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**Fenner**

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(54) **SEAT APPARATUS FOR REPOSITIONING OF HEMORRHOIDS**

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(\* ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

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*A47C 9/00* (2006.01)

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CPC ..... *A47C 7/029* (2018.08); *A47C 9/002* (2013.01); *A61H 2201/1633* (2013.01)

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CPC .. *A47C 7/029*; *A47C 9/002*; *A61H 2201/1633*  
See application file for complete search history.

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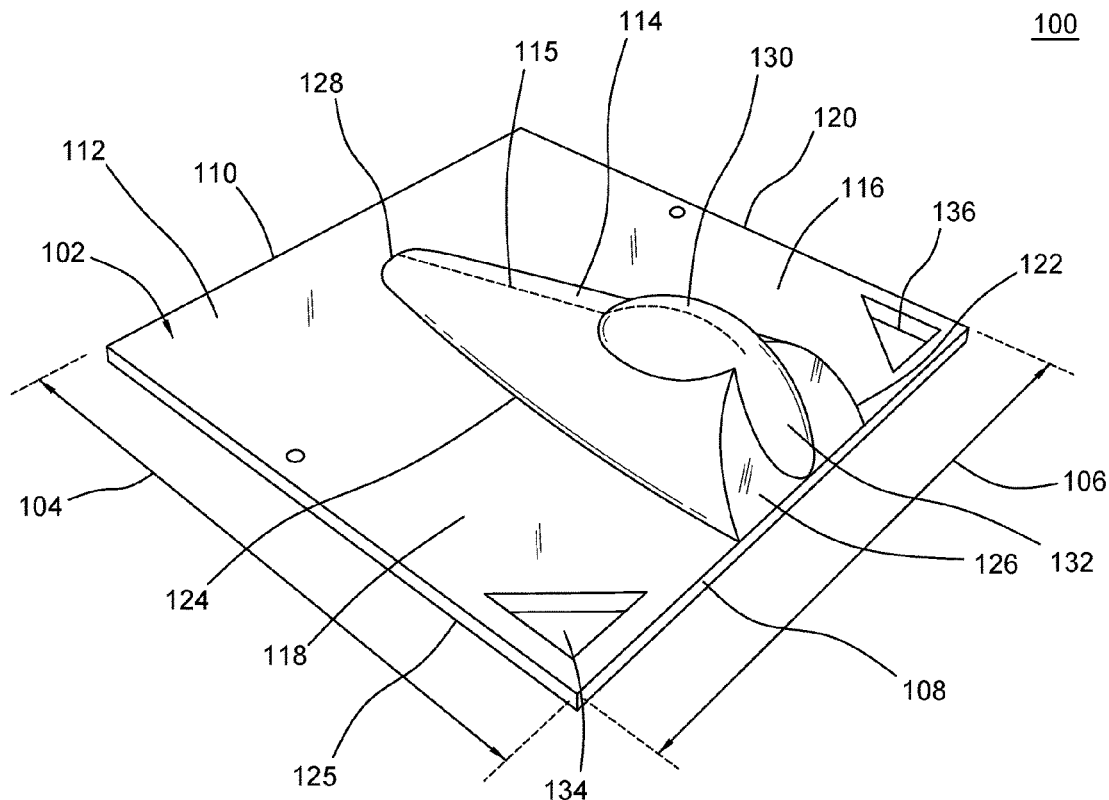
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(57) **ABSTRACT**

A seat apparatus includes a base having a central ridge structure on the top of the base. The central ridge structure is round on the top and slopes downward from front to back. A secondary ridge structure may be included on top of the central ridge structure. Using the seat apparatus, a person with a hemorrhoid condition can sit on the seat apparatus, and using their own body weight, create pressure between the affected area and the central ridge structure. The pressure bias the hemorrhoid to be repositioned in the user's body, relieving discomfort and, with long term use, can improve sphincter control to better prevent hemorrhoid conditions.

