



US 20180035861A1

(19) **United States**

(12) **Patent Application Publication**
Humphrey

(10) **Pub. No.: US 2018/0035861 A1**

(43) **Pub. Date: Feb. 8, 2018**

(54) **SCOURING PAD HOLDER**

(52) **U.S. Cl.**

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CPC *A47L 13/022* (2013.01); *A47L 13/07*
(2013.01); *A47L 13/12* (2013.01)

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(57) **ABSTRACT**

(21) Appl. No.: **15/672,195**

(22) Filed: **Aug. 8, 2017**

A scouring pad holder is provided. The holder includes a body including a handle and a head including a plurality of apertures. A plurality of arms slidably disposed within the body are in communication with the plurality of apertures. Each of the plurality of arms includes a first end coupled to an actuator and a second end including a catch configured to grasp and secure a scouring pad to the head. The catches are disposed exteriorly to the head and include a diameter larger than a diameter of the plurality of apertures, such that the plurality of arms are prevented from falling into the head. Upon actuation of the actuator, the plurality of arms are extendable from the head to a first position in order to grasp a scouring pad and retractable into the head to a second position in order to release a scouring pad.

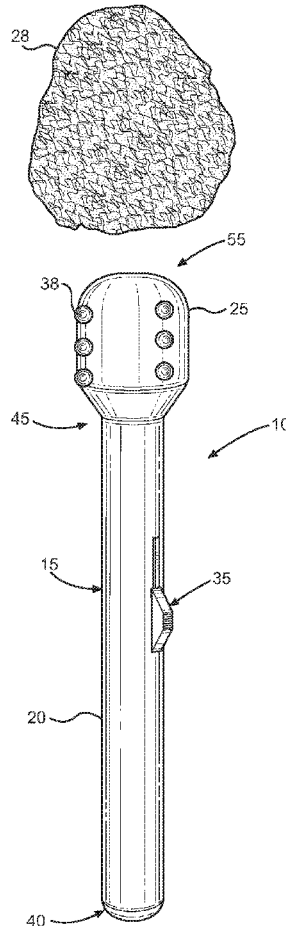
Related U.S. Application Data

(60) Provisional application No. 62/371,934, filed on Aug. 8, 2016.

Publication Classification

(51) **Int. Cl.**

A47L 13/022 (2006.01)
A47L 13/12 (2006.01)
A47L 13/07 (2006.01)



