US012392154B2

(12) **United States Patent**
Brennan

(10) **Patent No.: US 12,392,154 B2**
(45) **Date of Patent: *Aug. 19, 2025**

(54) **RECONFIGURABLE SPA FILTER TREATMENT SYSTEMS AND METHODS FOR TREATING FILTERED WATER FOR SPAS AND HOT TUBS**

(71) Applicant: **SARATOGA SPA & BATH, INC.**, Latham, NY (US)

(72) Inventor: **Anthony Brennan**, Latham, NY (US)

(73) Assignee: **Saratoga Spa & Bath, Inc.**, Latham, NY (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 143 days.

This patent is subject to a terminal disclaimer.

(21) Appl. No.: **18/332,084**

(22) Filed: **Jun. 9, 2023**

(65) **Prior Publication Data**

US 2023/0313547 A1 Oct. 5, 2023

Related U.S. Application Data

(63) Continuation of application No. 17/322,154, filed on May 17, 2021, now Pat. No. 11,686,117, which is a (Continued)

(51) **Int. Cl.**
E04H 4/12 (2006.01)
A61H 1/00 (2006.01)
(Continued)

(52) **U.S. Cl.**
CPC ***E04H 4/1281*** (2013.01); ***A61H 33/0087*** (2013.01); ***A61H 33/60*** (2013.01);
(Continued)

(58) **Field of Classification Search**
CPC ... E04H 4/1281; E04H 4/0037; E04H 4/1218; E04H 4/1236; E04H 4/1272;
(Continued)

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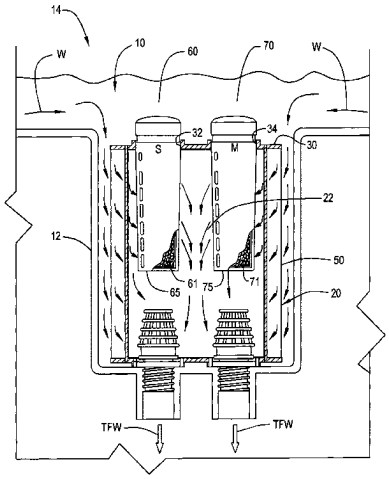
Primary Examiner — Fred Prince
(74) *Attorney, Agent, or Firm* — Heslin Rothenberg Farley & Mesiti P.C.

(57) **ABSTRACT**

A method for treating water in a spa or a hot tub includes, for example, suspending a water treatment dispenser from an upper end of a filter cartridge disposed in a skimmer of the spa or the hot tub. The dispenser includes a water treatment material. A supply of water is passed from the spa or the hot tub into the skimmer and through the filter cartridge so that the dispenser suspended in the filtered water in the filter cartridge is operable to dispense the water treatment material from the dispenser, and a supply of treated filtered water from the filter cartridge is returned to the spa or the hot tub. A cover, for example, may be employed when the dispenser is not used.

40 Claims, 26 Drawing Sheets



Related U.S. Application Data

continuation of application No. 16/746,081, filed on Jan. 17, 2020, now Pat. No. 11,008,770.

(51) **Int. Cl.**

A61H 33/00	(2006.01)
B01D 11/02	(2006.01)
B01D 27/08	(2006.01)
C02F 1/00	(2023.01)
C02F 1/50	(2023.01)
C02F 1/68	(2023.01)
C02F 1/76	(2023.01)
E04H 4/00	(2006.01)
C02F 103/42	(2006.01)

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

CPC ***C02F 1/688*** (2013.01); ***E04H 4/0037*** (2013.01); ***E04H 4/1218*** (2013.01); ***E04H 4/1236*** (2013.01); ***E04H 4/1272*** (2013.01); *A61H 1/00* (2013.01); *A61H 2033/0037* (2013.01); *B01D 11/0215* (2013.01); *B01D 27/08* (2013.01); *C02F 1/001* (2013.01); *C02F 1/505* (2013.01); *C02F 1/766* (2013.01); *C02F 2103/42* (2013.01); *C02F 2201/006* (2013.01)

(58) **Field of Classification Search**

CPC A61H 33/0087; A61H 33/60; A61H 1/00; A61H 2033/0037; C02F 1/688; C02F 1/001; C02F 1/505; C02F 1/766; C02F 2103/42; C02F 2201/006; B01D 11/0215; B01D 27/08

USPC 210/776, 167.11, 206, 753, 754; 422/277

See application file for complete search history.

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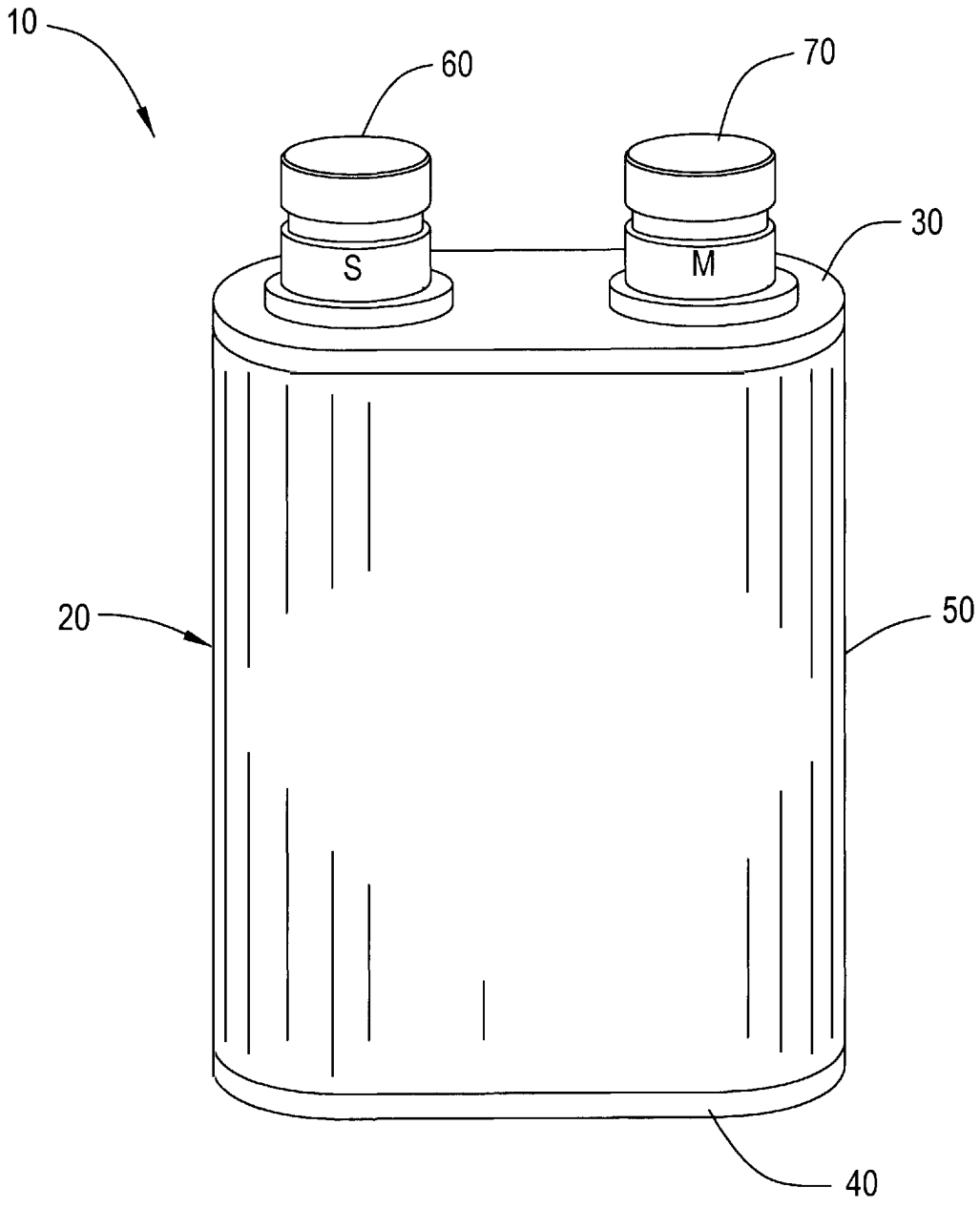


FIG. 1

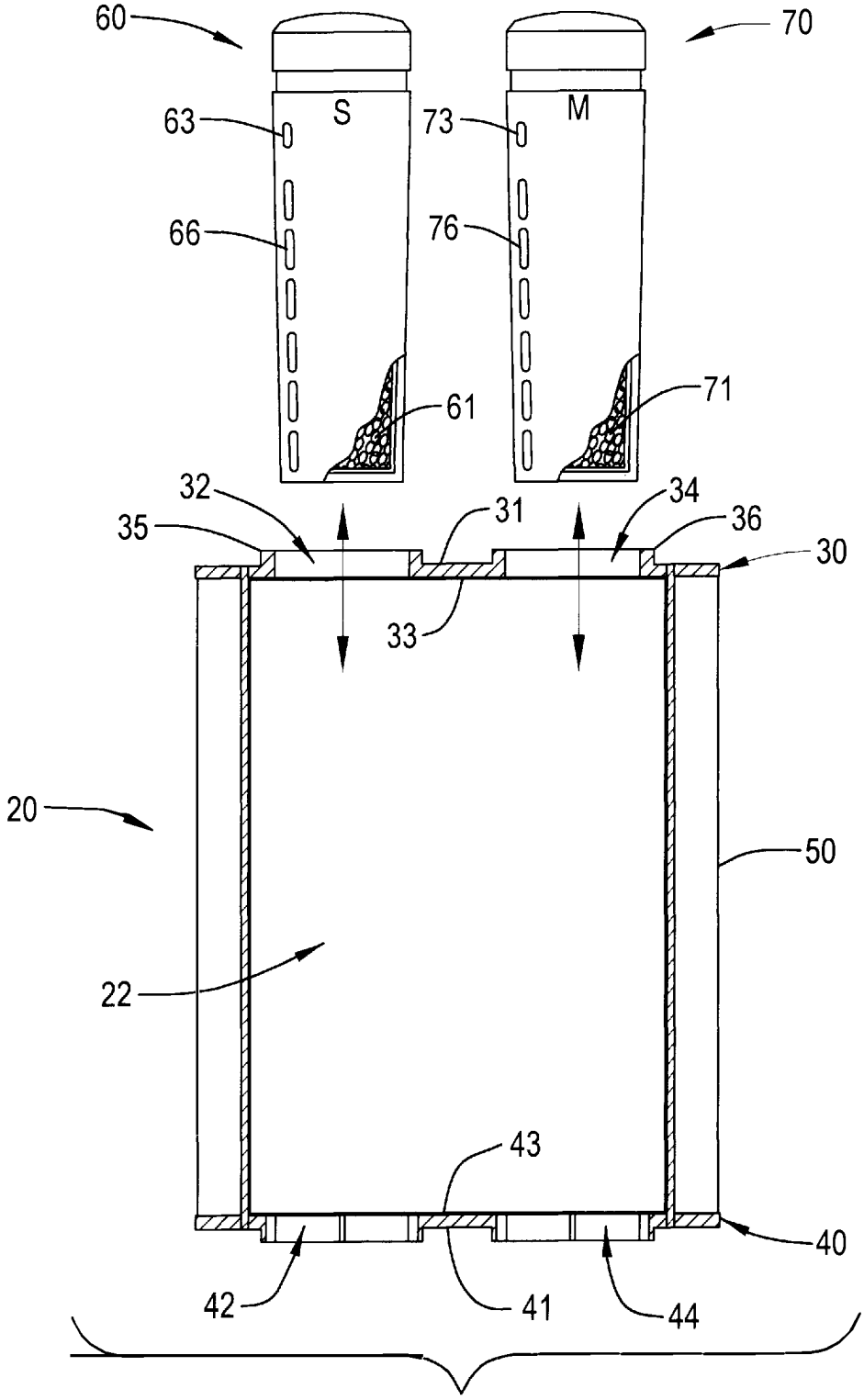


FIG. 2

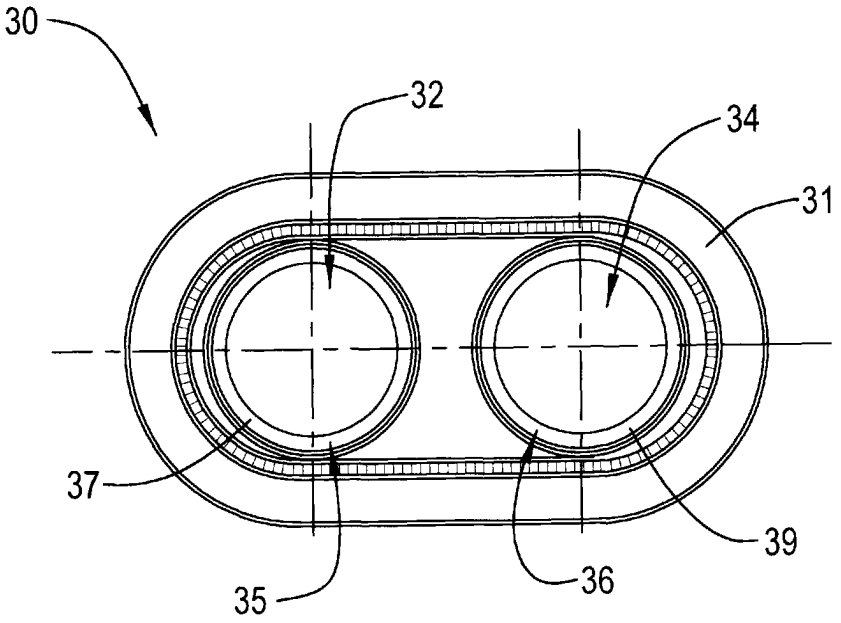


FIG. 3

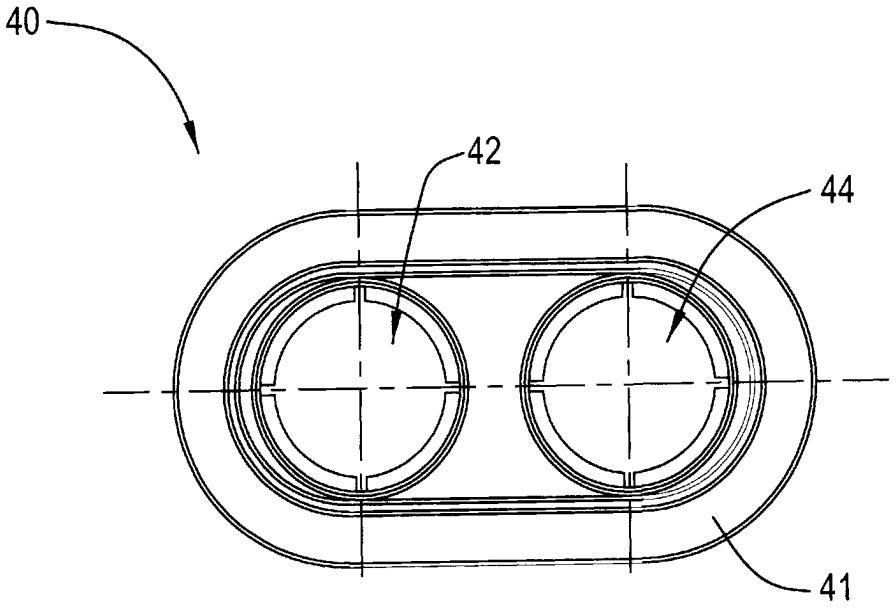
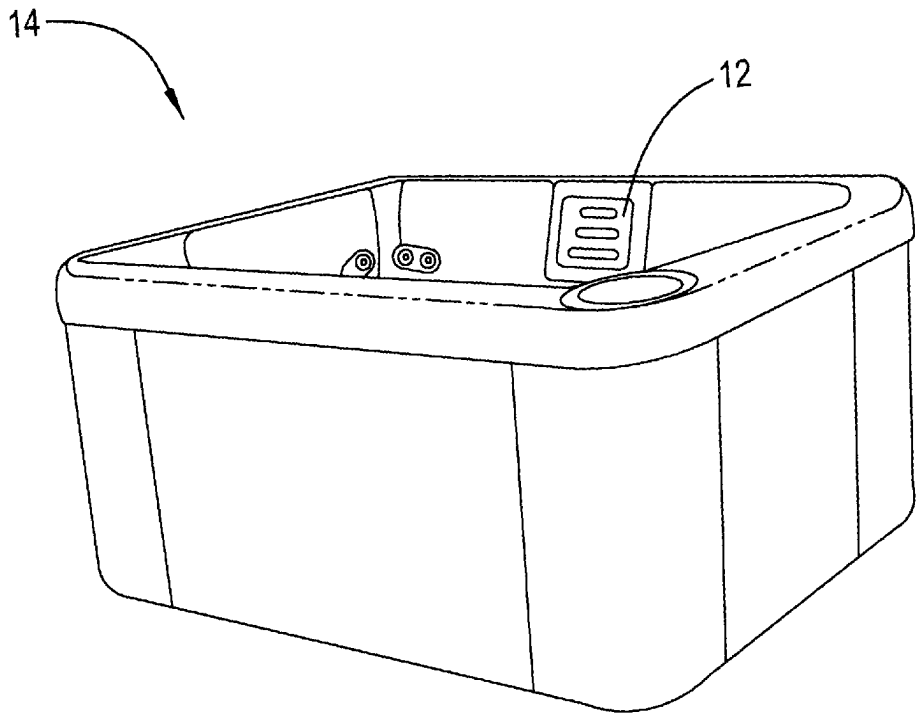


FIG. 4



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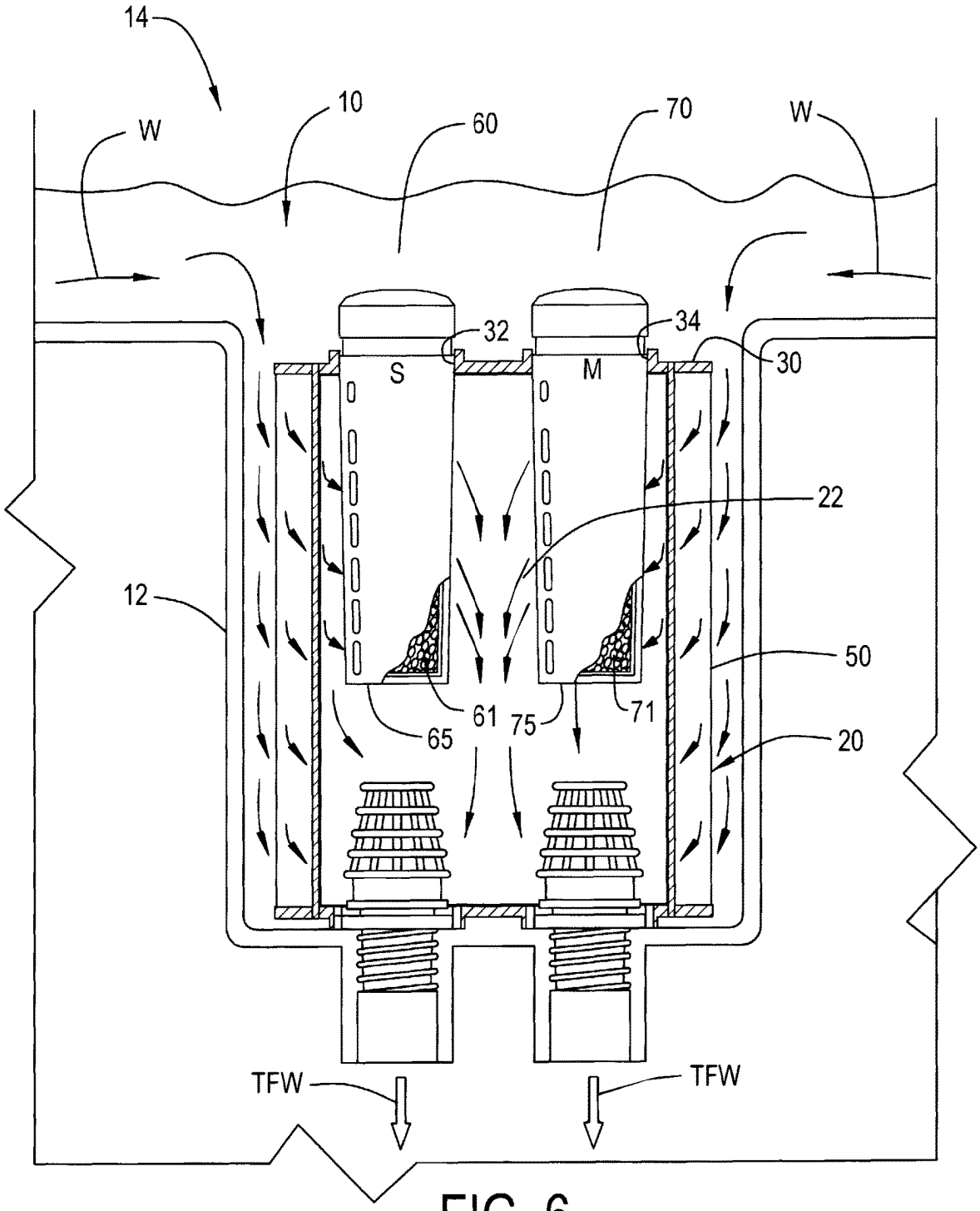

