(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
17 August 2017 (17.08.2017)

WIPO | PCT

(10) International Publication Number
WO 2017/137849 A1

(51) International Patent Classification:
B26B 21/42 (2006.01)

(21) International Application Number:
PCT/IB2017/000219

(22) International Filing Date:
10 February 2017 (10.02.2017)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
62/294,429 12 February 2016 (12.02.2016) US

(72) Inventors; and
(71) Applicants : **GEGG, Peter, Alexander** [BZ/BZ]; c/o Buche & Associates, P.C., 875 Prospect, Suite 305, La Jolla, CA 92037 (US). **GEGG, Christopher, Joseph** [BZ/BZ]; c/o Buche & Associates, P.C., 875 Prospect, Suite 305, La Jolla, CA 92037 (US).

(81) **Designated States** *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) **Designated States** *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

— *with international search report (Art. 21(3))*

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

(54) **Title**: ADJUSTABLE BODY SHAVER, SYSTEM AND METHOD

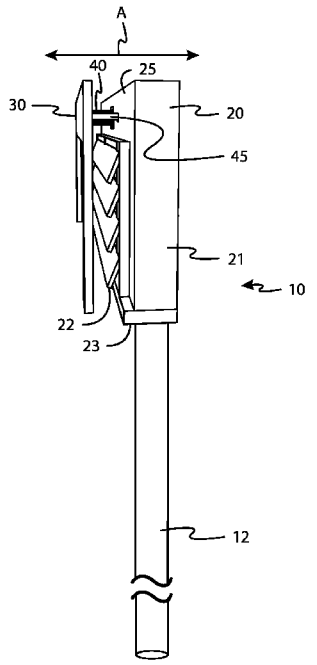

FIG. 2

(57) **Abstract**: The present application is directed to a hand held wet body shaver. The body shaver includes a razor assembly with one or more cutting edges. The razor assembly is adjustable amongst a plurality of fixed settings, each setting dictating the usable length of the one or more cutting edges. The razor assembly is operationally configured maintain a desired alignment amongst its component parts at each fixed setting. The razor assembly is effective for shaving and trimming hair to various desired lengths.

WO 2017/137849 A1

ADJUSTABLE BODY SHAVER, SYSTEM AND METHOD

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application claims the benefit of and priority to U.S. Provisional Patent Application Number 62/294,429 filed February 12, 2016, which is incorporated herein by reference in its entirety.

STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT

[0002] Not applicable.

FIELD OF THE INVENTION

[0003] The application relates generally to an adjustable body hair shaver device of the wet shaving type that contemplates both a disposable cartridge-type blade member that is configured for removable coupling to a non-disposable member of the body shaver and blade members that are integral to the body shaver for discarding of the whole shaver as desired.

BACKGROUND OF THE INVENTION

[0004] Hair of a human body is worn and maintained at varying lengths as desired. Due to the natural growth of hair and due to the fairly rapid visual change in the appearance of hair length, it is desirable for an individual to be able to treat hair at one or more target hair shaving areas in a manner effective to maintain a substantially constant hair length over time.

BRIEF SUMMARY OF THE INVENTION

[0005] The present application is directed to a shaving device including a handle and a razor assembly located at a front end of the handle. The razor assembly is adjustable amongst a plurality of fixed settings, each setting dictating the length of hair to be cut from one or more shaving areas.

.

[0006] The present application is also directed to a hand held wet shaver comprising a razor assembly including a stationary member having one or more hair cutting edges and an adjustable member in communication with the stationary member. The adjustable member may be fixed at a plurality of distances from the stationary member.

[0007] The present application is also directed to a method of shaving hair located at one or more shaving areas to one or more desired lengths, comprising the following steps: (1) providing a hand held shaving device including a razor assembly having one or more cutting edges, the razor assembly being adjustable amongst a plurality of fixed settings, each setting dictating the usable length of the one or more cutting edges; (2) establishing one or more shaving areas and desired length of hair to remain at the one or more shaving areas following shaving; (3) adjusting the razor assembly to a fixed setting according to a first established desired length of hair; and (4) shaving the hair located at the one or more shaving areas.

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING

[0008] Figure 1 is a perspective view of an embodiment of a body shaver of this application.

[0009] Figure 2 is another perspective view of the body shaver of Figure 1.

[0010] Figure 3 is a front view of an embodiment of an adjustable razor assembly.

[0011] Figure 4 is a front view of another embodiment of an adjustable razor assembly.

[0012] Figure 5 is a front view of another embodiment of an adjustable razor assembly.

[0013] Figure 6 is a perspective view of the adjustable razor assembly of Figure 5.

[0014] Figure 7 is a perspective view of an embodiment of an adjustable razor assembly.

[0015] Figure 8 is a perspective view of an adjustable member of the razor assembly of Figure 7.

[0016] Figure 9 is a perspective view of the adjustable member of Figure 8 including a turnable actuation member attached thereto.

[0017] Figure 10 is a perspective view of the turnable actuation member of Figure 9.

[0018] Figure 11 is a front view of another embodiment of a stationary member of an adjustable razor assembly.

[0019] Figure 12 is a perspective view of the stationary member of Figure 11.

[0020] Figure 13 is a perspective view of another embodiment of an adjustable member of this application.

[0021] Figure 14A is a perspective view of another embodiment of a turnable actuation member operationally configured for use with the adjustable member of Figure 13.

[0022] Figure 14B is a side view of the connector pin as shown in Figure 14A.

[0023] Figure 15 is a front view of another embodiment of a stationary member of the adjustable razor assembly.

[0024] Figure 16 is a perspective view of the stationary member of Figure 15.

[0025] Figure 17 is a perspective view of another embodiment of an adjustable member of the adjustable razor assembly.

[0026] Figure 18 is a perspective view of another embodiment of a turnable actuation member operationally configured for use with the adjustable member of Figure 17.

[0027] Figure 19 is a top view of the adjustable razor assembly of Figure 7.

[0028] Figure 20 is a top view of another embodiment of an adjustable razor assembly.

[0029] Figure 21 is a top view of another embodiment of an adjustable razor assembly.

[0030] Figure 22A is a perspective view of another embodiment of an adjustable member of the application.

[0031] Figure 22B is a perspective view of another embodiment of an adjustable member of the application.

[0032] Figure 22C is a perspective view of another embodiment of an adjustable member of the application set aside an exemplary stationary member.

[0033] Figure 22D is a perspective view of another embodiment of an adjustable razor assembly of the application.

[0034] Figure 22E is a perspective view of another embodiment of an adjustable member of the application.

[0035] Figure 23 is a top view of an adjustable razor assembly including the adjustable member of Figure 22A.

[0036] Figure 24 is a perspective view of another embodiment of an adjustable member of the application.

[0037] Figure 25 is a top view of an adjustable razor assembly including the adjustable member of Figure 24.

[0038] Figure 26 is a perspective view of another embodiment of an adjustable member of the application.

[0039] Figure 27 is a perspective view of another embodiment of a turnable actuation member operationally configured for use with the adjustable member of Figure 26.

[0040] Figure 28 is a perspective view of an adjustable razor assembly including the adjustable member of Figure 26 and the actuation member of Figure 27.

[0041] Figure 29 is a top view of the adjustable razor assembly of Figure 28.

[0042] Figure 30 is another embodiment of a turnable actuation member of this application.

[0043] Figure 31A is a perspective view of an adjustable member for use with the actuation member of Figure 30.

[0044] Figure 31B is front view of another embodiment of a female member of the adjustable member of Figure 31A.

[0045] Figure 32 is a perspective view of an adjustable razor assembly including the actuation member of Figure 30 and the adjustable member of Figure 31.

[0046] Figure 33 is a top view of the adjustable razor assembly of Figure 32.

[0047] Figure 34 is a rear perspective view of another embodiment of a stationary member of an adjustable razor assembly.

[0048] Figure 35 is a perspective view of another embodiment of a stationary member of an adjustable razor assembly.

[0049] Figure 36 is a perspective view of another embodiment of a body shaver.

[0050] Figure 37 is another embodiment of a stationary member including a removable razor assembly.

[0051] Figure 38 is a top view of another embodiment of an adjustable razor assembly.

[0052] Figure 39 is a perspective view of an embodiment of an adjustable member and a segmented actuation member.

[0053] Figure 40 is a perspective view of an adjustable razor assembly including the actuation member of Figure 39.

[0054] Figure 41 depicts an embodiment of a pin assembly corresponding to the adjustable razor assembly of Figure 40.

[0055] Figure 42 is a perspective view of a stationary member corresponding to the adjustable razor assembly of Figure 40.

[0056] Figure 43 is a simplified illustration of a turnable actuation member illustrating the interaction between the turnable actuation member and stationary member of the application.

[0057] Figure 44 is a perspective view of an embodiment of an adjustable member including a lubricating member.

[0058] Figure 45 is an embodiment of a simplified commercially available shaving device illustrating retaining clips securing the blade members to the device.

[0059] Figure 46 is a rear perspective view of another embodiment of an adjustable razor assembly of the application illustrating its interaction with a commercially available shaving head.

[0060] Figure 47 is a perspective view of the adjustable razor assembly of Figure 46.

[0061] Figure 48 is a perspective view of another embodiment of an adjustable member and part of an actuation assembly.

[0062] Figure 49 is a perspective view of an embodiment of an elongated notched member of an actuation assembly.

[0063] Figure 50 is a perspective view of an embodiment of a case of an actuation assembly corresponding to the elongated notched member of Figure 49.

[0064] Figure 51 is a perspective view of another embodiment of a stationary member of an adjustable razor assembly.

[0065] Figure 52 is a partial perspective view of another embodiment of a stationary member of an adjustable razor assembly.

[0066] Figure 53 is a partial perspective view of an embodiment of an adjustable member and part of an actuation assembly corresponding to the stationary member of Figure 52.

[0067] Figure 54 is a perspective view of the adjustable razor assembly of Figures 52 and 53.

[0068] Figure 55 is a perspective view of an embodiment of an actuation control member and catch plate attached thereto.

[0069] Figure 56 is another embodiment of a turnable actuation member.

[0070] Figure 57 is another embodiment of a turnable actuation member.

[0071] Figure 58 is another embodiment of a turnable actuation member.

[0072] Figure 59 is another embodiment of a turnable actuation member.

[0073] Figure 60 is a perspective view of another embodiment of an adjustable member of the adjustable razor assembly.

[0074] Figure 61 is another embodiment of a turnable actuation member.

[0075] Figure 62 is another embodiment of a turnable actuation member.

[0076] Figure 63 is a rear perspective view of an embodiment of a stationary member of the adjustable razor assembly.

[0077] Figure 64 is a partial perspective view of another embodiment of an adjustable razor assembly including the stationary member of Figure 63.

[0078] Figure 65 is another embodiment of a turnable actuation member.

[0079] Figure 66 is another embodiment of a turnable actuation member.

[0080] Figure 67 is another embodiment of a turnable actuation member.

[0081] Figure 68 is another embodiment of a segmented actuation member.

[0082] Figure 69 is another embodiment of a segmented actuation member.

[0083] Figure 70 is another embodiment of a segmented actuation member.

[0084] Figure 71 is another embodiment of a segmented actuation member.

[0085] Figure 72 is a side view of another embodiment of the body shaver including an adjustable razor assembly set at fully extended position.

[0086] Figure 73 is a side view of the body shaver of Figure 72 depicting the adjustable razor assembly set at a fully retracted position.

[0087] Figure 74 is a partial perspective view of an adjustable razor assembly and an adapter end of a handle of the body shaver of Figure 72.

[0088] Figure 75 is a perspective view of an adjustable razor assembly of the body shaver of Figure 72.

[0089] Figure 76 is a perspective view of an adjustable member of the body shaver of Figure 72.

[0090] Figure 77 is a perspective view of an actuation member of the body shaver of Figure 72.

[0091] Figure 78 is a perspective view of an adjustable member of the of the body shaver of Figure 72 including the actuation member of Figure 77 in communication there with.

[0092] Figure 79 is a front view of the adjustable razor assembly of the body shaver of Figure 72.

DESCRIPTION OF THE INVENTION

[0093] Before describing the invention in detail, it is to be understood that the present device, system and method are not limited to particular embodiments. It is also to be understood that the terminology used herein is for the purpose of describing particular embodiments only, and is not intended to be limiting. As used in this application, the phrase "blade member" may

refer to an elongated shaving blade with a cutting edge at the front, a blade end at the rear, a tapered portion leading to the cutting edge and a uniform thickness portion extending from the blade end at the rear to the tapered portion. The term "individual" may refer to humans and/or other mammals for which the present invention is directed for use. Herein, "shaving area" suitably refers to a location on an individual's skin where hair growing out there from is maintained at one or more desired lengths. The terms "treat," "shave" refer to cutting or otherwise removing body hair. The phrases "wet razor" and "wet shaver" are often used interchangeably by persons of ordinary skill in the art and may be used interchangeably herein.

[0094] In one aspect, the application provides a device such as an adjustable hand-held body shaver or hair shaver for removing or trimming an unwanted length of hair from one or more target shaving areas. The adjustable hand-held body shaver may be provided as a disposable shaver as the term is commonly understood in the field of wet shavers. The adjustable hand-held body shaver may also be provided with replaceable blade members.

[0095] In another aspect, a body shaver is provided including a first stationary member and a second adjustable member operationally configured to adjust the usable length of the cutting edge of one or more blade members for shaving purposes. In another aspect, the application provides a body shaver having a frame adjustable amongst a plurality of operable positions in regard to the body shaver's stationary frame. In another aspect, the application provides a threaded turnable cylindrical screw type member for adjusting the distance between the stationary member and the adjustable member and setting the adjustable member in a fixed position during use, the screw type member having a first end for user manipulation, a middle threaded section for communicating with a stationary member and an opposing end operationally configured to communicate with an adjustable member. In another aspect, the application may

include an elongated notched member for adjusting the distance between the stationary member and the adjustable member and setting the adjustable member at a fixed position during use. In another aspect, the application may include a non-turnable elongated member with a slotted or segmented configuration that is in communication with the stationary member in a manner effective to adjust the fixed distance between the adjustable member and the stationary member during use. In another aspect, the application provides a body shaver including an adjustable razor assembly operationally configured to dictate and control the distance between one or more blade members and the target shaving surface locations or areas of a user.

[0096] To better understand the novelty of the device, system and method of use thereof, reference is hereafter made to the accompanying drawings. One exemplary device or "body shaver **10**" is depicted in **FIGS. 1** and **2**. As shown, the body shaver **10** may include a handle **12**, as is common to commercially available wet shavers, and a razor assembly **13** (or adjustable razor assembly **13**) located at a front end or first end of the handle **12**. In this embodiment, the adjustable razor assembly **13** suitably includes a first stationary member **20** (or "cartridge" or "hair cutting cartridge") attached to the handle **12** and a second adjustable member **30** (or "adjustable guard member") operationally configured to dictate the amount or length of hair cutting, trimming or shaving to be accomplished according to the spatial relationship between the first stationary member **20** and second adjustable member **30** during body shaver **10** operation. In other words, the second adjustable member **30** is suitably operationally configured to (1) dictate the distance between a subject's skin and the one or more cutting edges of the stationary member **20** and/or (2) dictate the usable length of one or more cutting edges of the adjustable razor assembly **13**.

[0097] In this embodiment, the stationary member **20** suitably includes a first surface **23** for receiving a handle **12** in attachment thereto and at least a second surface **25** for engaging at least part of the adjustable member **30** in a first abutment position. In another embodiment, the handle **12** may attach to a different surface of the stationary member **20**, e.g., the back or front sides surface, or both the front and back via a V-neck type handle end. As shown in **FIG. 2**, the adjustable member **30** is adjustably secured to the stationary member **20** via one or more actuation members **40** and one or more guide members **45**. The one or more actuation members **40** are operationally configured to direct the adjustable member **30** linearly from a first abutment position with the second surface **25** out to one or more distal positions apart from the stationary member **20** and vice versa (see Directional Arrow **A**).

[0098] In one embodiment, the adjustable member **30** may include a rectangular framework type configuration with a perimeter substantially similar in size and shape as the perimeter of the stationary member **20**, e.g., see the adjustable member **30** of **FIG. 22B**. In another embodiment, the shape or configuration of the adjustable member **30** may vary from the shape or configuration of a corresponding stationary member **20**. In still another embodiment, the adjustable member **30** may include a three sided framework with a fourth open horizontal side effective to provide for unencumbered razor cutting edge usage whereby target body hair is left undisturbed prior to being contacted by the stationary member **20**, e.g., **FIG. 22A**.

[0099] As shown in the embodiment of **FIGS. 1** and **2**, the stationary member **20** may include a corresponding rectangular framework **21** configuration with one or more cutting edges, e.g., a blade assembly defined by one or more blade members **22** disposed horizontally in parallel and attached to the stationary member **20** at or near the distal ends of the blade members **22** as shown. In another embodiment, the blade assembly may include one or more retaining

clips **14** (see **FIG. 45**) or the like at or near the ends of the one or more blade members **22** in a similar manner as commercially available wet shaving devices, the retaining clips **14** being operationally configured to sandwich the one or more blade members **22** against part of the stationary member **20**. As understood by the skilled artisan, the stationary member **20** suitably includes one or more apertures or surface configurations operationally configured to receive ends or other parts of the retaining clips **14** in a secure fixed position during operation of the body shaver **10**.

[0100] Turning to **FIGS. 3** and **4**, an adjustable member **30** framework may include opposing sections **33A**, **33B** with widths as may be desired or required for one or more applications. For example, thinner sections **33A** and **33B** as depicted in **FIG. 4** may be employed in an embodiment where an individual desires to shave near the edge or outline of a styled form of facial hair, e.g., when shaving body hair forming a goatee or sideburns as opposed to shaving a full beard. In still another embodiment as shown in **FIGS. 5** and **6**, the opposing sections **33A**, **33B** may include lengths less than the stationary member **20** for one or more shaving applications. As such, a commercial body shaver **10** may be provided with a plurality of adjustable members **30**, each serving a different grooming purpose during shaving.

[0101] As shown in **FIG. 22C**, another adjustable member **30** may include a two sided framework. A benefit of a two sided framework style adjustable member **30**, as compared to a three sided framework, is that a two sided framework may allow for easier shaving of body hair by locating the open side of the adjustable member **30** at the edge of target body hair for edging of body hair when shaving. In still another embodiment, the adjustable member **30** may include a single side as shown in **FIG. 22D**. A single sided adjustable member **30** may suitably be configured to support a blade assembly alone. In one example, the single sided adjustable

member **30** of **FIG. 22D** may be thicker and/or include a larger surface area than a horizontal section **30A** of a two, three and four sided adjustable member **30**. In another embodiment, a single sided adjustable member **30** may be provided with a blade assembly having fewer blade members **22** than may be provided via a two, three and four sided adjustable member **30**, which may include additional structural support for larger blade assemblies and/or a high number of blade members **22** – **FIG. 22D** illustrates an embodiment including a single blade member **22**.

[0102] In still another embodiment, the adjustable member **30** may include curved or partially curved opposing sections **33A**, **33B** as shown in **FIG. 22E**. Sections **33A**, **33B** may terminate with rounded edges or blocked edges as desired. As will be appreciated by the skilled artisan, curved or partially curved sections **33A**, **33B** may promote a smoother shaving experience, e.g., prevent or reduce dragging or other undesired forces to a person's skin and/or prevent or reduce hair entanglement of the adjustable member **30**.

[0103] For the purposes of this application, the handle **12** and adjustable razor assembly **13** are not limited to a particular size or shape and may be built to scale. In addition, the adjustable razor assembly **13** is not necessarily limited to any particular number of blade members **22**, blade size, blade thickness or blade uniformity. However, size requirements of a particular body shaver **10** may dictate a given number of blade members **22** and/or a given size of blades and/or blade thickness and/or one or more particular types and/or sizes of cutting edges of blade members **22** to be employed.

[0104] With reference again to **FIGS. 1** and **2**, the one or more blade members **22** may be evenly spaced apart, the distance between each blade member **22** being set as desired or as otherwise required for one or more particular applications of the body shaver **10**. In one simplified example, the one or more blade members **22** may be spaced apart similar as other

commercially available wet razor blades. Also, the one or more blade members **22** may be set at any desired angle relative to the second surface **25** of the stationary member **20**, including but not necessarily limited to an angle similar as other commercially available wet razor blades. Also, each of the blade members **22** may be set at a similar angle relative to the second surface **25** or at least one blade member **22** may be set at different angle from the other blade members **22** of the adjustable razor assembly **13**. A suitable angle of the one or more blade members **22** may range from about 5.0 degrees to about 50.0 degrees. In addition, one or more blade members **22** may extend out from the second surface **25** a distance greater than one or more other blade members **22**.

[0105] Suitably, the adjustable razor assembly **13** is operationally configured to provide for cutting and/or trimming and/or shaving of body hair to a particular length according to the distance between the adjustable member **30** and (1) the stationary member **20** and/or (2) the one or more blade members **22**. In basic operation, the actuation member **40** may be manipulated in a manner effective to alter the distance between the adjustable member **30** and the stationary member **20**. In an embodiment including a turnable actuation member **40** as described below, the maximum distance between the adjustable member **30** and the stationary member **20** may be dictated according to the maximum length of the actuation member **40** or the maximum length of the elongated section **44** of the actuation member **40**.

[0106] Turning to the simplified embodiment of **FIG. 7**, one or more guide members **45** may be provided to maintain the alignment between the adjustable member **30** and the stationary member **20** as well as provide structural support to the adjustable razor assembly **13** during operation. Suitably, the maximum length of one or more guide members **45** is sufficient to maintain communication between the adjustable member **30** and the stationary member **20**

during operation of the body shaver **10**. In one suitable embodiment, one or more guide members **45** extend out from an inner surface **31** of an adjustable member **30** in a static position resistant to external forces. In one or more other embodiments, an adjustable razor assembly **13** may be devoid of any guide members **45**, whereby an actuation member **40** is operationally configured for alignment and structural support as well as actuation of the adjustable razor assembly **13**.

[0107] Still referring to **FIG. 7**, an adjustable razor assembly **13** may include (1) a stationary member **20** defined by a first surface or inner surface **25** and an opposing second surface or outer surface **26**, (2) an adjustable member **30** in communication with the stationary member **20**, the adjustable member **30** being defined by a first surface or inner surface **31** and a second surface or outer surface **32** and (3) a turnable actuation member **40** in communication with the stationary member **20** and adjustable member **30**. As shown in the simplified embodiment of **FIG. 8**, an adjustable member **30** may include a framework configuration defined by a horizontal section **30A** and opposing sections **33A** and **33B** extending out from opposing ends of the horizontal section **30A** in a parallel manner forming right angles with the horizontal section **30A**. In one instance, the adjustable member **30** communicates with the stationary member **20** via an elongated guide member **45** extending out from the inner surface **31** to a desired length. The corresponding stationary member **20** suitably includes a first aperture **46** (see **FIGS. 11** and **12**) that is operationally configured to receive the guide member **45** there through. In this embodiment a guide member **45** is located along the horizontal section **30A** of the adjustable member **30**. It is also contemplated that one or more guide members **45** may be located along one of either of the vertical sections **33A** and **33B**. In another embodiment, an adjustable member **30** may include one or more guide members **45** located on the horizontal

section **30A** and one or both of the vertical sections **33A** and **33B**. Suitably, the stationary member **20** includes a number of first apertures **46** to accommodate the corresponding guide members **45** present. Guide members **45** and corresponding first apertures **46** are not limited to any shape or configuration. As such, in one particular embodiment, a guide member **45** may be provided with a width greater than its length and include dimensions and/or shapes different than the elongated rectangular box shapes as shown in **FIGS. 8** and **9**.