**16 Claims, 6 Drawing Sheets**



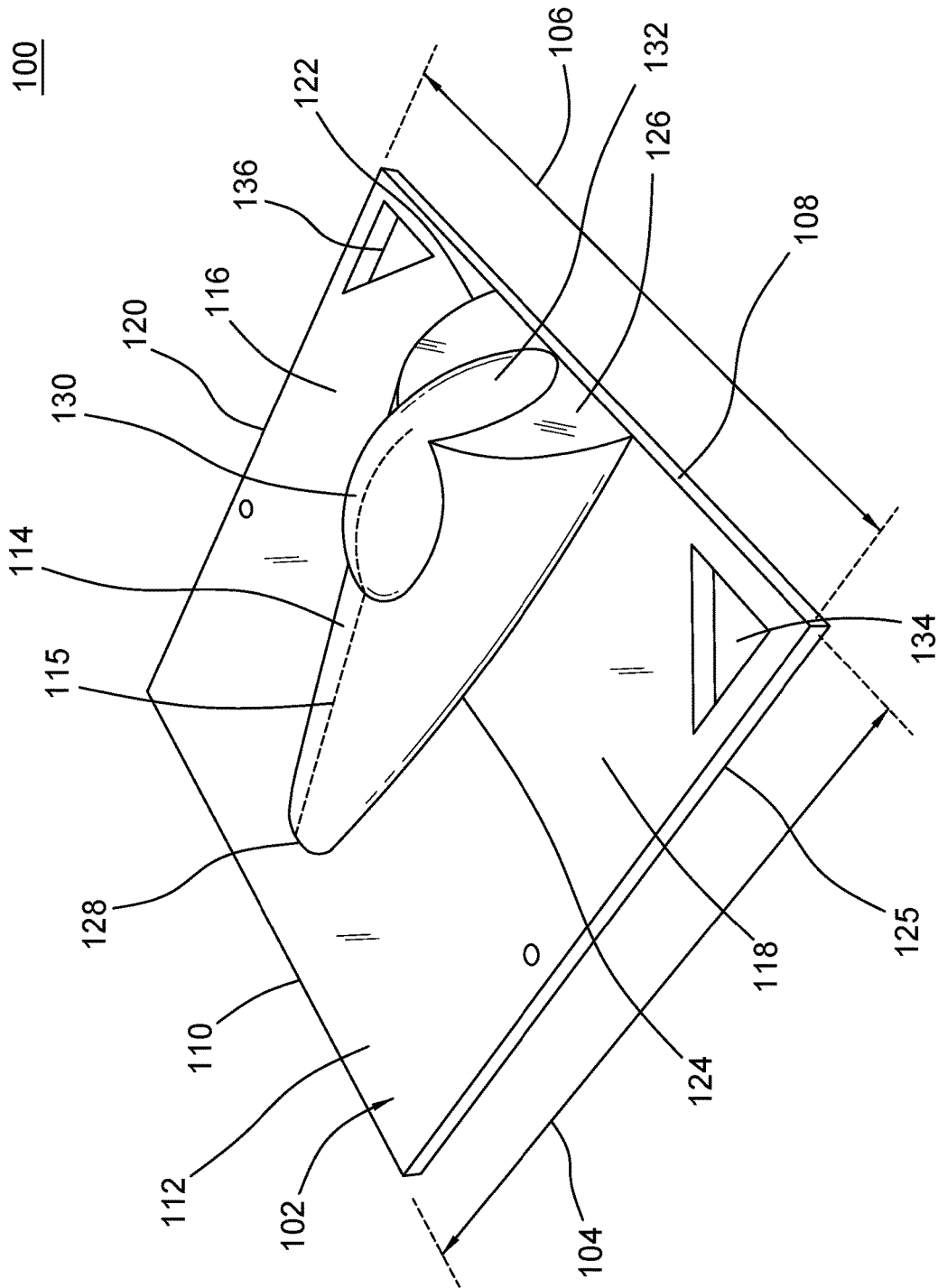


FIG. 1