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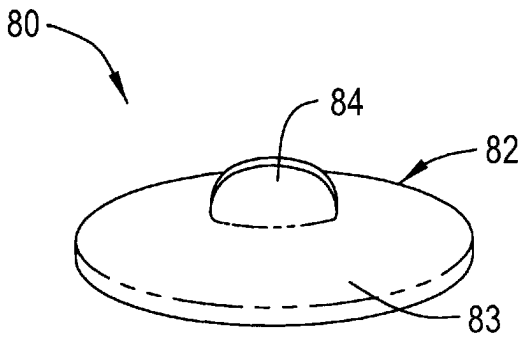

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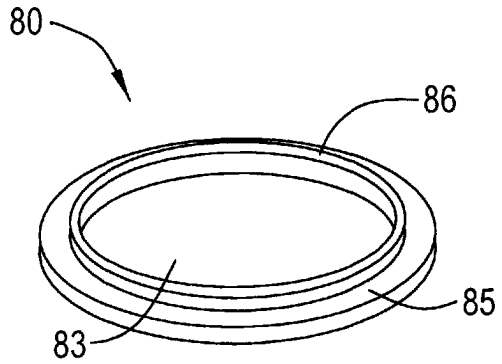

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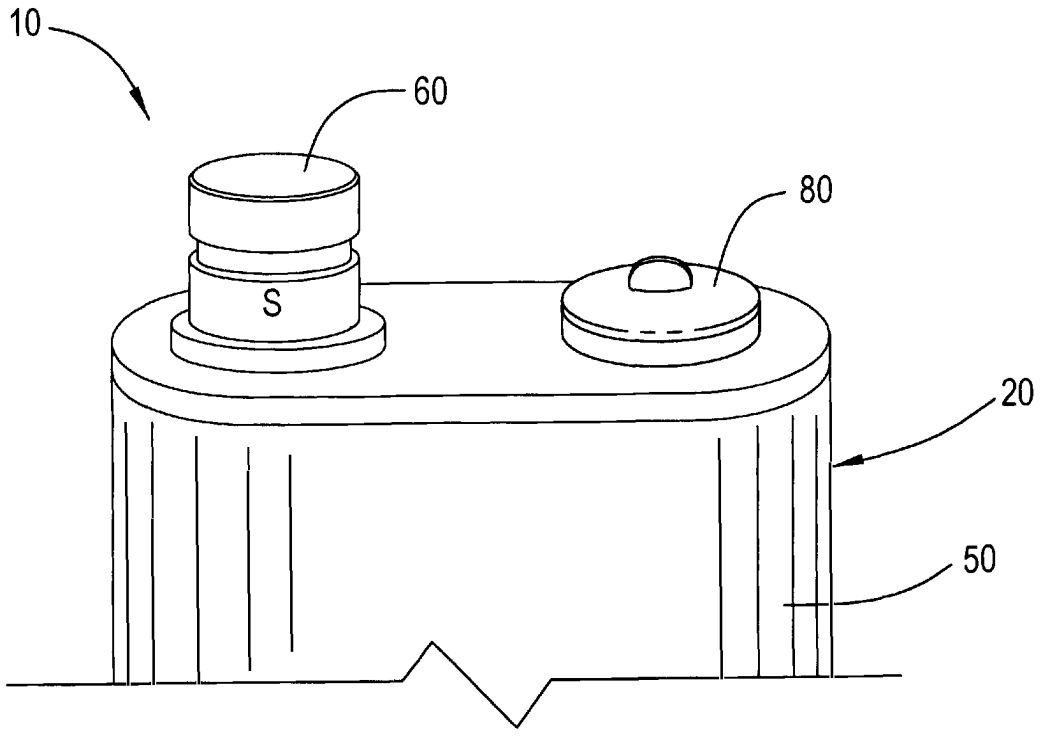

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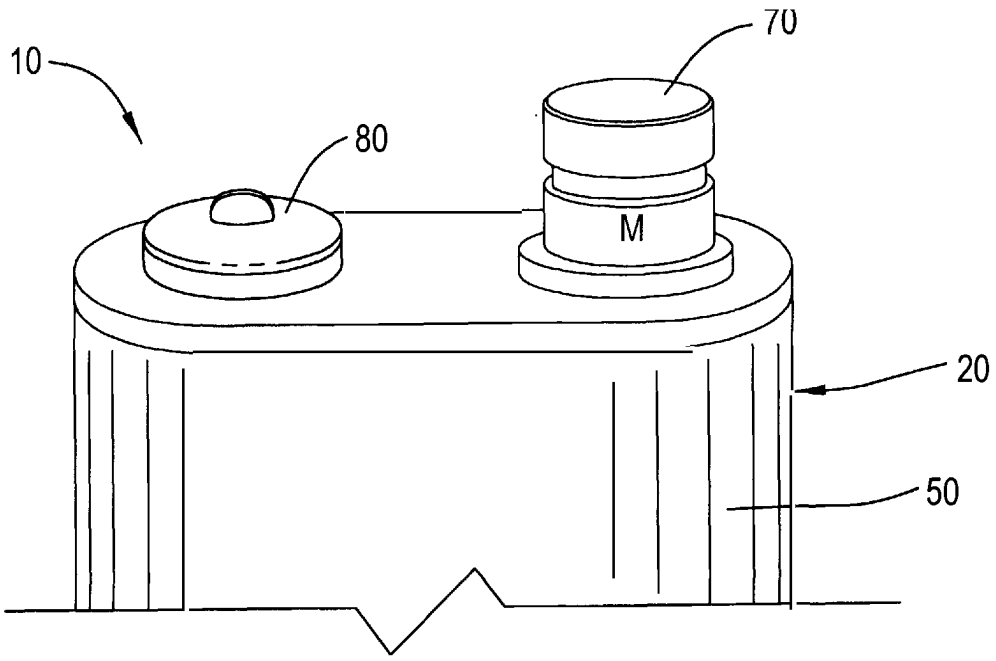

FIG. 10

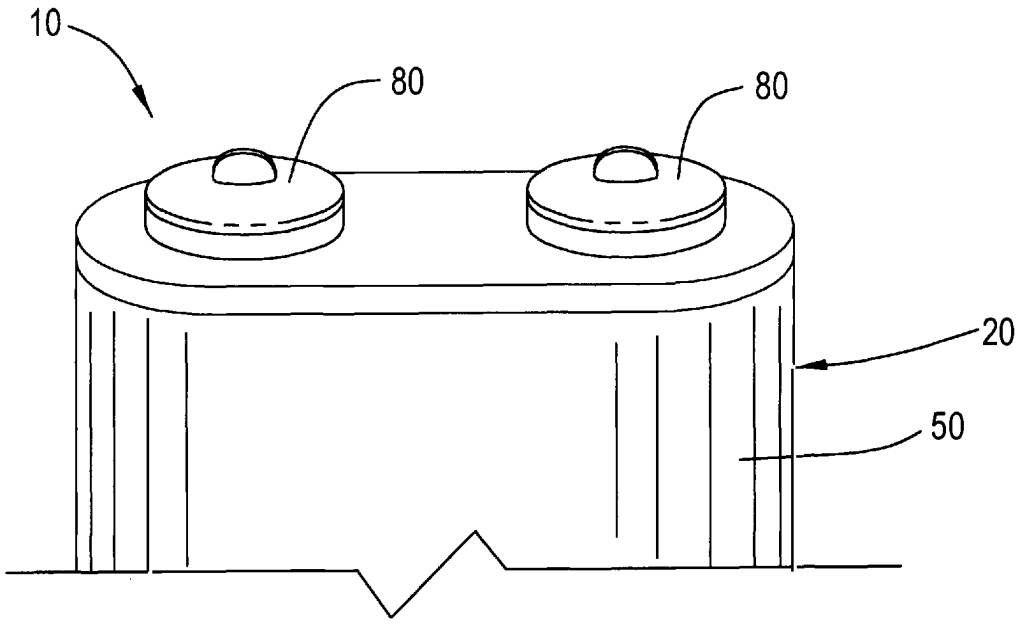

FIG. 11

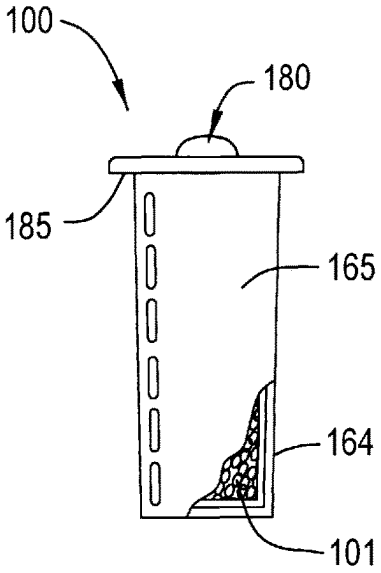

FIG. 12

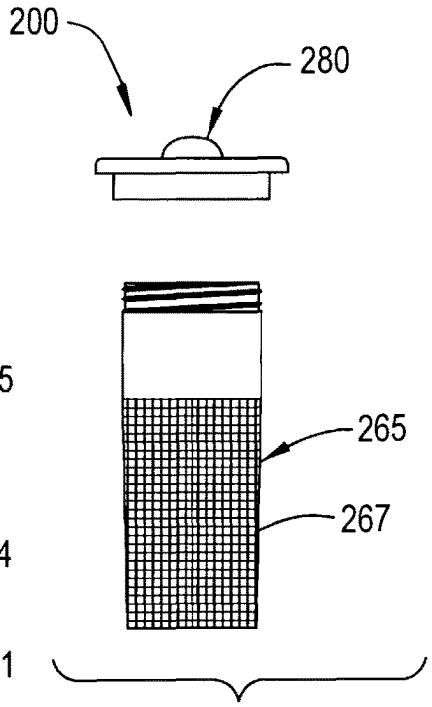

FIG. 13

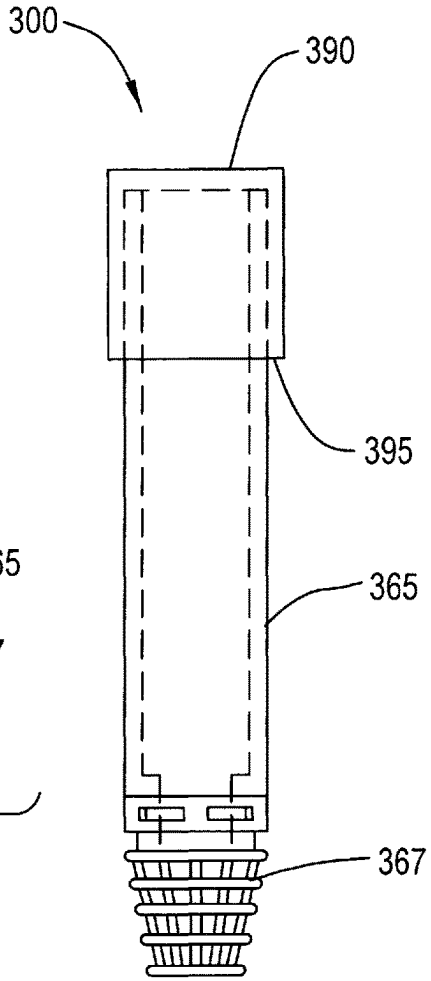

FIG. 14

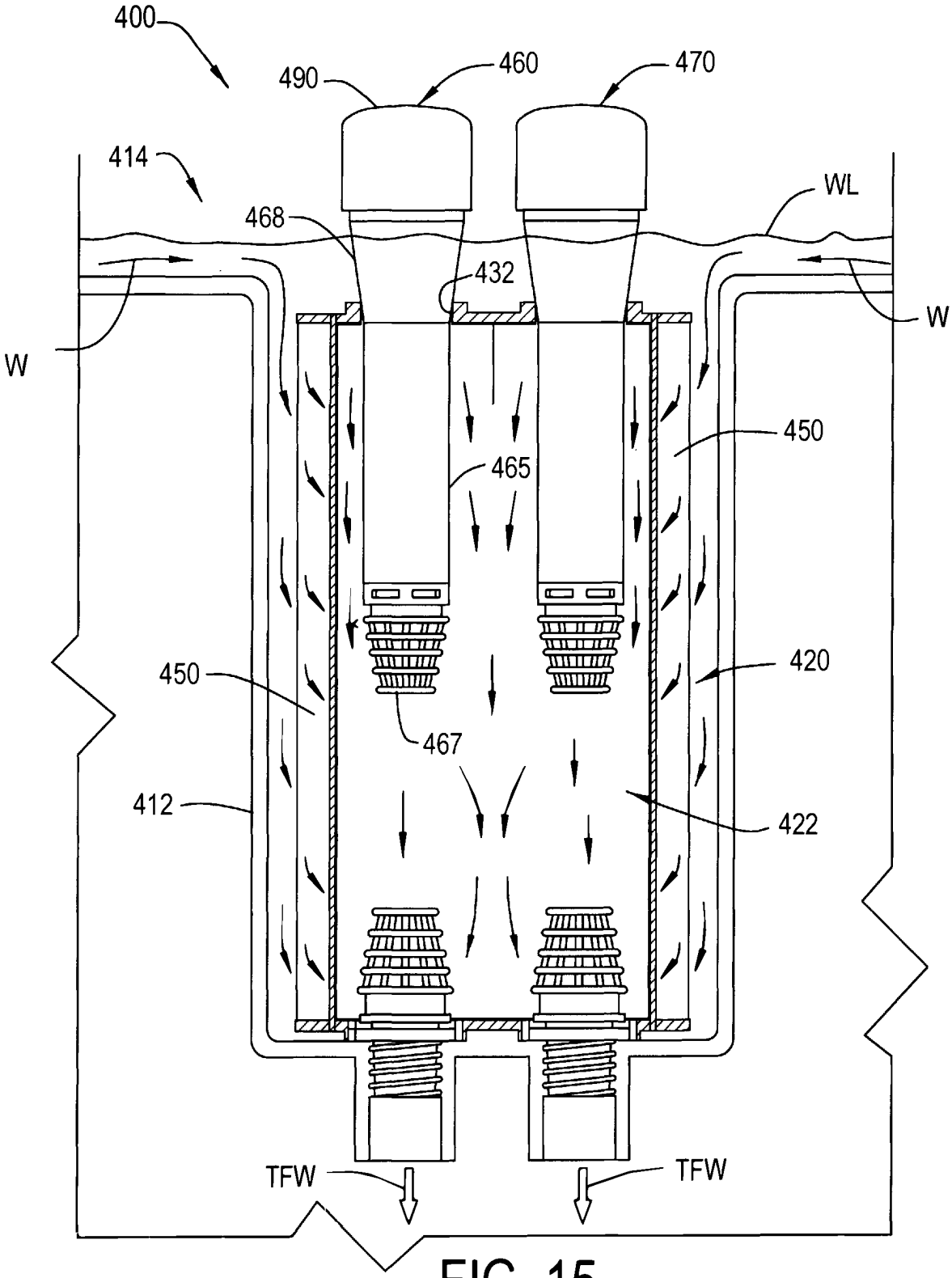
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FIG. 15