[0108] Without limiting the invention, the spatial relationship between the adjustable member **30** and the stationary member **20** may be determined via one or more actuation members **40**, or actuation assemblies, operationally configured to communicate the adjustable member **30** with the stationary member **20**. Referring to the embodiment of **FIGS. 7 - 10**, actuation may be realized by including an actuation receiving member **35** (or "receiving member **35**") located on the inner surface **31** of the adjustable member **30** that is operationally configured to receive at least part of the turnable actuation member **40** in operable or turnable communication. As shown, the turnable actuation member **40** may include a screw type member including a threaded cylindrical shaft member **44** having a first diameter operationally configured to pass through a second aperture **47** (see **FIGS. 11** and **12**) of the stationary member **20**. As understood by the skilled artisan, the second aperture **47** may include a threaded surface for communicating with the threaded shaft member **44**. Referring to **FIG. 10**, the threaded shaft member **44** of this embodiment may include (1) an enlarged first end **41** of a second diameter operationally configured to be manipulated by a user's fingers and/or a tool, e.g., a hand held tool such as a screwdriver, wrench, pliers, and the like, and (2) an enlarged second end **42** operationally configured to communicate with the receiving member **35**. Without limiting the scope of the invention, the enlarged second end **42** may include a width or diameter as desired or as otherwise

required for suitable operation of the body shaver **10**. In this embodiment, the enlarged second end **42** includes a disc type shape.

[0109] In one suitable embodiment, an enlarged first end **41**, e.g., with a width or diameter greater than the inner diameter of the second aperture **47**, may be employed to prevent the actuation member **40** from (1) traveling within the second aperture **47** whereby a user may be unable to retrieve the first end **41** out from the second aperture **47** and (2) passing out through the second aperture **47** apart from the stationary member **20**. In addition, the first end **41** may include a surface configuration other than a cylindrical shaped first end **41** as depicted in **FIG. 10**. For example, a first end **41** may include multiple sides, e.g., a rectangular shape, hexagonal shape, octagonal shape. In another embodiment, a first end **41** may include a T-shape member or a handle lever type member. In addition, a first end **41** may include knurling or another textured type surface effective to promote gripping during manual operation of the actuation member **40**. In still another embodiment, a first end **41** may include a width or diameter substantially similar as the threaded shaft member **44** or the first end **41** may include a width or diameter less than the threaded shaft member **44**.

[0110] Still referring to **FIGS. 7 - 10**, the receiving member **35** of this embodiment may include a pocket type formation with an aperture for receiving the shaft member **44** there through and an inner surface for receiving and holding the second end **42**. Suitably, the diameter of the aperture is less than the diameter of the second end **42** whereby the second end **42** is maintained within the inner surface of the receiving member **35**. During body shaver **10** operation, as the actuation member **40** is rotated, the threaded communication between the actuation member **40** and the second aperture **47** is effective to (1) promote travel of the actuation member **40** through the second aperture **47** in either direction (see Directional Arrow **A**) according to the clockwise

or counter-clockwise direction the actuation member **40** is turned and (2) hold the actuation member **40** in a fixed position at rest as understood by persons of ordinary skill in the art of threaded connectors. As further understood by the skilled artisan, the configuration of the receiving member **35** and the second end **42** of the actuation member **40** allows the second end **42** to (1) force the adjustable member **30** away from the stationary member **20** when the actuation member **40** is turned in a first direction and (2) pull the adjustable member **30** toward the stationary member **20** when the actuation member **40** is turned in a second opposite direction. As shown in **FIGS. 11** and **12**, the inner surface **25** of the stationary member **20** of this embodiment suitably includes a recessed area **48** about the perimeter of the second aperture **47**, the recessed area **48** being operationally configured to receive the receiving member **35** in a mated position therein in a manner effective for the inner surface **25** of the stationary member **20** to abut the inner surface **31** of the adjustable member **30**. Although presented in **FIG. 8** in a rectangular configuration, the body of the receiving member **35**, and a corresponding recessed area **48**, may include other shapes and sizes as desired, e.g., curved perimeters, multi-sided perimeters, irregular shapes, and combinations thereof.

[0111] Turning to **FIG. 13**, in another embodiment an adjustable member **30** may include a receiving member **35** in the form of a cavity **50** along the inner surface **31** for receiving the actuation member **40** in operable communication. In this embodiment, the second end **42** suitably includes a connector pin **43** with an enlarged head **38** extending out from the surface of the second end **42** (see **FIGS. 14A** and **14B**) operationally configured to mate with and turn within the cavity **50** as the actuation member **40** is turned. As understood by the skilled artisan, the enlarged head **38** may be provided with a neck member **37** as shown. In addition, an enlarged head **38** may be defined by a width or diameter greater than the width or diameter of the

opening of the cavity **50** allowing the connector pin **43** to (1) force the adjustable member **30** away from the stationary member **20** when the actuation member **40** is turned in a first direction and (2) pull the adjustable member **30** toward the stationary member **20** when the actuation member **40** is turned in a second opposite direction. In other words, an outer surface of the enlarged head **38** suitably pushes against one or more interior surfaces within the cavity **50** forcing the adjustable member **30** away from the stationary member **20** when the actuation member **40** is turned in a first direction and an inner surface **39** of the enlarged head **38** suitably contacts one or more inner surfaces about the opening of the cavity **50** when the actuation member **40** is turned in a second opposite direction. In this embodiment, the stationary member **20** may not require a recessed area **48**, for example, see the surface of the stationary member **20** of **FIGS. 15** and **16**, which are void of any recessed surfaces **48**.

[0112] In yet another embodiment, the actuation member **40** of **FIG. 14A** may be used with an adjustable member **30** having a receiving member **35** similar to the embodiment illustrated in the embodiment of **FIG. 8** whereby the receiving member **35** is operationally configured to receive the connector pin **43** in operable communication therein. In another embodiment, an actuation member **40** as shown in **FIG. 10** may be communicated with a cavity **50** as shown in **FIG. 13** by adjusting the size and shape of the cavity **50**.

[0113] For purposes of the present application, the above described embodiments of a turnable actuation member **40** suitably turn independent of the stationary member **20** and the adjustable member **30**. As shown in **FIG. 14A**, an enlarged head **38** may include a circular perimeter shape. In another embodiment, the enlarged head **38** may include a segmented circular perimeter shape such as described in United States Patent Number 4,055,236, entitled "Disc brake with an annular metal frame holding part-circular pads," the contents of which is herein

incorporated by reference in its entirety. In addition, an enlarged head **38** may be installed within a cavity **50** as desired, e.g., at manufacturing of the body shaver **10** or via assembly post manufacture.

[0114] Referring to **FIGS. 17** and **18**, in another embodiment an actuation receiving member of the adjustable member **30** may be provided as a connector pin **36** located along the inner surface **31**, the connector pin **36** being operationally configured to mate with a cavity **49** at the second end **42** of a turnable actuation member **40** via an enlarged distal end **36A** of the connector pin **36**. In this embodiment, the connector pin **36** is set at a fixed position extending out from the inner surface **31** whereby the actuation member **40** is turnable about the connector pin **36**. Suitably, the cavity **49** of the actuation member **40** is operationally configured to maintain at least part of the connector pin **36** therein in a manner effective to (1) force the adjustable member **30** away from the stationary member **20** when the actuation member **40** is turned in a first direction and (2) pull the adjustable member **30** toward the stationary member **20** when the actuation member **40** is turned in a second opposite direction. In this embodiment, the cavity **49** of the actuation member **40** may include a depth as desired – suitably a depth effective to receive an operable amount or length of the connector pin **36** therein, e.g., at least part of the enlarged distal end **36A**. It is also contemplated that the cavity **49** may extend within the actuation member **40** to a depth up to just less than the length of the actuation member **40**. In another embodiment, the actuation member **40** may be provided as a hollow member with an aperture extending through the actuation member **40** from the first end **41** to the second end **42**. As shown, the connector pin **36** and distal end **36A** may include cylindrical perimeters. In another embodiment, a connector pin **36** and distal end **36A** may include segmented perimeters as described above.

[0115] In one embodiment, the above described connector pins **36** and **43** may be provided as snap-fit connection members or as threaded members providing a threaded connection. In another embodiment, the pins **36**, **43** may be permanently attached members assembled during manufacturing for use as shown in the simplified embodiments of **FIGS. 19 - 21**. In still another embodiment, a receiving member **35** may include an open slot **35A** (see **FIGS. 22A**, **22B,** and **23**) for inserting the second end **42** of the actuation member **40** (see Directional Arrow **B**) into the receiving member **35**. In another embodiment as shown in **FIGS. 24** and **25**, the inner surface **31** may include a channel **52** or groove operationally configured to communicate with the cavity **50** for inserting the connector pin **43** into the cavity **50** (see Directional Arrow **C**).

[0116] With reference to **FIGS. 26 - 29**, in another embodiment an actuation receiving member of the adjustable member **30** may include a spherical member **55** (**FIG. 26**) for receiving an open second end **42** of a turnable actuation member **40** (**FIG. 27**) in a snap-fit configuration whereby the actuation member **40** may be turned clockwise and counter-clockwise about the spherical member **55**. Similar as described above, the actuation member **40** may be provided as a hollow member for receiving the spherical member **55** or the second end **42** may include a cavity **49** effective for receiving at least part of the spherical member **55** in a snap-fit configuration therein. In addition, a stationary member **20** of this embodiment does not require a recessed area according to the snap-fit communication between the actuation member **40** and the spherical member **55**. In still another embodiment, an actuation receiving member may be provided as a half sphere **57** (see **FIG. 60**) for communicating with the actuation member **40**.

[0117] In another embodiment, a turnable actuation member **40** may be provided with a spherical member **56** at its second end **42** (see **FIG. 30**) operationally configured to snap-fit with

a female member **60** extending out from the inner surface **31** of an adjustable member **30** as shown in **FIG. 31A**. The female member **60** is not limited to a particular size, but a minimum size is effective to hold at least half of the spherical member **56** therein during body shaver **10** operation (see **FIG. 33**). The spherical member **56** is not limited in size and may vary in relation to the size of the remaining sections of an actuation member **40**. In still another embodiment, an actuation member **40** may be provided with a half sphere **58** (**FIG. 61**) as desired.

[0118] For purposes of this application, snap-fit connections described herein may be realized by providing a spherical member **55**, **56** having an outer diameter slightly less than (1) the inner diameter of the cavity **49** of the actuation member **40** or (2) inner surface of the female member **60** allowing for a snug but rotatable fit. In another embodiment, the outermost edge or portion of a cavity **49** or opening of the female member **60** may include an inward extending lip **61** or other inward raised surface configuration along the perimeter of the cavity **49** or opening of the female member **60** defining an inner diameter less than the diameter of the corresponding spherical member **55**, **56** and cavity **49** whereby the spherical member **55**, **56** may be directed with force passed the lip **61** or inward raised surface and maintained within the open second end **42** or female member **60** for turnable operation until the actuation member **40** is removed under force. In one embodiment, a lip **61** may define a continuous perimeter. In another embodiment, the lip **61** may include a non-continuous or sectional perimeter extending radially inward as shown in the simplified illustration of **FIG. 31B**. A perimeter as shown in **FIG. 31B** may promote ease of insertion and/or removal of a spherical member **55**, **56**. As understood by the skilled artisan, it is further contemplated that the various embodiments of connections discussed herein in regard to a turnable actuation member **40** may be combined as desired, including one or

more changes or alterations to the actuation member **40** and/or the adjustable member **30** as may be desired.

[0119] Still other embodiments of the body shaver **10** are contemplated herein. For example, a stationary member **20** may include two or more windows **63** (see **FIG. 34**) for passing a different set of blade members **22** through each window **63**. The window divider **28** disposed there between may provide structural strength to the stationary member **20**. In addition, the window divider **28** may act as a support for the blade members **22** preventing undesired bending and/or displacement of the blade members **22** during body shaver **10** operation. Depending on the intended use, a body shaver **10** having two or more windows **63** may also be easier to clean for reuse than a single window embodiment of the body shaver **10**.

[0120] With reference to **FIG. 35**, the body shaver **10** may also include one or more skin guard members **65** operationally configured to smooth or stretch out a user's skin, improve comfort, protect against skin cuts and/or skin irritation, and combinations thereof. As shown in **FIG. 35**, a suitable skin guard member **65** may be disposed along the base of the stationary member **20** protruding out there from a distance as shown. In one embodiment, one or more skin guard members **65** may be provided as removable members. In another embodiment, one or more skin guard members **65** may be provided as a permanent part of a one-piece stationary member **20**. In one embodiment, one or more skin guard members **65** may be constructed from like material(s) as the stationary member **20**. In another embodiment, one or more skin guard members **65** may be constructed from one or more material(s) different from the stationary member **20**. In another embodiment, one or more skin guard members **65** may be constructed from one or more malleable materials.

[0121] Without limiting the invention, the body shaver **10**, i.e., the handle **12**, stationary member framework **21** and adjustable member **30**, may be manufactured from one or more materials as desired or as required according to regional laws and/or regulations. Suitable materials of construction may include, but are not necessarily limited to metals, metal alloys, polymeric materials, wood, cardboard, composite materials, ceramics, and combinations thereof. In one embodiment, a handle **12** may comprise one or more materials heavier than the corresponding stationary member **20** and/or adjustable member **30**. In one exemplary embodiment, a handle **12** may be constructed from one or more metals. As an example, a handle **12** may be constructed of die casted metal and/or include metal inserts to increase the weight of the handle **12**. In addition, a handle **12** may include a grip portion for handling during use. The grip portion may include one or more enhanced or augmented gripping materials, enhanced or augmented gripping region, textured type surfaces or outer skins effective to assist a user in holding the body shaver **10** during use. A suitable enhanced gripping material may include, but is not necessarily limited to rubber, gel, plastic, and like materials characterized by a tacky or sticky type outer surface. A textured surface may include, but is not necessarily limited to a knurled surface, a grooved surface, a ribbed surface, and combinations thereof.

[0122] In one suitable embodiment, a handle **12** may include a central longitudinal plane. In another embodiment, a handle **12** may include a non-linear or curved portion. Likewise, a handle **12** may be comprised of a plurality of linear sections connected in a manner providing a nonlinear handle **12**. In another embodiment, a handle **12** may include an essentially S-shaped curved configuration and/or tongue-like widened portion as described in United States Patent Number 5,031,319 entitled "Wet razor," the contents of which is herein incorporated by reference in its entirety.

[0123] Turning to **FIG. 36**, a body shaver **10** may also include a loop **70** at a second end of the handle **12** for hanging or suspending the body shaver **10**. As shown, one suitable loop **70** may include a continuous perimeter, or closed perimeter, as shown in **FIG. 36**. Exemplary loop **70** shapes include, but are not necessarily limited to circular, oval, multi-sided shapes. In another embodiment, a loop **70** may be provided as an open hook type configuration or J-shape configuration. In the alternative, a piece of rope or string, e.g., nylon rope or string, as understood by persons of ordinary skill in the art of hanging hand held instruments, hand tools, and similar objects may be employed.

[0124] The skilled artisan will appreciate that a stationary member **20** of this application may be pivotally connected to a handle **12** in one or more modes of operation similar as other commercially available wet shavers. A stationary member **20** may also be pivotally connected to a handle **12** via a hinge or spherical snap-fit connection similar as discussed above. It is also contemplated that one or more embodiments described herein may include a stationary member **20** removably attachable to a handle **12** providing a body shaver **10** having a replaceable adjustable razor assembly **13** similar as other commercially available wet shavers.

[0125] In one non-limiting embodiment, a handle **12** may be provided with a connecting end or connecting member operationally configured to releasably attach to a corresponding stationary member **20** as described in United States Patent Number 9,193,080 entitled "Shaving blade unit with self-leveling trimmer," the contents of which is herein incorporated by reference in its entirety. In another implementation, a handle **12** may include a head portion operationally configured to releasably attach to a corresponding stationary member **20** as described in United States Patent Application Number 20120124840A1 entitled "Wet Shaver," the contents of which is herein incorporated by reference in its entirety. In another implementation, a handle **12** may

include a head portion operationally configured to releasably attach to a corresponding stationary member **20** as described in United States Patent Number 7,526,869 entitled "Razor handle," the contents of which is herein incorporated by reference in its entirety. In another implementation, a handle **12** may include a head portion operationally configured to releasably attach to a corresponding stationary member **20** as described in United States Patent Number 6,434,839 entitled "Safety razor," the contents of which is herein incorporated by reference in its entirety. In another implementation, a handle **12** may include a head portion operationally configured to releasably attach to a corresponding stationary member **20** as described in United States Patent Number 8,844,145 entitled "Razor handle for a retractable shaving cartridge and a razor comprising such a razor handle," the contents of which is herein incorporated by reference in its entirety. In another implementation, a handle **12** may include a head portion operationally configured to releasably attach to a corresponding stationary member **20** as described in United States Patent Number 5,784,790 entitled "Shaving razor and method," the contents of which is herein incorporated by reference in its entirety. In another implementation, a handle **12** may include a head portion operationally configured to releasably attach to a corresponding stationary member **20** as described in United States Patent Number 4,514,904 entitled "Razor handle," the contents of which is herein incorporated by reference in its entirety. In another implementation, a handle **12** may include a cartridge support structure operationally configured to releasably attach to a corresponding stationary member **20** as described in United States Patent Number 9,533,424 entitled "Razor handle," the contents of which is herein incorporated by reference in its entirety. In another implementation, a handle **12** may include a head portion operationally configured to releasably attach to a corresponding stationary member **20** as described in United

States Patent Number 4,587,729 entitled "Safety razor," the contents of which is herein incorporated by reference in its entirety.

[0126] With attention to **FIG. 37**, a body shaver **10** may be provided with a removable and/or replaceable blade assembly **80** slid on and off of stationary member **20** laterally. In this embodiment, a blade assembly **80** suitably includes one or more lips, protrusions, teeth or raised members along an uppermost edge operationally configured to engage a channel **81** or groove dispose along the stationary member **20** – the blade assembly **80** being slidable across the stationary member **20** according to Directional Arrow **D**. In another embodiment, the surface of the stationary member **20** may include one or more apertures operationally configured to receive one or more male members or projections disposed along a blade assembly **80** in a mated snap-fit position.

[0127] Turning to **FIGS. 38 - 42**, in another embodiment an actuation member **40** may be provided as a non-turnable slotted or segmented member. In this embodiment, actuation may be provided via an assembly including an elongated member **84** defined by a segmented surface (see **FIG. 39**) and a corresponding pin assembly **85** located within the body of the stationary member **20** operationally configured to communicate with the segmented surface of the elongated member **84**. In this embodiment, the elongated member **84** (or "segmented member") is defined by a plurality of notches **84A** operationally configured to receive part of the pin assembly **85** in communication between adjacent notches **84A**. With attention to **FIG. 41**, a suitable pin assembly **85** includes an external arm member **86** extending out a desired length for manually disengaging the pin member **88** out from the elongated member **84** (see Directional Arrow **E** in **FIG. 38**). The pin assembly **85** may also include a resilient member **87** attached thereto or located adjacent the pin assembly **85** that is operationally configured to be housed

within a hollow chamber or area **82** of the stationary member **20** as shown in **FIG. 38** (see also area **82** in **FIG. 42**). Suitably, the resilient member **87** is operationally configured to bias the pin member **88** toward the elongated member **84** in a manner effective to maintain the elongated member **84** in a fixed position between notches **84A** during operation of the body shaver **10**. In this embodiment, the elongated member **84** may be removably attached to the adjustable member **30** or it may be provided as a fixed part of the adjustable member **30**. Although the notches **84A** are shown extending out horizontally from the elongated member **84** toward the center of the adjustable member **30**, it is contemplated that the notches **84A** may be located along the opposite side of the elongated member **84**. It is further contemplated that the elongated member **84** may include notches **84A** on multiple sides or surfaces whereby the notched assembly may include additional pin assemblies **85** corresponding to the additional notched sides or surfaces.

[0128] With particular attention to **FIGS. 38** and **41**, the notches **84A** of the elongated member **84** and the pin member **88** may be provided as planar type members, the notches **84A** being defined by surfaces having right angles in regard to the planar surface of the elongated member **84** that the notches **84A** extend out from. In another embodiment, one or more of the various surfaces defining the notches **84A** and/or the pin member **88** may include curved or rounded surfaces. Likewise, the external arm member **86** is not limited to any one size or shape but is operationally configured to act as a lever for engaging and disengaging the pin member **88**.

[0129] In another embodiment as shown in **FIGS. 46 - 47**, the adjustable razor assembly **13** may be operationally configured to work in conjunction with one or more commercially available shavers. In this embodiment, the adjustable razor assembly **13** may be operationally configured to slide onto the shaving head **300** of one or more commercially available shavers. As shown, the adjustable razor assembly **13** may include guides **19**, clamps, hooks or other types

of appendage type members for engaging the upper and lower surfaces of the shaving head **300** in a slip-on manner.

[0130] In another embodiment a segmented actuation member **40** may be provided with notches **84A** extending in a vertical direction as opposed to a horizontal direction as described above. Referring to the simplified embodiment of **FIGS. 48 - 51**, another actuation member **40** may be provided as an assembly including an elongated notch member **90** and a corresponding case **91**. Suitably, the case **91** is attached to the adjustable member **30** and operationally configured to receive the notch member **90** therein and bias the notch member **90** vertically (see Directional Arrow **F**) in a manner effective to interact with a pin assembly **85** of a stationary member **20**.

[0131] As shown in **FIG. 49**, one suitable notch member **90** may include an elongated rectangular base **93** defined by side walls **94A**, **94B** and a plurality of notches **90A** there between, each notch **94A** extending vertically from the base **93**. In addition, the notch member **90** may include a handle **95** extending out from the base **93** effective for manual manipulation by a user.

[0132] As shown in **FIG. 50**, one suitable case **91** operational with the notch member **90** of **FIG. 49** includes a base **96** defined by side walls **97A**, **97B** and biasing members **98**, **99** disposed between the side walls **97A**, **97B** and attached to the inner surface **100** of the base **96**. In this embodiment, inner edges of the biasing members **98**, **99** may be attached at or near a midpoint of the base **96** and extend outward at an angle relative to the inner surface **100** in a manner effective to provide biasing forces directionally to a notch member **90** according to Directional Arrow **F**. In one embodiment, inner edges of the biasing members **98**, **99** may be attached to the inner surface **100** via spring loaded hinges. In another embodiment, the biasing

members **98**, **99** may be permanently adhered to the inner surface **100**. For example, the base **96** and biasing members **98**, **99** may be constructed from one or more metals and attached via welds and/or adhesives. In an embodiment where the base **96** and the biasing members **98**, **99** are constructed from one or more polymeric materials, the biasing members **98**, **99** may be attached to the inner surface **100** via heat energy. In still another embodiment, the case **91** may be provided as a one-piece construction.

[0133] Similar as the notch member **90**, the case **91** may too be provided with a handle **102** extending out from the base **96** effective for manual manipulation by a user. As shown in **FIG. 50**, the upper edges of the side walls **97A**, **97B** may be turned inward in a manner effective to provide opposing linear slots **103**, **104** operationally configured to receive side walls **94A**, **94B** of the notch member **90** therein when mating the notch member **90** to the case **91** (see Directional Arrow **G**). In operation, the biasing members **98**, **99** suitably bias the notch member **90** so that the upper edges of the side walls **94A**, **94B** abutt the upper inner surfaces of the slots **103**, **104**.

[0134] Without limiting this embodiment to any one implementation, a suitable stationary member **20** includes first and second apertures **46**, **47** operationally configured to receive the guide member **45** and an actuation member **40** there through as shown. With attention to **FIG. 51**, a stationary member **20** does not require a recessed area **48** as provided in **FIG. 11**.

[0135] In still another embodiment the adjustable razor assembly **13** may include another segmented member variation for actuating the adjustable member **30**, e.g., a rack and pinion gear assembly. Referring to **FIGS. 52 - 54**, the stationary member **20** of this embodiment includes a primary aperture **108** for receiving an actuation member **40** there through. With particular

attention to **FIG. 52**, the stationary member **20** also includes an exposed chamber **112** adjacent the primary aperture **108** operationally configured to house a turn dial **110** (hereafter "dial **110**") for communicating with the actuation member **40**. One suitable dial **110** includes (1) a gear **111** at a first end that is housed within the chamber **112**, (2) a shaft **113** extending coaxially from the gear **111** out from the chamber **112** through the stationary member **20** terminating in (3) a concentric external knob **114** operationally configured to manually turn the gear **111** clockwise and counter-clockwise.

[0136] Referring to **FIG. 53**, the actuation member **40** of this embodiment suitably includes a first end attached to the inner surface **31** of the adjustable member **30** and a second distal end terminating a desired distance from the inner surface **31**. The actuation member **40** includes a base **109** defined by a first surface having a plurality of parallel notches **115** disposed in series as shown. In one embodiment, the notches **115** may include planar surfaces defining right angles with the first surface of the base **109**. In the embodiment of **FIG. 53**, the notches **115** are provided as angled teeth type members.

