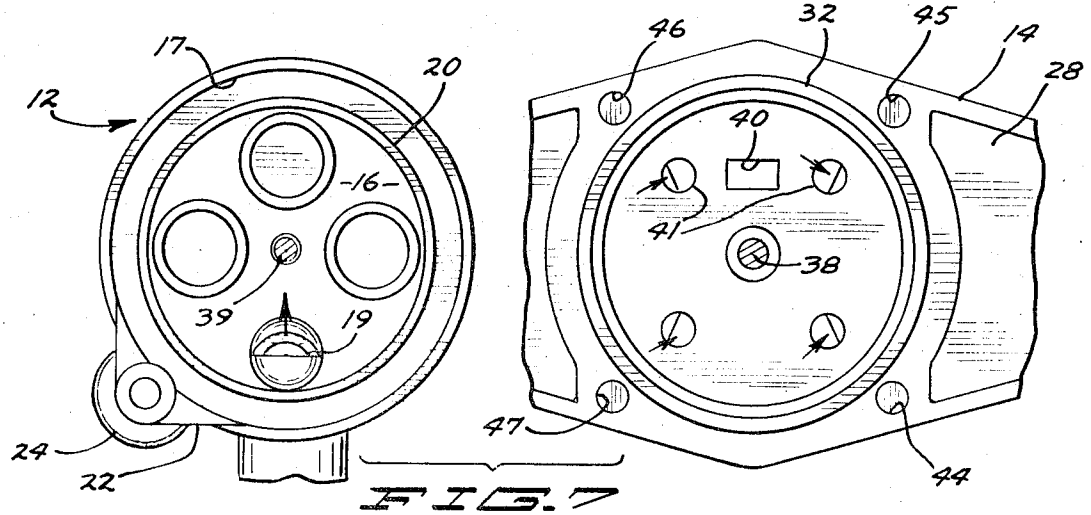


FIG. 7

FOUNTAIN BRUSH

BACKGROUND OF THE INVENTION

Fountain brushes of the type that are connected to garden hoses and used to wash vehicles, buildings or the like are generally provided with a fixed brush head with water passing through the bristles of the brush in a set spray or jet stream. It is desirable for maximum versatility of such a brush that means be provided for selectively discharging water from the brush head in either a jet stream or a diffused spray, the latter being primarily used during the washing operation and the former being used for rinsing.

Also where the brush has an oblong shape it is generally mounted on the handle in a crosswise position. This position is, of course, satisfactory where the brush is moved in a direction longitudinally of the handle during the washing operation. However, it is frequently desirable from the standpoint of comfort or better scrubbing action to move the handle from side to side in a wand-waving motion. In such an instance an oblong brush is, of course, more effective when it is positioned in alignment with or parallel to the handle. It is thus desirable that an oblong brush be adjustable between different angular positions relative to the longitudinal axis of the handle.

It is also desirable that such angular adjustment be combined with the aforementioned selective water discharge in either a jet or spray pattern.

SUMMARY OF THE INVENTION

Accordingly, an object of the present invention is to provide a fountain brush with an oblong brush journaled on an elongated handle for selective adjustment of the brush between a position lying in general alignment with the handle and a position perpendicular to the handle.

Another object of the invention is to provide a fountaintype brush with a valving means for selectively discharging water in a jet stream or a diffused spray.

With these and other objects in view the invention broadly comprises an oblong brush mounted at one end of an elongated tubular handle for rotation on an axis generally perpendicular to the handle between positions lying in alignment with and crosswise to the handle and the mounting including a valving means for allowing the water to be discharged from the brush in a jet stream or a spray diffused among the brush bristles.

BRIEF DESCRIPTION OF THE DRAWINGS

In the drawings:

FIG. 1 is a plan view of the brush head with the brush in perpendicular position.

FIG. 2 is a side elevation of the brush head with the brush in perpendicular position so as to show the brush from one end.

FIG. 3 is a view similar to FIG. 1 but with the brush in parallel position.

FIG. 4 is a longitudinal vertical section through the brush head taken on line 4—4 of FIG. 1 and looking in the direction of the arrows.

FIG. 5 is an exploded view of the head and brush taken on line 5—5 of FIG. 4 and looking upwardly at the head and downwardly at the brush.

FIG. 6 is similar to FIG. 5 but with the brush in parallel position as in FIG. 3.

FIG. 7 is similar to FIG. 5 but with the brush rotated 180°.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now more particularly to the drawings reference numerals will be used to denote like parts or structural features in the different views. A tubular handle **10** has a suitable coupling (not shown) at one end for connection to a garden hose or other source of water under pressure. The handle may also incorporate some means for selectively metering a cleansing agent into the stream of water flowing therethrough.

The brush head is denoted generally by the number **11** and comprises a coupling member **12** and a brush **14.** The coupling **12** has an integral sleeve **15** into which the end of handle **10** is threaded or press fit as shown in FIG. **4.** Sleeve **15** connects at an angle with a disk **16** which has a downwardly opening circular peripheral groove **17.** A pocket **18** is formed in the disk **16** opening within the sleeve **15** and this pocket has a narrow notched opening in its bottom forming a nozzle or jet orifice **19** which is directed downwardly and inwardly toward the axis of disk **16.**

The inner side of groove **17** is formed by the circular wall **20.** Within the wall **20** and spaced about the center axis thereof are the nozzle **19** and three circular downwardly opening cups **21.** Cups **21** and nozzle **19** are spaced equidistantly **90** degrees apart. Disk **16** has an extension **22** adjacent to sleeve **15** which journals a slidable latch member **24.**

The brush **14** has an oblong back **28** which tapers toward the ends. Member **28** has a marginal depending flange **29** and a plurality of downwardly opening sockets **30** cover all but the central portion of back **28,** each socket securely holding a bundle **31** of brush bristles.