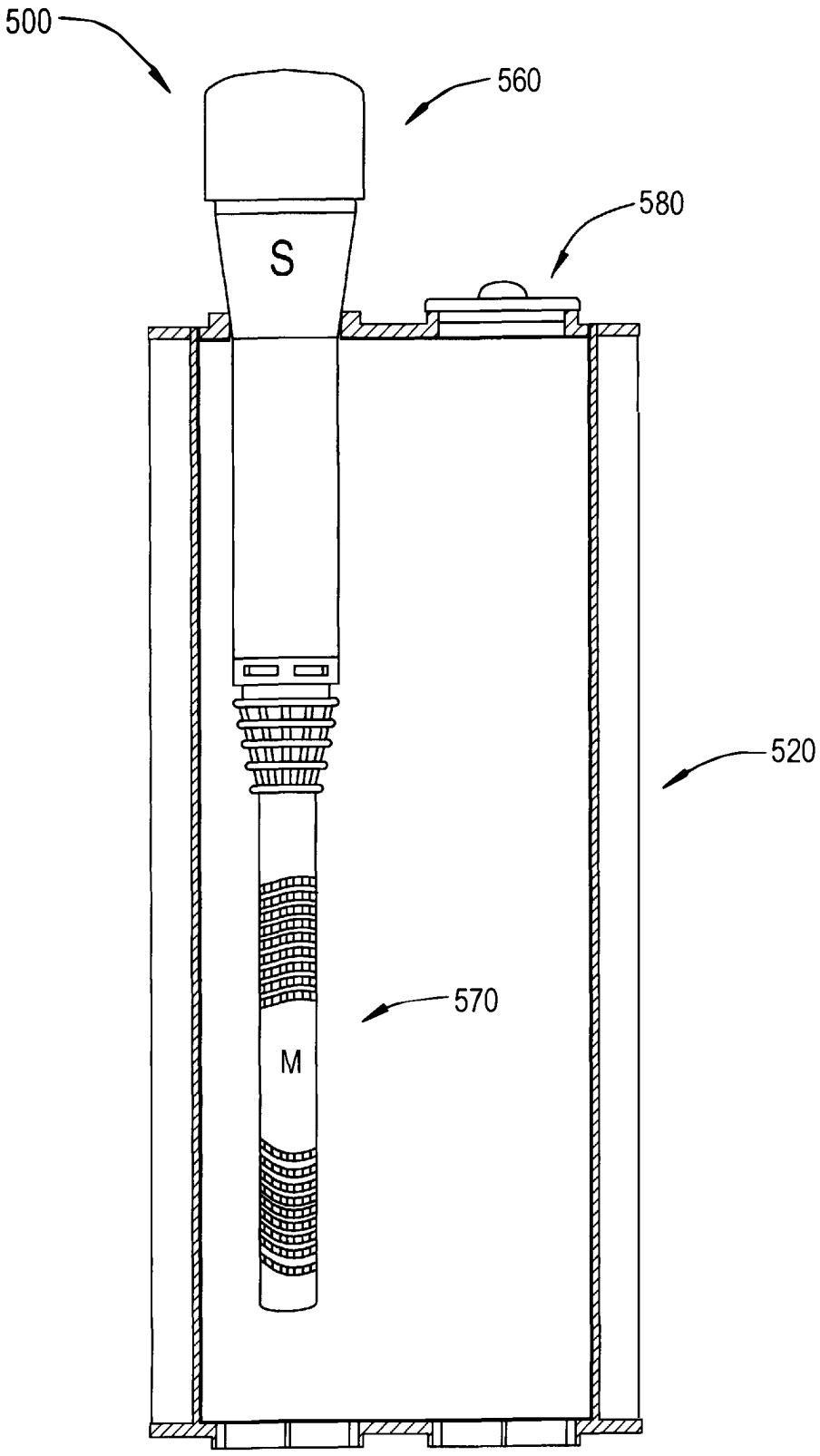


FIG. 16

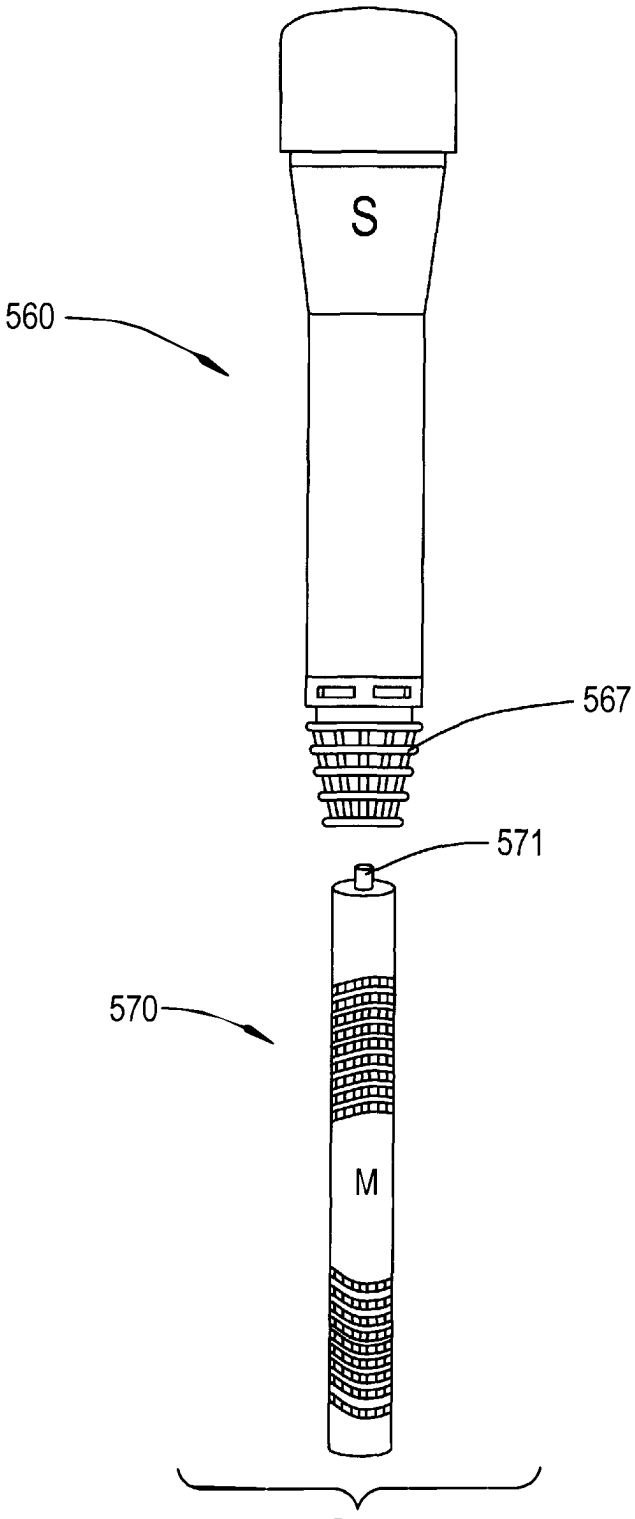
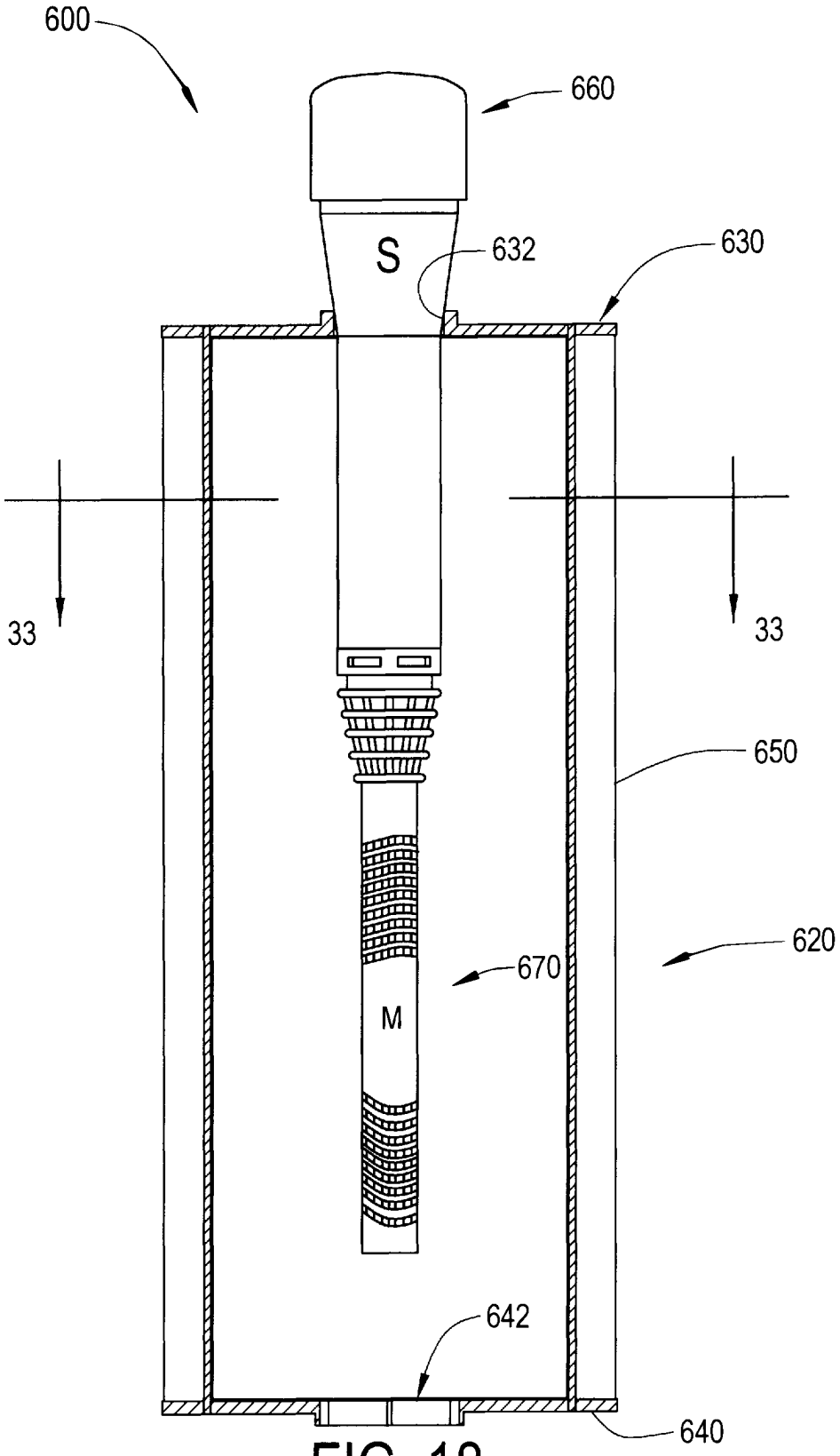


FIG. 17



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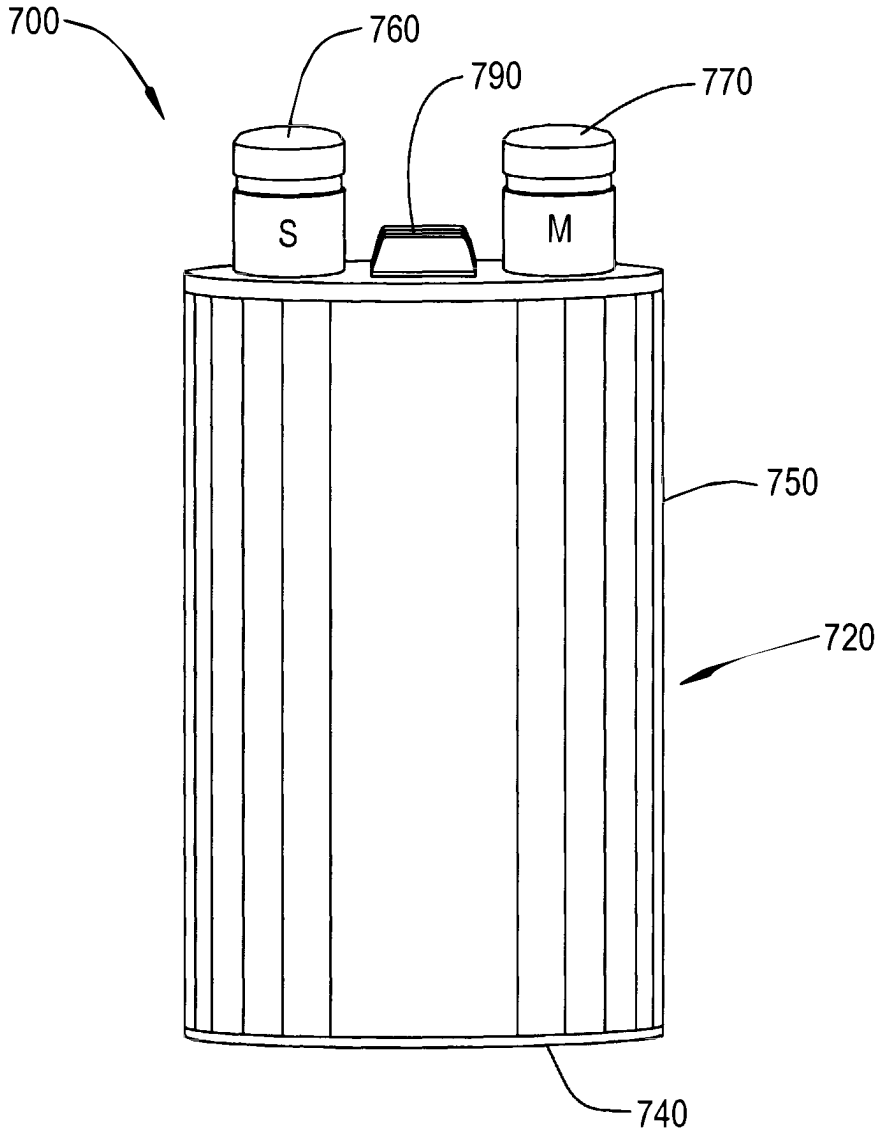

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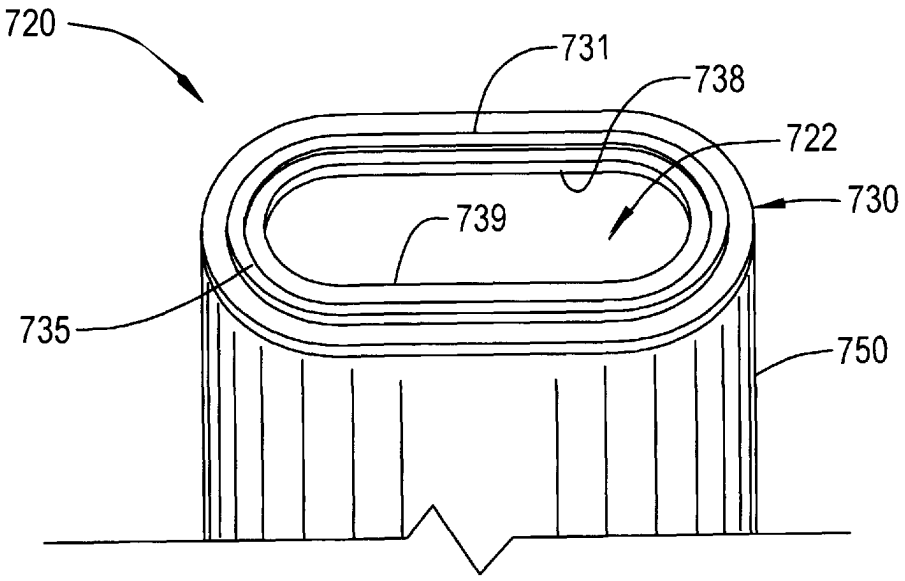