100

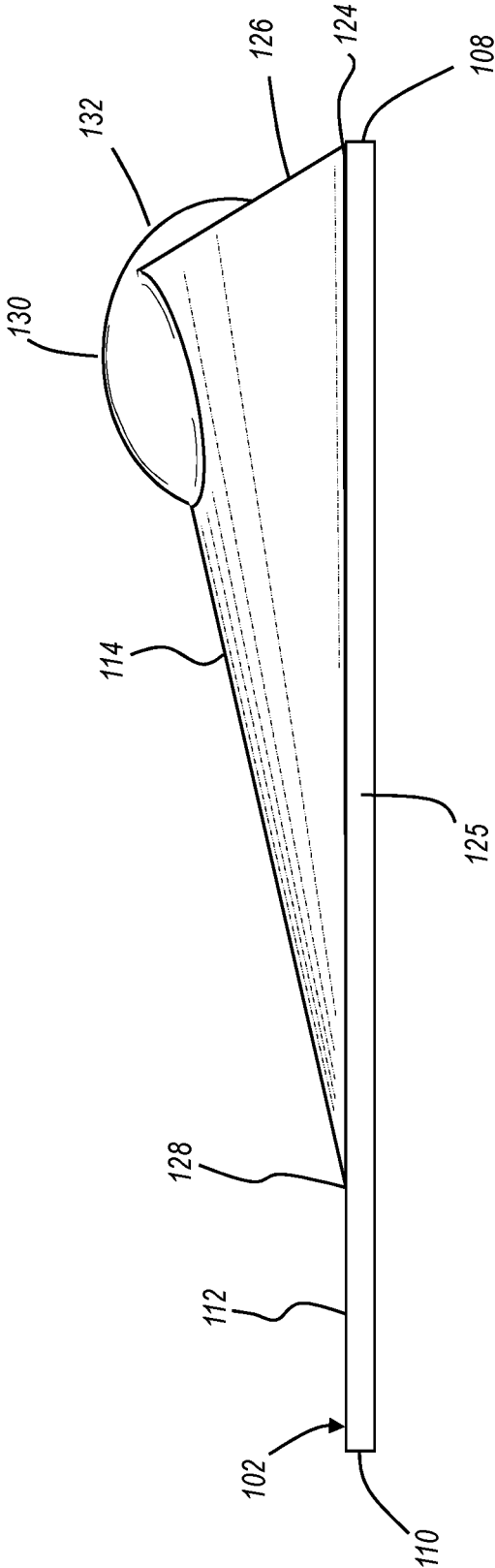
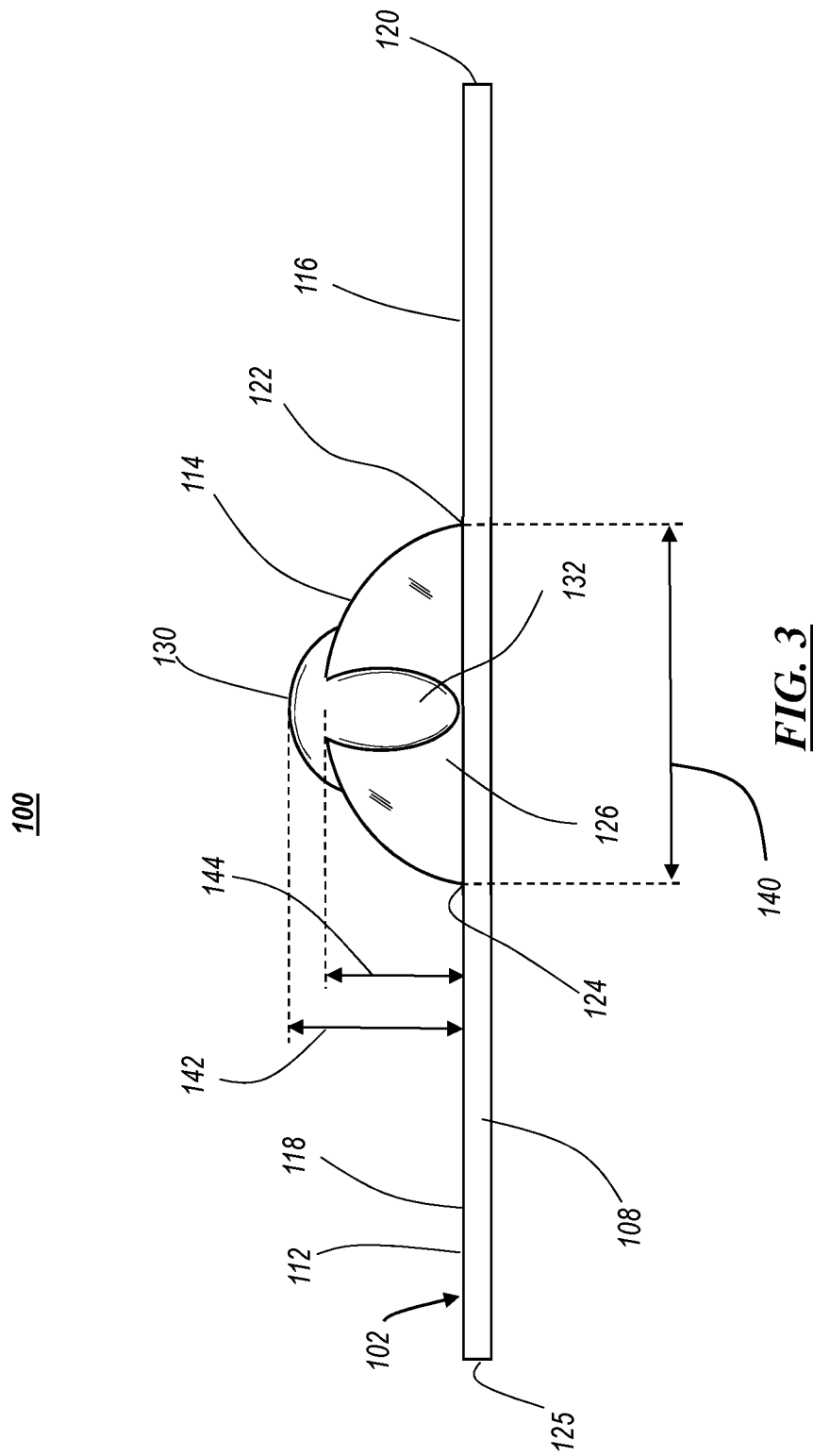