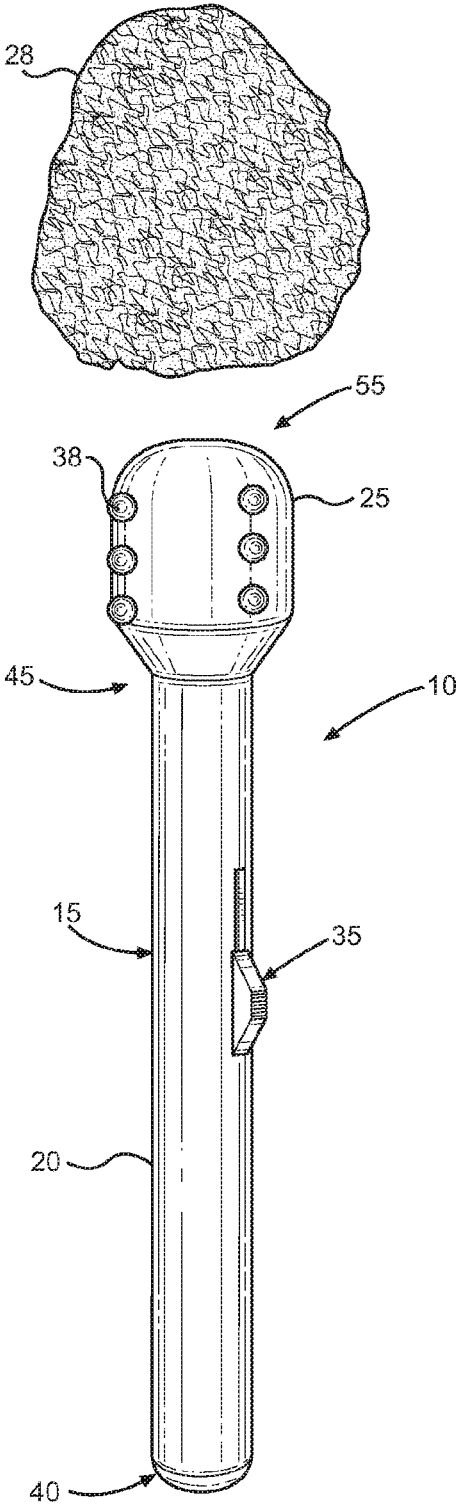


FIG. 1

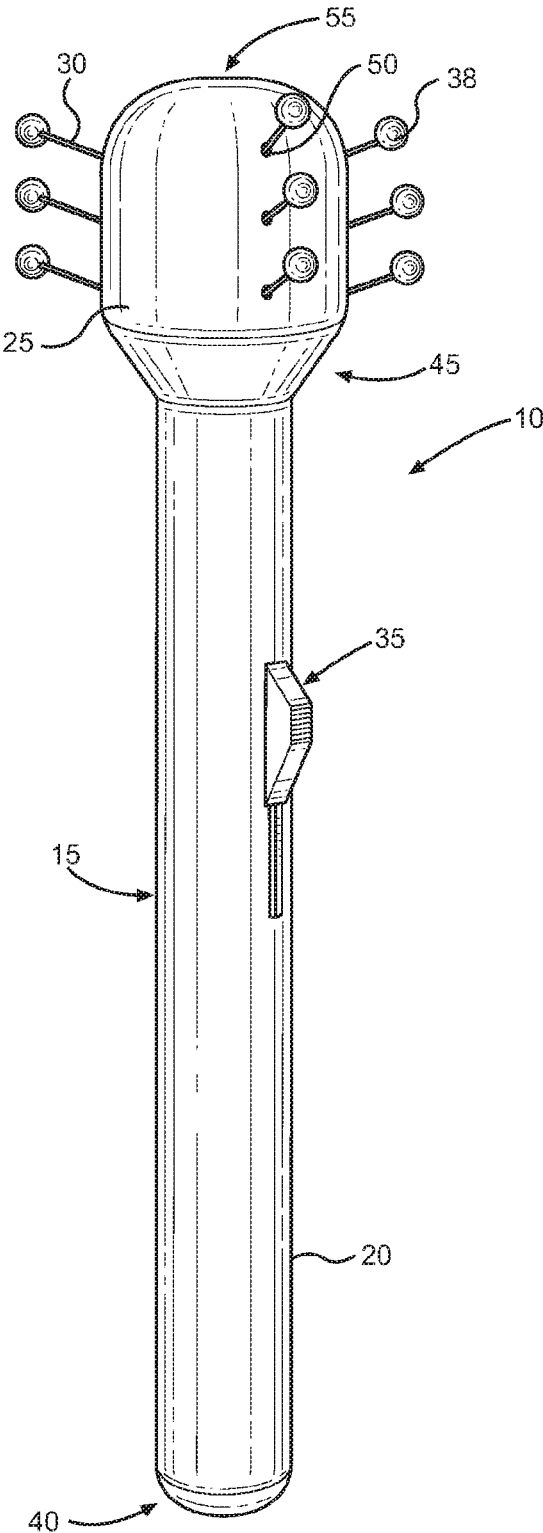


FIG. 2

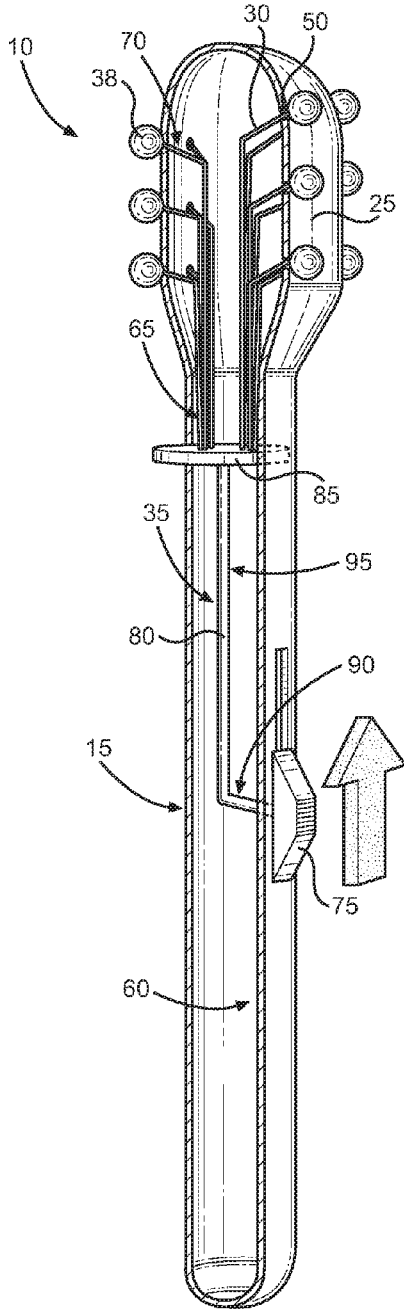


FIG. 3A

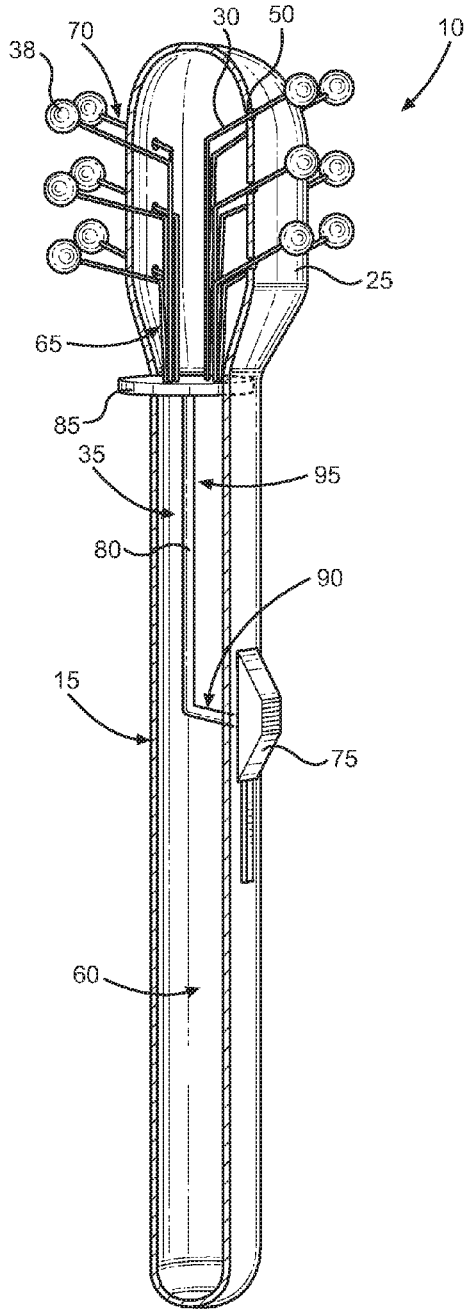


FIG. 3B

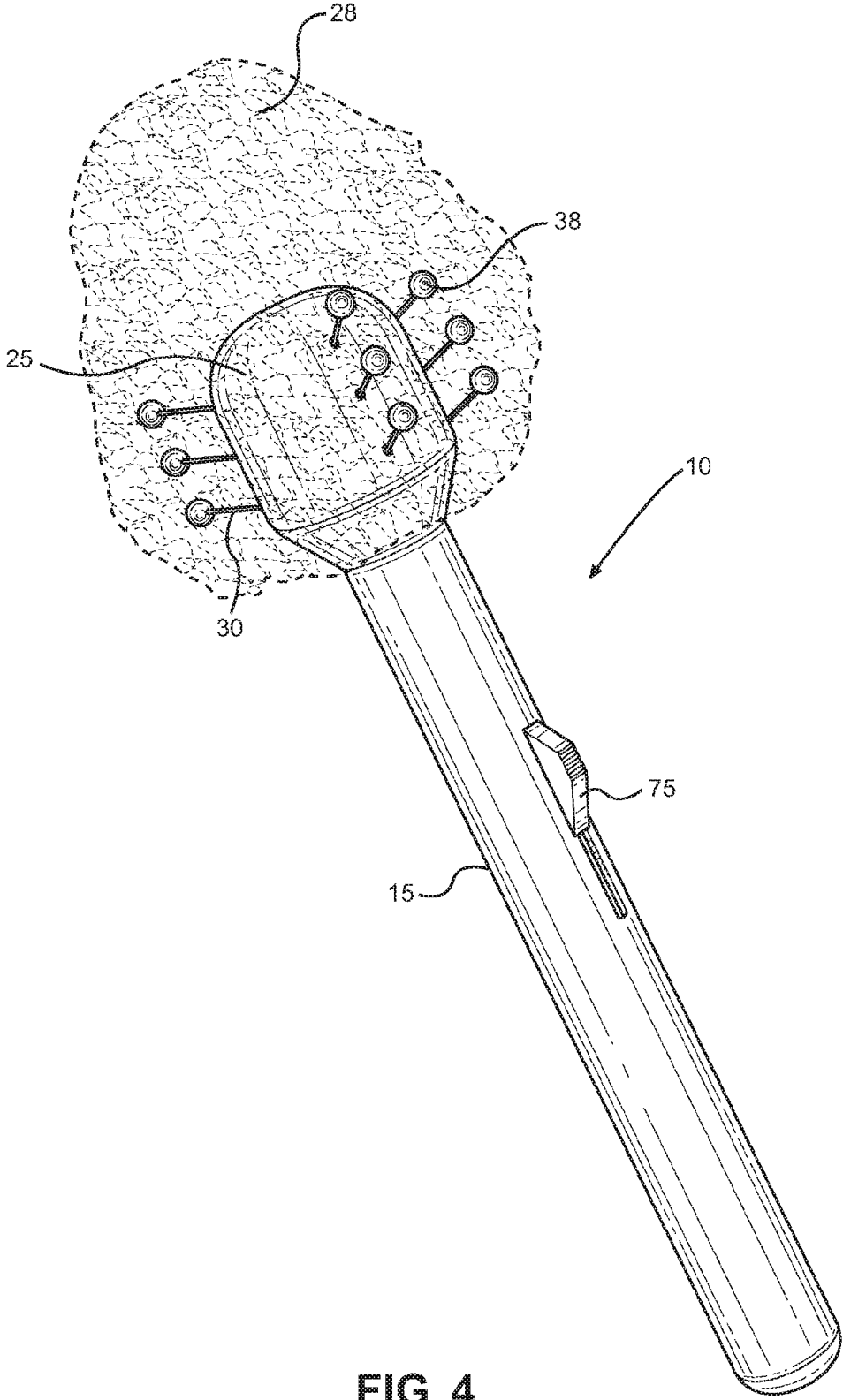


FIG. 4

SCOURING PAD HOLDER

CROSS REFERENCE TO RELATED APPLICATIONS

[0001] This application claims the benefit of U.S. Provisional Application No. 62/371,934 filed on Aug. 8, 2016. The above identified patent application is herein incorporated by reference in its entirety to provide continuity of disclosure.

BACKGROUND OF THE INVENTION

[0002] The present invention relates to holders for scouring pads. More specifically, the present invention relates to a scouring pad holder including a plurality of arms configured to extend and retract from the body via actuation of an actuator and secure a scouring pad thereto.

[0003] The manipulation of a hand-held scouring pad can be detrimental to the fingers and hands of a user, particularly when it is used to clean cups with long and narrow bodies. Further, it is often very difficult to reach the bottom of the cup and clean the cup adequately simply using a hand-held scouring pad. Plastic scrubbing brushes including sponges or the like do not adequately reach the bottoms of most cups and are simply not abrasive enough to remove stains on the cup bottoms, which often leads to the cups being disposed of prematurely. Therefore, there is a need in the art for a scouring pad holder including an elongated handle and a means for removably securing scouring pads on an end thereof for the purpose of reaching the bottoms of long and narrow cups in order to clean them adequately.

[0004] The present invention possesses other objects and features of advantage, some of which, with the foregoing, will be apparent from the following description and the drawings. It is to be understood however that the invention is not limited to the embodiment illustrated and described since it may be embodied in various forms within the scope of the appended claims.

SUMMARY OF THE INVENTION

[0005] In view of the foregoing disadvantages inherent in the known types of scouring pad holders now present in the prior art, the present invention provides a new and improved scouring pad wherein the same can be utilized for providing convenience for the user when washing or cleaning cups, mugs, utensils, and cooking ware.