FIG. 20

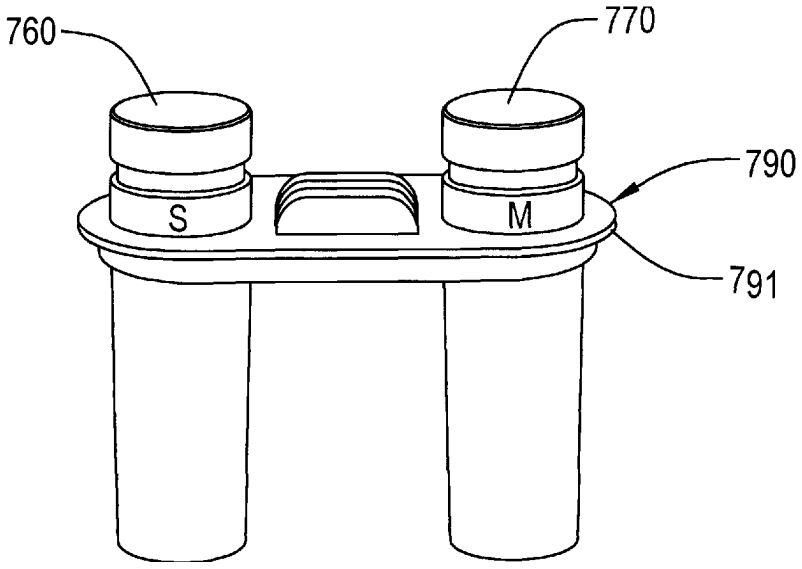

FIG. 21

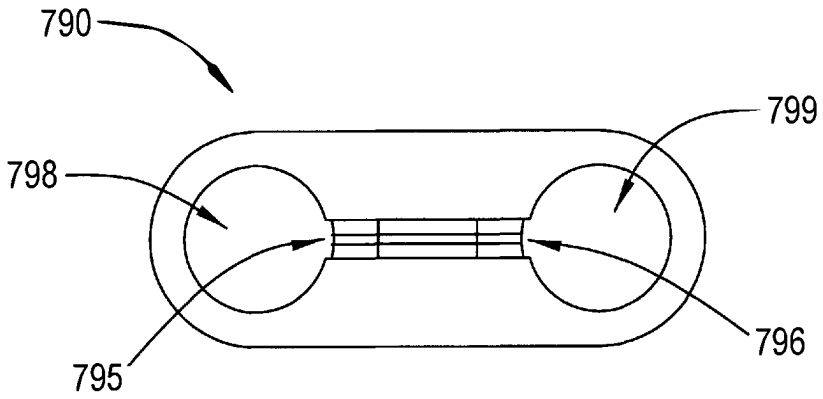

FIG. 22

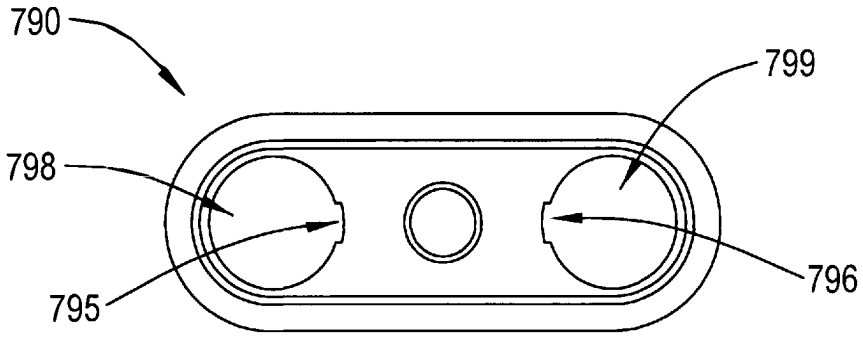

FIG. 23

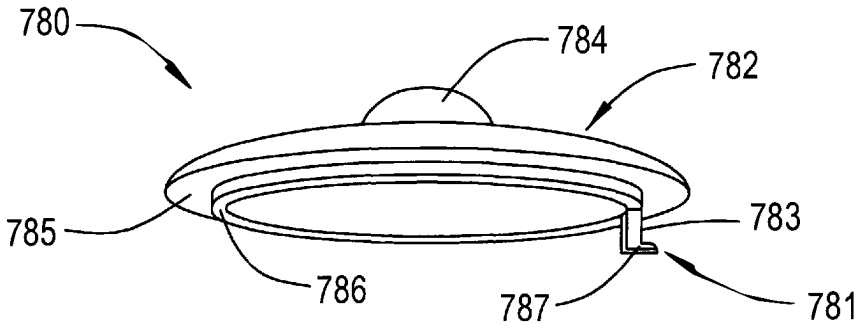

FIG. 24

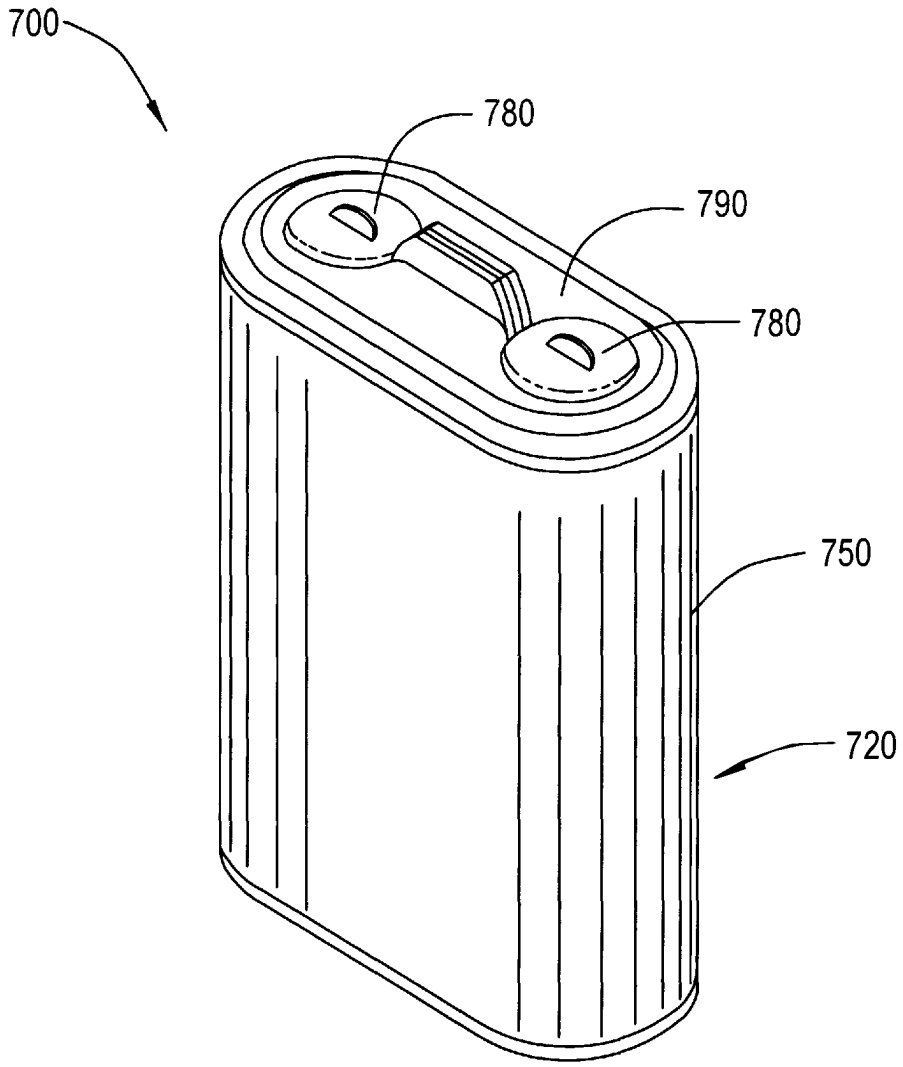

FIG. 25

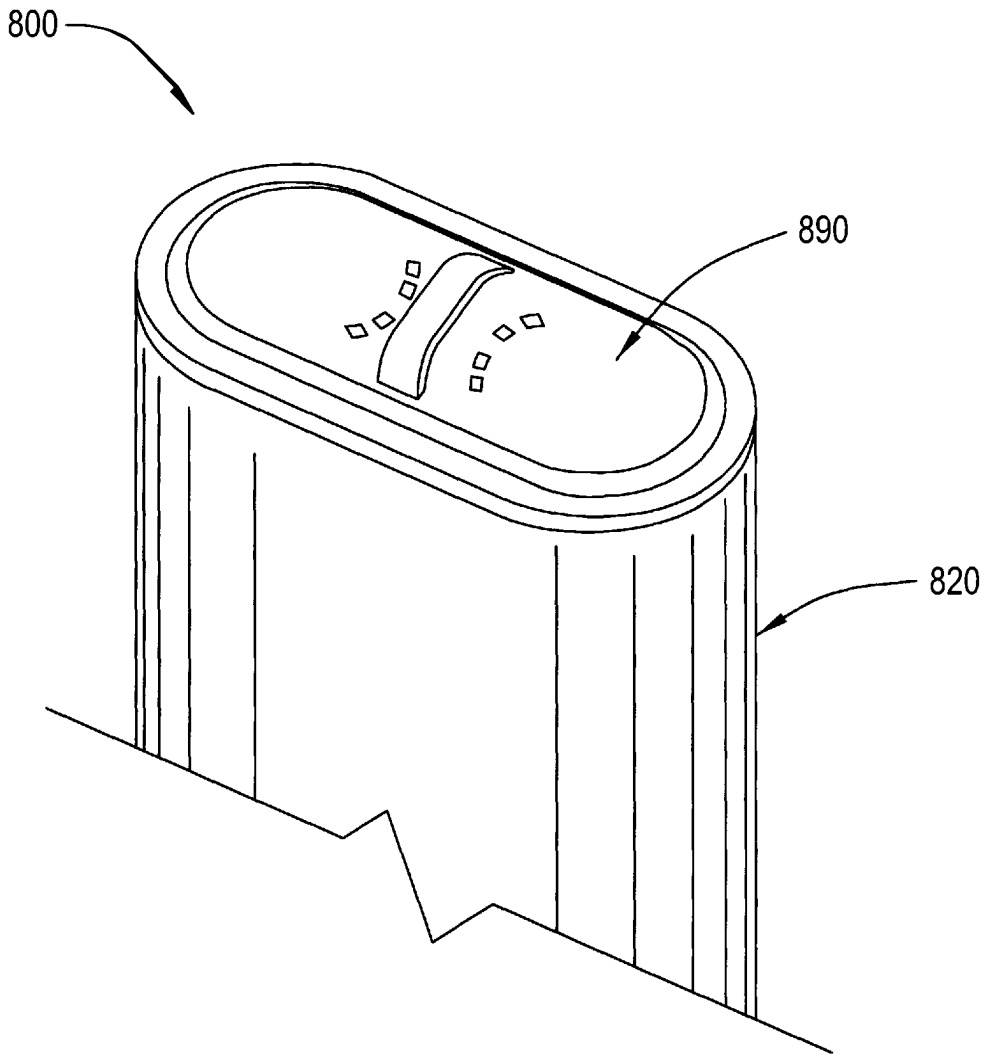

FIG. 26

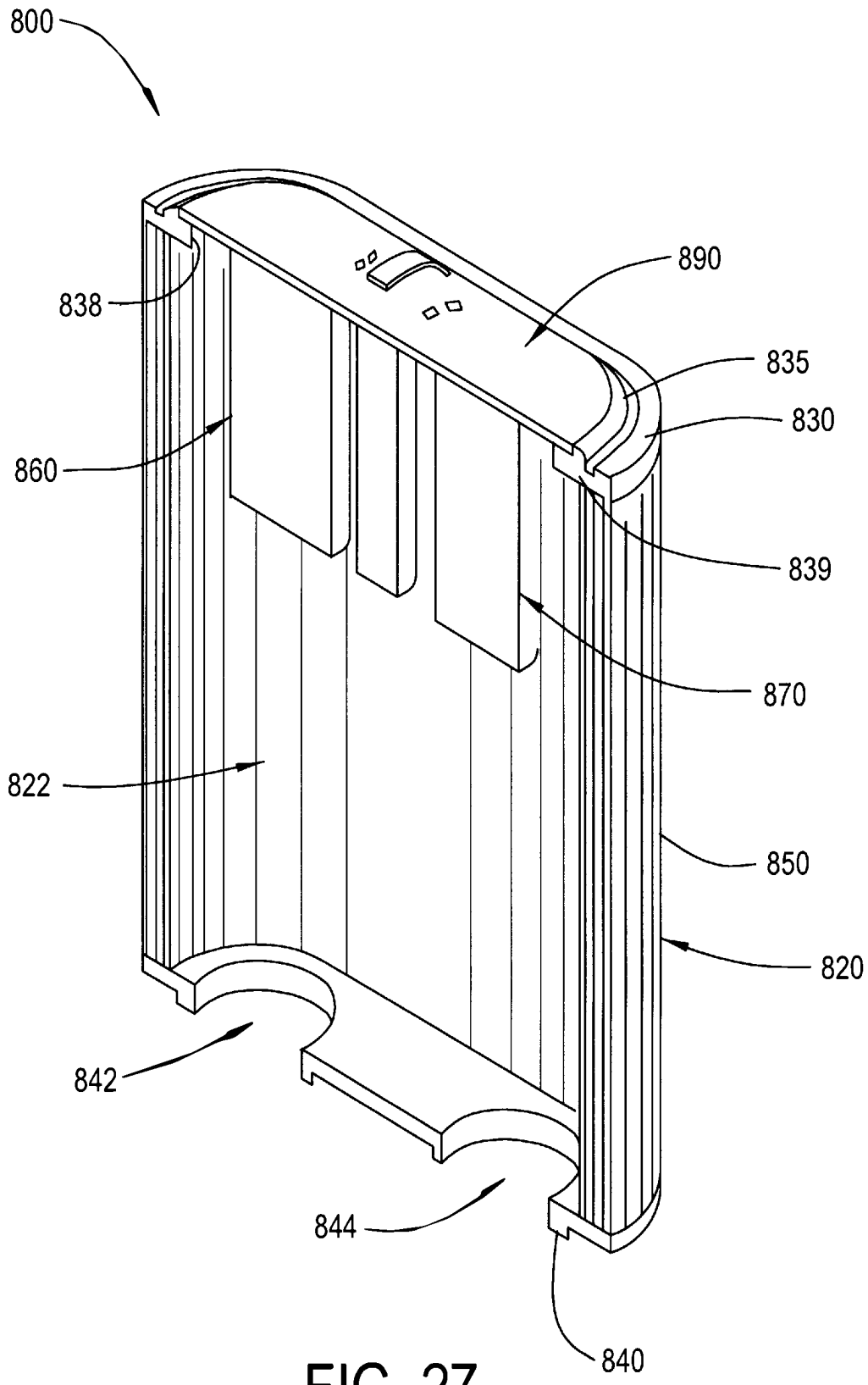

FIG. 27

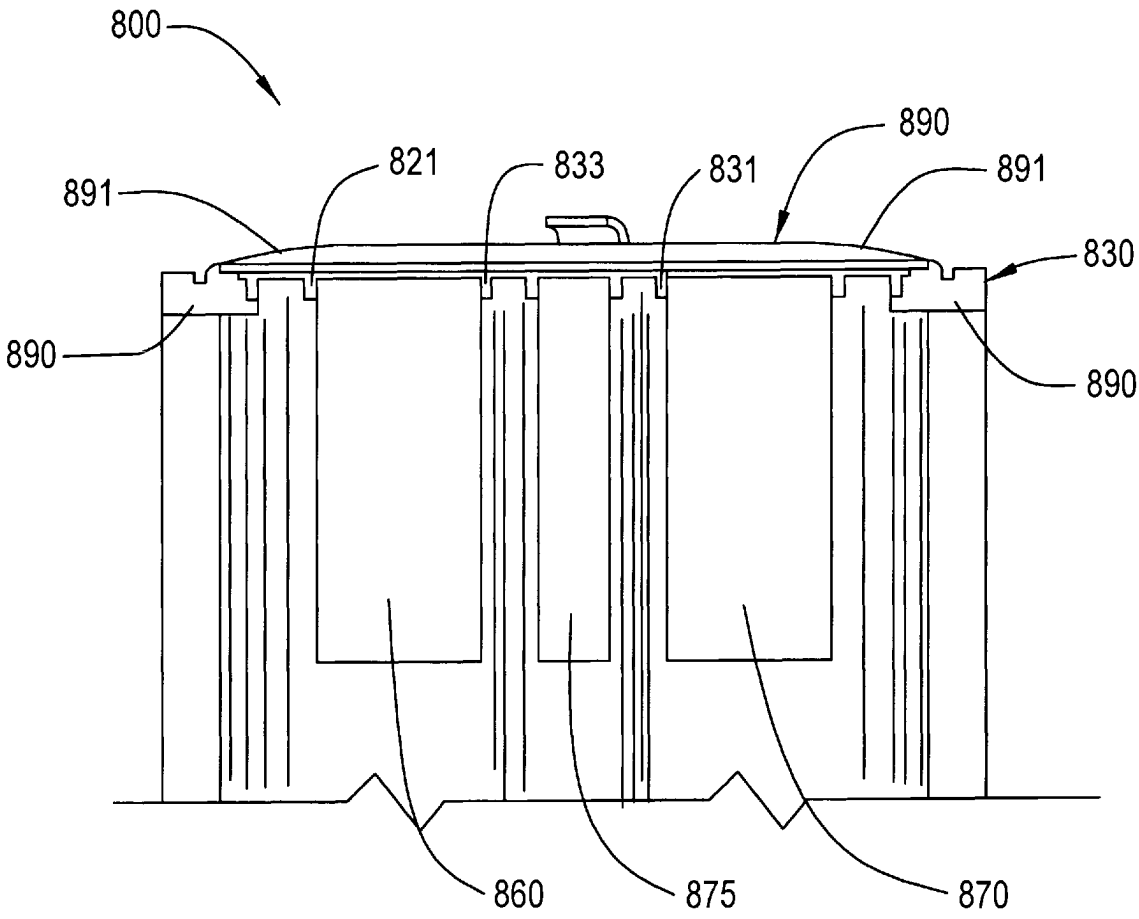

FIG. 28

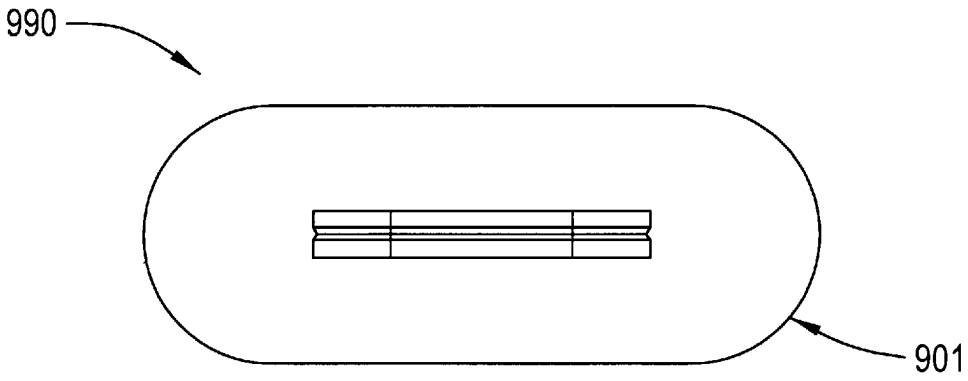

FIG. 29

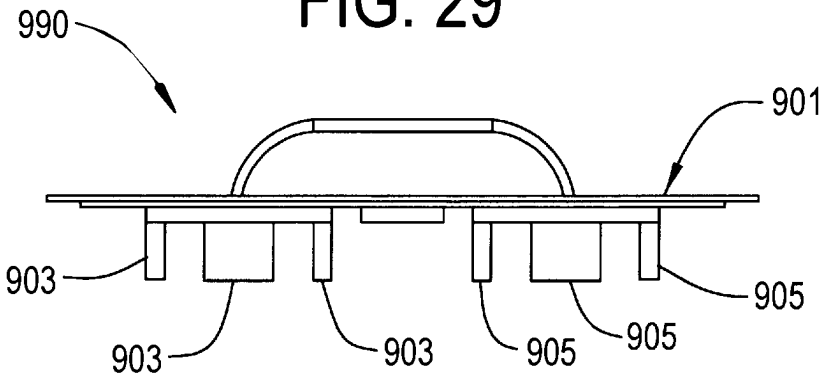

FIG. 30

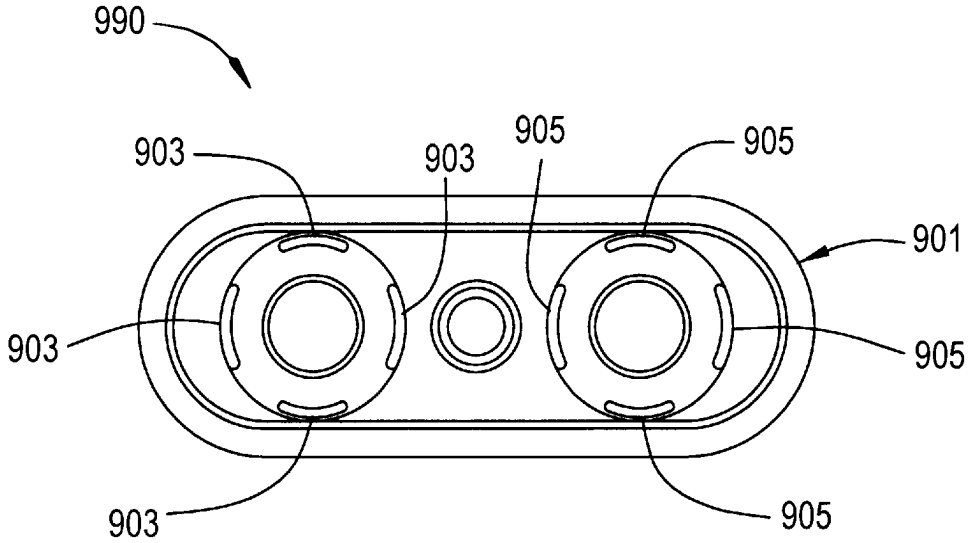

FIG. 31

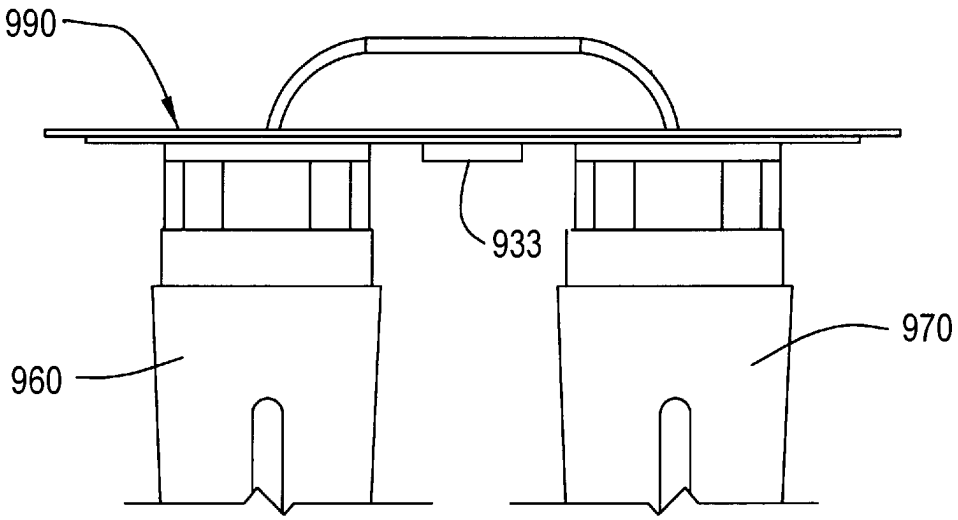

FIG. 32

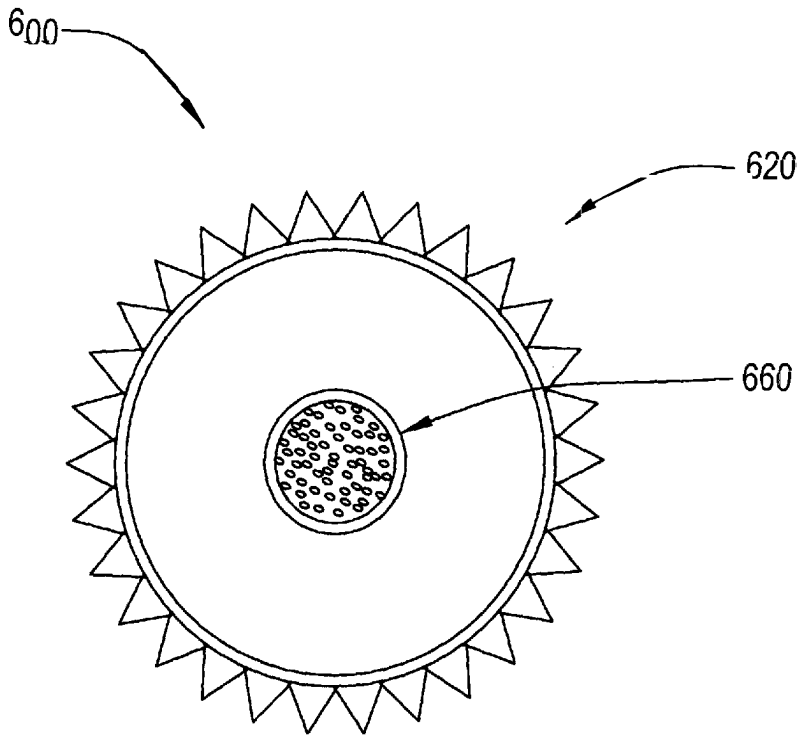

FIG. 33

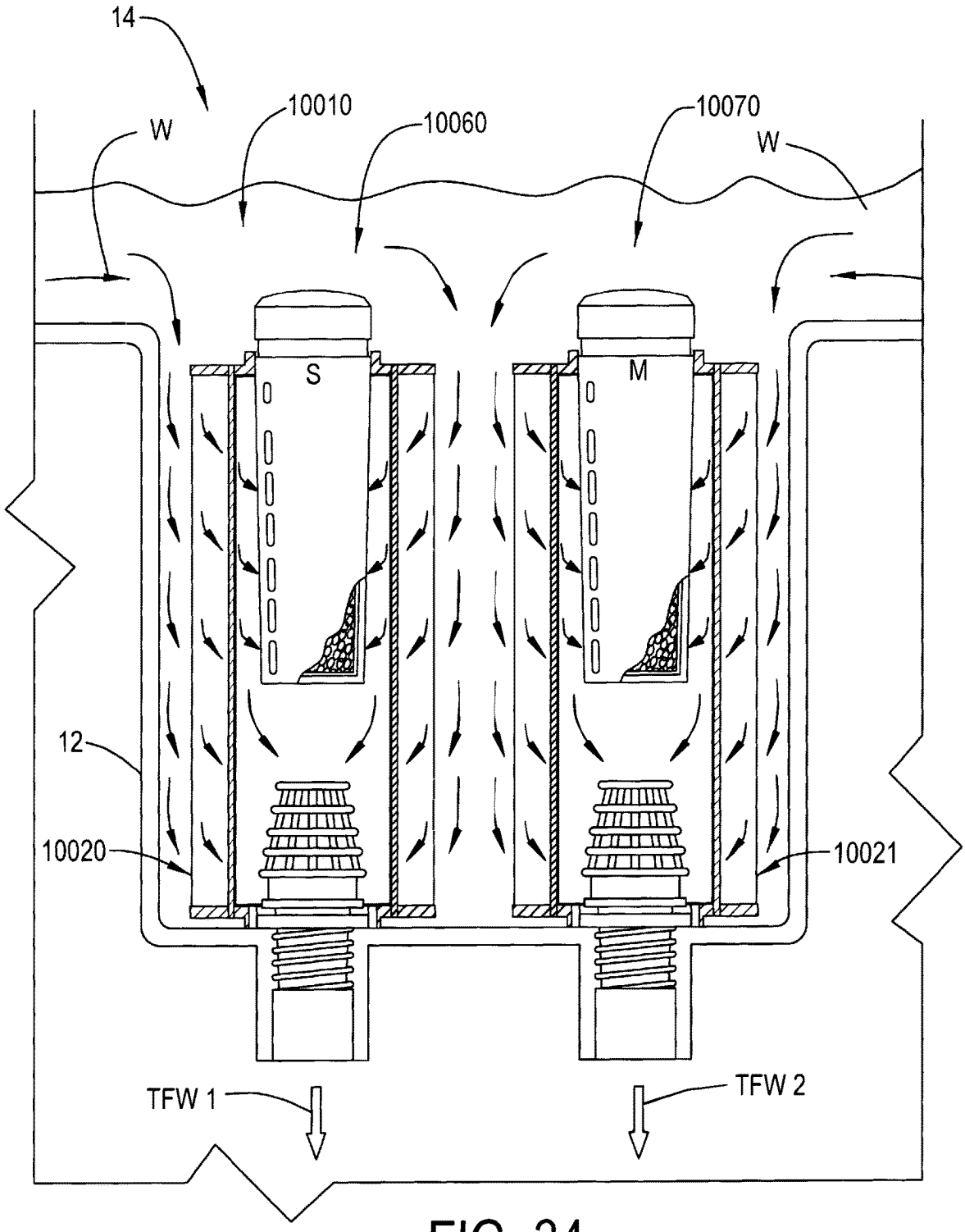

FIG. 34

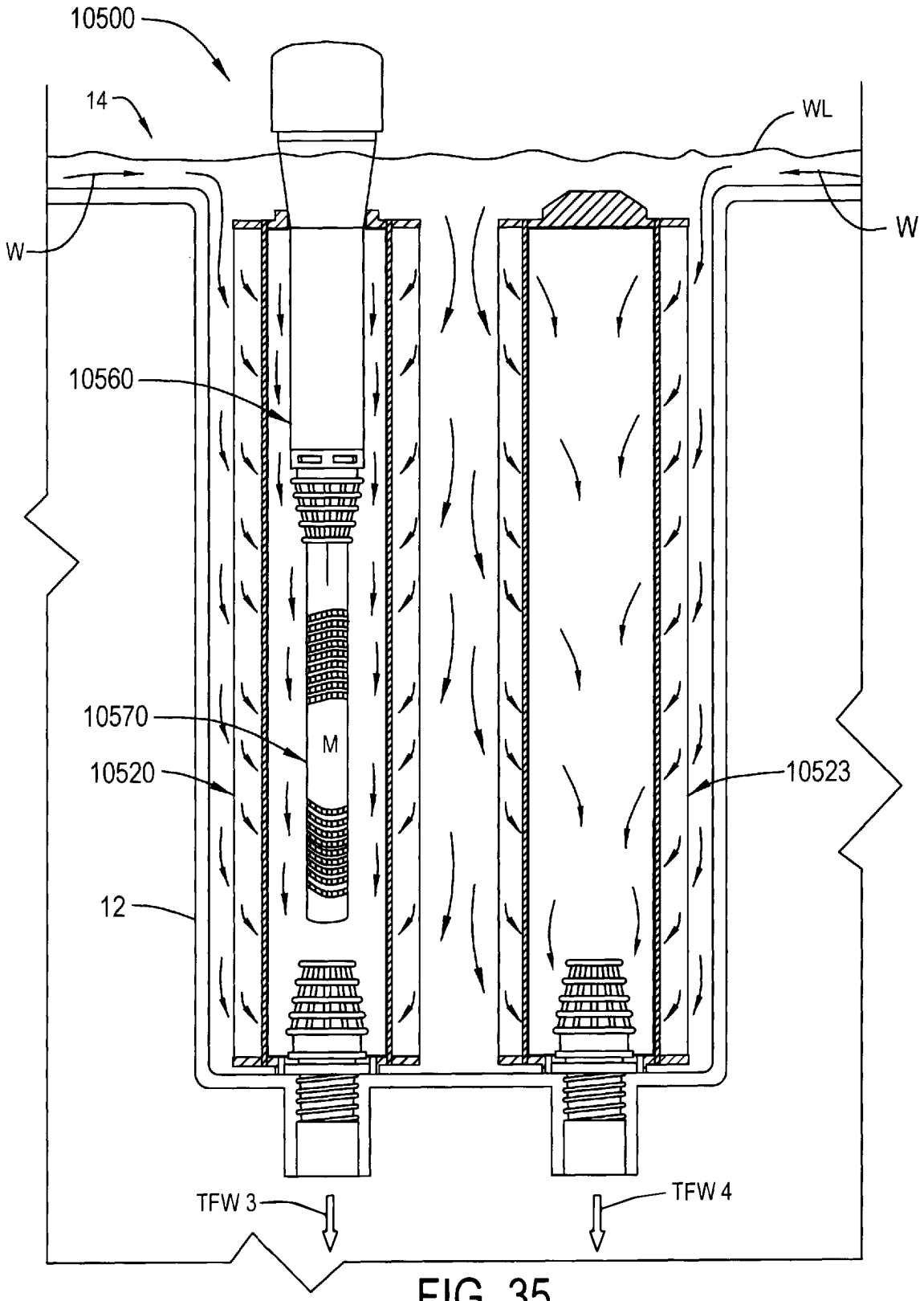

FIG. 35

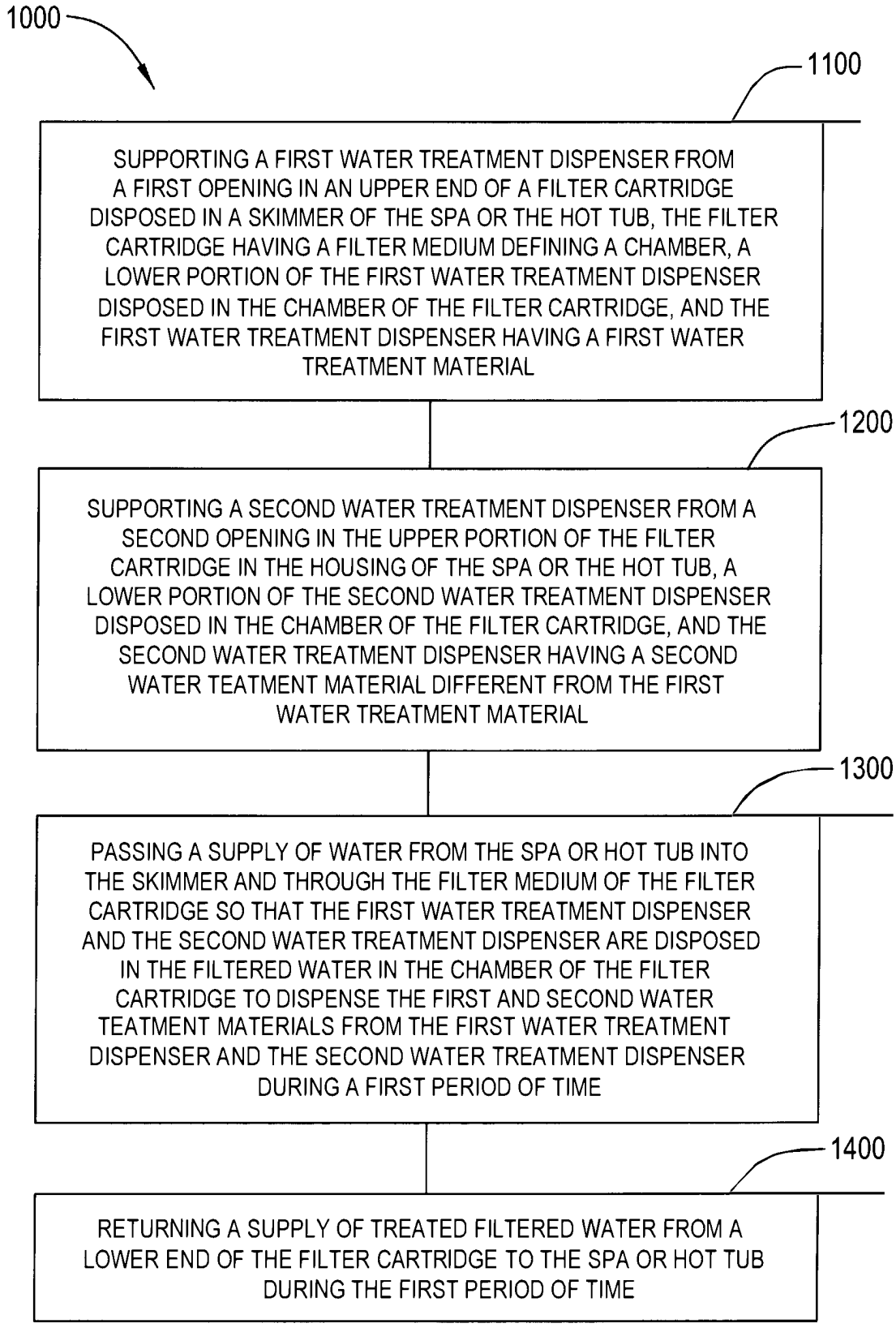
1000
1100
SUPPORTING A FIRST WATER TREATMENT DISPENSER FROM A FIRST OPENING IN AN UPPER END OF A FILTER CARTRIDGE DISPOSED IN A SKIMMER OF THE SPA OR THE HOT TUB, THE FILTER CARTRIDGE HAVING A FILTER MEDIUM DEFINING A CHAMBER, A LOWER PORTION OF THE FIRST WATER TREATMENT DISPENSER DISPOSED IN THE CHAMBER OF THE FILTER CARTRIDGE, AND THE FIRST WATER TREATMENT DISPENSER HAVING A FIRST WATER TREATMENT MATERIAL
1200
SUPPORTING A SECOND WATER TREATMENT DISPENSER FROM A SECOND OPENING IN THE UPPER PORTION OF THE FILTER CARTRIDGE IN THE HOUSING OF THE SPA OR THE HOT TUB, A LOWER PORTION OF THE SECOND WATER TREATMENT DISPENSER DISPOSED IN THE CHAMBER OF THE FILTER CARTRIDGE, AND THE SECOND WATER TREATMENT DISPENSER HAVING A SECOND WATER TEATMENT MATERIAL DIFFERENT FROM THE FIRST WATER TREATMENT MATERIAL
1300
PASSING A SUPPLY OF WATER FROM THE SPA OR HOT TUB INTO THE SKIMMER AND THROUGH THE FILTER MEDIUM OF THE FILTER CARTRIDGE SO THAT THE FIRST WATER TREATMENT DISPENSER AND THE SECOND WATER TREATMENT DISPENSER ARE DISPOSED IN THE FILTERED WATER IN THE CHAMBER OF THE FILTER CARTRIDGE TO DISPENSE THE FIRST AND SECOND WATER TEATMENT MATERIALS FROM THE FIRST WATER TREATMENT DISPENSER AND THE SECOND WATER TREATMENT DISPENSER DURING A FIRST PERIOD OF TIME
1400
RETURNING A SUPPLY OF TREATED FILTERED WATER FROM A LOWER END OF THE FILTER CARTRIDGE TO THE SPA OR HOT TUB DURING THE FIRST PERIOD OF TIME

FIG. 36

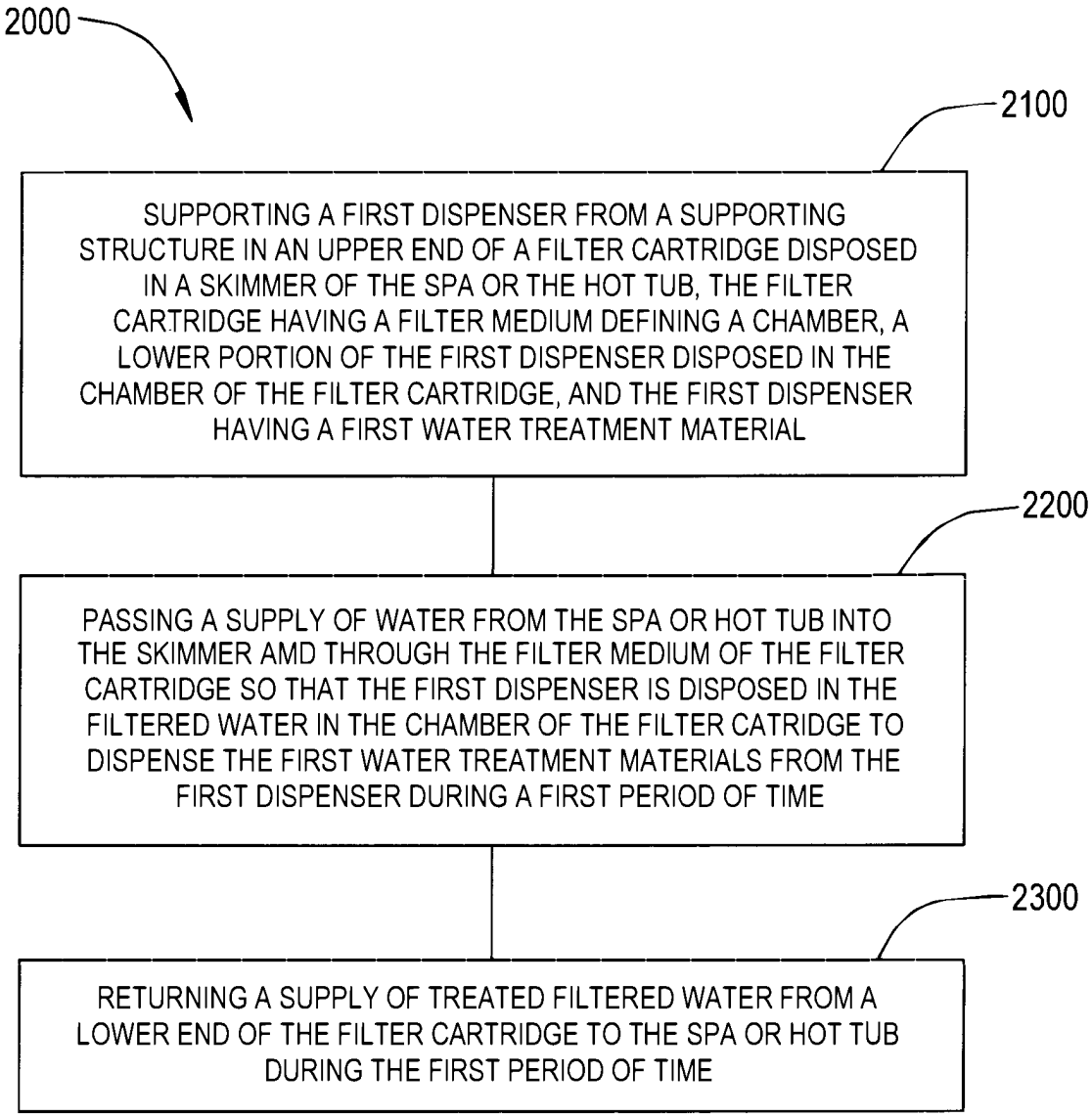
2000
2100
SUPPORTING A FIRST DISPENSER FROM A SUPPORTING STRUCTURE IN AN UPPER END OF A FILTER CARTRIDGE DISPOSED IN A SKIMMER OF THE SPA OR THE HOT TUB, THE FILTER CARTRIDGE HAVING A FILTER MEDIUM DEFINING A CHAMBER, A LOWER PORTION OF THE FIRST DISPENSER DISPOSED IN THE CHAMBER OF THE FILTER CARTRIDGE, AND THE FIRST DISPENSER HAVING A FIRST WATER TREATMENT MATERIAL
2200
PASSING A SUPPLY OF WATER FROM THE SPA OR HOT TUB INTO THE SKIMMER AMD THROUGH THE FILTER MEDIUM OF THE FILTER CARTRIDGE SO THAT THE FIRST DISPENSER IS DISPOSED IN THE FILTERED WATER IN THE CHAMBER OF THE FILTER CATRIDGE TO DISPENSE THE FIRST WATER TREATMENT MATERIALS FROM THE FIRST DISPENSER DURING A FIRST PERIOD OF TIME
2300
RETURNING A SUPPLY OF TREATED FILTERED WATER FROM A LOWER END OF THE FILTER CARTRIDGE TO THE SPA OR HOT TUB DURING THE FIRST PERIOD OF TIME

FIG. 37

RECONFIGURABLE SPA FILTER TREATMENT SYSTEMS AND METHODS FOR TREATING FILTERED WATER FOR SPAS AND HOT TUBS

CROSS-REFERENCE TO RELATED APPLICATIONS

This application is a continuation of U.S. patent application Ser. No. 17/322,154, filed May 17, 2021, entitled "Reconfigurable Spa Filter Treatment Systems And Methods For Treating Filtered Water For Spas And Hot Tubs," which application is a continuation of U.S. patent application Ser. No. 16/746,081, filed Jan. 17, 2020, entitled "Reconfigurable Spa Filter Treatment Systems And Methods For Treating Filtered Water For Spas And Hot Tubs," the entire subject matter of these applications being incorporated herein by reference.

FIELD OF THE DISCLOSURE

The present disclosure relates generally to spas and hot tubs, and more particularly to reconfigurable spa filter treatment systems and methods for treating filtered water for spas and hot tubs.

BACKGROUND