The central portion of the back **28** has an upstanding circular flange **32** adapted to fit within the groove **17.** The flange **32** is stepped in cross section to seat a sealing ring **34.** An aperture **35** is provided in the back at the center axis of flange **32.** A circular boss **36** depends from back **28** concentric with aperture **35.** Washer **37** rests against the bottom of boss **36** and a machine screw **38** extends upwardly through washer **37** and aperture **35** with its end **39** threaded into disk **16** to secure brush **14** to the coupling member **12.**

Within the flange **32** the brush back **28** is provided with a relatively large opening **40** adapted to align with the opening **19** in the pocket **18** when the brush is in the positions shown in FIGS. **4** and **5** of the drawings. There are also four smaller openings **41** in the back **28** within flange **32.** These openings are spaced intermediate the intersection of the longitudinal and transverse axes of the brush so as to be offset with respect to cups **21** when the brush and coupling are assembled and when the brush is positioned either parallel or perpendicular to handle **10.**

Four upwardly opening sockets **44, 45, 46** and **47** are provided in the back **28** and spaced equidistantly about the outside of flange **32.** These are adapted to receive the end of the latch member **24** to lock the brush **14** against rotation about the axis of screw **38.** The latch member **24** is seated in socket **45** when the brush head is in this condition.

When the brush **14** is rotated **180** degrees from the position shown in FIG. **6** so that the latch member **24** is seated in socket **47,** the water flow will, of course, be

the same as just described and the brush will be parallel to handle **10** so the condition is really identical to the second condition.

FIG. **7** shows a third condition of the brush head with the brush **14** again perpendicular to the handle **10** and with latch **24** seated in socket **44.** Here, however, the opening **40** is diametrically across from jet orifice **19** and again covered by one of the cups **21** so that the water will still flow through openings **41.**

The brush is a fountain spray brush in either the second or third conditions, the only difference being the position of the brush relative to the handle. The purpose of the adjustability is that some users find the use of the brush more convenient such as on an automobile when the brush is in one position and on a house when in another position.

Latch **24** is preferably held in its locking position in one of the sockets **44–47** by a spring means (not shown) and this may include a ball and detent or a rounded end on the latch which seats in the sockets and which will slip out of the sockets when strong turning pressure is applied to the brush whereby the brush may be forcibly moved between various positions without actually lifting the handle of the latch.

The head **11** is in assembled conditions in FIGS. **1** to **4.** It will be understood that while coupling member **12** is fixedly mounted on handle **10** the brush **14** is adjustable to various positions about the axis of screw **38.** There are four positions in which the brush is locked in position.

In the positions shown in FIGS. **1, 2, 4** and **5** the brush is in a fountain jet condition. The water from the source flows through handle **10** which preferably has a selectively communicable soap compartment therein and then through sleeve **15** and pocket **18** and opening **19** directly through the large opening **14** in the back **28.** The area below the opening **40** and surrounding the screw **38** is open and devoid of bristle bunches **31** so that when the brush is in this condition a stream of water jets directly from opening **40** through the brush without engaging the bristles. The brush **14** is locked in this condition by latch member **24** engaging in the socket **46.** Generally, the brush is used in this condition for rapid rinsing of an area that has been previously scrubbed by the brush.

A second condition of the brush head is shown in FIGS. **3** and **6.** Here the brush **14** is parallel to and aligned with handle **10** rather than perpendicular thereto as in the fountain jet condition just discussed. In this position one of the cups **21** will be covering and closing the opening **40.** Accordingly, water emanating from the jet orifice **19** will flow over the back **28** within the flange **32** and downwardly through the small opening **41** and onto the bristles **31** therebelow.

Having now therefore fully illustrated and described my invention, what I claim to be new and desire to protect by letters Patent is:

1. In a fountain brush,

a. an elongated rigid tubular handle adapted to have one end connected to a source of water under pressure,

b. a coupling member rigidly mounted on the other end of the handle,

c. an oblong brush having a back and bristles extending from one side thereof,

d. the central portion of the back on the side opposite from the bristles being rotatively journaled and sealed on the coupling member with a chamber being formed therebetween and permitting rotative adjustment of the brush between a position perpendicular to the handle and a position in substantial longitudinal alignment with the handle,

e. said back central portion having apertures therein allowing water to flow from the chamber to the bristle side of the brush in either position of adjustment,

f. the coupling member having integral closure means positioned thereon for covering certain of said apertures in one position of adjustment of the brush and other apertures during the other position of adjustment of the brush to vary said flow to the bristles.

2. The subject matter of claim **1** wherein locking means are provided on the coupling member to cooperate with catch means on the brush to lock the brush in either of said positions.

3. In a fountain brush having a brush member mounted at the end of an elongated tubular handle for rotation between various positions, said mounting including a valve means coacting between the brush and handle permitting water to pass from the handle directly through the brush in a jet stream when the brush is in a first position and diffusing the water among the bristles in a spray when the brush is in a second position, said valve means including a coupling member integrally mounted on the handle and having a jet orifice therein, the brush being journaled on the coupling member and having one large opening and a plurality of smaller openings through the back thereof, the large opening adapted to align with the jet orifice when the brush is in said first position, and means on the coupling member covering said large opening when the brush is in the second position so that the water will pass through said smaller openings.

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