[0006] In one example of the present invention, the scouring pad comprises an elongated tubular body including an interior volume, a handle, and a head disposed on a distal end of the body, wherein the head includes a diameter larger than a diameter of the handle. A plurality of arms slidably disposed within the interior volume of the body are in communication with a plurality of apertures disposed on the head. Each of the plurality of arms includes a first end coupled to an actuator and a second end including a catch disposed exteriorly to the head. The catch includes a diameter larger than a diameter of a respective aperture of the plurality of apertures, such that the catch prevents the second end of the plurality of arms from falling entirely into the head. The plurality of arms are extendable from the body to a first position and retractable into the body to a second position upon actuation of the actuator, such that they can be

extended as desired to grasp and secure a scouring pad to the head and retracted in order to release the scouring pad from the head.

BRIEF DESCRIPTION OF THE DRAWINGS

[0007] Although the characteristic features of this invention will be particularly pointed out in the claims, the invention itself and manner in which it may be made and used may be better understood after a review of the following description, taken in connection with the accompanying drawings wherein like numeral annotations are provided throughout.

[0008] FIG. 1 shows a perspective view of the scouring pad holder in a retracted configuration receiving a scouring pad according to one embodiment of the present invention.

[0009] FIG. 2 shows a perspective view of the scouring pad holder in an extended position according to one embodiment of the present invention.

[0010] FIG. 3A shows a cross-sectional view of the scouring pad holder in a retracted configuration according to one embodiment of the present invention.

[0011] FIG. 3B shows a cross-sectional view of the scouring pad holder in an extended configuration.

[0012] FIG. 4 shows a perspective view of the scouring pad holder in an extended configuration securing a scouring pad thereto.

DETAILED DESCRIPTION OF THE INVENTION

[0013] Reference is made herein to the attached drawings. Like reference numerals are used throughout the drawings to depict like or similar elements of the scouring pad holder. The figures are intended for representative purposes only and should not be considered to be limiting in any respect.

[0014] Referring now to FIGS. 1 and 2, there is shown a perspective view of the scouring pad holder in a retracted configuration and a perspective view of the scouring pad holder in an extended configuration, respectively. The present invention provides a scouring pad holder 10 configured to removably secure a scouring pad thereto. The scouring pad holder 10 comprises an elongated body 15 including a handle 20, a head 25 configured to receive a scouring pad 28, and a plurality of arms 30 configured to extend and retract into and out of the head 25 via an actuator 35. The plurality of arms 30 include a catch 38 configured to removably secure a scouring pad 28 to the head 25, as shown in FIG. 4. In the depicted embodiment, the elongated body 15 is tubular in shape and includes a circular cross-section, however, in alternative embodiments, the elongated body 15 may include a variety of different cross-sectional shapes.

[0015] The handle 20 extends from a proximal end 40 of the elongated body 15 towards a distal end 45 of the elongated body 15. In one embodiment, the handle 20 includes a grip disposed thereon for providing comfort and support to a user when utilizing the scouring pad holder 10 to clean an item. The head 25 is disposed on the distal end 45 of the elongated body 15 and includes a plurality of apertures 50 in communication with the plurality of arms 30. The head 25 protrudes vertically outwardly from the distal end 45 and is concentrically aligned with the handle 20. In the depicted embodiment, the head 25 is spheroidal in shape. In alternative embodiments, however, the head 25 may include other oblong geometric shapes or a spherical shapes.

[0016] In the depicted embodiment, the plurality of apertures 50 are arranged in a plurality of vertical columns each extending linearly from an upper end 55 of the head 25 towards the proximal end 40 of the elongated body 15. Further, the vertical columns are positioned at fixed intervals annularly about the head 25, such that there is an equal space in between each of the vertical columns. The handle 20 and the head 25 each include a diameter smaller than a diameter of a cup such that the elongated body 15 can be inserted into the cup. For instance, in the depicted embodiment, the diameter of the head 25 includes a diameter less than 3 inches, or less than 83 millimeters, such that the head 25 can be inserted into any cup having an 82 millimeter, or 3.2 inch diameter. The handle 20 includes a diameter smaller than a diameter of the head 25 and a length larger than a length of the head 25, such that a user may maneuver the handle 20 around the inside of a cup while maintaining sight of the head 25 and directing it towards a specific area within the cup.