[0137] Still referring to **FIG. 53**, the actuation member **40** of this embodiment also includes a second surface defined by a gear rack **116** operationally configured to communicate with the gear **111** in a manner effective to produce linear motion of the actuation member **40** and the adjustable member **30** as understood by persons of ordinary skill in the art of gears. The gear rack **116** may include a length as desired for a particular adjustable razor assembly **13** including, but not limited to a length up to substantially similar as the length of the base **109**.

[0138] Referring again to **FIG. 52**, the stationary member **20** also includes another aperture **107** extending from a third surface **27** to the primary aperture **108**, aperture **107** being operationally configured to receive an actuation control member **117** there through. In one

embodiment, the actuation control member **117** may be operationally configured to engage the notches **115** for holding the actuation member **40** in a fixed position. As **FIG. 52** illustrates, the stationary member **20** may also include a planar type catch plate **120** attached to the stationary member **20** disposed within the primary aperture **108**. As shown in **FIG. 55**, the actuation control member **117** may be attached to the catch plate **120** in a manner whereby the actuation control member **117** may direct the distal edge **120A** of the catch plate **120** to an engagement position with the notches **115**. Likewise, the actuation control member **117** may be manually directed away from the notches **115** to a disengagement position apart from the actuation member **40** allowing linear movement of the actuation member **40** through the primary aperture **108**. As shown, the actuation control member **117** may include a planar rectangular member including side edges set within grooves of the secondary aperture **107** for linearly guiding and holding the actuation control member **117**. In another embodiment, the actuation control member **117** may include a biasing member, e.g., a spring, operationally configured to bias the actuation control member **117** directionally toward an engagement position with the notches **115**. Other actuation control member **117** and catch plate **120** configurations are contemplated herein for engaging notches **115** and fixing the actuation member **40** in a static position, e.g., a three-sided member, a member having a curved perimeter, a shaft type pin member.

[0139] With attention to **FIGS. 56 - 59**, other turnable actuation members **40** may be provided with a handle **71**, middle portion **72** having a key type configuration as opposed to a cylindrical threaded shaft **44** as discussed above. In such embodiments, the middle portion **72** may include opposing raised members **73**, **74** (hereafter referred to as "teeth") provided in an offset arrangement as shown. In another embodiment, opposing teeth **73**, **74** may be provided in an aligned arrangement.

[0140] Suitably, the teeth **73**, **74** have dimensions that allow the teeth **73**, **74** to engage or fit within the threaded pathway of the perimeter of the second aperture **47**. In operation, a first tooth **73** located at the end of the middle portion **72** (tooth **73** is shown located along the upper end of the middle portion **72**) engages the threads second aperture **47**, once engaged the actuation member **40** may be turned through the threads in a screw type manner – the first opposing tooth **74** engaging the threads once the actuation member has made a half turn 180.0 degrees. As another half turn occurs, the second upper tooth engages the threads and so on until the actuation member **40** has been directed through the second aperture **47** as desired. As shown in **FIGS. 56 - 59**, the connection end **105** of the actuation member **40** is not limited to any one particular configuration but is suitably provided to correspond with an operable receiving member **35** or the like on the adjustable member **30**. In another embodiment, an opposite type configuration of the above description may be provided wherein one or more teeth are located along the perimeter of the second aperture **47** and corresponding teeth threads are located on the actuation member **40**.

[0141] With attention to **FIGS. 62 - 64**, in another embodiment actuation of the adjustable razor assembly **13** may be accomplished via an elongated segmented turnable actuation member **40** and a corresponding second aperture **47** configuration as shown. In this embodiment, the elongated shaft **44** includes a plurality of in-line raised members **53**, **54** extending out 180.0 degrees along opposing sides of the elongated shaft **44**. The inner surface of the second aperture **47** includes a planar body member **64** forming a two-winged opening configuration as shown that is operationally configured to receive the actuation member **40** there through when the raised member **53**, **54** are aligned according to the shape of the two-winged opening of the body member **64**, which is not limited to the orientation as shown. The embodiment of **FIGS. 62 - 64** incorporates two positions of the actuation member **40**, namely,

(1) a locked position and (2) an adjustable position. As understood by the skilled artisan, a user may rotate the actuation member **40** to an adjustable position by aligning the raised members **53**, **54** with the two-winged opening of the body member **64** and thereafter direct the actuation member **40** through the opening of the body member **64** in either direction to a desired position. To set the actuation member **40** to a locked position the actuation member **40** may be turned so that at least part of the body member **64** rests between adjacent raised members **53**, **54** thereby obstructing the actuation member **40** from being moved through the second aperture **47**. In one simplified embodiment, the actuation member **40** may be rotated about 90.0 so that the raised members **53**, **54** extend out horizontally in reference to a body member **64** having vertically aligned wings as shown in **FIG. 63**. In one suitable embodiment, the thickness of the body member **64** may be substantially similar to the distance between adjacent raised members **53**, **54** providing a snug fit of the body member **64** between adjacent raised members **53**, **54**.

[0142] In one embodiment, and depending on the configuration of the adjustable member **30**, the actuation member **40** of **FIGS. 62 - 64** may include a second end **42** defined by a connector pin **43**, a spherical member **56** or a half sphere **58**. As shown in **FIG. 62**, the actuation member **40** may also be provided as a quarter sphere **59**. In such embodiment, a female receiving member **35** may be provided as a semi-circle or three-fourth (3/4) circle rather than a complete cylindrical female opening. Suitably, a semi-circle or three-fourth (3/4) circle is effective to limit the turnability of the actuation member **40** to less than 360.0 degrees between a locked position and an adjustable position. It is also contemplated that in another embodiment, a body member **64** may be provided with a single-winged opening there through and an actuation member **40** with only a single set of raised members – either raised members **53** or raised members **54**.

[0143] It should be noted that the communication between an actuation member **40** and an adjustable member **30** is not necessarily limited to the configurations described above, but may include other modes of connection and/or assemblies as understood and appreciated by persons of ordinary skill in the art of couplings, connecters, links, and the like. In another example, an actuation member **40** may be held in a static or fixed position during body shaver **10** operation via pressure, e.g, manual force, via an additional resilient member operationally configured to bias an actuation member **40** to a fixed position against part of the stationary member **20**, one or more magnets for fixing an actuation member **40** in a fixed position. In another example, a turnable actuation member **40** may include a second end **42** defined by a half sphere **130** configuration as shown in **FIG. 65**. In another embodiment, a turnable actuation member **40** may include a second end **42** defined by a cone shaped member **131** extending out from the surface of the second end **42** as shown in **FIG. 66**. In still another embodiment, a turnable actuation member **40** of **FIG. 10** may include an elongated shaft **44** with a smooth section or non-threaded section **68** adjacent the enlarged second end **42** (see **FIG. 67**) to promote turnability of the actuation member **40** when engaged with an adjustable member **30**.

[0144] Likewise, other segmented actuation member **40** configurations are contemplated herein. For example, one or more actuation members **40** may be provided with rounded or curved segments and/or inclined segments operationally configured to guide or align a pin member **88** in a desired locked position between adjacent segments. Simplified embodiments of curved segment surfaces **140** are shown in **FIGS. 68** and **69**. Simplified embodiments of inclined segment surfaces **141** are shown in **FIGS. 70** and **71**.

[0145] In one suitable mode of operation, as an actuation control member **117** is set in an engagement position with notches **115**, dial **110** may be turned counter-clockwise directing the

adjustable member **30** apart from the stationary member **20** – the angle of the notches **115** allowing the first end **117A** of the actuation control member **117**, or distal edge of the catch plate **120**, to slip over each notch **115** as the actuation member **40** is directed through the aperture **108** according to Directional Arrow **H** (see **FIG. 54**). As such, the actuation control member **117**, or catch plate **120**, does not have to be directed to a disengagement position for the actuation member **40** to be directed according to Directional Arrow **H**. However, in an embodiment as shown in **FIG. 53**, including notches **115** having angled first surfaces **115A** and right angle forming second surfaces **115B**, in order to direct the adjustable member **30** toward the stationary member **20**, i.e., opposite of Directional Arrow **H**, the first end **117A** of the actuation control member **117**, or distal edge of the catch plate **120**, is suitably directed apart from the notches **115** of the actuation member **40** allowing the actuation member **40** to freely move back and forth unobstructed. In another embodiment, the directional layout of the angled surfaces of the notches **115** may be set in the opposite orientation as desired. Also in this particular embodiment, the configuration of the actuation member **40** is sufficient for the exclusion of a guide member **45** as shown, although a guide member **45** may be employed as desired.

[0146] In another suitable mode of operation, an adjustable member **30** may be set at a position relative the stationary member **20** according to the desired shaving results for one or more target shaving areas. As an example, if a user of the body shaver **10** desires a close shave, cutting a maximum amount of body hair, the adjustable member **30** is suitably set in an abutment position with the stationary member **20** allowing a maximum length of the blade members **22** to extend out beyond the adjustable member **30** as shown in **FIG. 1**. If a user desires to cut less than a maximum length of hair, e.g., to maintain a beard, goatee, side burns, and the like, the adjustable member **30** may be directed apart from the stationary member **20** as shown in **FIG. 2**,

which distances the blade members **22** apart from a target shaving area thereby preventing the blade members **22** from cutting body hair to less a predetermined length. In other words, the closer the distance between the adjustable member **30** and the stationary member **20** the closer the shave. Said another way, when an adjustable member **30** is set apart from the stationary member **20** as shown in **FIG. 2**, the adjustable member **30** suitably contacts the shaving area of an individual's skin maintaining the blade members **22** apart from the shaving area.

[0147] In regard to setting the adjustable member **30** at a desired shaving position, the body shaver **10** may include a scale or other markings molded, etched or inked along the actuation member **40** and/or guide member **45** and/or stationary member **20** to enable a user to set the distance between the adjustable member **30** and the stationary member **20** as desired. For example, the body shaver **10** may be provided with recommended settings for shaving body hair types and/or lengths whereby recommended settings of the adjustable member **30** may be provided according to the nomenclature of the scale, e.g., numbers, letters, color schemes, and combinations thereof.

[0148] With attention to **FIG. 43**, in another embodiment of a turnable actuation member **40** a threaded shaft member **44** may include a plurality of gaps **16** or breaks in the threads at one or more desired points along the shaft member **44** – each gap **16** representing a different shaving position. In this embodiment, a threaded second aperture **47** may include a projection or catch member **17** extending out from the inner surface or threads **18**, the catch member **17** being operationally configured to engage each gap **16** setting the actuation member **40** at a variety of fixed positions during operation of the body shaver **10**. In operation, when pressure is applied to the actuation member **40** the shaft member **44** may shift as a gap **16** in the threading is aligned with the catch member **17** resulting in the catch member **17** resting within the gap **16**. When a

user desires to change the position of the adjustable member **30** the user can move the actuation member **40** in a manner effective to disengage the catch member **17** allowing the actuation member **40** to be turned according to its threaded communication with the second aperture **47**. In other words engagement and disengagement of the gaps **16** and catch member **17** may be accomplished via linear pushing/pulling of the actuation member **40**. In another embodiment, the gaps **16** may be located along the threading **18** of the second aperture **47** with a catch member being located at a desired point along the shaft member **44**.

[0149] Blade members **22** of this application may be constructed from one or more materials according to one or more particular body hair shaving usages, e.g., one or more materials of construction may be desired for cutting hair of a short beard compared to a smooth shave. Suitable blade member materials of construction include, but are not necessarily limited to metals, for example, steel, aluminum, titanium, and combinations thereof. In one particular embodiment, blade member **22** materials of construction may include stainless steel with a composition of chromium between about 12.0 to 14.5 percent, and a carbon content of about 0.6 percent. Other chromium and/or carbon contents are herein contemplated as understood by the skilled artisan.

[0150] Persons of ordinary skill in the art will appreciate that shaving and/or trimming may have different or preferred blade member **22** characteristics. For example, hair trimming may depend more heavily on the sharpness of the blade members **22** as compared to shaving blade members **22**, or vice versa. In addition, shaving purposed blade members **22** may require a coating on the surface to provide a smoother shave against a person's skin, which is not as much of an issue in hair trimming. Because the present body shaver **10** may be used for both shaving

and trimming, the blade members **22** employed may possess characteristics to enhance or maximize the results of both shaving and trimming.

[0151] In an embodiment incorporating one or more retaining clips **14**, the blade members **22** suitably include a design effective to communicate with a stationary member **20** while being sandwiched by one or more retaining clips **14**. Without limiting the invention, one suitable shape of blade members **22**, including body shavers having a plurality of blade members **22**, includes a bent or L-shape configuration that may secured to the stationary member **20** as described in United States Patent Number 7,197,825 entitled "Razors and shaving cartridges with guard," the contents of which is herein incorporated by reference in its entirety. In another embodiment, blade members **22** may be provided to include blade supports as described in United States Patent Number 7,748,121 entitled "Razor blade and support assembly," the contents of which is herein incorporated by reference in its entirety.

[0152] The body shaver **10** of this application may also include one or more lubricating members or materials as provided by commercially available wet shavers. In one simplified embodiment as depicted in **FIG. 44**, a lubricating member may be provided as a lubricating strip **67** disposed along the outer surface **32** of the horizontal section **30A** of the adjustable member **30**. In another embodiment, one or more lubricating members may be disposed along one or both of the opposing sections **33A** and **33B** in addition to one or more lubricating members disposed along the horizontal section **30A**. In another embodiment, a single lubricating member may be disposed from or near section **33A** along section **30A** and terminating along or near section **33B**. In still another embodiment, one or more lubricating members may be disposed along one or both of the opposing sections **33A** and **33B** with no lubricating members along section horizontal section **30A**. Without limiting the lubricating member to a particular

embodiment, suitable lubricating members may be constructed from like materials as lubricating members provided on commercially available wet shavers. One exemplary lubricating member may include a lubricating strip **67** constructed from one or more polymeric materials. For example, a polyurethane lubricating strip **67** impregnated with acrylic polymers may be provided that is operationally configured to absorb water providing a slippery outer surface against a user's skin, which assists with directional movement of the one more blade members **22** during body hair cutting, e.g., helps to prevent snagging or cutting of the skin.

[0153] Lubricating members of this application may also include one or more lubricating agents as desired. The lubricating agents may be combined with conventional dermal conditioners, fluids, or similar ingredients useful in wet shaving systems including, for example, lanolins, oils, moisturizers, emollients, and combinations thereof. Additional ingredients, may comprise, for example, (1) skin health-related ingredients such as dermatologic agents (acne, flaky skin, itchy skin), balancing agents (dry or oily skin, pH correct, moisturizers, seasonal solution), rejuvenation/revitalization agents, and combinations thereof (vitamin therapies such as Vitamin E, herbal therapies such as aloe vera, conditioners, acids, cell renewal), cleansing agents (antibacterial, natural, hypoallergenic, botanical-derived, fragrant or fragrance free), or skin-protective agents (Ultra-Violet ("UV"), anti-aging, anti-wrinkle agents); (2) skin sensation agents such as menthol, pain-relief (aspirin), and combinations thereof; (3) soothing agents including neosporin; (4) hair treating agents such as beard softeners, hair growth inhibitors, hair outer layer degradants, hair hydrating agents, hair conditioners, hair thinning agents, and combinations thereof; (5) cosmetics such as tanning agents; (6) aromatherapeutants including perfumes, essences, and combinations thereof; and (7) other agents such as oil, milks, honey, gels, creams, balms, catalysts, effervescents, and combinations thereof.

[0154] The invention will be better understood with reference to the following non-limiting example, which is illustrative only and not intended to limit the present invention to a particular embodiment.

[0155] EXAMPLE 1

[0156] In a first non-limiting example, another embodiment of the body shaver **10** is provided as shown in the simplified illustrations of **FIGS. 72 - 79**. **FIG. 72** illustrates a body shaver **10** with an adjustable member **30** set at a fully extended position apart from a stationary member **20**. **FIG. 73** illustrates the body shaver **10** of **FIG. 72** with the adjustable member **30** set at a fully retracted position in abutment with the stationary member **20**.

[0157] The handle **12** of this embodiment is not limited to any one particular surface configuration, but may include a surface configuration suitable for desired handling of the body shaver **10** during use. As depicted in **FIG. 72**, the outer surface of a handle **12** may include a stylized surface configuration comprising one or more aesthetic characteristics for marketing purposes or for one or more targeted purchasers. For example, a handle **12** may include one or more enhanced or augmented gripping regions **125A - 125E** operationally configured to receive particular parts of a user's hand in direct contact against the surface of the gripping regions **125A - 125E**. Although the body shaver **10** may be built to scale, a suitable body shaver **10** of this application may include a handle **12** having a length **D1** ranging from about 8.0 cm to about 12.0 cm (about 3.15 inches to about 4.72 inches).

[0158] As shown, the stationary member **20** of this embodiment includes a connecting member **150** that is operationally configured to releasably attach to an adapter end **152** of the handle **12** (or other intermediate attachment member) in a manner similar as described in United States Patent Number 8,793,880 entitled "Shaving razor adapter attaching a shaving razor

cartridge to a shaving razor handle," the contents of which is herein incorporated by reference in its entirety. As such, the adapter end **152** further includes an ejector button **154** received through an opening along the adapter end **152** that interfaces with a mechanism used to eject the adjustable razor assembly **13**. Such connection features for use herein are also described in United States Patent Number 5,787,586 entitled "Shaving system and method," the contents of which is herein incorporated by reference in its entirety.

[0159] Referring to **FIG. 74**, the connecting member **150** is attached to the stationary member **20** via arm members **156**, **157** and a neck member **158**, which is attached to an elongated support divider **160** of the stationary member **20**, the support divider **160** being located at a midpoint along the outer surface **26** of the stationary member **20**. The blade members **22** are provided as a blade cartridge containing a plurality of parallel blade members **22** housed laterally within the framework of the stationary member **20** perpendicular to a longitudinal axis of the elongated support divider **160**. In this embodiment, a second aperture **47** for receiving an actuation member **40** there through is located adjacent the elongated support divider **160** at a midpoint of the stationary member **20** with two first apertures **46** located on opposing sides of the second aperture **47** operationally configured to receive corresponding guide members **45** there through.

[0160] Referring to **FIG. 75**, the adjustable member **30** of this embodiment may include curved opposing sections **33A**, **33B** or curved distal ends as shown. In addition, the stationary member **20** may include a scale **165** disposed along part of the third surface **27** for setting the adjustable razor assembly **13** at a desired shaving setting or position for removing a desired length of hair, e.g., the operable distance between the inner surface **31** of the adjustable member **30** and the inner surface **25** of the stationary member **20**. In this embodiment, the adjustable

member **30** may include a ledge member **170** with a distal surface or face **171**, whereby a user may manipulate the actuation member **40** clockwise and/or counter-clockwise to direct the adjustable member **30** linearly whereby a user may align the face **171** of the ledge member **170** with one of a plurality of major alignment marks **166** or minor alignment marks **167** of the scale **165** thereby establishing and/or recording a set position of the adjustable member **30** in relation to the stationary member **20** for use and future reference. As such, in one embodiment a scale **165** may be effective to provide reusable information regarding a desired set position of the adjustable member **30** in relation to the stationary member **20**. In another embodiment, one or more calculations may be made to establish (1) the size of major and minor marks **166**, **167** and/or the distance between adjacent marks along the third surface **27** and/or (2) the maximum and minimum locations of the face **171** in relation to the usable length of an actuation member **40** to provide particular distance information regarding the distance between the inner surface **31** of the adjustable member **30** and the inner surface **25** of the stationary member **20** – using the metric system and/or the imperial system. In one embodiment, the major and minor marks **166**, **167** may include raised marks, etchings or cut out grooves, printed marks, and combinations thereof. As shown in this embodiment, the major and minor marks **166**, **167** include line marks, but other types of marks are herein contemplated for use with line marks or in place of line marks, e.g., letters, numbers, dots, arrows, diamonds, sidebars, symbols, and combinations thereof.

[0161] Turning to **FIG. 76**, the adjustable member **30** of this embodiment includes an inner surface **31** having a receiving member **35** located at a midpoint of the adjustable member **30** for receiving a turnable actuation member **40** in operable communication. In particular, the receiving member **35** of this embodiment includes four individual raised members **35B** with

inner surfaces collectively providing a circular type inner surface for receiving an actuation member **40** in a mated position therein. Suitably, each of the four raised members **35B** may be directed radially outward when inserting an actuation member **40** therein and bias radially inward to help hold the actuation member **40** in a mated position. The adjustable member **30** of this embodiment also includes two cylindrical guide members **45** on opposite sides of the receiving member **35**, each guide member **45** extending out from the inner surface **31** a distance effective to mate with the two first apertures **46** of the stationary member **20**.

[0162] One suitable turnable actuation member **40** for communicating with the receiving member **35** of this embodiment is depicted in **FIG. 77**. According to the configuration of the receiving member **35**, the actuation member **40** suitably includes a first end **41**, an elongated threaded shaft member **44**, a neck member **37** and a second end **42** defined by a head member including a cylindrical surface section **135** and a conical surface section **136** terminating in a planar face surface **137**, the configuration being effective for mating with the receiving member **35** as shown in **FIG. 78**. As shown, the cylindrical surface section **135** includes an outer diameter greater than the neck member **37** and the planar face surface **137** includes an outer diameter substantially similar as the outer diameter of the neck member **37** although the shapes and/or diameters/widths of the parts of an actuation member **40** may vary as desired.

[0163] With attention to **FIG. 79**, the body shaver **10** of this embodiment may also include a skin guard member **65**, a lubricating strip **67** and opposing retaining clips **14** as found on commercially available wet shavers. In one aspect, the body shaver **10** of this embodiment may be set to a shave setting for providing a smooth type clean shave as understood by persons of ordinary skill in the art of wet shavers. In another aspect, the body shaver **10** of this

embodiment may be set to a trim setting for cutting target hair to a desired length, for example, a length visible to the naked eye.

[0164] Persons of ordinary skill in the art will recognize that many modifications may be made to the present application without departing from the spirit and scope of the application. The embodiment(s) described herein are meant to be illustrative only and should not be taken as limiting the invention, which is defined in the claims. All original claims submitted with this specification are incorporated by reference in their entirety as if fully set forth herein.

We Claim:

1. A shaving device, including:

a handle; and

a razor assembly located at a front end of the handle, the razor assembly being adjustable amongst a plurality of fixed settings, each setting dictating the length of hair to be cut from one or more shaving areas.

2. The shaving device of claim 1 wherein the razor assembly is removable from the handle.

3. The shaving device of claim 1 wherein the razor assembly includes a stationary member attached to the handle and an adjustable member in communication with the stationary member, the stationary member having one or more hair cutting edges and the adjustable member having an outer surface for contacting the shaving area of an individual.

4. The shaving device of claim 3 wherein the razor assembly includes an actuation member in communication with the stationary member and the adjustable member, the actuation member being operationally configured to set the adjustable member at a plurality of fixed distances in relation to the stationary member and maintain alignment between the adjustable member and the stationary member.

5. The shaving device of claim 4 wherein the actuation member is a turnable screw type member having a first end for manual operation, a second end in turnable communication with an inner surface of the adjustable member and a threaded cylindrical shaft member there between in operable communication with a threaded aperture of the stationary member.

6. The shaving device of claim 4 wherein the actuation member is a turnable segmented member.

7. The shaving device of claim 3 wherein the adjustable member includes a three sectional frame including an upper horizontal section disposed between two opposing vertical sections with curved distal ends.

8. The shaving device of claim 1 wherein the razor assembly includes a scale operationally configured to set the razor assembly at a particular setting.

9. The shaving device of claim 3 wherein the adjustable member includes one or more guide members extending out from a surface of the adjustable member and the stationary member includes one or more apertures operationally configured to receive the one or more guide members there through.

10. A hand held wet shaver comprising a razor assembly including a stationary member having one or more hair cutting edges and an adjustable member in communication with the stationary member, wherein the adjustable member may be fixed at a plurality of distances from the stationary member.

11. The hand held wet shaver of claim 10 wherein the plurality of distances includes an abutment position with the stationary member and one or more distances apart from the stationary member.

12. The hand held wet shaver of claim 10 further including an actuation member for dictating said fixed distances.

13. The hand held wet shaver of claim 12 wherein the actuation member includes a turnable screw type member in threaded communication with the stationary member and turnable communication with the adjustable member.