FIG. 2



100

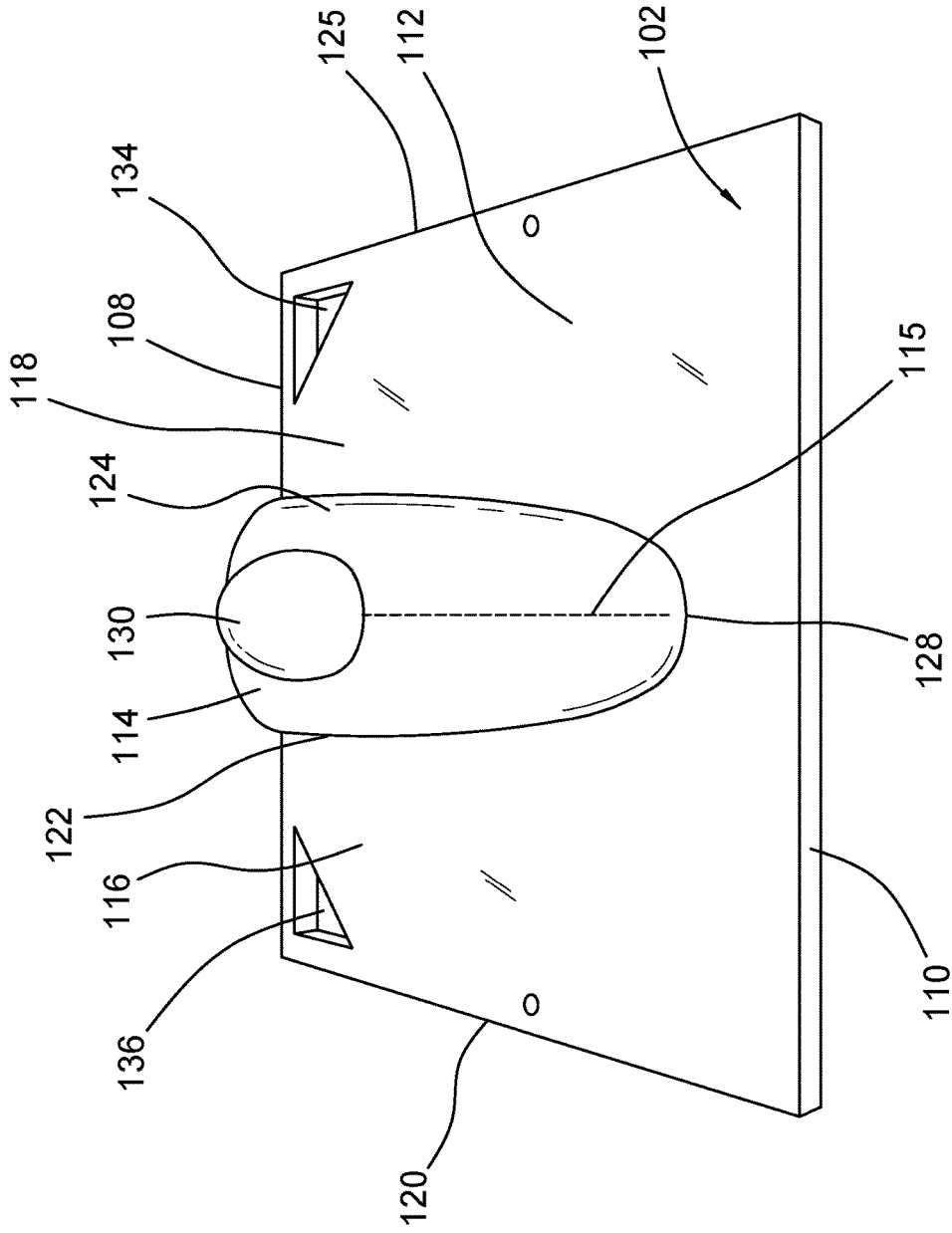