Conventional spa or hot tub filters include a solid top end cap, a bottom end cap having an opening, and a pleated filter disposed therebetween. Treatment of water in spas and hot tubs typical requires a user to test and appropriately add water treatment materials to the water in the spa or hot tub.

SUMMARY

Shortcomings of the prior art are overcome and additional advantages are provided through the provision, in one embodiment, of a method for treating water in a spa or hot tub which includes, for example, supporting a first water treatment dispenser from a first opening in an upper end of a filter cartridge disposed in a skimmer of the spa or the hot tub, the filter cartridge having a filter medium defining a chamber, a lower portion of the first water treatment dispenser disposed in the chamber of the filter cartridge, and the first water treatment dispenser having a first water treatment material, and supporting a second water treatment dispenser from a second opening in the upper portion of the filter cartridge in the housing of the spa or the hot tub, a lower portion of the second water treatment dispenser disposed in the chamber of the filter cartridge, and the second water treatment dispenser having a second water treatment material different from the first water treatment material. A supply of water is passed from the spa or hot tub into the skimmer and through the filter medium of the filter cartridge so that the first water treatment dispenser and the second water treatment dispenser are disposed in the filtered water in the chamber of the filter cartridge to dispense the first and second water treatment materials from the first water treatment dispenser and the second water treatment dispenser during a first period of time. A supply of treated filtered water is returned from a lower end of the filter cartridge to the spa or hot tub during the first period of time.

In another embodiment, a method for treating water in a spa or hot tub is provided. The method includes, for example, supporting a first dispenser from a supporting structure in an upper end of a filter cartridge disposed in a skimmer of the spa or the hot tub, the filter cartridge having a filter medium defining a chamber, a lower portion of the first dispenser disposed in the chamber of the filter cartridge, and the first dispenser having a first water treatment material, passing a supply of water from the spa or hot tub into the skimmer and through the filter medium of the filter cartridge so that the first dispenser is disposed in the filtered water in the chamber of the filter cartridge to dispense the first water treatment materials from the first dispenser during a first period of time, and returning a supply of treated filtered water from a lower end of the filter cartridge to the spa or hot tub during the first period of time.

In another embodiment, a reconfigurable spa filter system receivable in a skimmer of a spa or hot tub for use in treating water in a spa or hot tub is provided. The reconfigurable spa filter system includes, for example, a filter cartridge having an upper portion, a bottom portion, and a surrounding filter medium disposed between a periphery of the upper portion and a periphery of the bottom portion to define a chamber therein. The upper portion has a first dispenser supporting structure for supporting a first dispenser having a first water treatment material in the chamber of the filter cartridge. The upper portion has a second dispenser supporting structure for supporting a second dispenser having a second water treatment material different from the first water treatment material in the chamber of the filter cartridge. When water from the spa or hot tub is directed into the skimmer and through the filter medium of the filter cartridge, the first dispenser and the second dispenser disposed in the filtered water in the chamber of the filter cartridge are operable to dispense the first and second water treatment materials from the first dispenser and the second dispenser, which treated filtered water is discharged from a lower end of the filter cartridge and into the spa or hot tub during the first period of time.