[0017] Referring now to FIGS. 3A and 3B, there is shown a cross-sectional view of the scouring pad holder in a retracted configuration and a cross-sectional view of the scouring pad holder in an extended configuration, respectively. The plurality of arms 30 of the scouring pad holder 10 are disposed in an interior volume 60 of the elongated body 15. The interior volume 60 extends into the head 25. Each of the plurality of arms 30 includes a first end 65 coupled to the actuator 35 and a second end 70 including the catch 38. Each of the plurality of arms 30 is in communication with an aperture of the plurality of apertures 50 such that each arm of the plurality of arms 30 is extendable out of the head 25 through the apertures 50 to a second position and retractable into the elongated body 15 through the apertures 50 to a first position. Each of the plurality of arms 30 includes an elongated member including a diameter less than a diameter each of the plurality of apertures 50, such that the plurality of arms 30 may slide unimpeded through the plurality of apertures 50. In the depicted embodiment, the plurality of arms 30 comprise a flexible, resilient material that includes a high yield strength, such as metal wire or spring steel, thereby enabling the plurality of arms 30 to return to their original shape when bent during extension or retraction and use. In this way, the structural integrity of the plurality of arms 30 is more durable and may be preserved for a longer duration of time.

[0018] The second end 65 of each of the plurality of arms 30 is disposed outside of the elongated body 15, such that the catches 38 are positioned exteriorly to the head 25. When not extended from the head 25, as shown in FIG. 3A, the plurality of arms 30 and catches 38 are disposed in the first retracted position. When the plurality of arms 30 and catches 38 are extended into the second extended position, as shown in FIG. 3B, the catches 38 are configured to removably receive a fibrous surface, such as the metallic fibers on a stainless steel scouring pad, and secure the head 25 thereto, as shown in FIG. 4. For instance, in the depicted embodiment, each of the catches 38 includes a spherical member configured to removably secure the interior of a scouring pad. However, in alternative embodiments, the catches 38 may include other catch-like members including tines, hooks, and the like. Each catch 38 further includes a size or diameter larger than a diameter of an aperture of the plurality

of apertures 50, such that the second end 70 of plurality of arms 30 cannot fall into the interior volume 60 of the elongated body 15.

[0019] Actuation of the actuator 35 extends the plurality of arms 30 radially outwardly from the interior volume 60 of the elongated body 15 into the second extended position, while reverse actuation of the actuator 35 retracts the plurality of arms 30 radially inwardly into the interior volume 60 of the elongated body 15 into the first retracted position. In the depicted embodiment, the actuator 35 includes a slide switch 75 coupled to a shaft 80, which in turn is coupled to a coupling member 85. The slide switch 75 is slidably disposed along a length of the handle 15 and coupled to a first end 90 of the shaft 80. The shaft 80 is disposed within the interior volume 60 of the elongated body 15 and extends longitudinally parallel relative to the elongated body 15. The coupling member 85 is disposed within the interior volume 60 of the elongated body 15 and is coupled to a second end 95 of the shaft 80. The first ends 65 of each of the plurality of arms 30 are coupled to the shaft 80 via the coupling member 85. In the depicted embodiment, the coupling member 85 includes a planar disc slidably disposed along the interior volume 60 of the elongated body 15.

[0020] When the slide switch 75 is actuated, or slid upwards in a first direction towards the distal end 45 of the elongated body 15, the slide switch 75 drives the shaft 80 and the coupling member 85 in the first direction or upwards towards the distal end 45. This causes the coupling member 85 to drive the plurality of arms 30 through the plurality of apertures 50, thereby extending the plurality of arms 30 out of the head 25 to the second extended position. When the slide switch 75 is reverse actuated, or slid downwards in a second direction towards the proximal end 40, the slide switch 75 pulls the shaft 80 and coupling member 85 in the second direction or downwards towards the proximal end 40. The coupling member 85 then pulls the plurality of arms 30 back through the plurality of apertures 50, thereby retracting the plurality of arms 30 into the head 25 to the first retracted position. In the depicted embodiment, each of the second ends 70 of the plurality of arms 30 is positioned at an obtuse angle relative to their respective first ends 65. This enables lateral extension and retraction of the plurality of arms 30 in and out of the head 25, although the actuator 35 is translating each of the plurality of arms 30 longitudinally upwards and downwards along the interior volume 60 of the elongated tubular body 15 when actuated.