14. The hand held wet shaver of claim 12 wherein the actuation member includes a non-turnable elongated member with a segmented configuration in communication with the stationary member in a manner effective to adjust the fixed distance between the adjustable member and the stationary member.

15. A method of shaving hair located at one or more shaving areas to one or more desired lengths, comprising the following steps:

providing a hand held shaving device including a razor assembly having one or more cutting edges, the razor assembly being adjustable amongst a plurality of fixed settings, each setting dictating the usable length of the one or more cutting edges;

establishing one or more shaving areas and desired length of hair to remain at the one or more shaving areas following shaving;

adjusting the razor assembly to a fixed setting according to a first established desired length of hair; and

shaving the hair located at the one or more shaving areas.

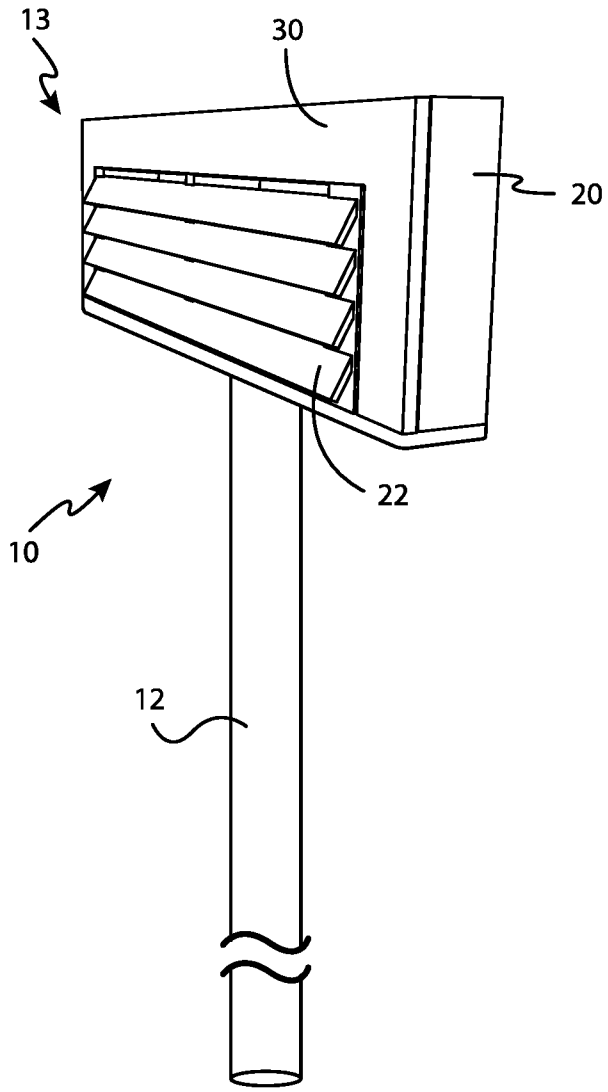

FIG. 1

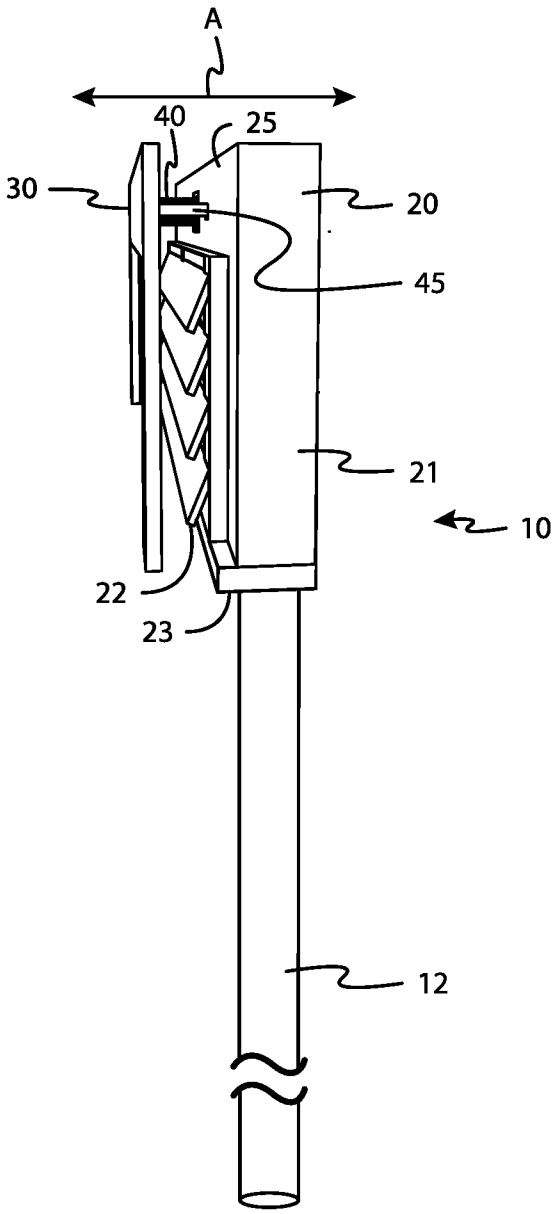

FIG. 2

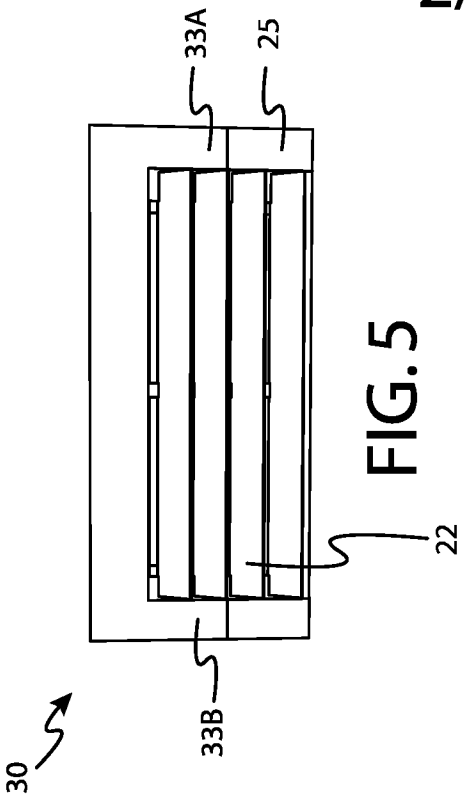

FIG. 5

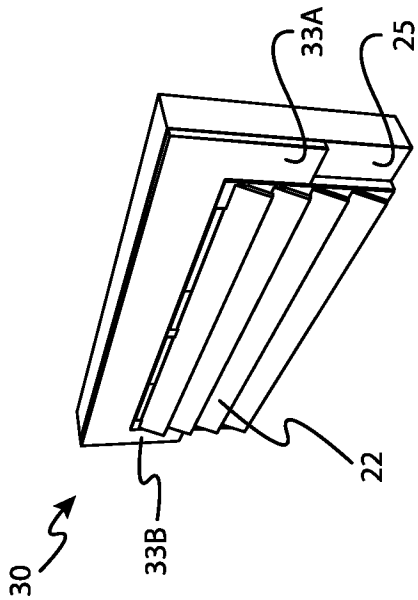

FIG. 6

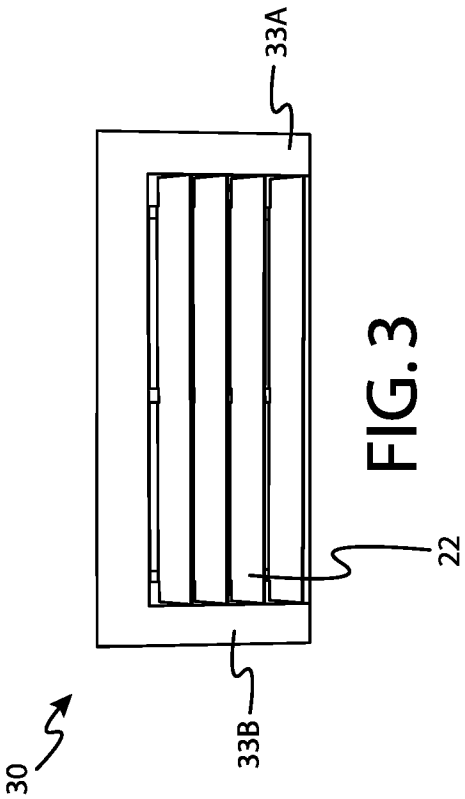

FIG. 3

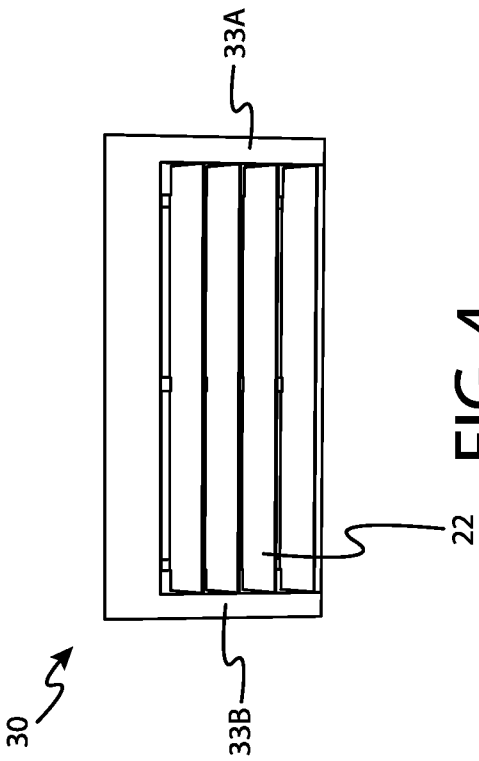

FIG. 4

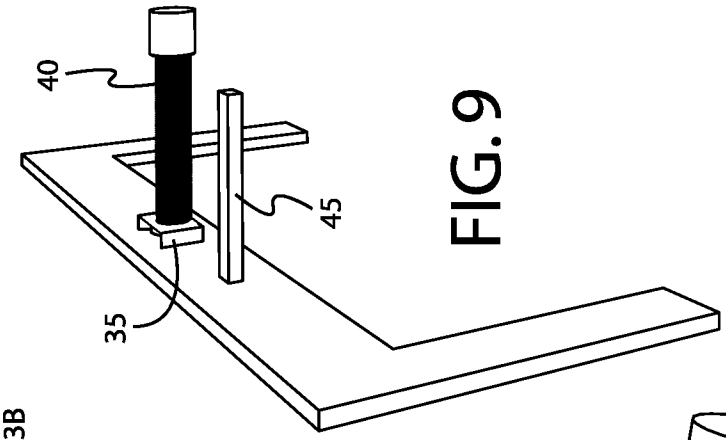

FIG. 9