BRIEF DESCRIPTION OF THE DRAWINGS

The subject matter which is regarded as the disclosure is particularly pointed out and distinctly claimed in the concluding portion of the specification. The disclosure, however, may best be understood by reference to the following detailed description of various embodiments and the accompanying drawings in which:

FIG. **1** is a perspective view of a reconfigurable spa filter treatment system disposed in a first configuration, according to an embodiment of the present disclosure;

FIG. **2** is an exploded, side elevational view, in part cross-section, of the reconfigurable spa filter treatment system of FIG. **1**, according to an embodiment of the present disclosure;

FIG. **3** is a top view of the filter cartridge of the reconfigurable spa filter treatment system of FIG. **1**, according to an embodiment of the present disclosure;

FIG. **4** is a bottom view of the filter cartridge of the reconfigurable spa filter treatment system of FIG. **1**, according to an embodiment of the present disclosure;

FIG. **5** is a perspective view of a spa or hot tub having a skimmer or filter housing for use with the reconfigurable spa filter treatment system of FIG. **1**, according to an embodiment of the present disclosure;

FIG. **6** is a side elevational view, in part cross-section, of the reconfigurable spa filter treatment system of FIG. **1** disposed in the skimmer or filter housing, according to an embodiment of the present disclosure;

FIG. **7** is a top perspective view of a cover for use with the reconfigurable spa filter treatment system of FIG. **1**, according to an embodiment of the present disclosure;

FIG. **8** is a bottom perspective view of the cover of FIG. **7**, according to an embodiment of the present disclosure;

FIG. **9** is a partial perspective view of the reconfigurable spa filter treatment system of FIG. **1** disposed in a second configuration, according to an embodiment of the present disclosure;

FIG. **10** is a partial perspective view of the reconfigurable spa filter treatment system of FIG. **1** disposed in a third configuration, according to an embodiment of the present disclosure;

FIG. **11** is a partial perspective view of the reconfigurable spa filter treatment system of FIG. **1** disposed in a fourth configuration, according to an embodiment of the present disclosure;

FIG. **12** is a side elevational view of a disposable water treatment dispenser, according to an embodiment of the present disclosure;

FIG. **13** is an exploded side elevational view of a reusable water treatment dispenser, according to an embodiment of the present disclosure;

FIG. **14** is a perspective view of a reusable water treatment dispenser, according to an embodiment of the present disclosure;

FIG. **15** is a side elevational view, in part cross-section, of a reconfigurable spa filter treatment system, according to an embodiment of the present disclosure;

FIG. **16** is a side elevational view, in part cross-section, of a reconfigurable spa filter treatment system, according to an embodiment of the present disclosure;

FIG. **17** is an exploded, side elevational view of the reusable water treatment dispenser and a stick water treatment dispenser of FIG. **16**, according to an embodiment of the present disclosure;

FIG. **18** is a side elevational view, in part cross-section, of a reconfigurable spa filter treatment system, according to an embodiment of the present disclosure;

FIG. **19** is a perspective side elevational view of a reconfigurable spa filter treatment system, according to an embodiment of the present disclosure;

FIG. **20** is a top perspective view of the filter cartridge of the reconfigurable spa filter treatment system of FIG. **19**, according to an embodiment of the present disclosure;

FIG. **21** is a perspective side view of the first water treatment dispenser, the second water treatment dispenser, and the lid of the reconfigurable spa filter treatment system of FIG. **19**, according to an embodiment of the present disclosure;

FIG. **22** is a top view of the lid of FIG. **21**, according to an embodiment of the present disclosure;

FIG. **23** is a bottom view of the lid of FIG. **21**, according to an embodiment of the present disclosure;

FIG. **24** is a bottom perspective view of a cover for use with the lid of FIGS. **22** and **23**, according to an embodiment of the present disclosure;

FIG. **25** is a top perspective view of the reconfigurable spa filter treatment system of FIG. **19** in another configuration, according to an embodiment of the present disclosure;

FIG. **26** is a partial top perspective view of a reconfigurable spa filter treatment system, according to an embodiment of the present disclosure;

FIG. **27** is a cross-sectional perspective view of the reconfigurable spa filter treatment system of FIG. **26**, according to an embodiment of the present disclosure;

FIG. **28** is an enlarged, cross-sectional, side elevational view of the reconfigurable spa filter treatment system of FIG. **26**, according to an embodiment of the present disclosure;

FIG. **29** is a top view of a lid for a reconfigurable spa filter treatment, according to an embodiment of the present disclosure;

FIG. **30** is a side elevational view of the lid of FIG. **29**, according to an embodiment of the present disclosure;

FIG. **31** is a bottom view of the lid of FIG. **29**, according to an embodiment of the present disclosure;

FIG. **32** is a side elevational view of the lid of FIG. **29** along with a first water treatment dispenser and a second water treatment dispenser, according to an embodiment of the present disclosure;

FIG. **33** is a cross-sectional view taken along line **33-33** in FIG. **18**, according to an embodiment of the present disclosure;

FIG. **34** is a side elevational view, in part cross-section, of a reconfigurable spa filter treatment system disposed a skimmer or filter housing, according to an embodiment of the present disclosure;

FIG. **35** is a side elevational view, in part cross-section, of a reconfigurable spa filter treatment system disposed a skimmer or filter housing, according to an embodiment of the present disclosure;

FIG. **36** is a flowchart of a method for treating filtered water in a spa or hot tub, according to an embodiment of the present disclosure; and

FIG. **37** is a flowchart of a method for treating filtered water in a spa or hot tub, according to an embodiment of the present disclosure.

DETAILED DESCRIPTION

The present disclosure and certain features, advantages, and details thereof, are explained more fully below with reference to the non-limiting embodiments illustrated in the accompanying drawings. Descriptions of well-known materials, fabrication tools, processing techniques, etc., are omitted so as to not unnecessarily obscure the disclosure in detail. It should be understood, however, that the detailed description and the specific examples, while indicating embodiments of the present disclosure, are given by way of illustration only, and are not by way of limitation. Various substitutions, modifications, additions and/or arrangements within the spirit and/or scope of the underlying concepts will be apparent to those skilled in the art from this disclosure. Reference is made below to the drawings, which are not drawn to scale for ease of understanding, wherein the same reference numbers used throughout different figures designate the same or similar components.

Generally, the reconfigurable spa filter treatment systems of the present disclosure provides a filter docking system and technology directed to filters cartridges disposable in a skimmer or filter housing of a spa or hot tub and adapted to receive one or more water treatment dispensers, such as a mineral water treatment dispenser and a sanitizer water treatment dispenser. For example, in some embodiments, the reconfigurable spa filter treatment systems may include pleated filter cartridges configured to receive a first sanitizer water treatment dispenser having bromine and a second mineral water treatment dispenser having silver. The reconfigurable spa filter treatment systems allows for using either one of the water treatment dispensers, both of the water treatment dispensers, or neither of the water treatment dispenser, for example, based on the needed treatment of the

water in the spa or hot tub. The water treatment dispensers may be configured to be disposable or reusable.

With reference to FIG. **1**, therein illustrated is a reconfigurable spa filter treatment system **10** disposed in a first configuration, according to an embodiment of the present disclosure. In this illustrated embodiment, reconfigurable spa filter treatment system **10** generally includes a filter cartridge **20**, a first water treatment dispenser **60**, and a second water treatment dispenser **70**. As shown in FIGS. **5** and **6**, reconfigurable spa filter treatment system **10** (FIG. **6**) is disposable in a skimmer or filter housing **12** of a spa or hot tub **14** for filtering and treating water.

As shown in FIG. **2**, in this exemplary embodiment, first water treatment dispenser **60** may include a first water treatment material **61**, and second water treatment dispenser **70** may include a second water treatment material **71**. In some embodiments, the first water treatment material may be different from the second water treatment material. For example, the first water treatment material may be a sanitizing material containing bromine as an active ingredient, and the second water treatment material may be a mineral material containing silver as an active ingredient. In some embodiments, first water treatment dispenser **60** and second water treatment dispenser **70** may be conventional disposable prefilled cartridges, such as mineral cartridges and sanitizer cartridges. Suitable first and second water treatment dispensers may include the first cartridge dispenser and second cartridge dispenser described and shown in U.S. Pat. No. 7,060,190, issued to King et al., the subject matter being incorporated herein by reference in its entirety.

With reference to FIGS. **1** and **2**, in this illustrated embodiment, filter cartridge **20** may include an oblong top end cap **30**, an oblong bottom end cap **40**, and a surrounding filter medium **50** disposed between a peripheral portion of top end cap **30** and a peripheral portion of bottom end cap **40**. For example, surrounding filter medium **50** may be a pleated filter medium.

As shown in FIG. **2**, oblong top end cap **30**, oblong bottom end cap **40**, and surrounding filter medium **50** of filter cartridge **20** may define an elongate oblong chamber **22** therein. With reference to FIGS. **2** and **3**, top end cap **30** includes a first opening **32** extending from a top surface **31** of top end cap **30** to a lower surface **33** (FIG. **2**) of top end cap **30** and into oblong chamber **22** (FIG. **2**). A raised collar **35** and **36** may be disposed around opening **32** and **34**, respectively. With reference to FIGS. **2** and **4**, bottom end cap **40** includes a first opening **42** extending from a bottom surface **41** to a top surface **43** (FIG. **2**) of bottom end cap **40** and into oblong chamber **22** (FIG. **2**), and bottom end cap **40** includes a second opening **44** extending from a bottom surface **41** to a top surface **43** (FIG. **2**) of bottom end cap **40** and into oblong chamber **22** (FIG. **2**).

With reference again to FIG. **2**, top end cap **30** provides a support structure for water treatment dispenser **60** and second water treatment dispenser **70**. For example, openings **32** and **34** in top end cap **30** are sized to receive and support upper portions of first water treatment dispenser **60** and second water treatment dispenser **70**, respectively, as shown in FIG. **1**. First water treatment dispenser **60** and second water treatment dispenser **70** may be operably tapered having a larger diameter upper portion sized larger than the diameter of the openings in the top end cap and a lower diameter portion sized less that the diameter of the openings in the top end cap. First and second water treatment dispensers **60** and **70** may be adjustable to regulate the dosing of the water treatment materials into the spa or hot tub. For example, first and second water treatment dispensers **60** and **70** may include a setting window **63** and **73**, for adjusting vent openings **66** and **76**, respectively, in the water treatment dispensers.

FIG. **6** illustrates reconfigurable spa filter treatment system **10** disposed in a first configuration in the skimmer or filter housing **12** of spa or hot tub **14**, according to an embodiment of the present. As shown in FIG. **6**, first water treatment dispenser **60** may have a tapered cylindrical body **65**, the upper portion of which is supported in opening **32** in top end cap **30**. Second water treatment dispenser **70** may have a tapered cylindrical body **75**, the upper portion of which is supported in opening **34** in top end cap **30**. The bottom ends of the first and second water treatment dispensers may be disposed above and spaced from the bottom of chamber **22** of filter cartridge **30**. For example, the first and second water treatment dispenser may be disposed primarily in the upper half or entirely in the upper half of chamber **22** of filter cartridge **30**.

Generally, an embodiment of the operation of reconfigurable spa filter treatment system **10** such as in the first configuration with first and second water treatment dispensers **60** and **70** as shown in FIG. **6**, includes a supply of water W being passed from spa or hot tub **14** into skimmer or filter housing **12** and through filter medium **50** of the filter cartridge so that first water treatment dispenser **60** and second water treatment dispenser **70** are disposed in the filtered water in chamber **22** of filter cartridge **20** to dispense first and second water treatment materials **61** and **71** from first water treatment dispenser **60** and second water treatment dispenser **70**, respectively. A supply of treated filtered water TFW from a lower end of filter cartridge **20** is returned to spa or hot tub **14**.

When one or more of the water treatment dispensers are not needed, for example, based to testing of the water in the spa of hot tub, the one or more water treatment dispensers may be removed from the filter cartridge that is disposed in a skimmer or filter housing of the spa or hot tub. With reference to FIGS. **7** and **8**, reconfigurable spa filter treatment system **10** (FIG. **1**) may include one or more covers **80** that may be used for covering the one or more openings in the filter cartridge when a water treatment dispenser is not needed or required, for example, based on testing of the water in the spa or hot tub.

Cover **80** may include a body **82** having a circular disc **83** with a raised tab or handle **84** (FIG. **7**) and a downwardly-depending ring **86** (FIG. **8**). A bottom peripheral edge portion **85** of cover **80** may be sized to rest on upper edge **37** or **39** (FIG. **3**) of collars **35** or **36** (FIG. **3**) disposed around top openings **32** and **34** (FIG. **3**) in filter cartridge **20** (FIG. **1**).

With reference to FIG. **9**, where the second water treatment material is not needed for treating the water in the spa or hot tub, for example, as determined by testing the water in the spa or hot tub, second water treatment dispenser **70** (FIG. **1**) may be removed from the upper end of filter cartridge **20**, and a first cover **80** is positioned over second opening **34** (FIG. **2**) in the upper end of filter cartridge **20**. In operation of reconfigurable spa filter treatment system **10** such as in this second configuration with first water treatment dispenser **60** and cover **80** as shown in FIG. **9**, a supply of water is passed from the spa or hot tub into the skimmer or filter housing and through filter medium **50** of filter cartridge **20** so that first water treatment dispenser **60** is disposed in the filtered water in the chamber of filter cartridge **20** to dispense first water treatment material **61** (FIG. **5**) from first water treatment dispenser **60**. A supply of

treated filtered water from a lower end of filter cartridge **20** is returned to the spa or hot tub.

As shown in FIG. **10**, where the first water treatment material is not needed in the spa or hot tub, for example, as determined by testing the water in the spa or hot tub, first water treatment dispenser **60** (FIG. **1**) may be removed from the upper end of filter cartridge **20**, and a first cover **80** may be positioned over first opening **32** (FIG. **2**) in the upper end of filter cartridge **20**. In the operation of reconfigurable spa filter treatment system **10** such as in this third configuration with second water treatment dispenser **70** and cover **80** as shown in FIG. **10**, a supply of water is passed from the spa or hot tub into the skimmer or filter housing and through filter medium **50** of filter cartridge **20** so that second water treatment dispenser **70** is disposed in the filtered water in the chamber of filter cartridge **20** to dispense second water treatment material **71** (FIG. **5**) from second water treatment dispenser **70**. A supply of treated filtered water from a lower end of filter cartridge **20** is returned to the spa or hot tub.

With reference to FIG. **11**, where neither the first nor second water treatment materials is needed in the spa or hot tub, for example, as determined by testing the water in the spa or hot tub or where water treatment conventionally performed, first water treatment dispenser **60** (FIG. **1**) and second water treatment dispenser **70** (FIG. **1**) may be removed from the upper end of filter cartridge **20**, a first cover **80** may be positioned over first opening **32** (FIG. **2**) in the upper end of filter cartridge **20**, and a second cover **80** may be positioned over second opening **34** (FIG. **2**) in the upper end of filter cartridge **20**. In the operation of reconfigurable spa filter treatment system **10** such as in this fourth configuration with covers **80** as shown in FIG. **11**, a supply of water is passed from the spa or hot tub into the skimmer or filter housing and through filter medium **50** of filter cartridge **20**. A supply of untreated filtered water from a lower end of filter cartridge **20** is returned to the spa or hot tub. In this configuration, the reconfigurable spa filter treatment system acts as a conventional filter cartridge filtering water in the spa.

FIG. **12** illustrates a disposable water treatment dispenser **100**, according to an embodiment of the present disclosure. In this illustrated embodiment, water treatment dispenser **100** may include a cover **180** fixedly attached to a container body having an outer container **165** and an inner container **164** with adjustable cooperating vent openings. A peripheral edge portion **185** may rest and be supported on a portion of a top end cap defining a support opening. Disposable water treatment dispenser **100** may include a water treatment material **101** such as a sanitizer material having bromine as an active ingredient or a mineral material having silver as an active ingredient.

FIG. **13** illustrates a refillable water treatment dispenser **200**, according to an embodiment of the present disclosure. In this illustrated embodiment, water treatment dispenser **200** may include a releasable cover **280** releasably attachable to a container body **265** such as a basket **267**. A peripheral edge portion **285** may rest and be supported on a portion of a top end cap defining a support opening. Refillable water treatment dispenser **200** may be filled with a water treatment material such as a sanitizer material having bromine as an active ingredient, a mineral material having silver as an active ingredient, or other spa sanitizers, minerals or chemicals. The water treatment material may be in the form of tablets. For example, cover **280** may be threadably attachable to body **265**, attachable in a snap fit manner, or releasably connectable any suitable manner.

FIG. **14** illustrates a refillable water treatment dispenser **300**, according to an embodiment of the present disclosure. In this illustrated embodiment, water treatment dispenser **300** may include an elongated hollow cylindrical body **365** and a basket **367** sized to be received in and pass through one or more support opening in an upper end of a filer cartridge. A hollow cylindrical cover **390** may be operably releasably connectable to an upper portion of body **365**. Cover **390** may be sized larger than body **365** so that a lower peripheral end **395** may be rested and supported on the portion of the upper portion of the filter cartridge defining the support openings. Refillable water treatment dispenser **300** may be filled with a water treatment material such as a sanitizer material having bromine as an active ingredient, a mineral material having silver as an active ingredient, or other spa sanitizers, minerals or chemicals. The water treatment material may be in the form of tablets. For example, cover **390** may be threadably attachable to body **365**, attachable in a snap fit manner, or releasably connectable any suitable manner.

FIG. **15** illustrates a reconfigurable spa filter treatment system **400** disposed in a first configuration in a skimmer or filter housing **412** of a spa or hot tub **414**, according to an embodiment of the present. In this illustrated embodiment, reconfigurable spa filter treatment system **400** generally includes a filter cartridge **420**, a first water treatment dispenser **460**, and a second water treatment dispenser **470**. Reconfigurable spa filter treatment system **400** is disposable in the skimmer or filter housing of the spa or hot tub for filtering and treating water in the spa or hot tub.

First water treatment dispenser **460** may include a first water treatment material, and second water treatment dispenser **470** may include a second water treatment material different from the first water treatment material. In some embodiments, the first water treatment material may be a sanitizing material containing bromine as an active ingredient, and the second water treatment material may be a mineral material containing silver as an active ingredient.

In this illustrated embodiment, first water treatment dispenser **460** may include an elongated hollow cylindrical body **465** and a basket **467** sized to be received in and pass through a support opening **432** in an upper end of filer cartridge **420**. A hollow cylindrical collar **468** may be operably connected to an upper portion of body **465**. Hollow collar **468** may be tapered and sized larger than body **465** so that a lower peripheral end portion may be supported on the portion of the upper portion of the filter cartridge defining a support opening. A removable cover **490** may be releasably attachable to collar **490**.

In this illustrated embodiment, removable cover **490** of first water treatment dispenser **460** is supportable above a water line WL in skimmer or filter housing **412** of spa or hot tub **414** with a lower portion of first water treatment dispenser disposed in chamber **422** of filter cartridge **420**. Second water treatment dispenser **470** may be essentially the same first water treatment dispenser **460**. First water treatment dispenser **460** may be filled with a water treatment material such as a sanitizer material having bromine as an active ingredient. Second water treatment dispenser **470** may be filled with a water treatment material such as a mineral material having silver as an active ingredient. It will be appreciated that the dispensers may include other water treatment materials such as spa sanitizers, minerals or chemicals. The water treatment material may be in the form of tablets. For example, removable cover **490** may be threadably attachable to collar **468**, attachable in a snap fit manner, or releasably connectable any suitable manner.

Generally, an embodiment of the operation of reconfigurable spa filter treatment system **400** such as in the first configuration with first and second water treatment dispensers **460** and **470** as shown in FIG. **15**, may include supplying water W from spa or hot tub **414** into skimmer or filter housing **412** and through filter medium **450** of filter cartridge **420** so that first water treatment dispenser **460** and second water treatment dispenser **470** are disposed in the filtered water in chamber **422** of filter cartridge **420** to dispense the first and second water treatment materials from first water treatment dispenser **460** and second water treatment dispenser **460**. A supply of treated filtered water TFW from a lower end of filter cartridge **420** is returned to spa or hot tub **414**.

Adding water treatment materials may be readily accomplished by a user without removing reconfigurable spa filter treatment system **400** from skimmer or filter housing **412** and without removing first water treatment dispenser **460** and second water treatment dispenser **470** from filter cartridge **420**, according to an embodiment of the present disclosure. For example, first removable cover **490** disposed above water line WL may be removed from the upper portion of first water treatment dispenser **460**. A supply of the first water treatment material may be passed through the upper portion of first water treatment dispenser **460** and into the lower portion of first water treatment dispenser **460**. Thereafter, removable cover **490** may be reattached to the upper portion of first water treatment dispenser **460**. Regarding second water treatment dispenser **470**, a second removable cover disposed above the water line WL may be removed from the upper portion of second water treatment dispenser **470**. A supply of the second water treatment material may be passed through the upper portion of second water treatment dispenser **470** and into the lower portion of second water treatment dispenser **470**. Thereafter, the removable cover may be reattached to the upper portion of second water treatment dispenser **470**. Such a reconfigurable spa filter treatment system **400** allows a user to fill the water treatment dispensers without removal of reconfigurable spa filter treatment system **400**, without removal of the first and second water treatment dispenser, and without the user getting wet. Removal of the removable covers may also allow a user to readily check the level of the water treatment materials.

Reconfigurable spa filter treatment system **400** may include a plurality of covers **80** (FIGS. **6** and **7**) allowing user to use first water treatment dispenser **460** without second water treatment dispenser **470** and a cover covering the opening for second water treatment dispenser **470**, use second water treatment dispenser **470** without first water treatment dispenser **460** and a cover covering the opening for first water treatment dispenser **460**, and without both first water treatment dispenser **460** and second water treatment dispenser **470** and with covers covering both the openings for first water treatment dispenser **460** and second water treatment dispenser **470**, as similarly described above regarding reconfigurable spa filter treatment system **100** (FIG. **1**).