[0021] Referring now to FIG. 4, there is shown a perspective view of the scouring pad holder in an extended configuration securing a scouring pad thereto. In one operation of the scouring pad holder 10, a user retracts the plurality of arms 30 into the head 25 to the first retracted position and inserts the head 25 into a center or interior of a scouring pad. The user then actuates the slide switch 75 to drive the actuator and extend the plurality of arms 30 from the interior volume 60 of the elongated body 15 and out of the head 25. When the plurality of arms 30 are extended out of the head 25 to the second extended position, the catches 38 engage the fibers of the scouring pad 28, as shown in FIG. 4, thereby securing the scouring pad 28 to the head 25.

[0022] It is therefore submitted that the instant invention has been shown and described in various embodiments. It is recognized, however, that departures may be made within the scope of the invention and that obvious modifications will occur to a person skilled in the art. With respect to the

above description then, it is to be realized that the optimum dimensional relationships for the parts of the invention, to include variations in size, materials, shape, form, function and manner of operation, assembly and use, are deemed readily apparent and obvious to one skilled in the art, and all equivalent relationships to those illustrated in the drawings and described in the specification are intended to be encompassed by the present invention.

[0023] Therefore, the foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the invention.

- 1) A scouring pad holder, comprising:
 - an elongated body including an interior volume, a handle, and a head disposed on a distal end of the body, the head including a diameter larger than a diameter of the handle;
 - a plurality of apertures disposed on the head;
 - a plurality of arms slidably disposed within the interior volume of the body, each of the plurality of arms in communication with a respective aperture of the plurality of apertures;
 - wherein each of the plurality of arms includes a first end coupled to an actuator and a second end including a catch configured to grasp a scouring pad, the catch disposed exteriorly to the head;
 - wherein the catch includes a diameter larger than a diameter of a respective aperture of the plurality of apertures;
 - wherein each arm of the plurality of arms is extendable from the body to a first extended position and retractable into the body to a second retracted position upon actuation of the actuator.
- 2) The scouring pad holder of claim 1, wherein the head protrudes vertically outwardly from the distal end of the elongated body, the head concentrically aligned with the handle of the elongated body.
- 3) The scouring pad holder of claim 1, wherein the plurality of apertures are arranged in a plurality of vertical columns extending linearly from an upper end of the head towards the proximal end of the elongated body.
- 4) The scouring pad holder of claim 3, wherein the plurality of vertical columns are positioned at fixed intervals annularly around the head, such that there is an even space in between each vertical column of the plurality of vertical columns.

5) The scouring pad holder of claim 1, wherein the head includes a spheroidal shape and is concentrically aligned with the handle of the elongated body.

6) The scouring pad holder of claim 1, wherein each of the plurality of arms includes a diameter less than a diameter of a respective aperture of the plurality of apertures.

7) The scouring pad holder of claim 1, wherein each of the plurality of arms is composed of a flexible, resilient material including high yield strength configured to enable each arm of the plurality of arms to return to its original shape when bent.

8) The scouring pad holder of claim 1, wherein the second end of each arm of the plurality of arms is positioned at an angle relative to the respective first end of each arm of the plurality of arms.

9) The scouring pad holder of claim 8, wherein the angle is an obtuse angle.

10) The scouring pad holder of claim 1, wherein the catch includes a spherical member.

11) The scouring pad holder of claim 1, wherein the actuator comprises:

- a slide switch disposed on the handle, the slide switch configured to slide along a length of the handle;

- a shaft disposed in the interior volume of the elongated body, the shaft extending longitudinally parallel relative to the elongated body;

- wherein the slide switch is coupled to a first end of the shaft;

- wherein the first end of each arm of the plurality of arms is coupled to a second end of the shaft;

- wherein actuation of the slide switch in a first direction drives the shaft in a first direction and extends each arm of the plurality of arms radially outward from the head into the first extended position;

- wherein actuation of the slide switch in a second direction drives the shaft in a second direction and retracts each arm of the plurality of arms radially inwardly into the head into the second retracted position.

12) The scouring pad holder of claim 11, wherein the actuator further includes a coupling member disposed within the interior volume of the elongated body, the coupling member coupling the first end of each arm of the plurality of arms to the shaft.

13) The scouring pad holder of claim 12, wherein the coupling member comprises a planar disc slidably disposed along the interior volume of the elongated body.

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