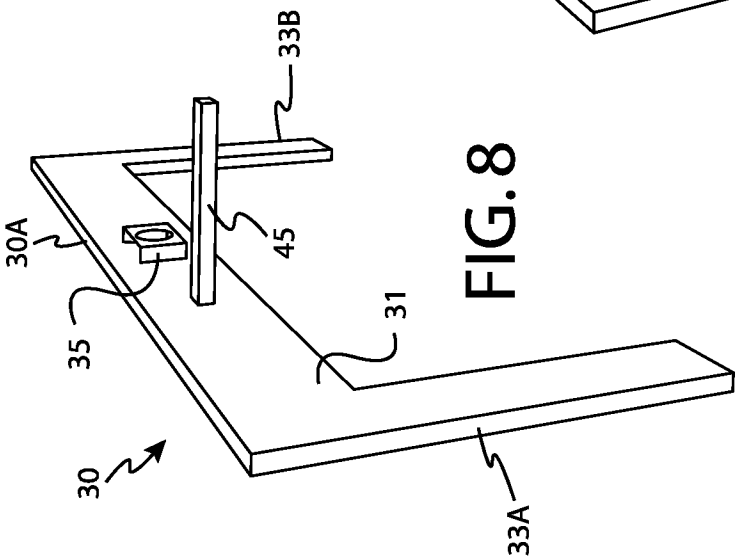

FIG. 8

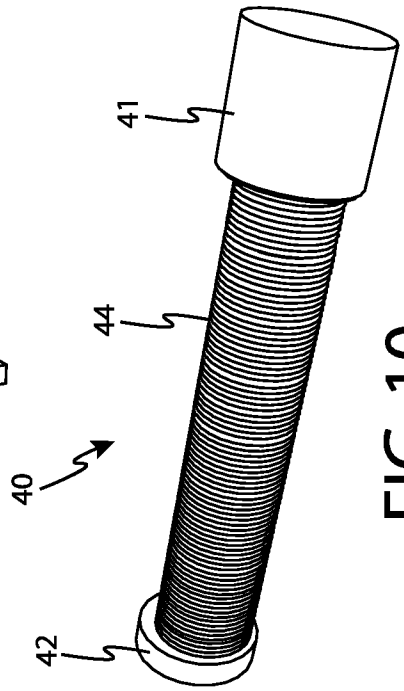

FIG. 10

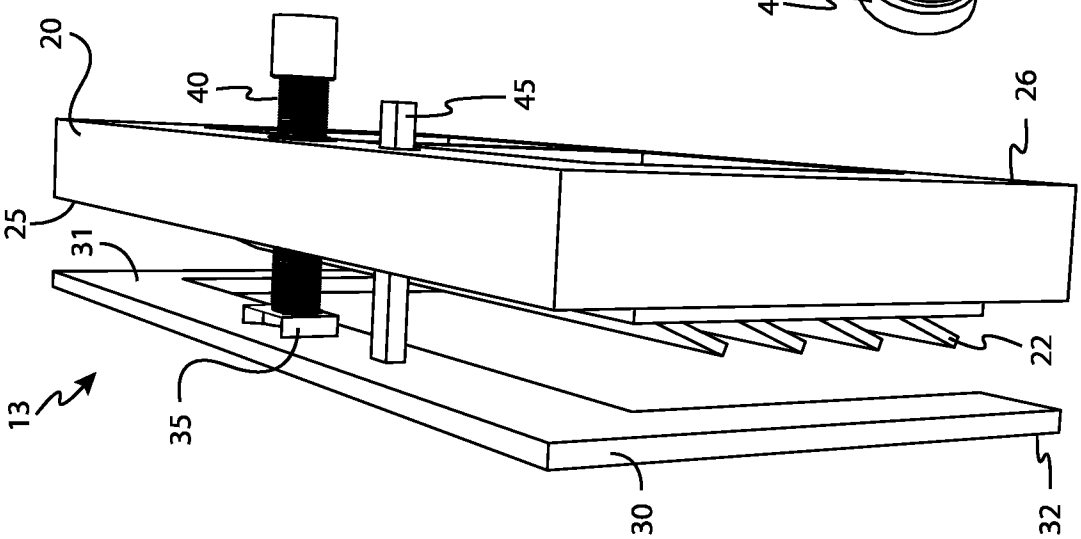

FIG. 7

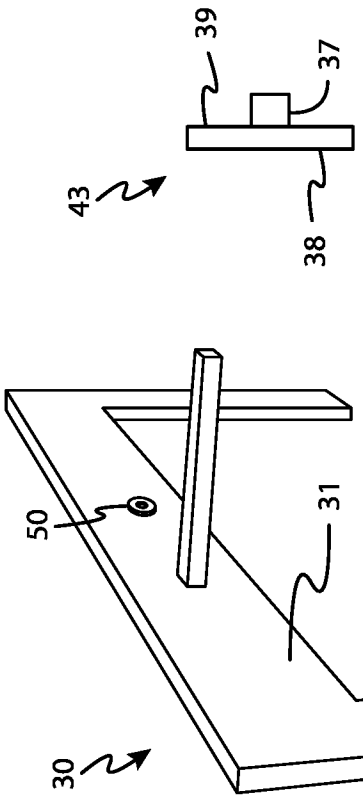

FIG. 14B

FIG. 13

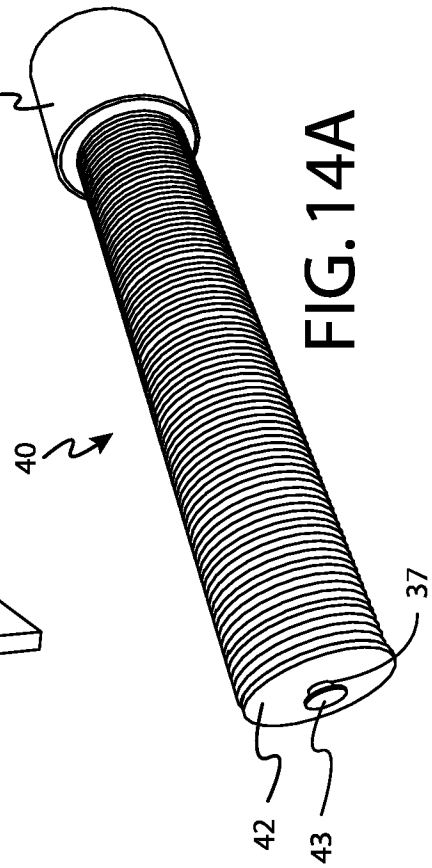

FIG. 14A

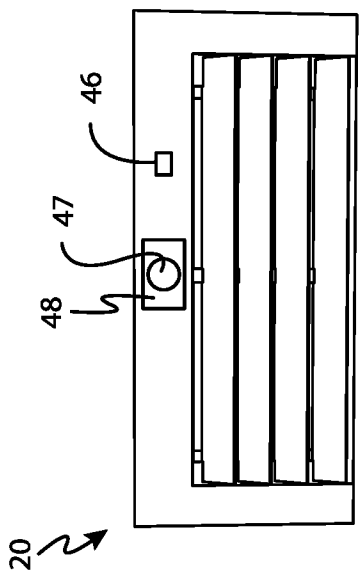

FIG. 11

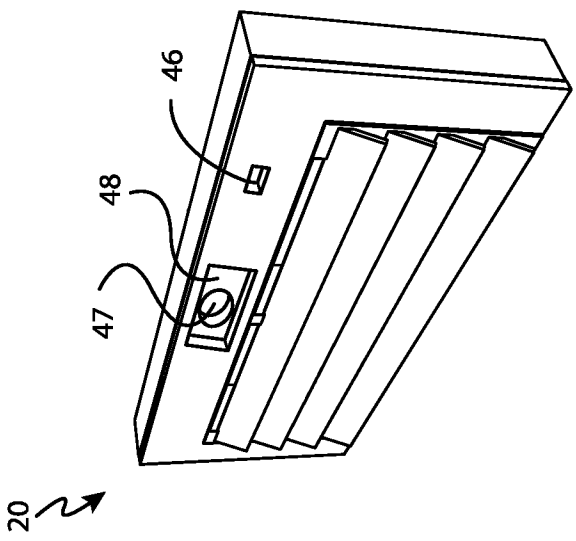

FIG. 12

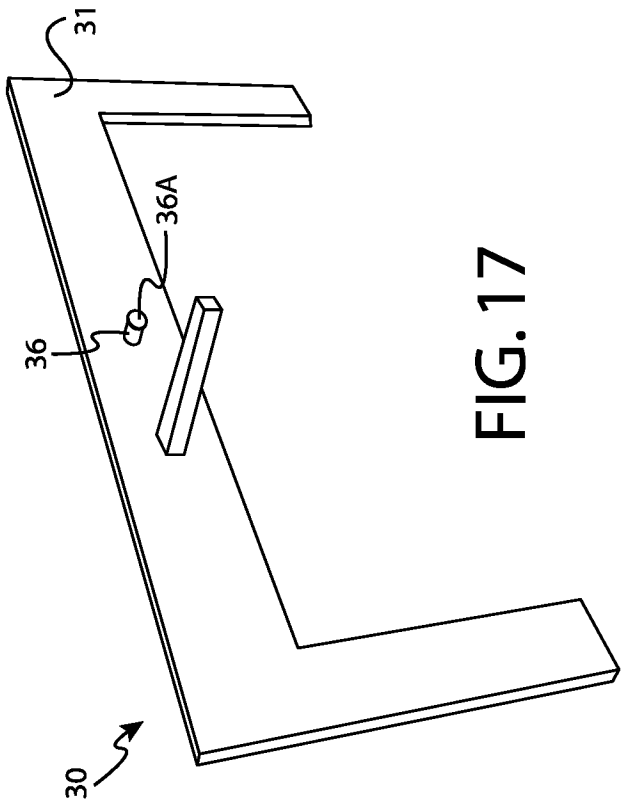

FIG. 17

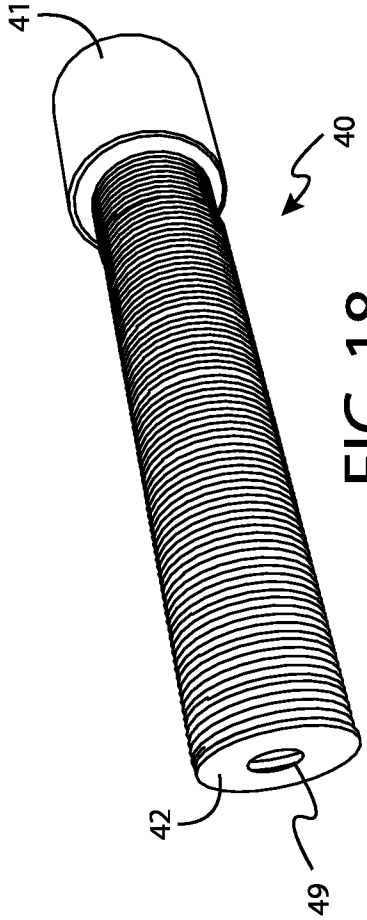

FIG. 18

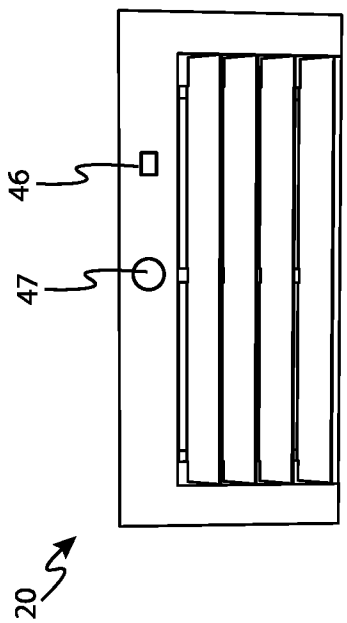

FIG. 15

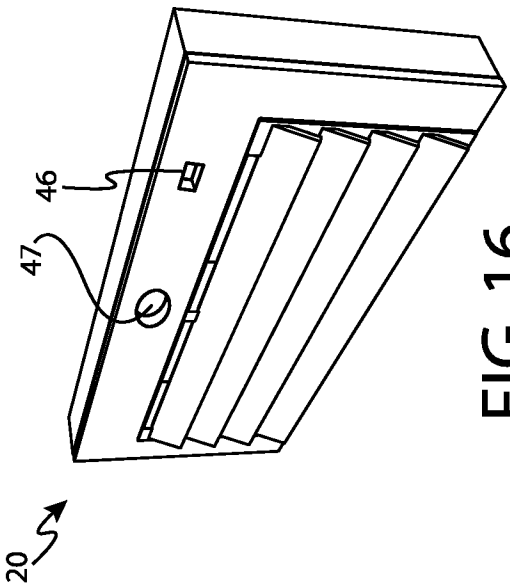

FIG. 16

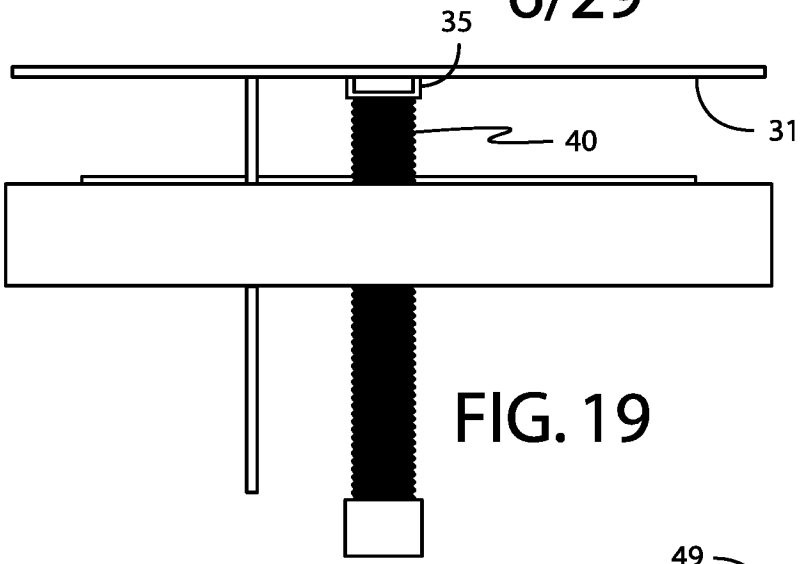

FIG. 19

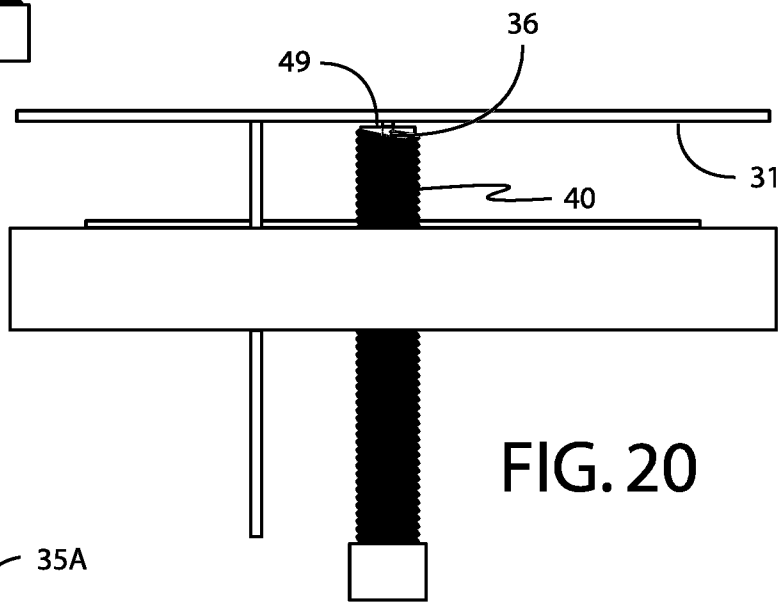

FIG. 20

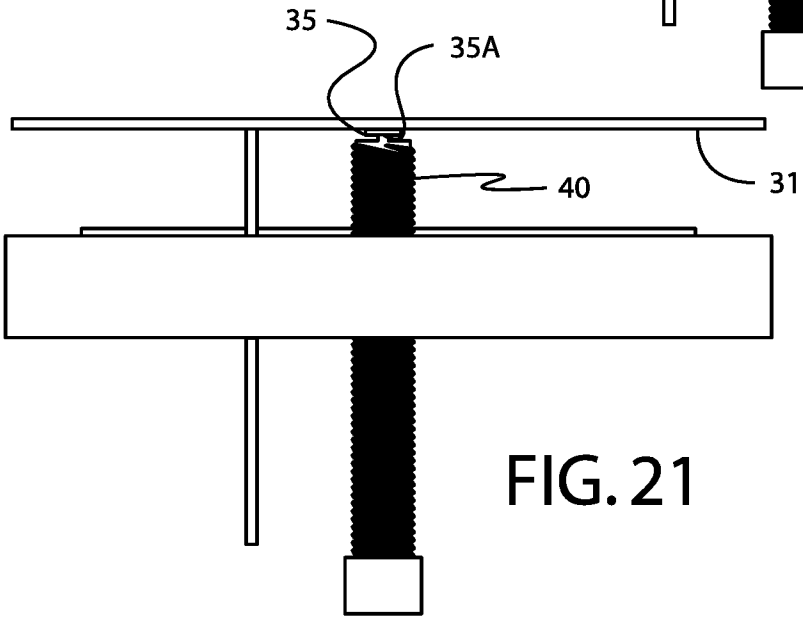

FIG. 21

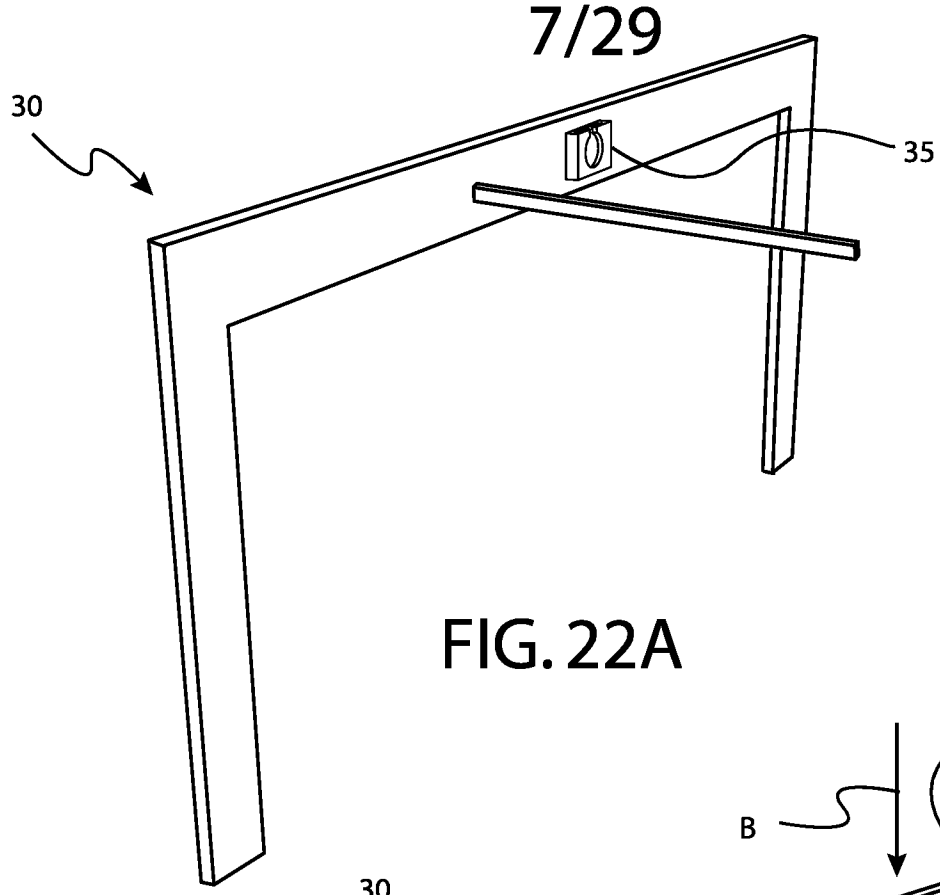

FIG. 22A

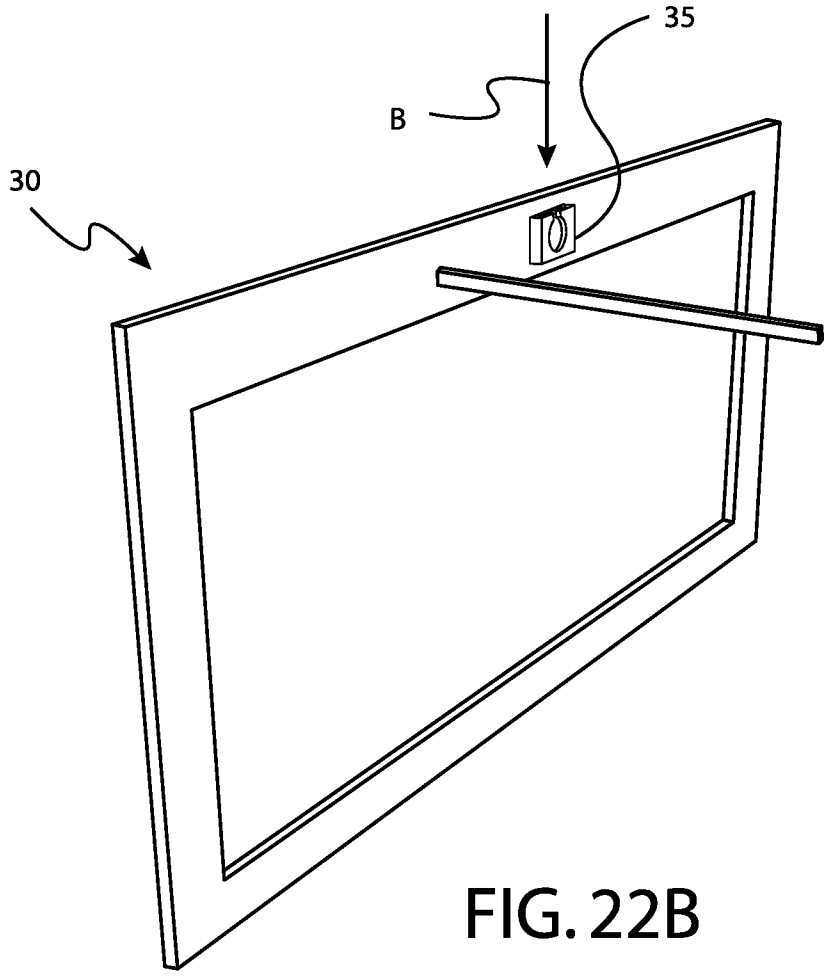

FIG. 22B

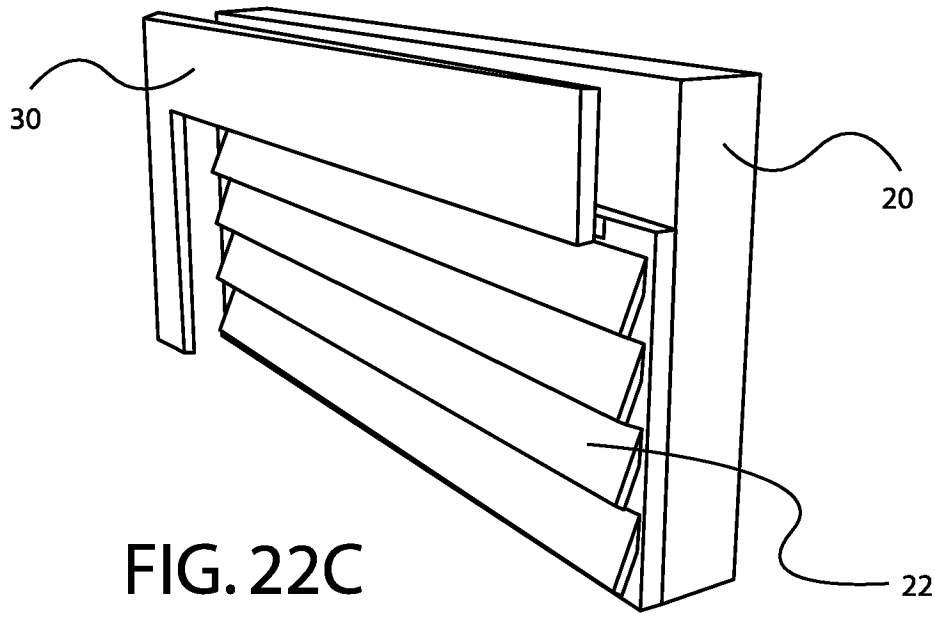

FIG. 22C

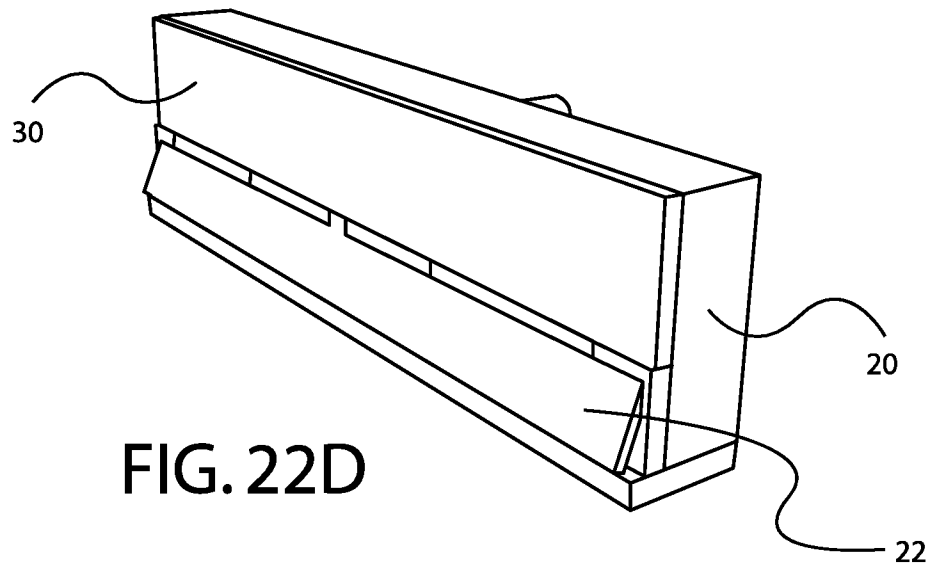

FIG. 22D

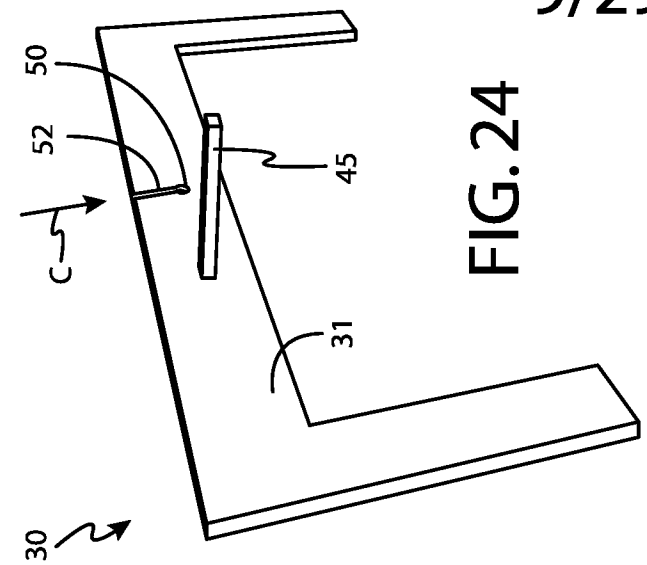

FIG. 24

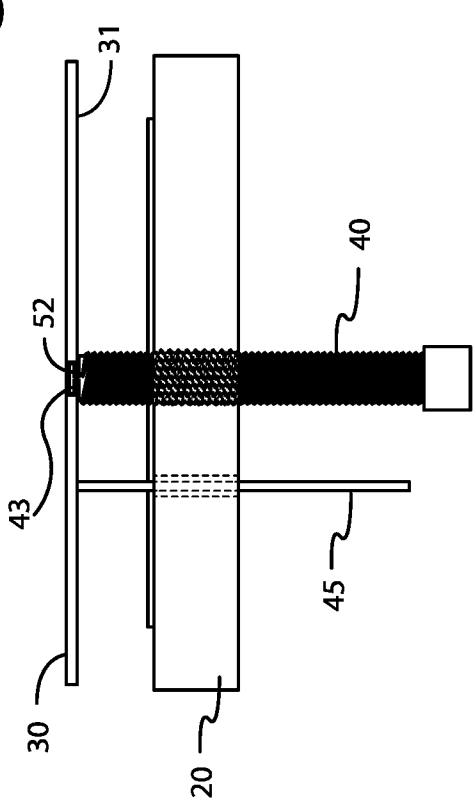

FIG. 25

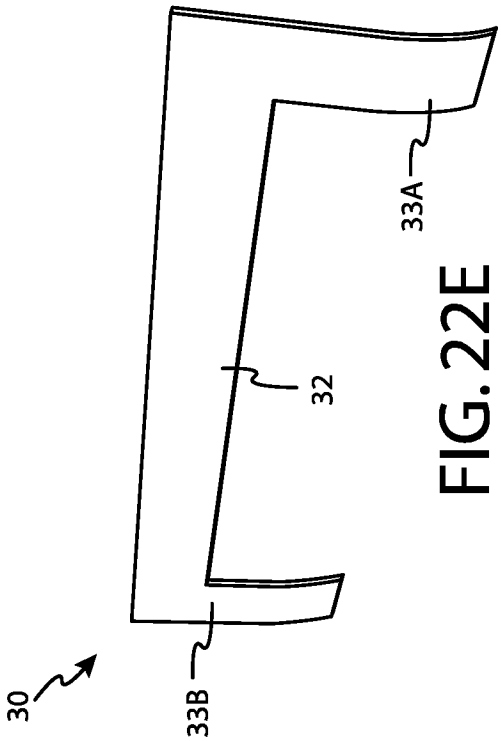

FIG. 22E

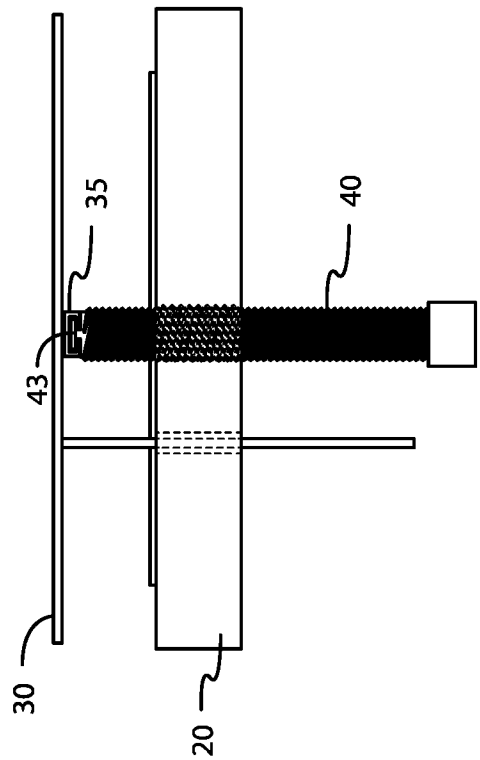

FIG. 23

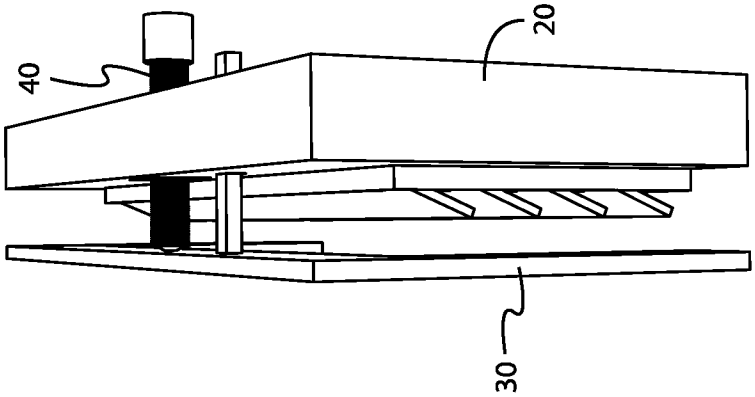

FIG. 28

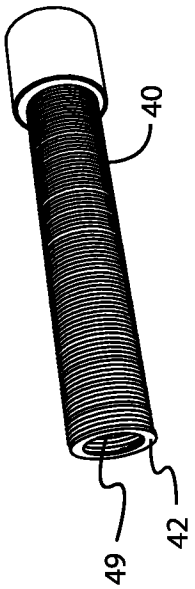

FIG. 27

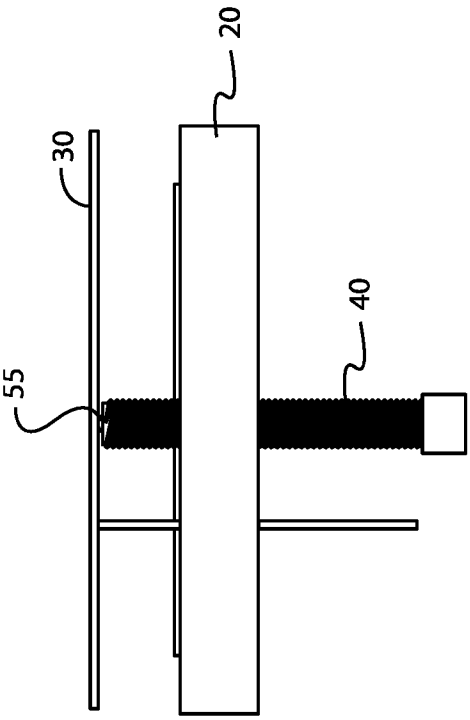

FIG. 29

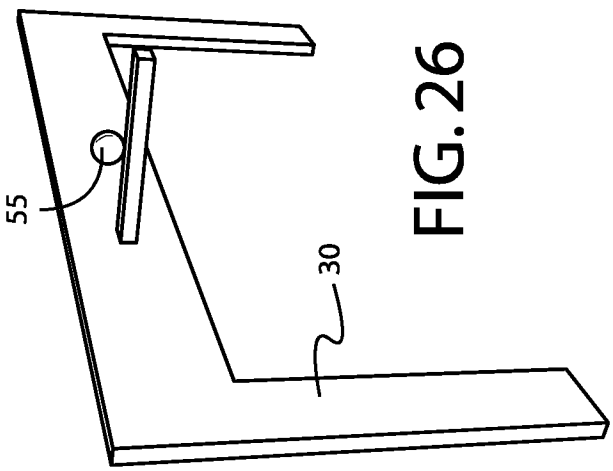

FIG. 26