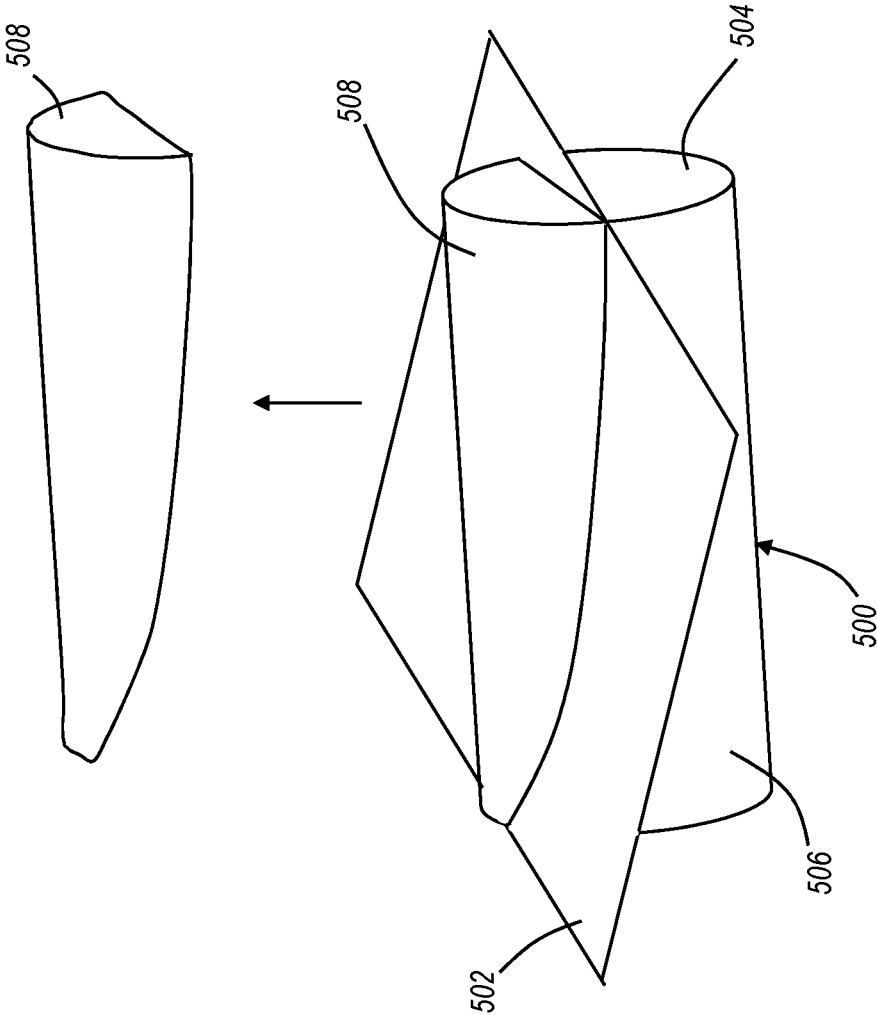