FIG. **16** illustrates a reconfigurable spa filter treatment system **500** operably disposable in a first configuration in a skimmer or filter housing of a spa or hot tub, according to an embodiment of the present. In this illustrated embodiment, reconfigurable spa filter treatment system **500** generally includes a filter cartridge **520**, a first water treatment dispenser **560**, a stick water treatment dispenser **570**, and a cover **580**. Reconfigurable spa filter treatment system **500** is disposable in the filter housing of the spa or hot tub for filtering and treating water in the spa or hot tub.

First water treatment dispenser **560** may include a first water treatment material, and stick water treatment dispenser **570** may include a second water treatment material different from first water treatment material. In some embodiments, the first water treatment material may be a sanitizing material containing bromine as an active ingredient, and the second water treatment material may be a mineral material containing silver as an active ingredient. In some embodiments, the stick water treatment dispenser may be a Nature2 SPA Stick Mineral sanitizer, available from Zodiac Pool Systems, Inc., of Vista, California, containing silver as an active ingredient. As shown in FIG. **17**, stick water treatment dispenser **570** may include a post **571** that is receivable in an opening in basket **567**.

FIG. **18** illustrates a reconfigurable spa filter treatment system **600** disposed in a first configuration operably disposable in a skimmer or filter housing of a spa or hot tub, according to an embodiment of the present. In this illustrated embodiment, as shown in FIGS. **18** and **33**, the reconfigurable spa filter treatment system **600** generally includes an elongated cylindrical filter cartridge **620**, a first water treatment dispenser **660**, and a stick water treatment dispenser **670** (FIG. **18**). Reconfigurable spa filter treatment system **600** is disposable in the filter housing of the spa or hot tub for filtering and treating water in the spa or hot tub.

In this illustrated embodiment, filter cartridge **620** includes a top end cap **630** having an upper opening **632** and a lower end cap **640** having a lower opening **642**, and pleated filter medium **650**. Top end cap **630**, bottom end cap **640**, and filter cartridge may have cylindrical cross-sections, and openings **632** and **642** may be cylindrical openings. First water treatment dispenser **660** may be similar to first water treatment dispenser **560** (FIG. **16**) and stick water treatment dispenser **670** may be similar to stick water treatment dispenser **570** (FIG. **16**).

Referring now to FIG. **19**, therein illustrated is a reconfigurable spa filter treatment system **700** disposed in a first configuration, according to an embodiment of the present disclosure. In this illustrated embodiment, reconfigurable spa filter treatment system **700** generally includes a filter cartridge **720**, a first water treatment dispenser **760**, a second water treatment dispenser **770**, and a lid **790**. Reconfigurable spa filter treatment system **700** is disposable in a skimmer or filter housing of a spa or hot tub for filtering and treating water. In the various embodiments, the filter cartridges and filter end caps may have a circular, oblong, or other suitable cross-section for supporting two or more water treatment systems.

In this exemplary embodiment, first water treatment dispenser **760** may include a first water treatment material, and second water treatment dispenser **770** may include a second water treatment material. In some embodiments, the first water treatment material may be different from the second water treatment material. For example, the first water treatment material may be a sanitizing material containing bromine as an active ingredient, and the second water treatment material may be a mineral material containing silver as an active ingredient. In some embodiments, first water treatment dispenser **760** and second water treatment dispenser **770** may be conventional disposable prefilled cartridges, such as mineral cartridges and sanitizer cartridges. Suitable first and second water treatment dispensers may include the first cartridge dispenser and second cartridge dispenser

described and shown in U.S. Pat. No. 7,060,190, issued to King et al., subject matter being incorporated herein by reference in its entirety.

As shown in FIG. **20**, in this illustrated embodiment, filter cartridge **720** may include an oblong top end cap **730**, an oblong bottom end cap **740** (FIG. **19**), and a surrounding filter medium **750** disposed between a periphery of top end cap **730** and a periphery of bottom end cap **740** (FIG. **19**). For example, surrounding filter medium **750** may be a pleated filter medium. Oblong top end cap **730**, oblong bottom end cap **740** (FIG. **19**), and surrounding filter medium **750** of filter cartridge **720** defines an elongate oblong chamber **722** therein. Top end cap **730** includes an oblong opening **738** extending from a top surface **731** of top end cap **730** to a lower surface (not shown in FIG. **20**) of top end cap **730** and into oblong chamber **722**. A raised ridge **735** may be spaced from and disposed around opening **738** to define an inwardly-extending lip **739**. The bottom end cap **740** (FIG. **19**) may include a first opening extending from a bottom surface to a top surface of bottom end cap **740** (FIG. **19**) and into oblong chamber **722**.

With reference to FIG. **21**, oblong lid **790** includes a peripheral edge portion **791** sized to be supported on lip **739** (FIG. **20**) of top end cap **730** (FIG. **20**). As shown in FIGS. **22** and **23**, oblong lid **790** includes openings **798** and **799** sized to receive and support upper portions of first water treatment dispenser **760** (FIG. **19**) and second water treatment dispenser **770** (FIG. **19**), respectively. A first end of the oblong lid may define a first half circle and a first opening operable for supporting the first dispenser coaxially with a center of the first half circle, and a second end of the oblong lid may define a second half circle and a second opening operable for supporting the second dispenser coaxially with a center of the second half circle. First and second water treatment dispensers **760** and **770** (FIG. **19**) may be adjustable to regulate the dosing of the water treatment materials into the spa. For example, first and second water treatment dispensers **760** and **770** may include a setting window for adjusting vent openings in the water treatment dispensers.

Lid **790** defining opening **798** and **799** may include cutouts **795** and **796**, respectively. As shown in FIG. **24**, a cover **780** may include a body **782**. Body **782** may have a circular disc shape having a raised tab or handle **784**, and a downwardly-depending ring **786**. The bottom peripheral edge portion **785** of cap **780** may be sized to rest on upper surface **739** (FIG. **20**) of oblong lid **790** (FIG. **22**). A catch **781** include a downwardly-extending portions **783** and an outwardly-extending portion **787**. Outwardly-extending portion **787** is receivable in cutout **795** or **796** (FIG. **22**). Upon rotating raised tab or handle **784**, cover **780** is releasably secured to oblong lid **790** (FIG. **22**).

With reference again to FIG. **19**, reconfigurable spa filter treatment system **700** may be disposed in a first configuration in a filter housing of a spa or hot tub. For example, in the first configuration, first water treatment dispenser **760** may have a tapered cylindrical body, the upper portion of which is sized larger than the diameter of opening **798** in oblong lid **790**. Second water treatment dispenser **770** may have a tapered cylindrical body, the upper portion of which is sized larger than the diameter of opening **799** in oblong lid **790**. The bottom ends of the first and second water treatment dispensers may be disposed above and spaced from the bottom of chamber **722** (FIG. **20**) of filter cartridge **720**. For example, the first and second water treatment dispenser may be disposed primarily in the upper half or entirely in the upper half to chamber **722** (FIG. **20**) of filter cartridge **30**. In the first configuration with first and second water treatment dispensers **760** and **770** shown in FIG. **19**, a supply of water is passed from spa or hot tub into a filter housing and through filter medium **750** of the filter cartridge so that the first water treatment dispenser **760** and second water treatment dispenser **770** are disposed in the filtered water in chamber **722** (FIG. **20**) of filter cartridge **720** to dispense the first and second water treatment materials from first water treatment dispenser **760** and second water treatment dispenser **770**. A supply of treated filtered water from a lower end of filter cartridge **720** is returned to the spa or hot tub.

It will be appreciated that when one or more of the water treatment dispensers are not needed, for example, based to testing of the water in the spa of hot tub, the one or more water treatment dispensers may be removed from the filter cartridge that is disposed in a filter housing of the spa. For example, reconfigurable spa filter treatment system **700** may include one or more covers **780** that may be used for covering the one or more openings in the oblong lid **790** when a water treatment dispenser is not needed or required, for example, based on testing of the water in the spa or hot tub.

With reference still to FIG. **19**, when the second water treatment material is not needed but the first water treatment material is needed for treating the water in the spa or hot tub, for example, as determined by testing the water in the spa or hot tub, second water treatment dispenser **780** may be removed from oblong lid **790**, a first cap **780** (FIG. **24**) may be positioned over second opening **799** (FIG. **22**) in oblong lid **790**. In operation of reconfigurable spa filter treatment system **700** such as in this second configuration with first water treatment dispenser **760** and cap **80** (FIG. **24**), a supply of water is passed from the spa or hot tub into the filter housing and through the filter medium **750** of filter cartridge **720** so that first water treatment dispenser **760** is disposed in the filtered water in the chamber of filter cartridge **720** to dispense the first water treatment material from first water treatment dispenser **760**. A supply of treated filtered water from a lower end of filter cartridge **720** is returned to the spa or hot tub.

Where the first water treatment material is not needed in the spa or hot tub but the second water treatment material is needed, for example, as determined by testing the water in the spa or hot tub, first water treatment dispenser **760** may be removed from oblong lid **790**, a cap **780** (FIG. **24**) may be positioned over second opening **799** (FIG. **22**) in oblong lid **790**. In operation of reconfigurable spa filter treatment system **700** such as in this third configuration with second water treatment dispenser **770** and cap **780**, a supply of water is passed from the spa or hot tub into the filter housing and through filter medium **750** of filter cartridge **720** so that second water treatment dispenser **770** is disposed in the filtered water in the chamber of filter cartridge **720** to dispense second water treatment material from second water treatment dispenser **770**. A supply of treated filtered water from a lower end of filter cartridge **720** is returned to the spa or hot tub.

As shown in FIG. **25**, where neither the first nor second water treatment materials is needed in the spa or hot tub, for example, as determined by testing the water in the spa or hot tub, first water treatment dispenser **760** (FIG. **19**) and second water treatment dispenser **770** (FIG. **19**) may be removed from oblong lid **790**, a first cap **780** (FIG. **24**) may be positioned over first opening **798** (FIG. **22**) in oblong lid **790**, and a second cap **780** (FIG. **24**) may be positioned over second opening **799** (FIG. **22**) in oblong lid **790**. In operation of reconfigurable spa filter treatment system **700** such as in this fourth configuration with covers **780**, a supply of water

is passed from the spa or hot tub into the filter housing and through filter medium **750** of filter cartridge **720**. A supply of untreated filtered water from a lower end of filter cartridge **720** is returned to the spa or hot tub. In this configuration, the reconfigurable spa filter treatment system acts as a conventional filter cartridge filtering water in the spa.

Referring now to FIGS. **26** and **27**, therein illustrated is a reconfigurable spa filter treatment system **800**, according to an embodiment of the present disclosure. In this illustrated embodiment, reconfigurable spa filter treatment system **800** generally includes a filter cartridge **820**, an oblong lid **890**, a first water treatment dispenser **860** (FIG. **27**), and a second water treatment dispenser **870** (FIG. **27**). Reconfigurable spa filter treatment system **800** is disposable in a skimmer or filter housing of a spa or hot tub (not shown in FIGS. **26** and **27**) for filtering and treating water.

With reference to FIG. **27**, in this exemplary embodiment, first water treatment dispenser **860** may include a first water treatment material, and second water treatment dispenser **870** may include a second water treatment material. In some embodiments, the first water treatment material may be different from the second water treatment material. For example, the first water treatment material may be a sanitizing material containing bromine as an active ingredient, and the second water treatment material may be a mineral material containing silver as an active ingredient. In some embodiments, first water treatment dispenser **860** and second water treatment dispenser **870** may be refillable or disposable prefilled water treatment dispensers, such as water treatment mineral dispenser and water treatment sanitizer dispensers.

As shown in FIG. **27**, in this illustrated embodiment, filter cartridge **820** may include an oblong top end cap **830**, an oblong bottom end cap **840**, and a surrounding filter medium **850** disposed between a peripheral portion of top end cap **830** and a peripheral portion of bottom end cap **840**. For example, surrounding filter medium **850** may be a pleated filter medium. Oblong top end cap **830**, oblong bottom end cap **840**, and surrounding filter medium **850** of filter cartridge **820** may define an elongate oblong chamber **822** therein. Top end cap **830** includes an oblong opening **838** extending from a top surface of top end cap **830** to a lower surface of top end cap **830** and into oblong chamber **822**. A raised ridge **835** may be spaced from and disposed around opening **838** to define an inwardly-extending lip **839**. The bottom end cap **840** may include a first opening **842** extending from a bottom surface to a top surface of bottom end cap **840** and into oblong chamber **822**, and a second opening **844** extending from a bottom surface to a top surface of bottom end cap **840** and into oblong chamber **822** With reference to FIG. **28**, oblong lid **890** includes a peripheral edge portion **891** sized to be supported on lip **890** of top end cap **830**. Oblong lid **890** may include a supporting structure for suspending first water treatment dispenser **860** and second water treatment dispenser **870**. For example, oblong lid **890** may include a downwardly-depending ring **821** having internal threads that operably attaches to an externally threaded upper end of first water treatment dispenser **860**, and a downwardly-depending ring **831** having internal threads that operably attaches to an externally threaded upper end of second water treatment dispenser **870**. It will be appreciated that other means for attachment such as snap fit connector may be employed. In some embodiment, the oblong lid may be fixedly attached forming a disposable dispenser unit. A third water treatment material or disperser **875** may be disposed between the first and second water treatment dispensers and attached to a third support structure **833**. Such a third water treatment material or dispenser may include water balancers, spa fragrances, materials for adjusting ph or alkalinity, or other suitable materials.

It will be appreciated that reconfigurable spa filter treatment system **800** may be configurable in different configurations for treating and not treating water in a spa or hot tub. For example, a first configuration may include both first water treatment dispenser **860** and second water treatment dispense **870**, a second configuration may include first water treatment dispenser **860** without second water treatment dispense **870**, a third configuration may include second water treatment dispenser **870** without first water treatment dispense **860**, and a fourth configuration without both first water treatment dispenser **860** and second water treatment dispense **870**. The operation of these configuration may be the same as described above.

With reference to FIGS. **29-33** therein illustrated is an oblong lid **990** having an oblong body **901** with a peripheral edge portion sized to be supported on, for example, lip **890** (FIG. **28**) of top end cap **830** (FIG. **28**). Oblong lid **990** may include a supporting structure for suspending a first water treatment dispenser and a second water treatment dispenser. For example, oblong lid **990** may include a plurality of downwardly-depending resilient arms **903** and **905** (FIGS. **30** and **31**) that as shown in FIG. **32** operably attach to an upper portion of a first water treatment dispenser **960**, and an upper portion of a second water treatment dispenser **970**. A third support structure **933** may be operable for supporting a third water treatment material or disperser disposed between the first and second water treatment dispensers. Such a third water treatment material or dispenser may include water balancers, spa fragrances, materials for adjusting ph or alkalinity, or other suitable materials.

It will be appreciated that reconfigurable spa filter treatment system **800** may be configurable in different configurations for treating and not treating water in a spa or hot tub. For example, reconfigurable spa filter treatment system **800** may be disposable in a first configuration with both first water treatment dispenser **860** and second water treatment dispense **870**, in a second configuration with first water treatment dispenser **860** and without second water treatment dispense **870**, in a third configuration with second water treatment dispenser **870** and without first water treatment dispense **860**, and in a fourth configuration without both first water treatment dispenser **860** and second water treatment dispense **870**. The operation of these configuration in the skimmer or filter housing of a spa or hot tub may be the same as described above.

With reference to FIG. **34**, therein illustrated is a reconfigurable spa filter treatment system **10010** disposed in a first configuration, according to an embodiment of the present disclosure. In this illustrated embodiment, reconfigurable spa filter treatment system **10010** generally includes a first filter cartridge **10020**, a first water treatment dispenser **10060** disposed in first filter cartridge **10020**, a second filter cartridge **10021**, and a second water treatment dispenser **10070** disposed in second filter cartridge **10021**. In this illustrated embodiment, first filter cartridge **10020** and second filter cartridge **10021** may be side-by-side filter cartridges having circular cross-sections. The reconfigurable spa filter treatment system **10010** is disposable in a skimmer or filter housing **12** of a spa or hot tub **14** for filtering and treating water.

First water treatment dispenser **10060** may be essentially the same as first water treatment dispenser **60** (FIG. **6**), and second water treatment dispenser **10070** may be essentially the same as second water treatment dispenser **70** (FIG. **6**). In

some embodiments, the first water treatment material may be different from the second water treatment material. For example, the first water treatment material may be a sanitizing material containing bromine as an active ingredient, and the second water treatment material may be a mineral material containing silver as an active ingredient. In some embodiments, first water treatment dispenser **10060** and second water treatment dispenser **10070** may be conventional disposable prefilled cartridges, such as mineral cartridges and sanitizer cartridges. Suitable first and second water treatment dispensers may include the first cartridge dispenser and second cartridge dispenser described and shown in U.S. Pat. No. 7,060,190, issued to King et al., the subject matter being incorporated herein by reference in its entirety.

In this illustrated embodiment, first filter cartridge **10020** may include a circular or disc-shaped top end cap, a circular or disc-shaped bottom end cap, and a surrounding filter medium disposed between a peripheral portion of top end cap and a peripheral portion of bottom end cap. For example, the surrounding filter medium may be a pleated filter medium. The circular top end cap, the circular bottom end cap, and the surrounding filter medium of the first filter cartridge **10020** may define an elongate cylindrical chamber therein. The top end cap includes a first opening extending from a top surface of the top end cap to a lower surface of the top end cap and into cylindrical chamber. A raised collar may be disposed around the opening. The bottom end cap includes a first opening extending from a bottom surface to a top surface of the bottom end cap and into the cylindrical chamber. The top end cap provides a support structure for water treatment dispenser **10060**. For example, the opening in the top end cap is sized to receive and support an upper portion of first water treatment dispenser **10060**. Second filter cartridge **10021** may be essentially the same as first filter cartridge **10020**. Second filter cartridge **10021** is operable to support an upper portion of second water treatment dispenser **10070**. In other embodiments, the first and second filter cartridges may be different. The first water treatment dispenser **10060** may be essentially the same as the first water treatment dispenser **60** (FIG. **6**) and the second water treatment dispenser **10070** may be essentially the same as the second water treatment dispenser **70** (FIG. **6**) described above.

FIG. **34** illustrates reconfigurable spa filter treatment system **10010** disposed in a first configuration in the skimmer or filter housing **12** of spa or hot tub **14**, according to an embodiment of the present. Generally, an embodiment of the operation of reconfigurable spa filter treatment system **10010** such as in the first configuration with first and second water treatment dispensers **10060** and **10070**, includes a supply of water W being passed from spa or hot tub **14** into skimmer or filter housing **12** with a first portion of water W passing through the filter medium of the first filter cartridge **10020** and a different second portion of the water W passing through second filter cartridge **10021**. A first supply of treated filtered water TFW**1** is discharged from a lower end of first filter cartridge **10020**, which first treated filter water TFW**1** is returned to spa or hot tub **14**. A second supply of treated filtered water TFW**2** is discharged from a lower end of second filter cartridge **10021**, which first treated filter water TFW**2** is returned to spa or hot tub **14**.

When one or more of the water treatment dispensers are not needed, for example, based to testing of the water in the spa of hot tub, the one or more water treatment dispensers may be removed from their respective first or second filter cartridges that are disposed in the skimmer or filter housing of the spa or hot tub. Reconfigurable spa filter treatment system **10010** may include one or more covers, such as covers **80** described above, that may be used for covering the opening in the first filter cartridge and the opening in the second filter cartridge when one or more of the water treatment dispensers is not needed or required, for example, based on testing of the water in the spa or hot tub. When a dispenser is not used, water is filtered in the filter cartridge and the water is not treated.

For example, in operation of reconfigurable spa filter treatment system **10010** in a second configuration with first water treatment dispenser **10060** and a cover disposed on second filter cartridge **10021** (second water treatment dispenser **10070** removed), a first portion of the supply of water W is passed from the spa or hot tub into the skimmer or filter housing and through the filter medium of first filter cartridge **10020** so that first water treatment dispenser **10060** disposed in the filtered water in the chamber of the first filter cartridge **10020** dispenses the first water treatment material from first water treatment dispenser **10060**. The supply of treated filtered water TFW**1** from a lower end of first filter cartridge **10020** is returned to the spa or hot tub. A second different portion of supply of water W passed from the spa or hot tub into the skimmer or filter housing and through the second filter medium of second filter cartridge **10021** results in a supply of untreated but filtered water from a lower end of second filter cartridge **10021** that is returned to the spa or hot tub.