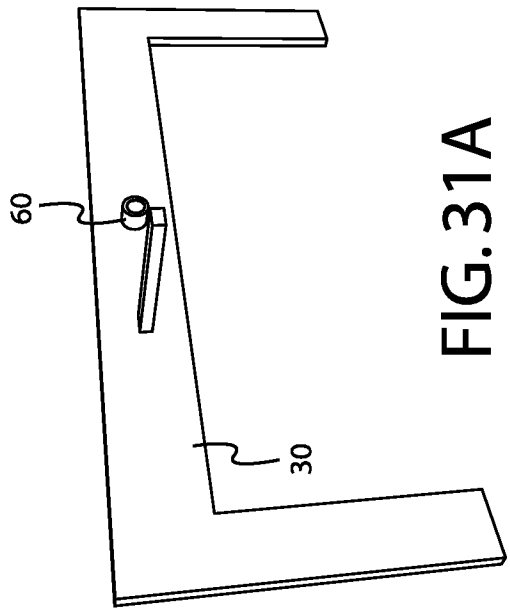

FIG. 31A

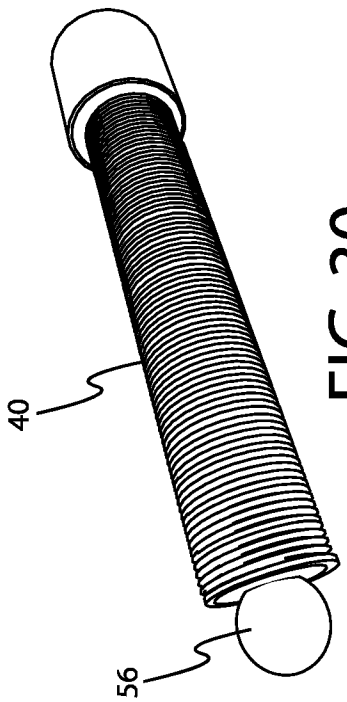

FIG. 30

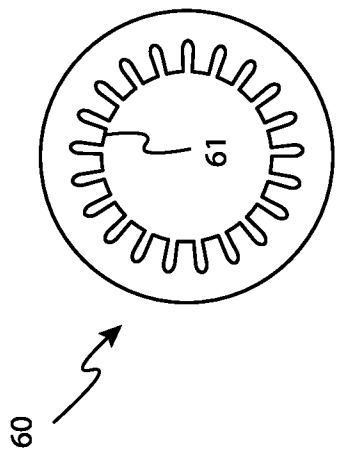

FIG. 31B

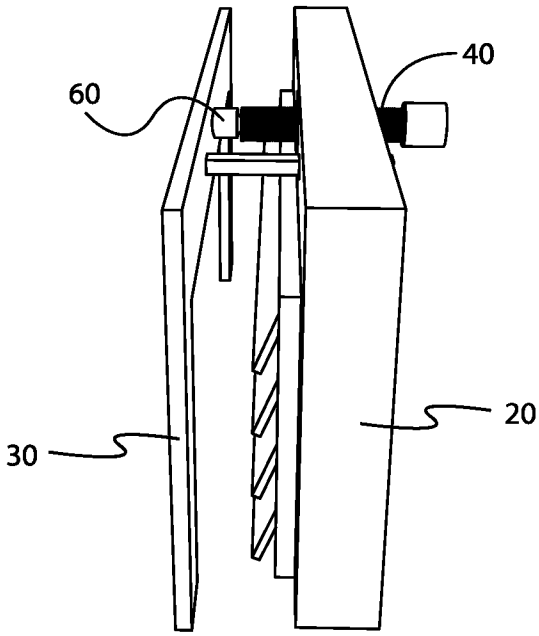

FIG. 32

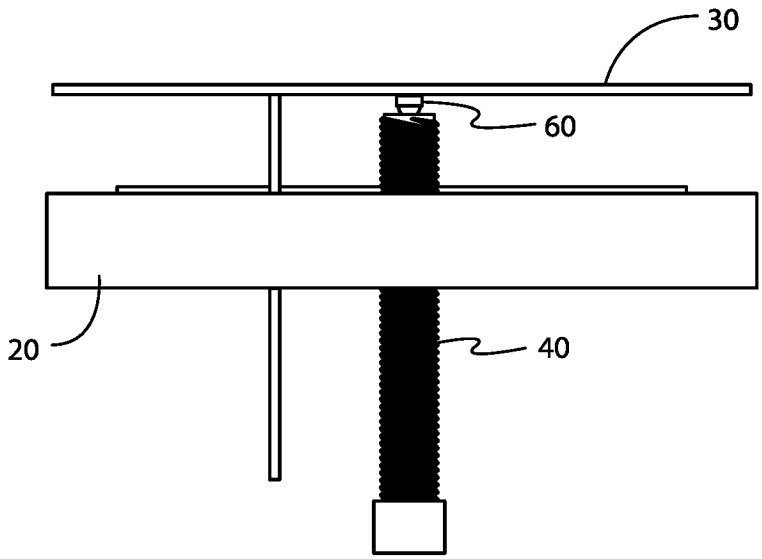

FIG. 33

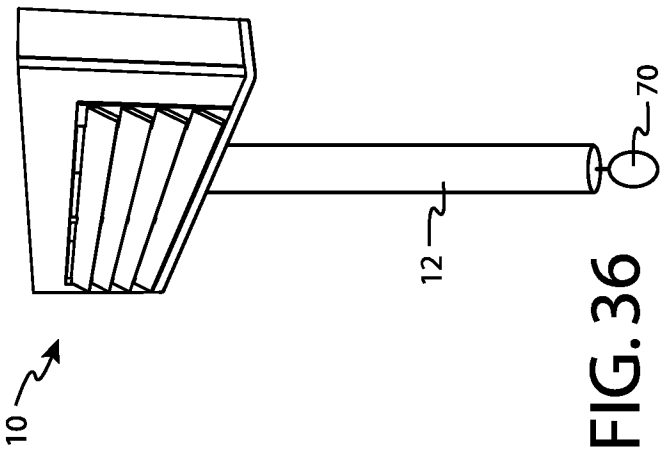

FIG. 36

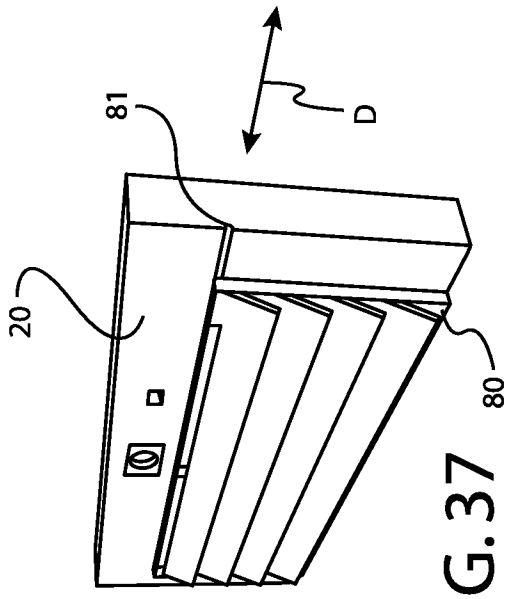

FIG. 37

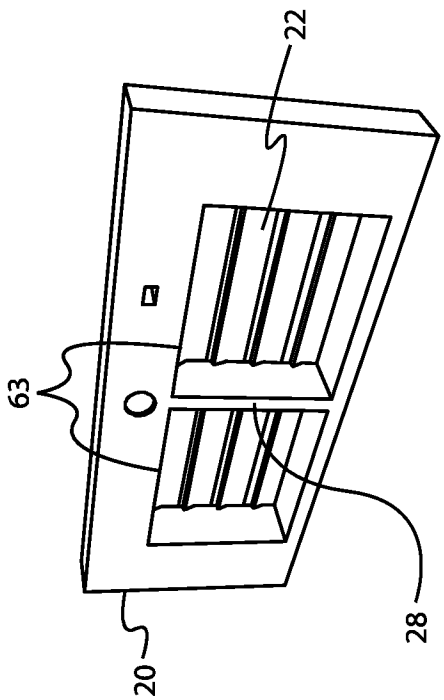

FIG. 34

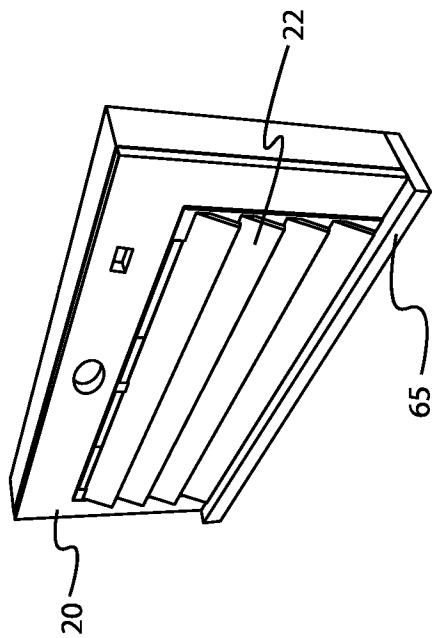

FIG. 35

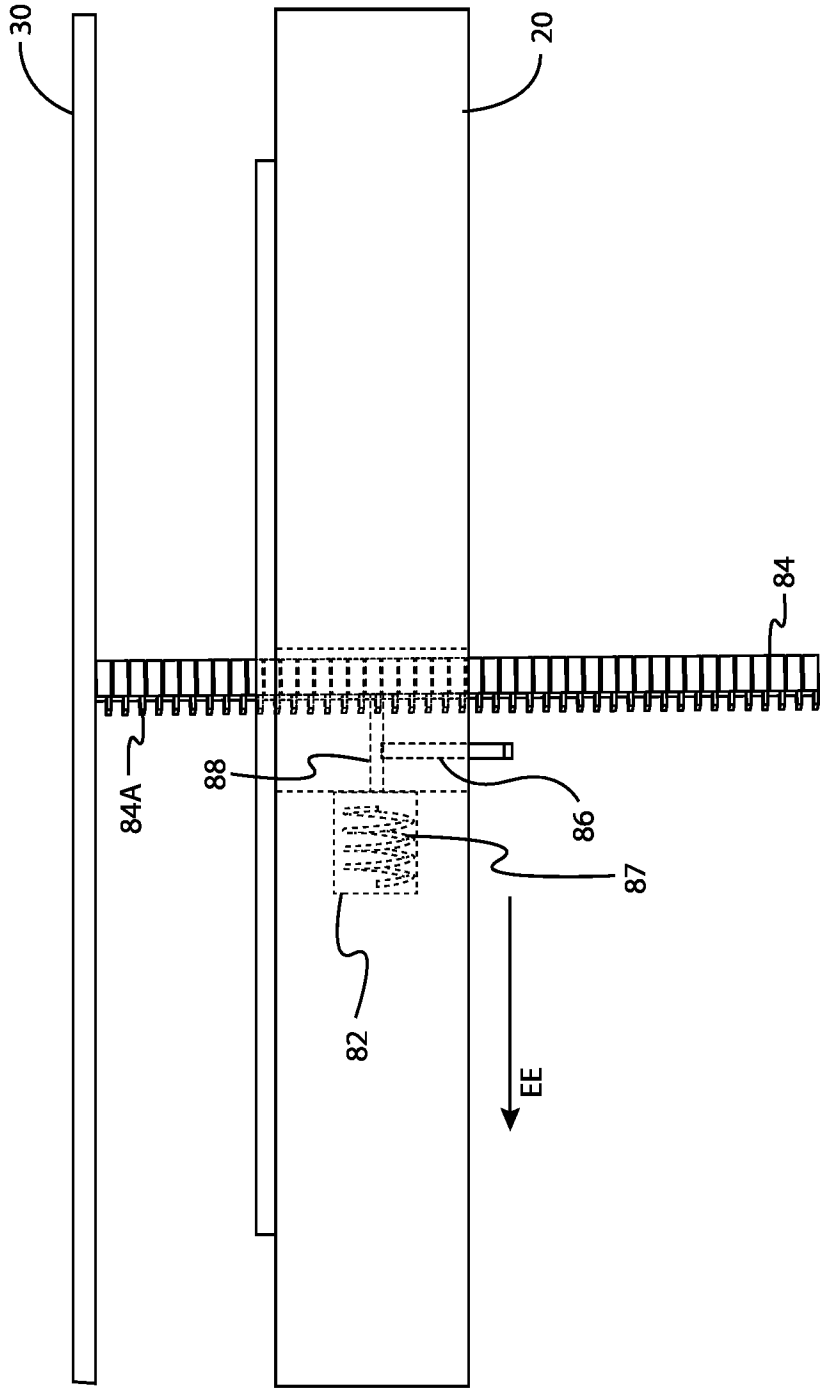

FIG. 38

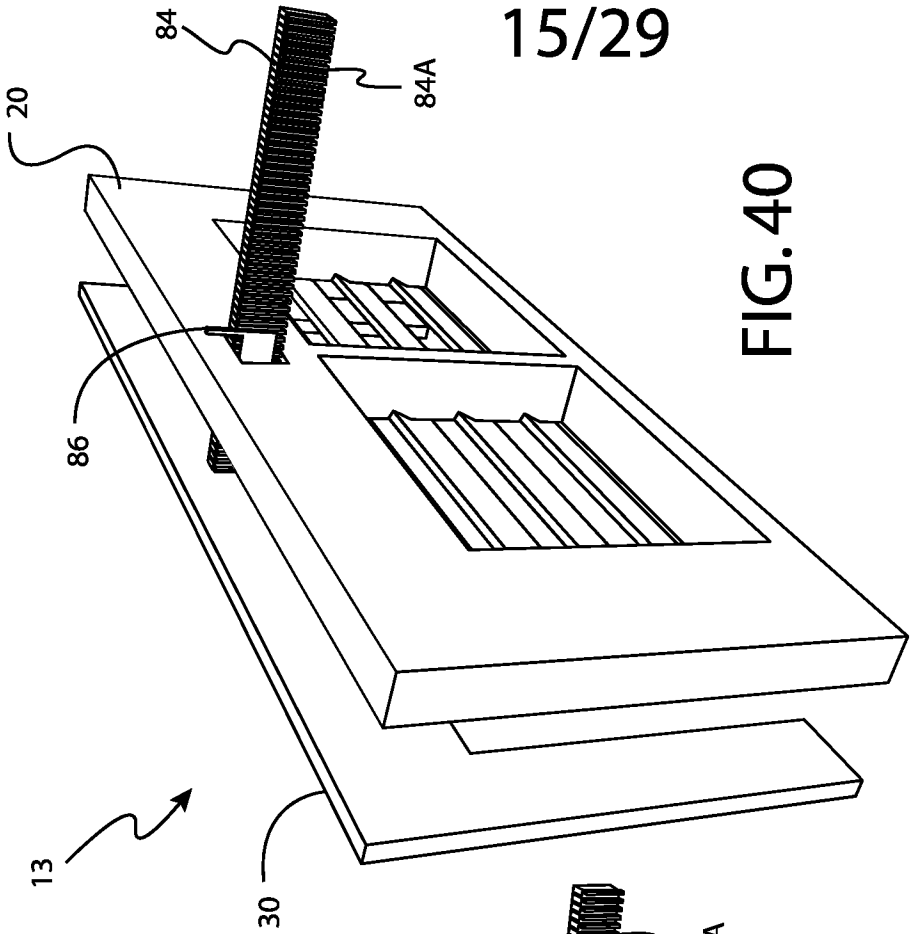

FIG. 40

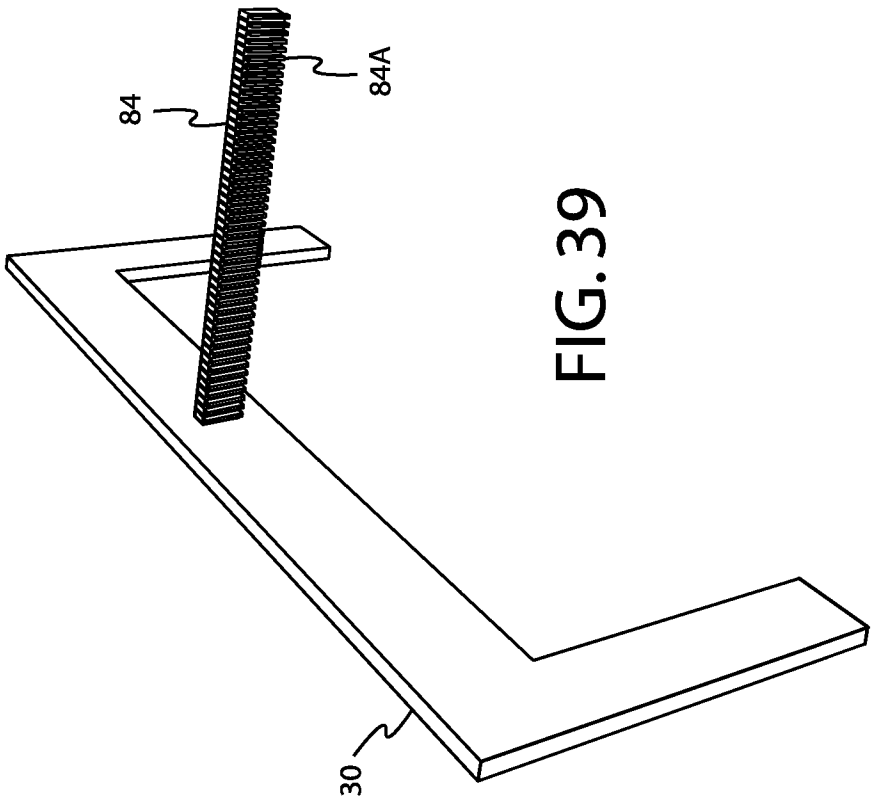

FIG. 39

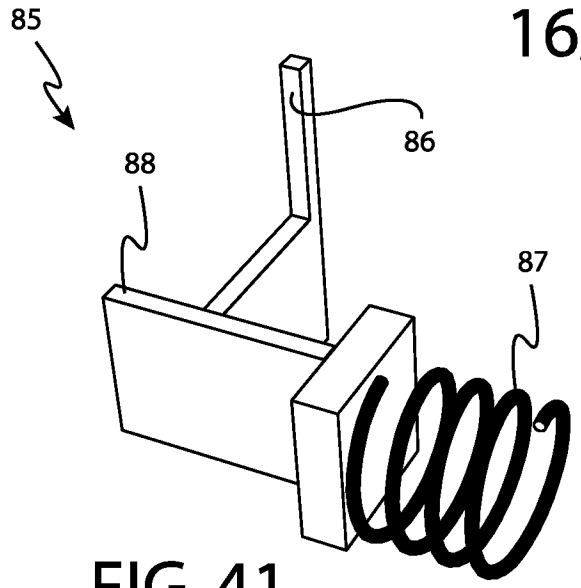

FIG. 41

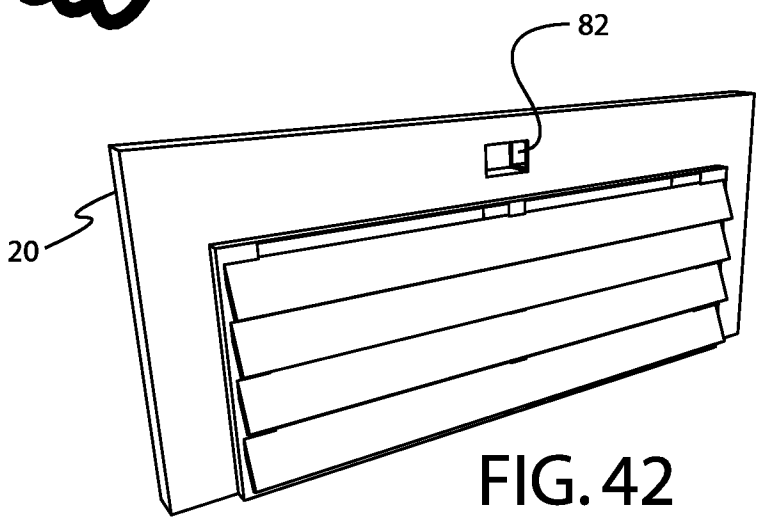

FIG. 42

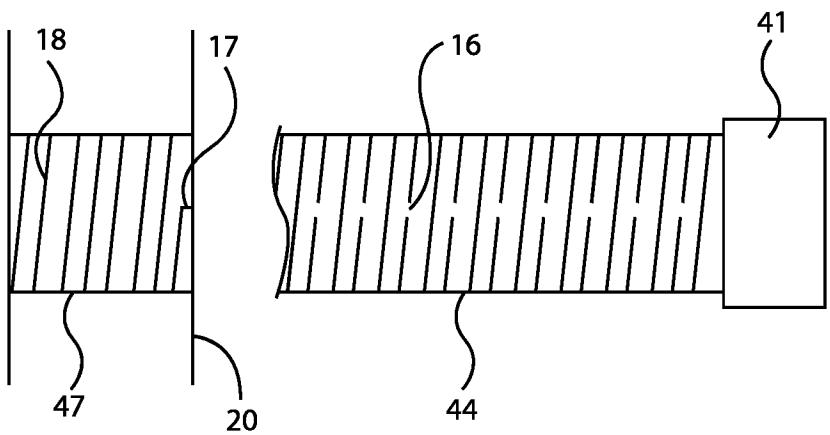

FIG. 43

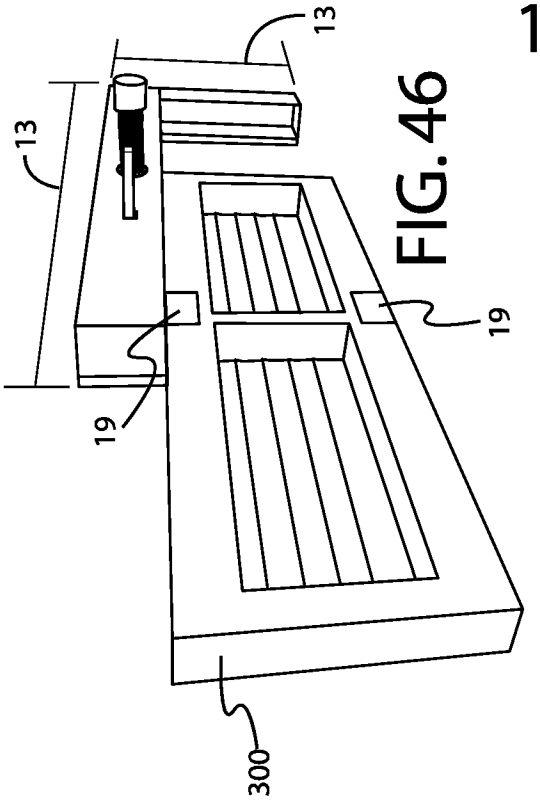

FIG. 46

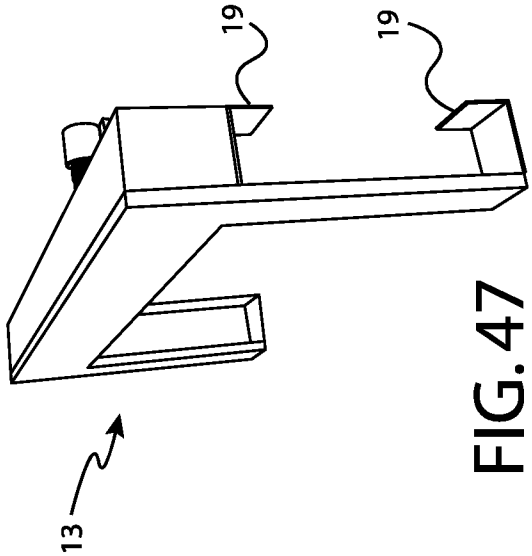

FIG. 47

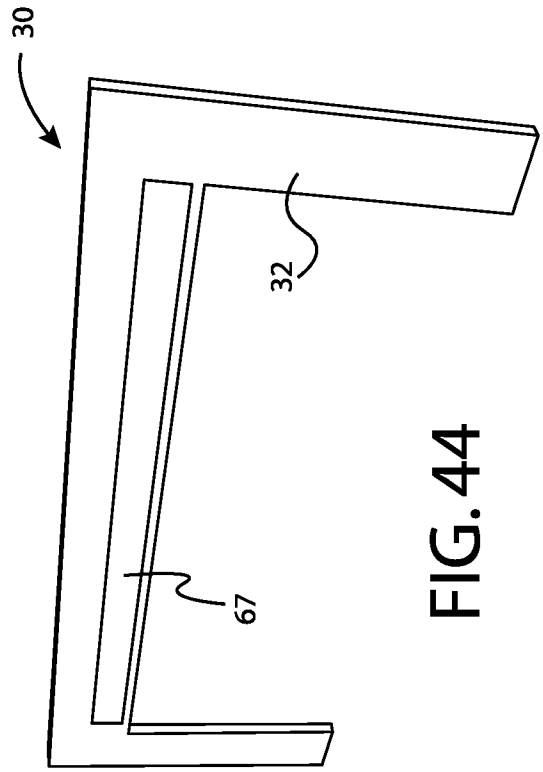

FIG. 44

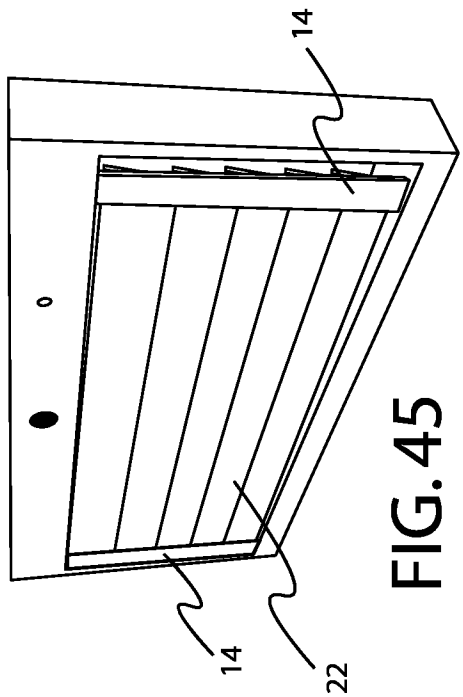

FIG. 45

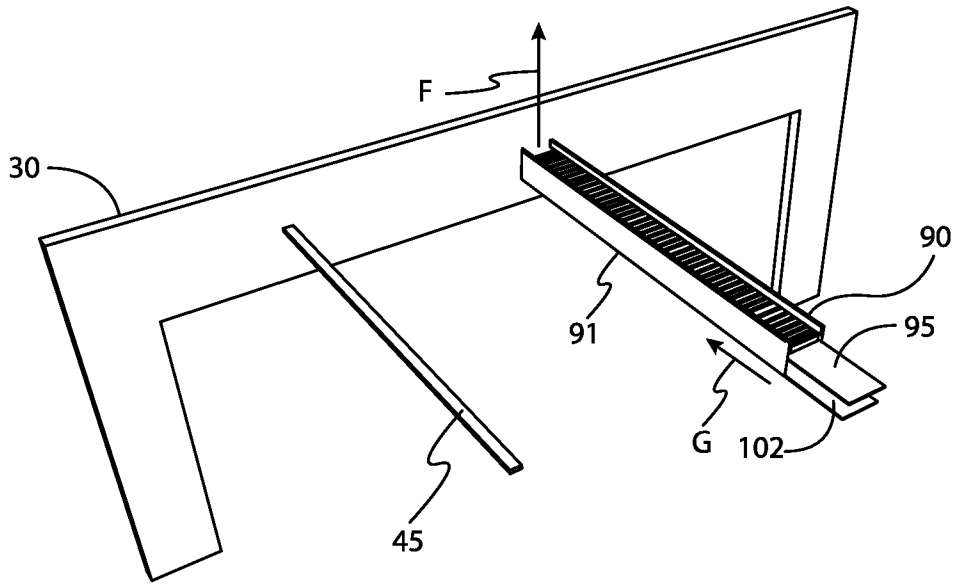

FIG. 48

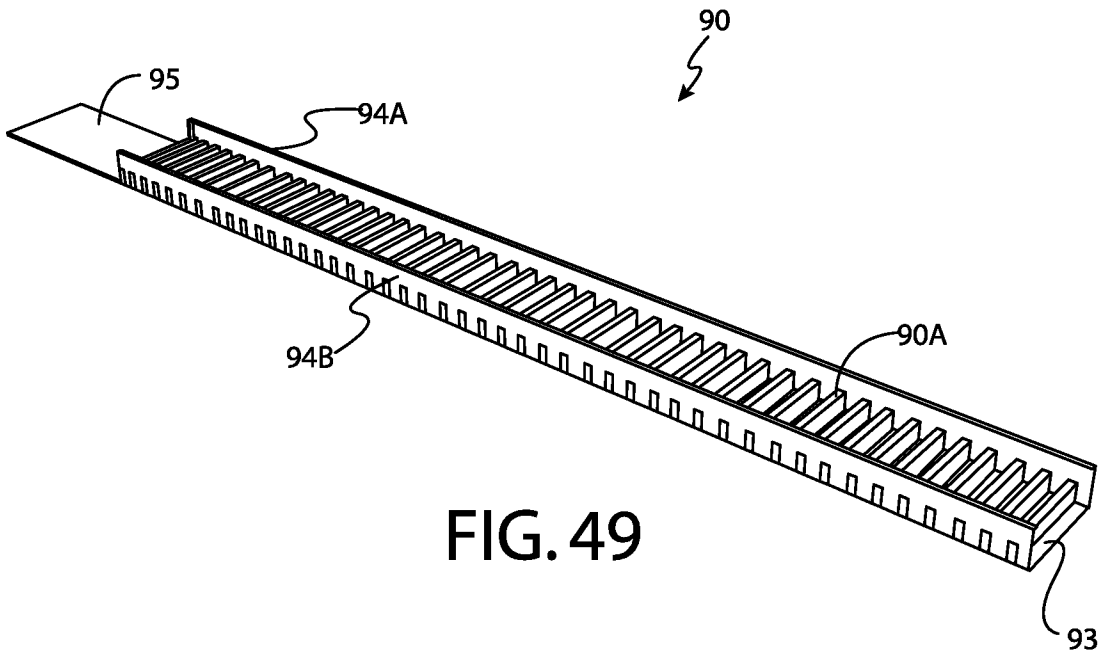

FIG. 49

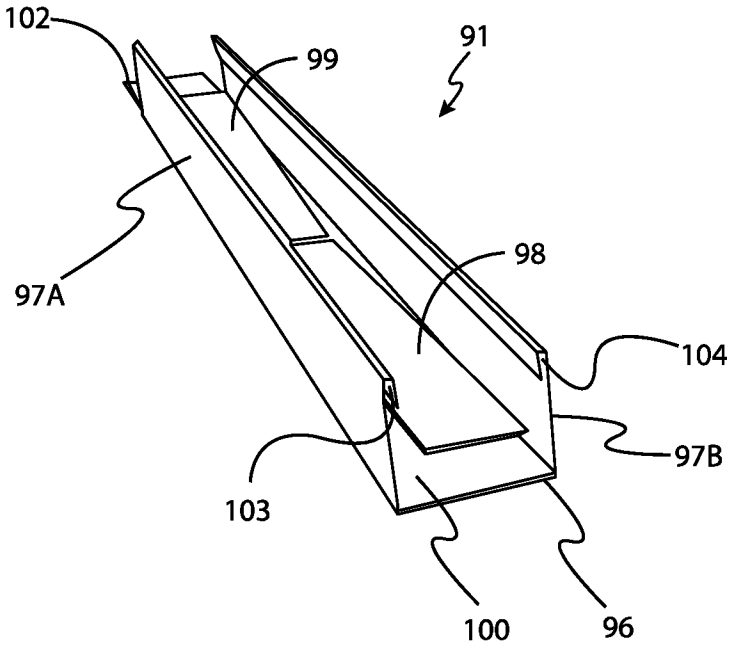

FIG. 50

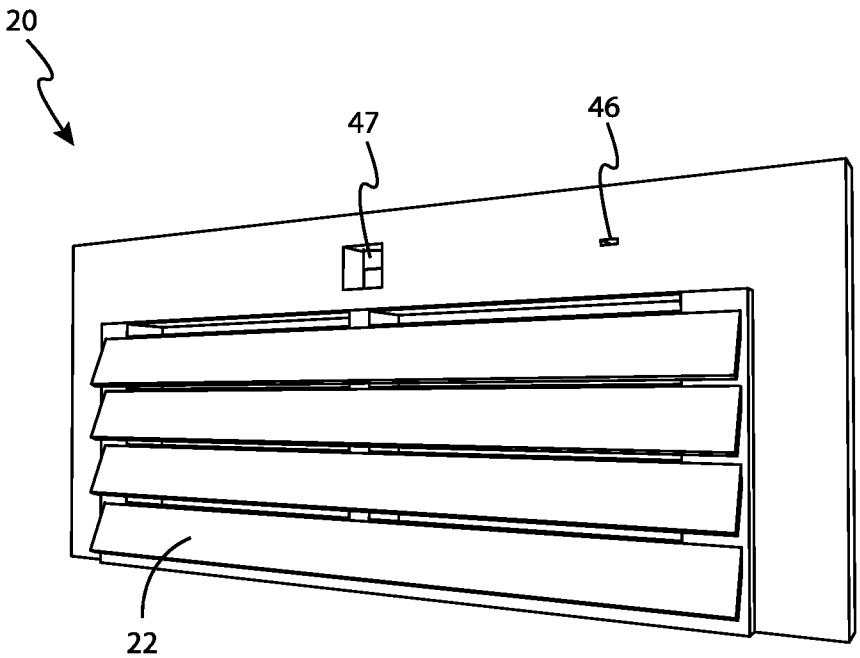

FIG. 51

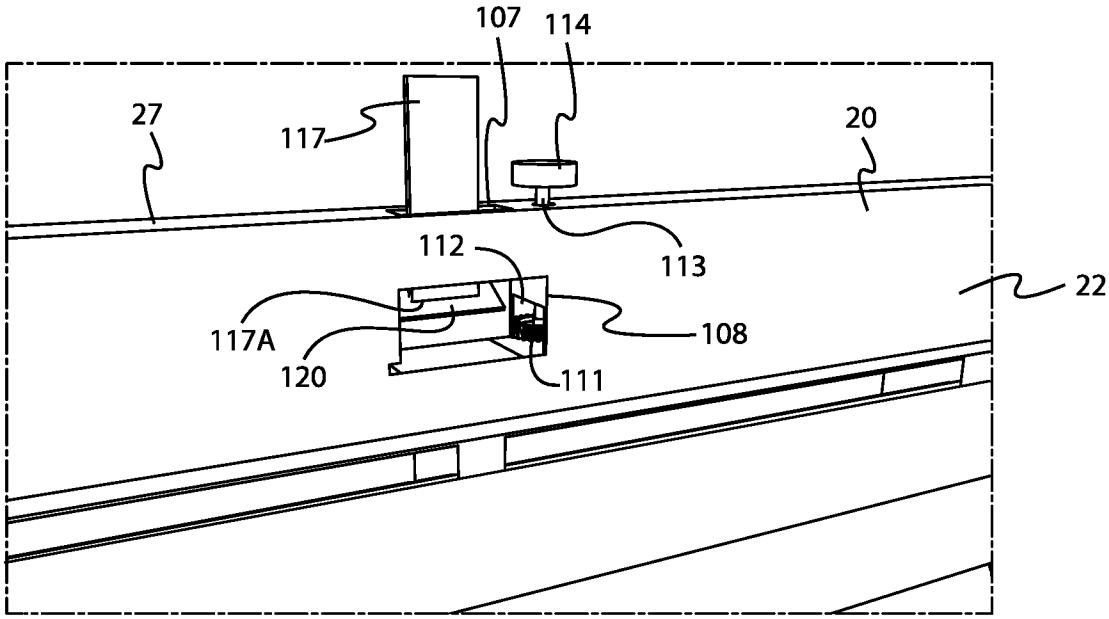
107
114
27
117
20
112
113
22
108
117A
120
111

FIG. 52

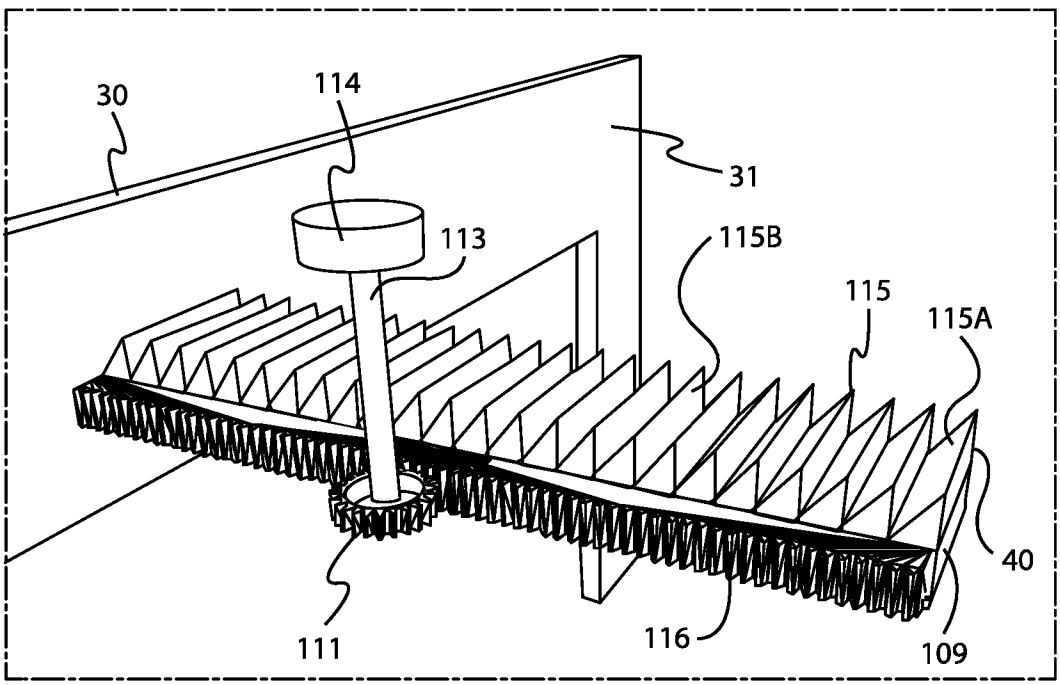
30
114
31
113
115B
115
115A
40
111
116
109