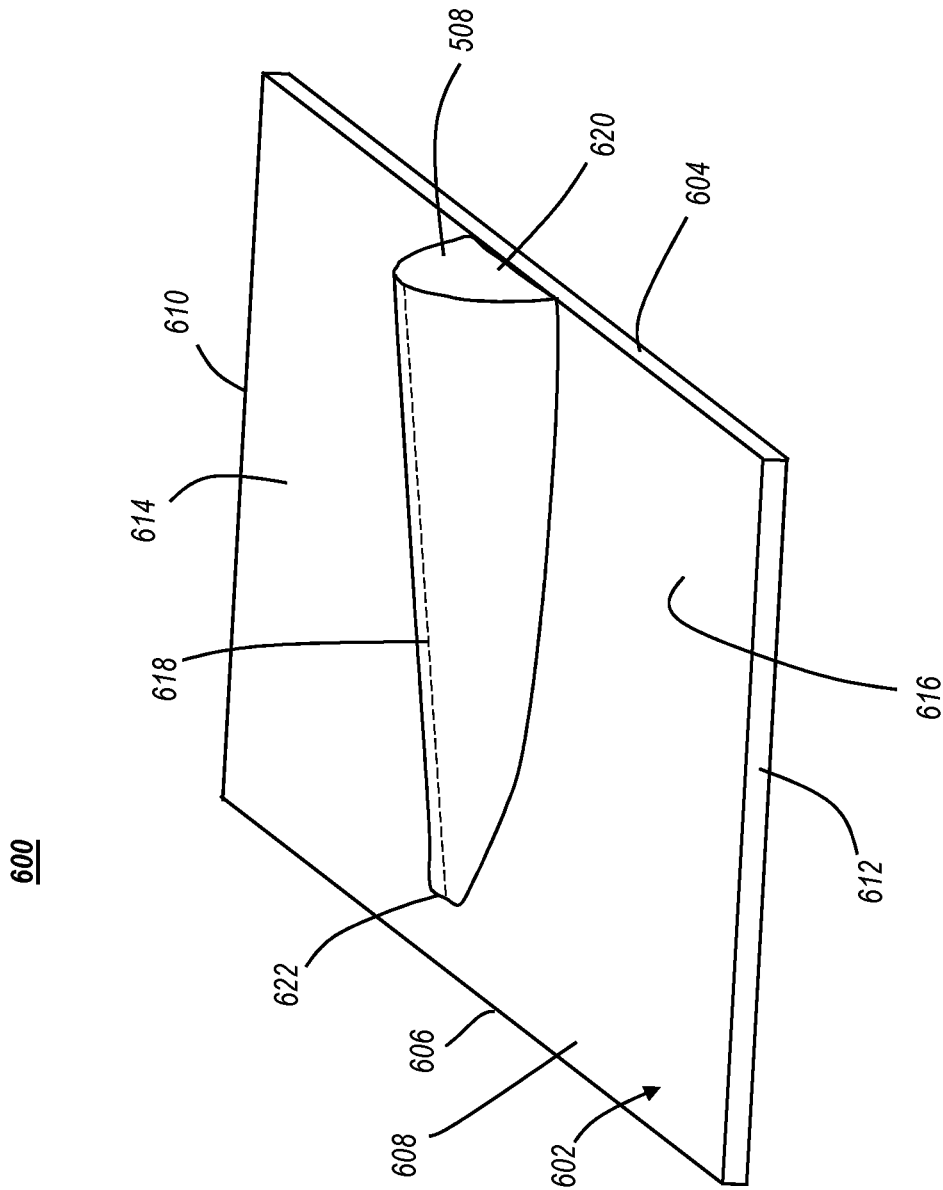