In operation of reconfigurable spa filter treatment system **10010** in a third configuration with second water treatment dispenser **10070** and a cover disposed on first filter cartridge **10020** (first water treatment dispenser **10060** removed), a second portion of supply of water W is passed from the spa or hot tub into the skimmer or filter housing and through the filter medium of the second filter cartridge **10021** so that second water treatment dispenser **10070** disposed in the filtered water in the chamber of the second filter cartridge **10021** dispenses the second water treatment material from second water treatment dispenser **10070**. A supply of treated filtered water TFW**1** from a lower end of second filter cartridge **10021** is returned to the spa or hot tub. A first different portion of the supply of water W passed from the spa or hot tub into the skimmer or filter housing and through the first filter medium of first filter cartridge **10020** results in a supply of untreated but filtered water from a lower end of first filter cartridge **10020** that is returned to the spa or hot tub.

Where neither the first nor second water treatment materials is needed in the spa or hot tub, for example, as determined by testing the water in the spa or hot tub or where water treatment conventionally performed, first water treatment dispenser **10060** may be removed from the upper end of first filter cartridge **10020**, a first cover may be positioned over the first opening in the upper end of first filter cartridge **10060**, second water treatment dispenser **10070** may be removed from the upper end of second filter cartridge **10021**, and a second cover may be positioned over the second opening in the upper end of second filter cartridge **10021**. In the operation of reconfigurable spa filter treatment system **10010** such as in this fourth configuration with the covers, a supply of water W is passed from the spa or hot tub into the skimmer or filter housing and a first portion of the supply of water W passes through the filter medium of the first filter cartridge **10020**, and different second portion of the supply of water W passes through the filter medium of the second filter cartridge **10021**. A supply of untreated filtered water from a lower end of the first filter cartridge **10020** and a

supply of untreated filtered water from the lower end of the second filter cartridge **10021** are returned to the spa or hot tub. In this configuration, the reconfigurable spa filter treatment system acts as a conventional filter cartridge filtering water in the spa.

FIG. **35** illustrates a reconfigurable spa filter treatment system **10500** operably disposable in a first configuration in a skimmer or filter housing of a spa or hot tub, according to an embodiment of the present. In this illustrated embodiment, reconfigurable spa filter treatment system **10500** generally includes a first filter cartridge **10520**, a first water treatment dispenser **10560**, a stick water treatment dispenser **10570**, and a second conventional filter cartridge **10523**. Reconfigurable spa filter treatment system **10500** is disposable in the filter housing of the spa or hot tub for filtering and treating water in the spa or hot tub.

In this illustrated embodiment, first filter cartridge **10520** may have a circular cross-section with an upper opening and a lower opening, and may be essentially configured the same as first filter cartridge **10020** (FIG. **34**) or second filter cartridge **10021** (FIG. **34**). Second cartridge **10523** may be a conventional filter cartridge having a circular cross-section with a solid top with a handle and a lower opening.

First water treatment dispenser **10560** may include a first water treatment material, and stick water treatment dispenser **10570** may include a second water treatment material different from first water treatment material. In some embodiments, the first water treatment material may be a sanitizing material containing bromine as an active ingredient, and the second water treatment material may be a mineral material containing silver as an active ingredient. In some embodiments, the stick water treatment dispenser may be a Nature2 SPA Stick Mineral sanitizer, available from Zodiac Pool Systems, Inc., of Vista, California, containing silver as an active ingredient.

In operation of reconfigurable spa filter treatment system **10010** in one configuration, such as shown in FIG. **35**, with first water treatment dispenser **10560** and second water treatment dispenser **10570**, a first portion of the supply of water W is passed from the spa or hot tub into the skimmer or filter housing and through the filter medium of first filter cartridge **10520** so that first water treatment dispenser **10560** disposed in the filtered water in the chamber of the first filter cartridge **10520** dispenses the first water treatment material from first water treatment dispenser **10060**, and so that second water treatment dispenser **10570** disposed in the filtered water in the chamber of the first filter cartridge **10520** dispenses the second water treatment material from first water treatment dispenser **10570**. The supply of treated filtered water TFW**3** from a lower end of first filter cartridge **10520** is returned to the spa or hot tub. A second different portion of the water W passed from the spa or hot tub into the skimmer or filter housing and through the second filter medium of second conventional filter cartridge **10523** results in a supply of untreated but filtered water from a lower end of second conventional filter cartridge **10523** that is returned to the spa or hot tub.

In other embodiments, reconfigurable spa filter treatment systems may include one filter cartridges (e.g., oval filter cartridges having two support openings) or side-by-side filter cartridges (e.g., cylindrical filter cartridges) in which the support openings are operable for receiving and supporting conventional floating water treatment dispensers. For example, the dispenser of the conventional floating water treatment dispenser may be inserted into the filter cartridge with the buoyant portion of the floating system resting on the end cap of the filter cartridge.

FIG. **36** illustrates a method **1000** for treating water in a spa or hot tub, according to an embodiment of the present disclosure. In this illustrated embodiment, method **1000** includes, for example, at **1100** supporting a first water treatment dispenser from a first opening in an upper end of a filter cartridge disposed in a filter housing of the spa or the hot tub, the filter cartridge having a filter medium defining a chamber, a lower portion of the first water treatment dispenser disposed in the chamber of the filter cartridge, and the first water treatment dispenser having a first water treatment material, and at **1200**, supporting a second water treatment dispenser from a second opening in the upper portion of the filter cartridge in the housing of the spa or the hot tub, a lower portion of the second water treatment dispenser disposed in the chamber of the filter cartridge, and the second water treatment dispenser having a second water treatment material different from the first water treatment material. At **1300**, a supply of water is passed from the spa or hot tub into the filter housing and through the filter medium of the filter cartridge so that the first water treatment dispenser and the second water treatment dispenser are disposed in the filtered water in the chamber of the filter cartridge to dispense the first and second water treatment materials from the first water treatment dispenser and the second water treatment dispenser during a first period of time. At **1400** a supply of treated filtered water is returned from a lower end of the filter cartridge to the spa or hot tub during the first period of time.

The method may further include removing the first water treatment dispenser from the upper end of the filter cartridge, supporting a first cap over the first opening in the upper end of the filter cartridge, and passing a supply of water from the spa or hot tub into the filter housing and through the filter medium of the filter cartridge to dispense water treatment material from the second water treatment dispenser during a second period of time. The method may further include removing the second water treatment dispenser from the upper end of the filter cartridge, supporting a first cap over the second opening in the upper end of the filter cartridge, and passing a supply of water from the spa or hot tub into the filter housing and through the filter medium of the filter cartridge to dispense water treatment material from the first water treatment dispenser during a second period of time.

The method may further include removing the first water treatment dispenser from the upper end of the filter cartridge, supporting a first cap over the first opening in the upper end of the filter cartridge, removing the second water treatment dispenser from the upper end of the filter cartridge, supporting a second cap over the second opening in the upper end of the filter cartridge, passing a supply of water from the spa or hot tub into the filter housing and through the filter medium of the filter cartridge during a second period of time, and discharging a supply of untreated filtered water from the lower end of the filter cartridge and into the spa or hot tub during the second period of time.

FIG. **37** illustrates a method **2000** for treating water in a spa or hot tub, according to an embodiment of the present disclosure. In this illustrated embodiment, method **2000** includes, for example, at **2100** supporting a first dispenser from a supporting structure in an upper end of a filter cartridge disposed in a skimmer of the spa or the hot tub, the filter cartridge having a filter medium defining a chamber, a lower portion of the first dispenser disposed in the chamber of the filter cartridge, and the first dispenser having a first water treatment material, at **2200** passing a supply of water from the spa or hot tub into the skimmer and through the filter medium of the filter cartridge so that the first dispenser

is disposed in the filtered water in the chamber of the filter cartridge to dispense the first water treatment materials from the first dispenser during a first period of time, and at **2300** returning a supply of treated filtered water from a lower end of the filter cartridge to the spa or hot tub during the first period of time.

The method may further include removing the first dispenser from the supporting structure of the upper end of the filter cartridge, attaching a stick dispenser having a second water treatment material to the first dispenser, the second water treatment material different from the first water treatment material, supporting the first dispenser and stick dispenser from the supporting structure of the filter cartridge, passing a supply of water from the spa or hot tub into the skimmer and through the filter medium of the filter cartridge so that the first dispenser and the stick dispenser are disposed in the filtered water in the chamber of the filter cartridge to dispense the first water treatment material from the first dispenser and the second water treatment material from the stick dispenser during a second period of time, and returning a supply of treated filtered water from the lower end of the filter cartridge to the spa or hot tub during the second period of time.

The method may further include removing the first dispenser from the upper end of the filter cartridge, supporting a cap over the opening in the upper end of the filter cartridge, and passing a supply of water from the spa or hot tub into the skimmer and through the filter medium of the filter cartridge during a second period of time, and discharging a supply of untreated filtered water from the lower end of the filter cartridge and into the spa or hot tub during the second period of time.

In the various described embodiments of the present disclosure, to aid the user in identifying the water treatment dispensers containing the different water treatment dispensing materials, which may have the same or similar size and shape, may include identifying indicia or different colors. For example, the first water treatment dispenser may have a blue body identifying a mineral dispenser, which yields ions such as silver ions. The second water treatment dispenser may have a yellow body identifying a bromine dispenser, which yields bromine. The color coding permits a user to quickly identify the contents of the water treatment dispenser and the purpose of the cartridge. To replace an empty or spent water treatment dispenser, the user merely removes the spent dispenser from the filter cartridge or lifts the lid out of the filter cartridge with the water treatment dispenser, and secures a new cartridge into position in the filter cartridge or into lid and returning the lid and new water treatment dispenser to the filter cartridge.

It will be appreciated that in the various embodiments of the reconfigurable spa filter treatment systems, the dispenser support structure may have any suitable support structure. For example, the support openings and dispenser may have corresponding shapes. For example, the opening and dispenser may have a square, triangle, oval, symmetric, irregular or other suitable cross-sections. The filter cartridge may have any suitable cross-section such as circular, oval, square, rectangular, symmetric, irregular, etc. For example, the filter may be cylindrical having a circular cross-section with one, two, or more than two openings for supporting various water treatment or other material dispensers. The support opening may correspond to the cross-section of the filter cartridge or be different therefrom. The filter cartridges or lids may have one, two, three, or more support structures such as openings, resilient members, threaded members, snap-fit connectors, friction fit, or other configurations. The lower openings of the circular cross-sectional filter cartridges may include lower keyed openings that allow the filter cartridges to be rotated and locked in the housing of the spa.

It will be appreciated that the first and second water treatment dispensers may include sanitizers, minerals, and/or chemicals. For example, other water treatment materials may include bromine, chlorine, silver, copper, bromine tablets, chlorine tablets, clarifiers, cleaners, granular bromine, granular chlorine, and phosphate remover. Chemicals or water treatment material may be available from Mineraluxe of Markham, Ontario, Canada. The sanitizers, minerals, or chemicals may be in granular and/or solid form.

In some embodiments, the reconfigurable spa filter treatment systems when configured without the one or more dispensers and with the one or more caps, a water treatment dispenser stick with or without a support stem may be dropped into the filter cartridge for treating water in spa. The dispenser may be formed form a plastic or polymeric material.

As may be recognized by those of ordinary skill in the art based on the teachings herein, numerous changes and modifications may be made to the above-described and other embodiments of the present disclosure without departing from the scope of the disclosure. In addition, the devices and apparatus may include more or fewer components or features than the embodiments as described and illustrated herein. Further, the above-described embodiments and/or aspects thereof may be used in combination with each other. Accordingly, this detailed description of the currently-preferred embodiments is to be taken as illustrative, as opposed to limiting the disclosure.

The terminology used herein is for the purpose of describing particular embodiments only and is not intended to be limiting of the disclosure. As used herein, the singular forms "a", "an" and "the" are intended to include the plural forms as well, unless the context clearly indicates otherwise. It will be further understood that the terms "comprise" (and any form of comprise, such as "comprises" and "comprising"), "have" (and any form of have, such as "has", and "having"), "include" (and any form of include, such as "includes" and "including"), and "contain" (and any form of contain, such as "contains" and "containing") are open-ended linking verbs. As a result, a method or device that "comprises," "has," "includes," or "contains" one or more steps or elements possesses those one or more steps or elements, but is not limited to possessing only those one or more steps or elements. Likewise, a step of a method or an element of a device that "comprises," "has," "includes," or "contains" one or more features possesses those one or more features, but is not limited to possessing only those one or more features. Furthermore, a device or structure that is configured in a certain way is configured in at least that way, but may also be configured in ways that are not listed.

The disclosure has been described with reference to the preferred embodiments. It will be understood that the architectural and operational embodiments described herein are exemplary of a plurality of possible arrangements to provide the same general features, characteristics, and general apparatus operation. Modifications and alterations will occur to others upon a reading and understanding of the preceding detailed description. It is intended that the disclosure be construed as including all such modifications and alterations.

The invention claimed is:

1. A spa filter system receivable in a skimmer of a spa or a hot tub for use in treating water in the spa or the hot tub, said system comprising:
a filter cartridge having an upper end, a bottom end, and a filter medium surrounding and defining a chamber therein;
a dispenser operable for receiving a water treatment material;
said upper end of said filter cartridge and said dispenser operably configured to support said dispenser from said upper end of said filter cartridge with said dispenser disposed within said filter cartridge; and
wherein when said dispenser is supported from said upper end of said filter cartridge in said filter cartridge and water from the spa or the hot tub is directed into the skimmer and through said filter medium of said filter cartridge and water prevented from passing though said upper end of said filter cartridge, said dispenser is disposed in the water in said chamber of said filter cartridge and is operable to dispense the water treatment material from said dispenser into the water.

2. The system of claim 1 wherein:
said upper end of said filter cartridge comprises an opening extending through said upper end for receiving said dispenser.

3. The system of claim 2 wherein:
said dispenser comprises a cover-configured to cover said opening in said upper end of said filter cartridge.

4. The system of claim 2 further comprising:
a sealing cap configured to cover said opening in said upper end of said filter cartridge; and
wherein when said sealing cap is supported on said upper end of said filter cartridge, water from the spa or the hot tub is directed into the skimmer and through said filter medium of said filter cartridge and into the spa or the hot tub.

5. The system of claim 4 wherein:
said sealing cap comprises a handle.

6. The system of claim 4 wherein:
said sealing cap comprises a peripheral edge portion supportable by said upper end around said opening.

7. The system of claim 1 wherein:
said dispenser comprises:
a cover; and
a container for receiving the water treatment material;
said cover configured to be supported by said upper end of said filter cartridge; and
said container having a plurality of openings.

8. The system of claim 7 wherein:
said upper end of said filter cartridge is configured to support said cover with said container suspended in said chamber of said filter cartridge.

9. The system of claim 7 wherein:
said upper end of said filter cartridge comprises an opening extending through said upper end; and
said cover comprises a peripheral edge portion supportable by said upper end around said opening.

10. The system of claim 9 wherein:
said upper end of said filter cartridge comprises a raised collar disposed around said opening; and
said peripheral edge portion of said cover is configured to be supported by said raised collar.

11. The system of claim 7 wherein:
said cover is fixedly attached to said container.

12. The system of claim 7 wherein:
said cover is releasably attachable to said container.

13. The system of claim 12 wherein:
said cover is threadably attachable to said container.

14. The system of claim 12 wherein:
said cover is releasably attachable to said container in a snap fit manner.

15. The system of claim 7 wherein:
said cover comprises a handle or raised tab.

16. The system of claim 7 wherein:
said container comprises a basket.

17. The system of claim 7 wherein:
said container comprises:
an outer container; and
and inner container.

18. The system of claim 7 wherein:
said container comprises:
an outer container;
an inner container; and
said outer container and said inner container comprising adjustably cooperating openings.

19. The system of claim 1 further comprising a second dispenser, and wherein:
said upper end of said filter cartridge and said second dispenser operably configured to support said second dispenser from said upper end of said filter cartridge.

20. The system of claim 1 wherein said upper end of said filter cartridge comprises:
an elongate opening, and further comprising:
a lid supportable across said elongate opening of said upper end; and
wherein said lid, said upper end of the filter cartridge and said dispenser operably configured to support said dispenser from said lid and said upper end of said filter cartridge.

21. The system of claim 20 wherein said lid is configured for supporting said dispenser and a second dispenser.

22. The system of claim 1 further comprising said water treatment material disposed in said dispenser comprising a mineral, a mineral comprising silver, a sanitizer, or a sanitizer comprising bromine.

23. The system of claim 1 further comprising:
said spa or said hot tub, and said system being receivable in said skimmer in said spa or said hot tub.

24. A dispenser for use in treating water in a spa or a hot tub, said dispenser comprising:
a cover;
a container for receiving a water treatment material, said container having a plurality of openings;
said cover configured to sealably cover an opening at an upper end of a filter cartridge; and
said filter cartridge configured to support said container from the upper end of the filter cartridge with said container suspended in the chamber of the filter cartridge.

25. The dispenser of claim 24 wherein:
said cover extends outwardly from said container to define a peripheral edge portion supportable around the opening in the upper end of the filter cartridge.

26. The dispenser of claim 24 wherein:
said cover is fixedly attached to said container.

27. The dispenser of claim 24 wherein:
said cover is releasably attachable to said container.

28. The dispenser of claim 24 wherein:
said cover is threadably attachable to said container.

29. The dispenser of claim 24 wherein:
said cover is releasably attachable to said container in a snap fit manner.

30. The dispenser of claim 24 wherein:
said cover comprises a handle or raised tab.
31. The dispenser of claim 24 wherein:
said container comprises a basket.
32. The dispenser of claim 24 wherein:
said container comprises:
an outer container; and
and inner container.
33. The dispenser of claim 24 wherein:
said container comprises:
an outer container;
an inner container; and
said outer container and said inner container comprising adjustable cooperating openings.
34. The dispenser of claim 24 further comprising:
said water treatment material disposed in said dispenser comprising a mineral, a mineral comprising silver, a sanitizer, or a sanitizer comprising bromine.
35. A water treatment system for use in treating water in a spa or a hot tub, said water treatment system comprising:
a dispenser for receiving a water treatment material, said dispenser having a plurality of openings, said dispenser configured to fit within an opening of a chamber at an upper end of a filter cartridge while supported by the filter cartridge;
a sealing cap configured to cover the opening in the upper end of the filter cartridge;
wherein when said dispenser is supported from the upper end of the filter cartridge and water from the spa or the hot tub is directed into a skimmer and through a filter medium of the filter cartridge, said dispenser is disposed in the water in the chamber of the filter cartridge and is operable to dispense the water treatment material from said dispenser into the water; and
wherein, with the dispenser removed and said sealing cap covering the opening in the upper end of the filter cartridge, water from the spa or the hot tub is directed into the skimmer and through the filter medium of the filter cartridge.
36. The system of claim 35 wherein:
said sealing cap comprises a handle.
37. The system of claim 35 wherein:
said sealing cap comprises a peripheral edge portion supportable by the upper end around the opening.
38. The system of claim 35 further comprising:
said filter cartridge.
39. A spa filter system receivable in a skimmer of a spa or a hot tub for use in treating water in the spa or the hot tub, said system comprising:
a filter cartridge having an upper end, a bottom end, and a filter medium surrounding and defining a chamber therein;
a dispenser operable for receiving a water treatment material;
said upper end of said filter cartridge and said dispenser operably configured to support said dispenser from said upper end of said filter cartridge;
wherein when said dispenser is supported from said upper end of said filter cartridge and water from the spa or the hot tub is directed into the skimmer and through said filter medium of said filter cartridge, said dispenser is disposed in the water in said chamber of said filter cartridge and is operable to dispense the water treatment material from said dispenser into the water; and
wherein said upper end of said filter cartridge comprises:
an elongate opening, and further comprising:
a lid supportable across said elongate opening of said upper end; and
wherein said lid, said upper end of the filter cartridge and said dispenser operably configured to support said dispenser from said lid and said upper end of said filter cartridge.
40. The system of claim 39 wherein said lid is configured for supporting said dispenser and a second dispenser.

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