FIG. 53

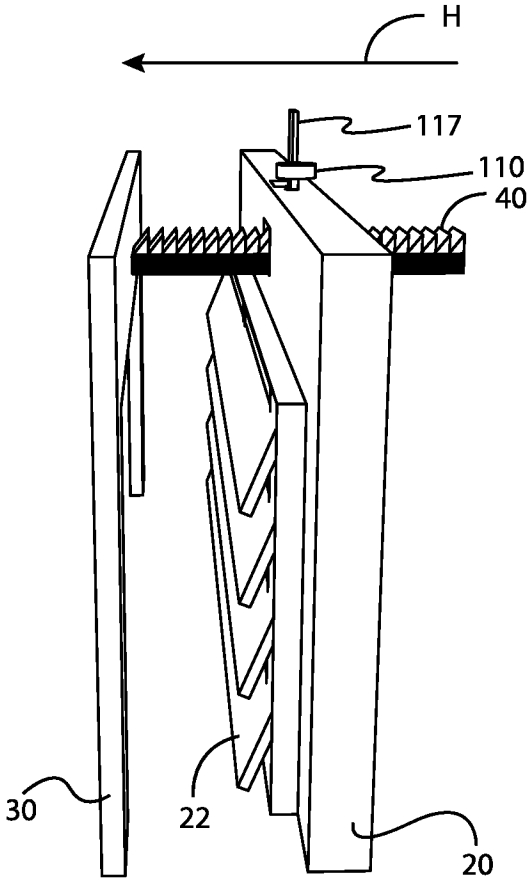

FIG. 54

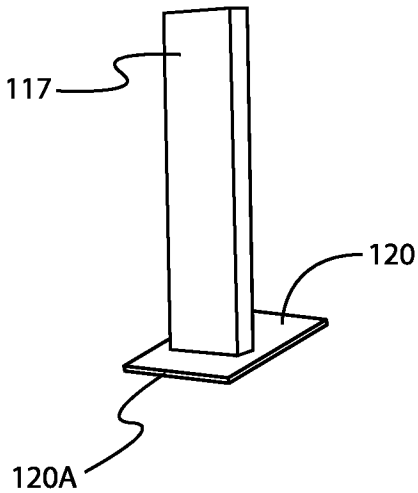

FIG. 55

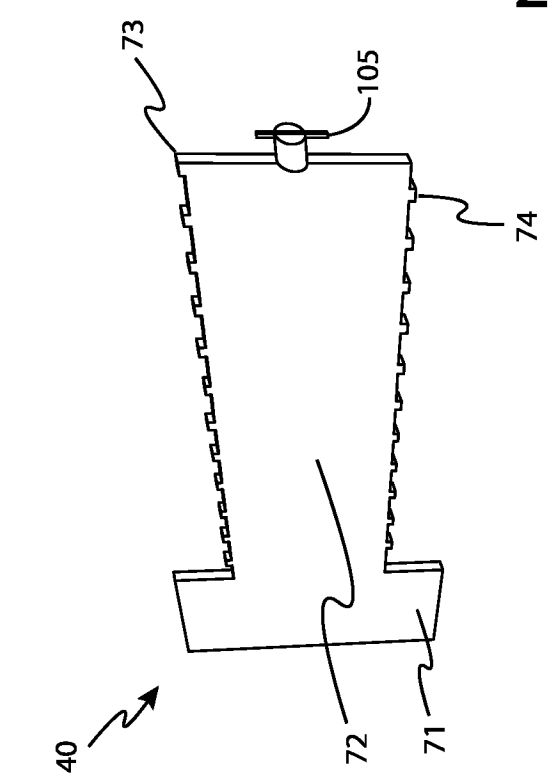

FIG. 58

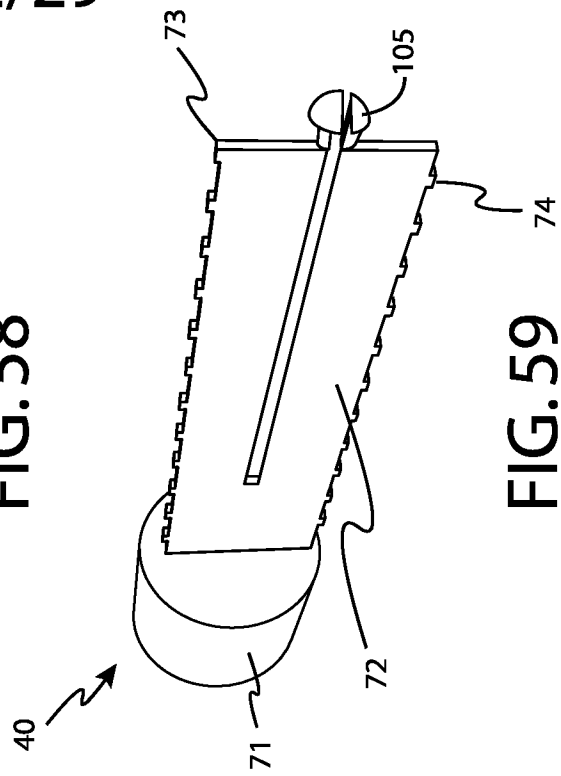

FIG. 59

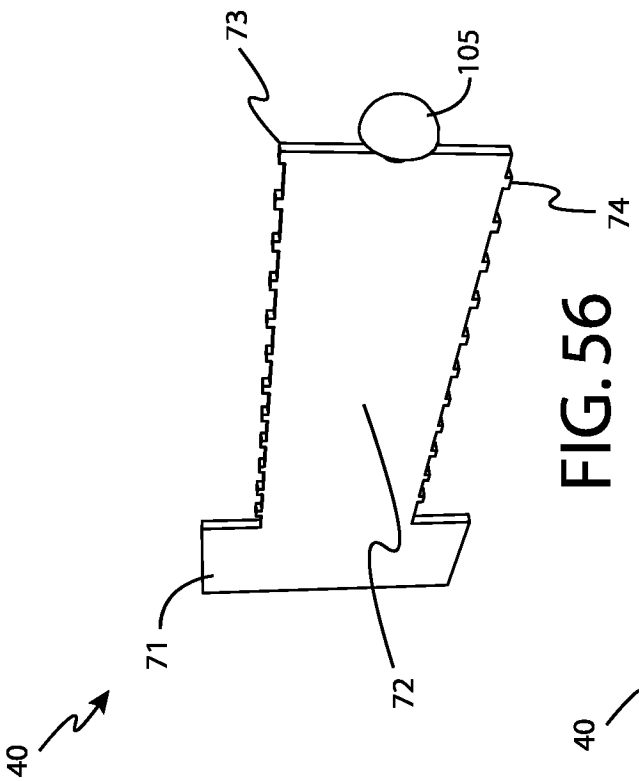

FIG. 56

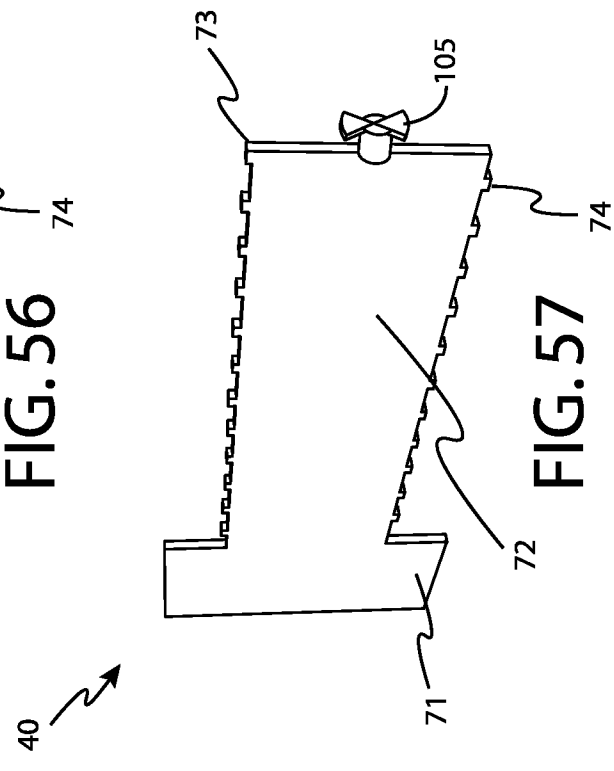

FIG. 57

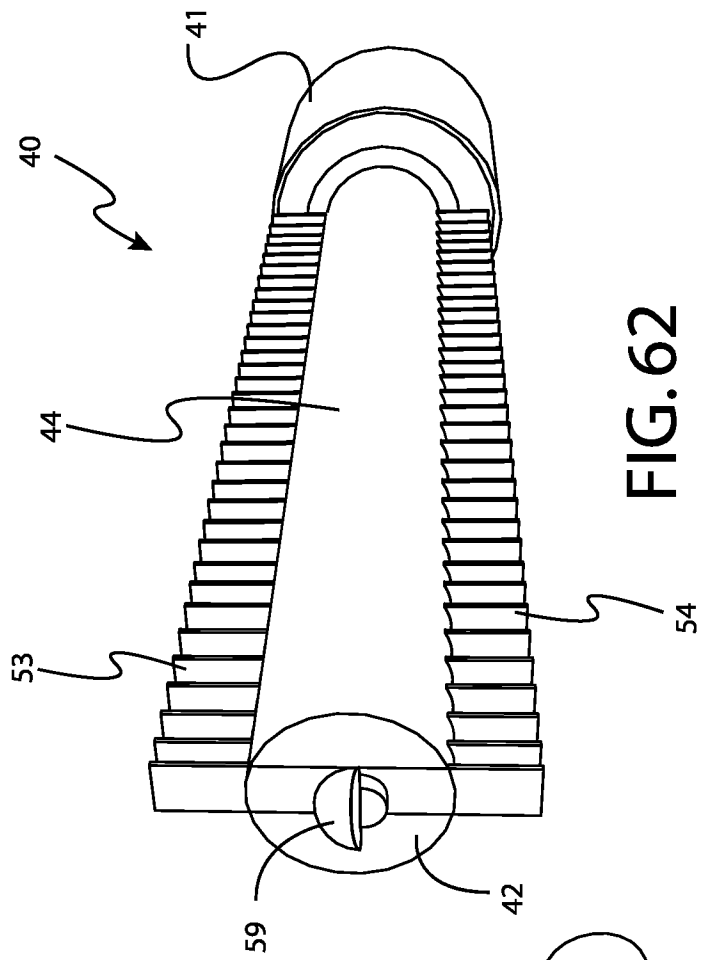

FIG.62

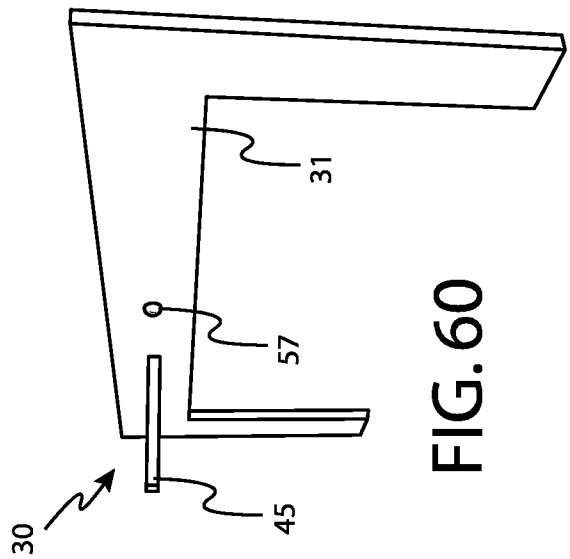

FIG.60

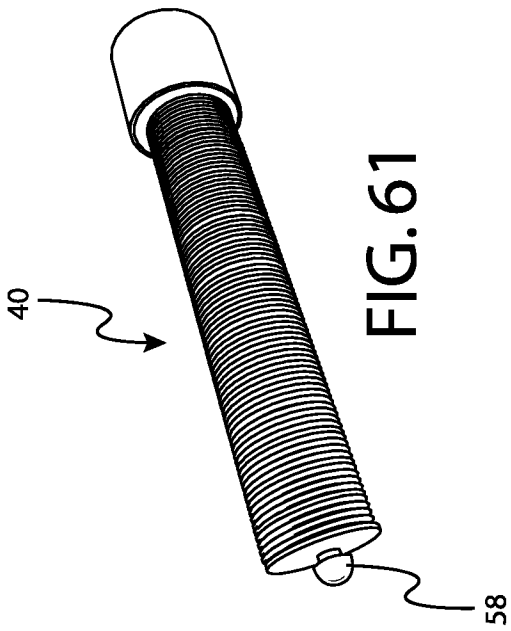

FIG.61

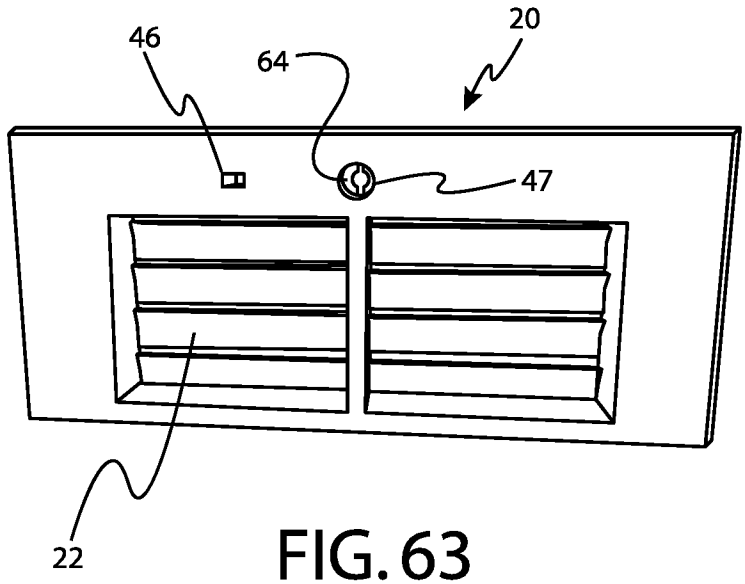

FIG. 63

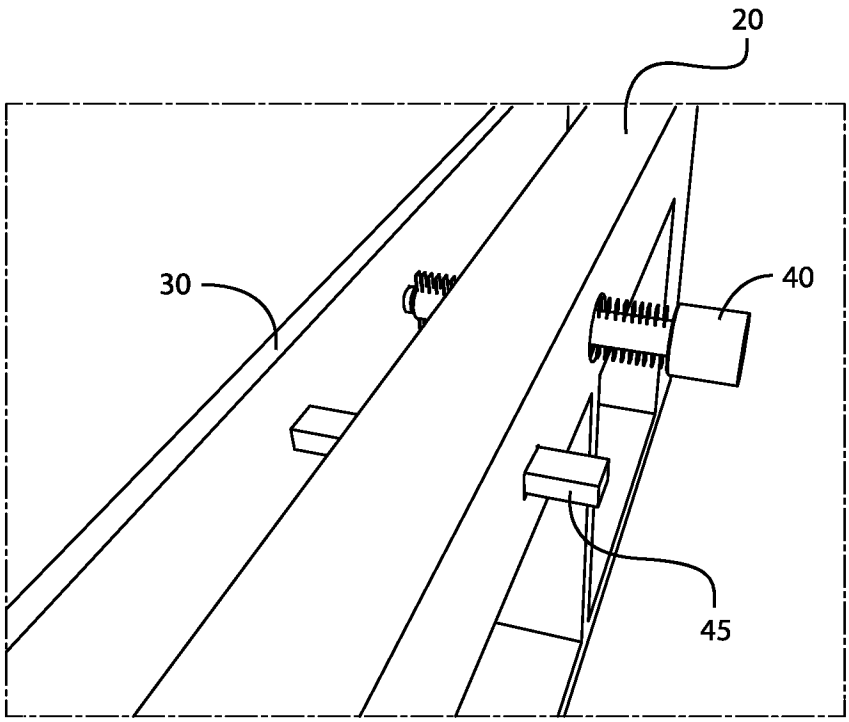

FIG. 64

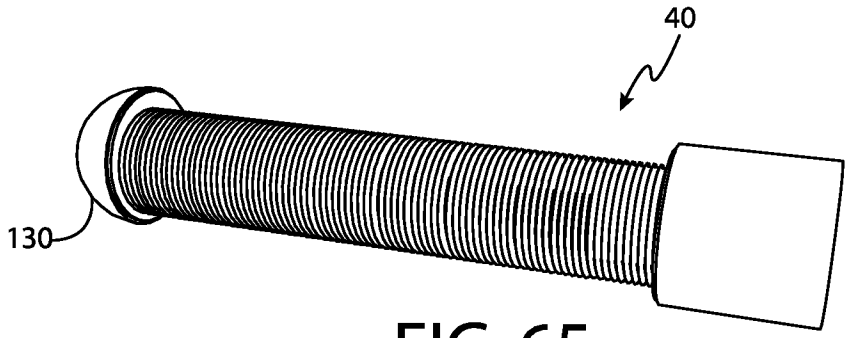

FIG. 65

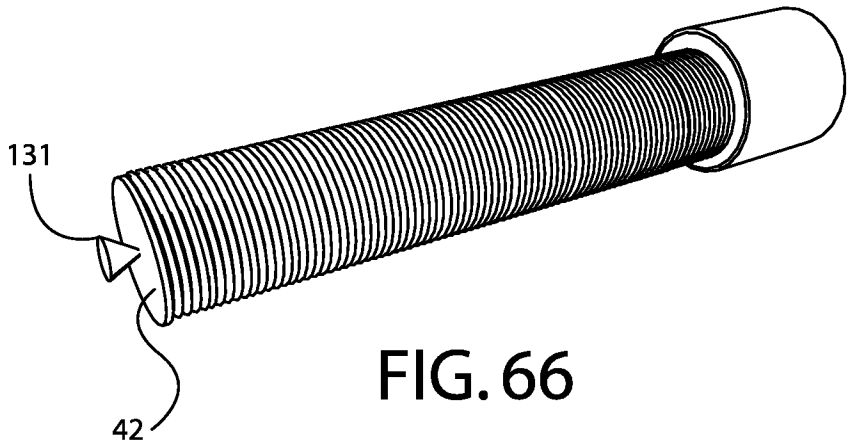

FIG. 66

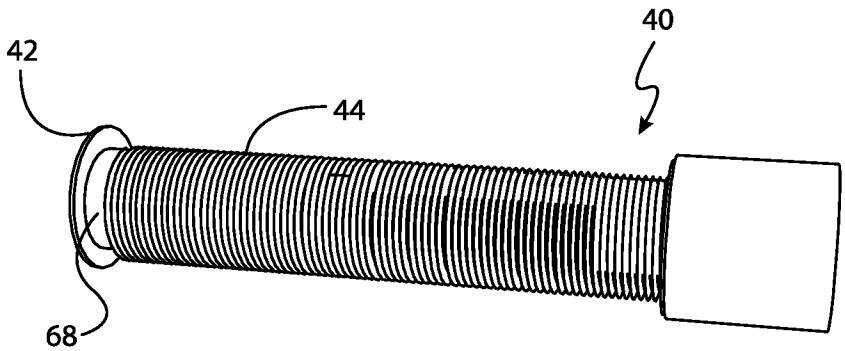

FIG. 67

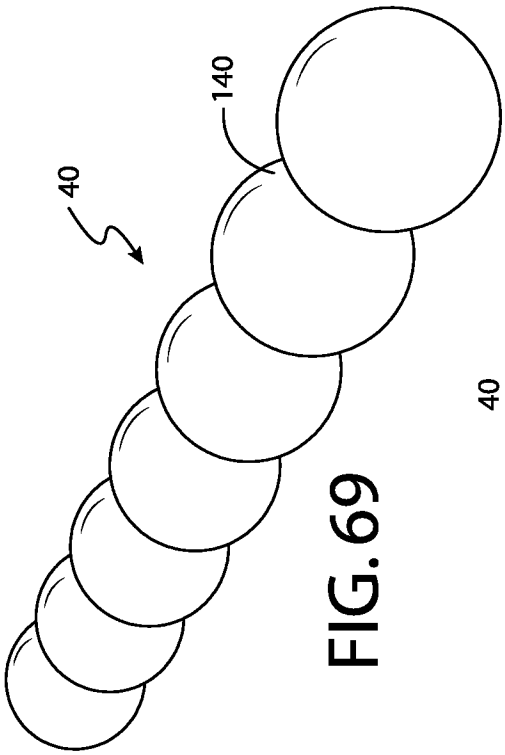

FIG. 69

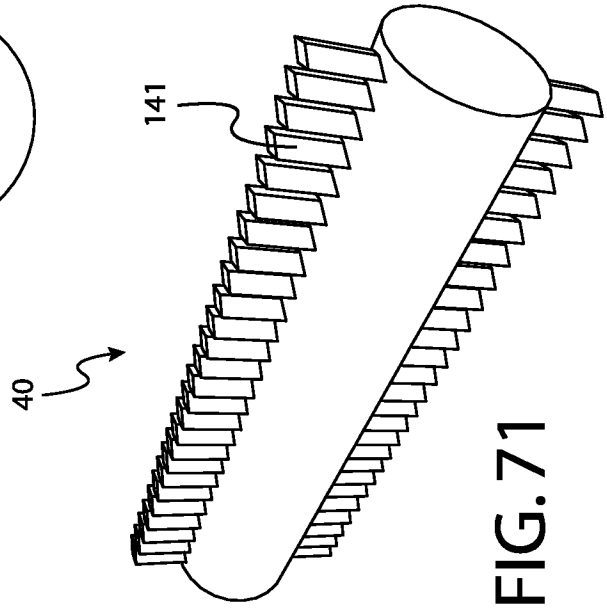

FIG. 71

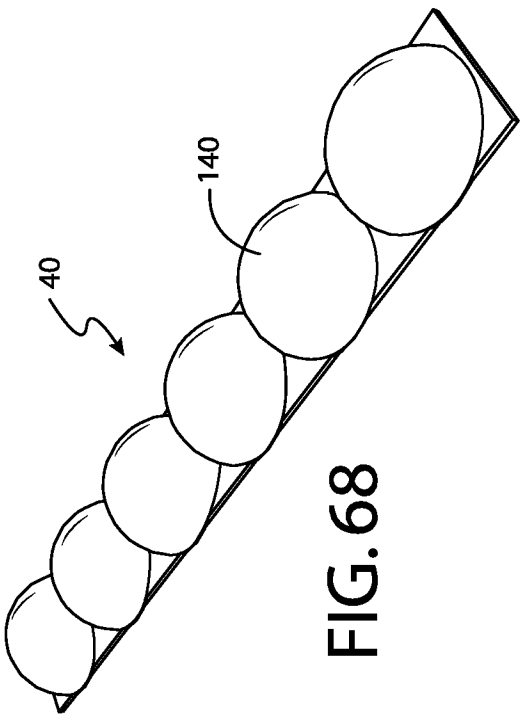

FIG. 68

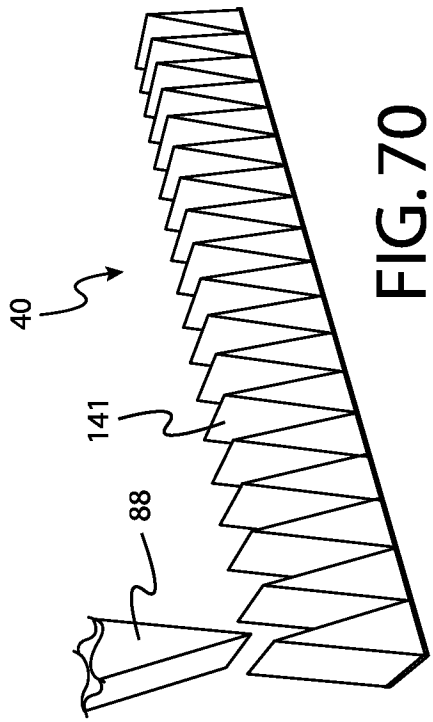

FIG. 70

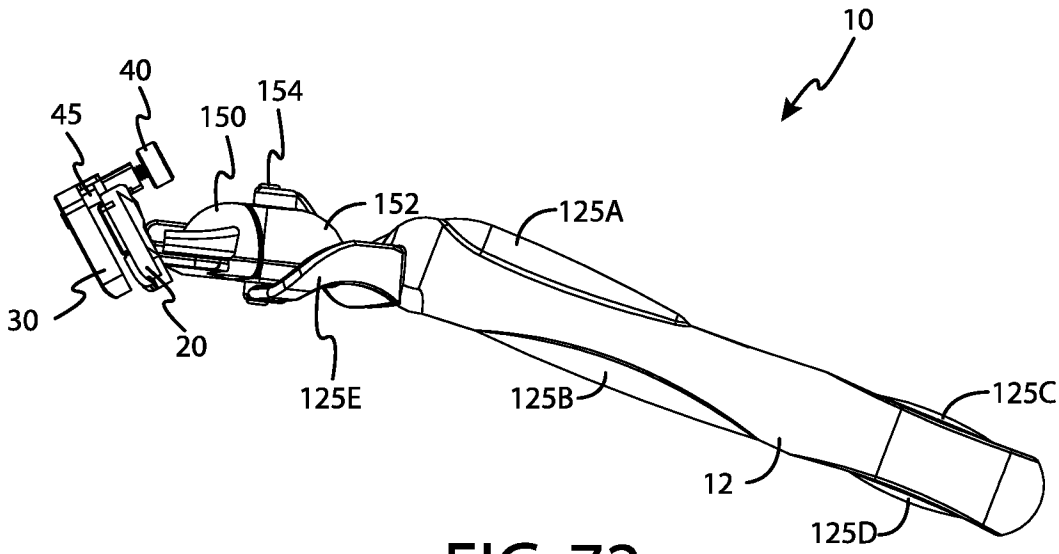
10
40
45
150
154
152
125A
30
20
125E
125B
125C
12
125D

FIG. 72

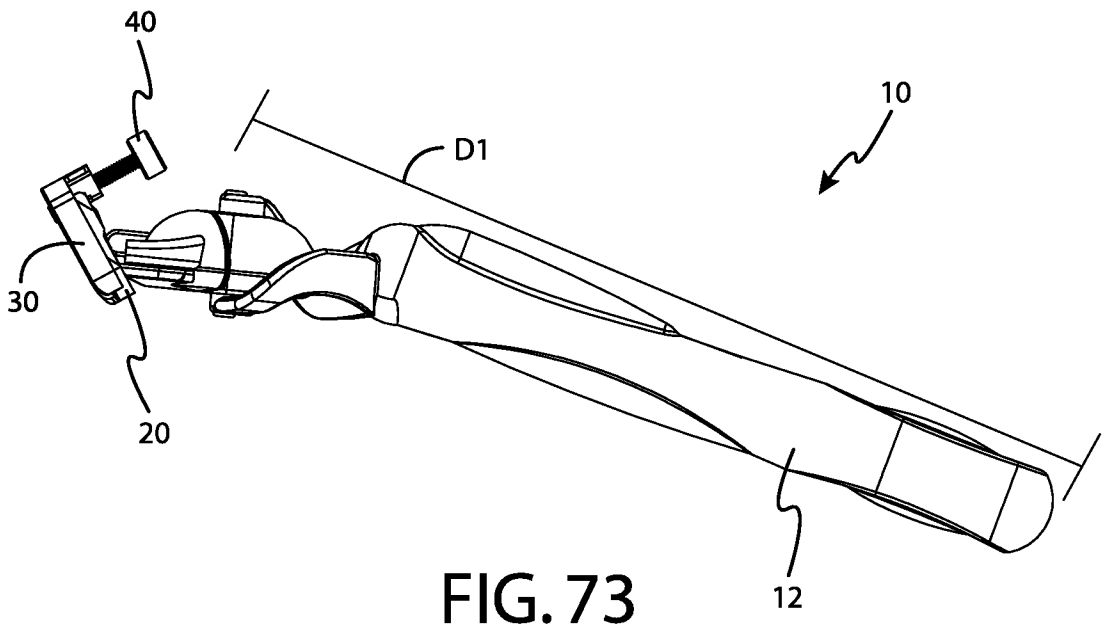
40
10
D1
30
20
12

FIG. 73

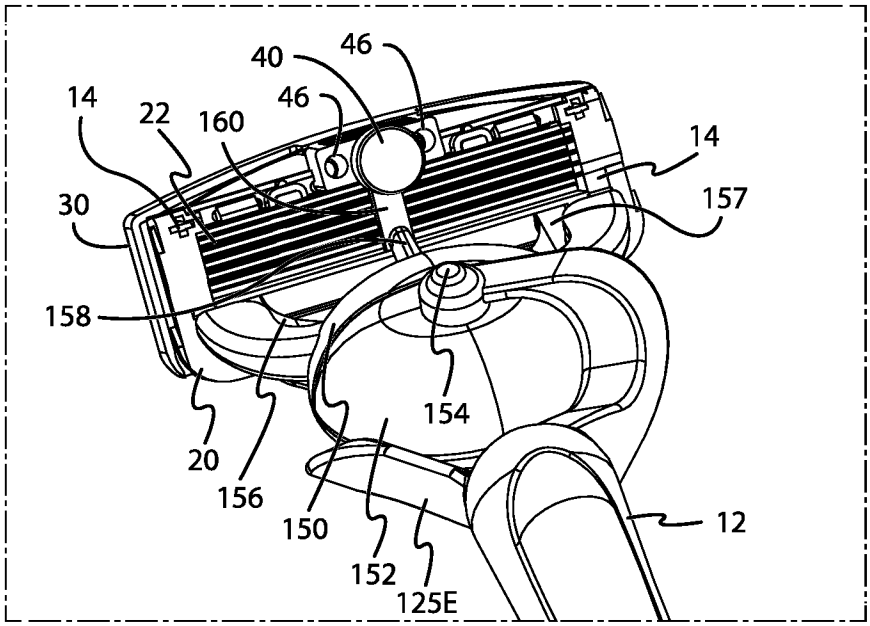
40
46
14
22
160
46
14
30
157
158
154
20
156
150
12
152
125E

FIG. 74

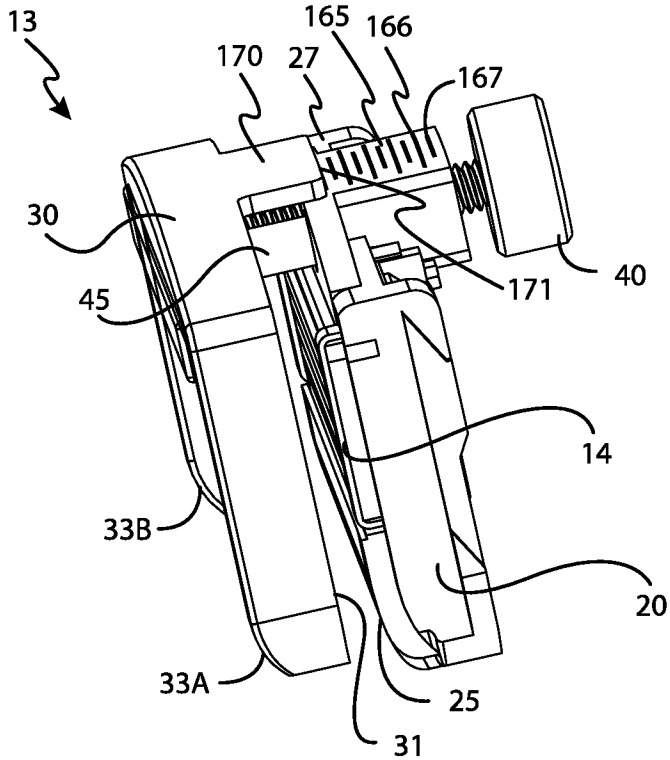
13
165
166
170
27
167
30
40
171
45
14
33B
20
33A
25
31

FIG. 75

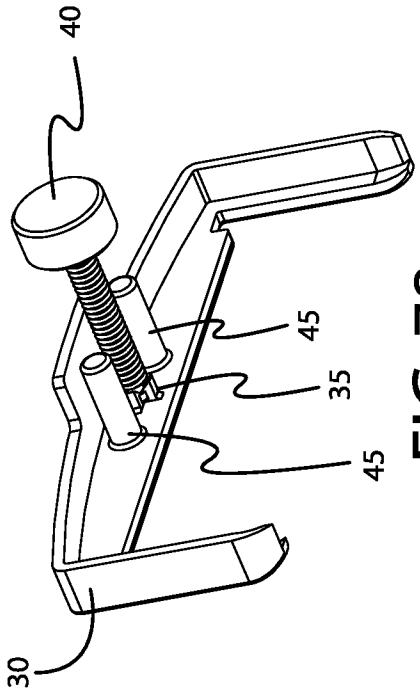

FIG. 78

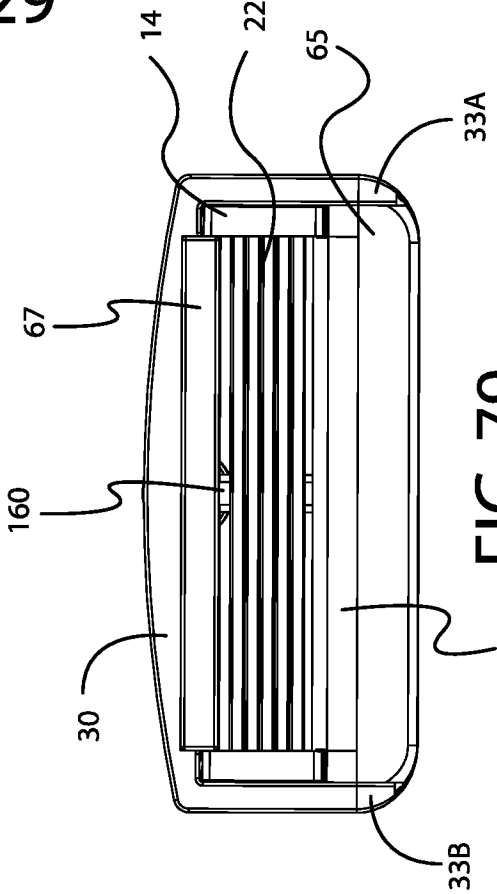

FIG. 79

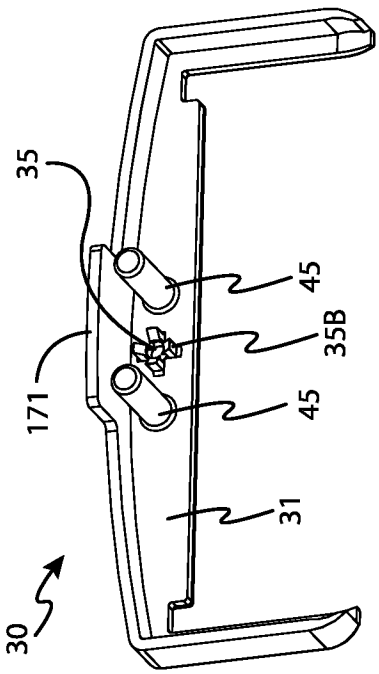

FIG. 76

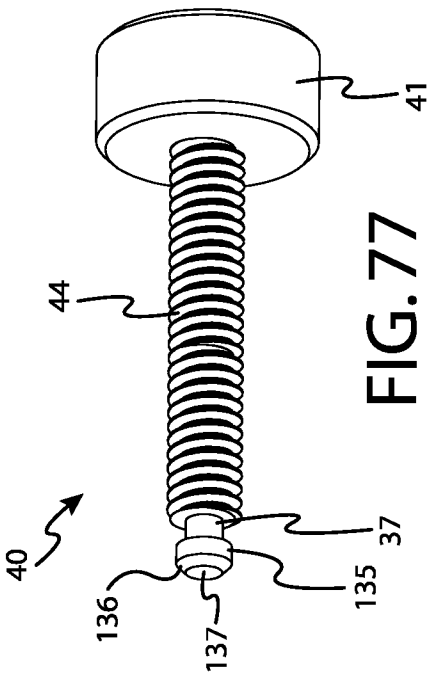

FIG. 77

INTERNATIONAL SEARCH REPORT

International application No