FIG. 4



**FIG. 5**



**FIG. 6**

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## SEAT APPARATUS FOR REPOSITIONING OF HEMORRHOIDS

### FIELD OF THE INVENTION

The present invention relates generally to the treatment of hemorrhoids, and, more particularly, relates to an apparatus that can be used by and individual to comfortably reposition hemorrhoids while seated.

### BACKGROUND OF THE INVENTION

Many people suffer from hemorrhoids, and experience ongoing or intermittent discomfort as a result. The pain caused by a hemorrhoid can be severe enough to prevent a person from engaging in ordinary daily tasks and activities. A wide range of treatments have been developed to help people cope with the discomfort. Some forms of treatment include ointments and other topical treatments to reduce or shrink the hemorrhoid. These are not easy to apply, and cannot be applied in public, and often have undesirable odors. Other treatments include devices that are used to cool the affected area as a form of relief. Often these require insertion of a portion of a device that is chilled, either passively or actively, into the anus. Obviously such applications are not able to be used in public.

Other means of treating hemorrhoids include seat devices. A common seat device for relieving discomfort includes a negative space (e.g. hole) over which a person positions the inflamed area, with the surrounding cushion supporting the person. These are commonly referred to as "donut" cushions due to their similarity to the toroid-shaped pastry of the same name. While a negative space cushion may provide some relief, it is not a solution to the problem. Another seat device is described in U.S. Pat. No. 7,942,151 which described a pair of rigid seat halves that are separated by a gap that acts as a negative space. The user sits on the seat with their anus over the gap, creating a "positive pressure" around the anus that is intended to cause a negative pressure inside the body to draw the hemorrhoid up into the body. However, the efficacy of this approach is limited, and requires the user to adjust the seat in order to adjust the pressure and location of the pressure being created.

Therefore, a need exists to overcome the problems with the prior art as discussed above.

### SUMMARY OF THE INVENTION

In accordance with some embodiments of the inventive disclosure, there is provided a seat apparatus for repositioning a hemorrhoid that includes a base having a front edge, a back edge, a left edge, a right edge, and a top surface, where the base is rigid, flat, and planar. There is further provided a central ridge structure positioned at the top surface of the base that is located substantially equidistant between the right edge and the left edge of the base. The central ridge structure has an upward convex cross section profile, relative to the top surface of the base, in a direction from side to side, and slopes downward from a front of the central ridge structure to a rear of the central ridge structure. The front of the central ridge structure is adjacent the front edge of the base.

In accordance with a further feature, there is further included a secondary ridge structure disposed on a top of the central ridge structure adjacent the front of the central ridge structure. The secondary ridge structure has an upward

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convex cross section profile from side to side, and extends toward the rear of the central ridge structure.

In accordance with a further feature, the secondary ridge structure has an upward convex profile from front to rear.

5 In accordance with a further feature, the secondary structure extends one quarter to three quarters of an inch above the central ridge structure.

10 In accordance with a further feature, the central ridge structure has a width at the front from the central ridge structure, from a left bottom side to a right bottom side of the central ridge structure, of two to three and one half inches.

In accordance with a further feature, the rear of the central ridge structure is five to nine inches from the front of the central ridge structure.

15 In accordance with a further feature, the central ridge structure has a height at the front of the central ridge structure that is two to three inches.

20 In accordance with a further feature, the base is rectangular, and wherein the front edge and rear edge have a width of six to ten inches.

In accordance with a further feature, the base and the central ridge structure are made of a material that is one of plastic, metal, glass, or wood.

25 In accordance with a further feature, the base and central ridge structure are integrally formed.

In accordance with a further feature, there is further included a hole formed in the base at a front right corner or a front left corner of the base.

30 In accordance with some embodiments of the inventive disclosure, there is provided a seat apparatus for repositioning a hemorrhoid that includes a base having a front edge, a back edge, a left edge, a right edge, and a top surface, with the base being rigid, flat, and planar. There is further included a central ridge structure that extends upward from the top surface of the base, and has a conic section shape, and has a front and a rear. The front of the central ridge structure is adjacent the front edge of the base and the central ridge structure extends from the front of the base towards the rear edge of the base. The conic section has a highest point above the top surface of the base at the front. A top of the conic section slopes downward from the highest point to the rear of the central ridge structure. There is also included a secondary ridge structure formed on the top of the conic section at the front of the central ridge structure that extends upward from the top of the central ridge structure. The central ridge structure is located midway between the left edge of the base and the right edge of the base.

In accordance with a further feature, the secondary ridge structure has an upward convex cross section profile from side to side, and extends toward the rear of the central ridge structure.

In accordance with a further feature, the secondary ridge structure has an upward convex profile from front to rear.

55 In accordance with a further feature, the secondary structure extends one quarter to three quarters of an inch above the central ridge structure.

60 In accordance with a further feature, the central ridge structure has a width at the front from the central ridge structure, from a left bottom side to a right bottom side of the central ridge structure, of two to three and one half inches.

In accordance with a further feature, the rear of the central ridge structure is five to nine inches from the front of the central ridge structure.

65 In accordance with a further feature, the central ridge structure has a height at the front of the central ridge structure that is two to three inches.



In accordance with a further feature, the base is rectangular, and wherein the front edge and rear edge have a width of six to ten inches.

In accordance with a further feature, the central ridge structure has a left bottom side and a right bottom side that converge adjacent the rear of the central ridge structure and each follow a parabolic curve inward.