PCT/IB2017/000219

A. CLASSIFICATION OF SUBJECT MATTER
INV. B26B21/42
ADD.

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
B26B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3 289 295 A (EVERT TORNVALL ANTON) 6 December 1966 (1966-12-06) the whole document	1-15
X	DE 10 2010 022606 A1 (MIETH ERIC [DE]) 8 December 2011 (2011-12-08) the whole document	1-15
X	DE 10 2004 020650 A1 (STEFFEN WOLFGANG [DE]) 10 November 2005 (2005-11-10) the whole document	1-15
X	US 2 612 684 A (MANSFIELD WARREN M) 7 October 1952 (1952-10-07) the whole document	1-15

-/--

[X] Further documents are listed in the continuation of Box C.

[X] See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
7 June 2017	16/06/2017

Name and mailing address of the ISA/	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Cardan, Cosmin

1

INTERNATIONAL SEARCH REPORT

International application No
PCT/IB2017/000219

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 23 65 398 A1 (LIEDTKE GEB ARNOLD CHRISTA) 5 December 1974 (1974-12-05) the whole document	1-15
X	WO 94/04326 A1 (SZABO STEPHAN [CH]) 3 March 1994 (1994-03-03) the whole document	1-15

1

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/IB2017/000219

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 3289295 A	06-12-1966	NONE	
DE 102010022606 A1	08-12-2011	NONE	
DE 102004020650 A1	10-11-2005	NONE	
US 2612684 A	07-10-1952	NONE	
DE 2365398 A1	05-12-1974	DE 2322231 B1	31-10-1974
		DE 2365398 A1	05-12-1974
WO 9404326 A1	03-03-1994	CH 685152 A5	13-04-1995
		EP 0617654 A1	05-10-1994
		WO 9404326 A1	03-03-1994