Although the invention is illustrated and described herein as embodied in a seat apparatus for treatment of hemorrhoids, it is, nevertheless, not intended to be limited to the details shown because various modifications and structural changes may be made therein without departing from the spirit of the invention and within the scope and range of equivalents of the claims. Additionally, well-known elements of exemplary embodiments of the invention will not be described in detail or will be omitted so as not to obscure the relevant details of the invention.

Other features that are considered as characteristic for the invention are set forth in the appended claims. As required, detailed embodiments of the present invention are disclosed herein; however, it is to be understood that the disclosed embodiments are merely exemplary of the invention, which can be embodied in various forms. Therefore, specific structural and functional details disclosed herein are not to be interpreted as limiting, but merely as a basis for the claims and as a representative basis for teaching one of ordinary skill in the art to variously employ the present invention in virtually any appropriately detailed structure. Further, the terms and phrases used herein are not intended to be limiting; but rather, to provide an understandable description of the invention. While the specification concludes with claims defining the features of the invention that are regarded as novel, it is believed that the invention will be better understood from a consideration of the following description in conjunction with the drawing figures, in which like reference numerals are carried forward. The figures of the drawings are not drawn to scale.

Before the present invention is disclosed and described, it is to be understood that the terminology used herein is for the purpose of describing particular embodiments only and is not intended to be limiting. The terms “a” or “an,” as used herein, are defined as one or more than one. The term “plurality,” as used herein, is defined as two or more than two. The term “another,” as used herein, is defined as at least a second or more. The terms “including” and/or “having,” as used herein, are defined as comprising (i.e., open language). The term “coupled,” as used herein, is defined as connected, although not necessarily directly, and not necessarily mechanically. The term “providing” is defined herein in its broadest sense, e.g., bringing/coming into physical existence, making available, and/or supplying to someone or something, in whole or in multiple parts at once or over a period of time.

“In the description of the embodiments of the present invention, unless otherwise specified, azimuth or positional relationships indicated by terms such as “up”, “down”, “left”, “right”, “inside”, “outside”, “front”, “back”, “head”, “tail” and so on, are azimuth or positional relationships based on the drawings, which are only to facilitate description of the embodiments of the present invention and simplify the description, but not to indicate or imply that the devices or components must have a specific azimuth, or be constructed or operated in the specific azimuth, which thus cannot be understood as a limitation to the embodiments of the present invention. Furthermore, terms such as “first”,

“second”, “third” and so on are only used for descriptive purposes, and cannot be construed as indicating or implying relative importance.

In the description of the embodiments of the present invention, it should be noted that, unless otherwise clearly defined and limited, terms such as “installed”, “coupled”, “connected” should be broadly interpreted, for example, it may be fixedly connected, or may be detachably connected, or integrally connected; it may be mechanically connected, or may be electrically connected; it may be directly connected, or may be indirectly connected via an intermediate medium. As used herein, the terms “about” or “approximately” apply to all numeric values, whether or not explicitly indicated. These terms generally refer to a range of numbers that one of skill in the art would consider equivalent to the recited values (i.e., having the same function or result). In many instances these terms may include numbers that are rounded to the nearest significant figure. Those skilled in the art can understand the specific meanings of the above-mentioned terms in the embodiments of the present invention according to the specific circumstances.

#### BRIEF DESCRIPTION OF THE DRAWINGS

The accompanying figures, where like reference numerals refer to identical or functionally similar elements throughout the separate views and which together with the detailed description below are incorporated in and form part of the specification, serve to further illustrate various embodiments and explain various principles and advantages all in accordance with the present invention.

FIG. 1 is a perspective view of a seat apparatus for repositioning a hemorrhoid from the top front right, in accordance with some embodiments;

FIG. 2 is a right side elevational view of a seat apparatus for repositioning a hemorrhoid, in accordance with some embodiments;

FIG. 3 is a front elevational view of a seat apparatus for repositioning a hemorrhoid, in accordance with some embodiments;

FIG. 4 is a top rear perspective view of a seat apparatus for repositioning a hemorrhoid, in accordance with some embodiments;

FIG. 5 is a perspective view of a cylindrical section to illustrate a geometry of a central ridge to be used on a seat apparatus for repositioning a hemorrhoid, in accordance with some embodiments; and

FIG. 6 shown a top right side perspective view of a seat apparatus for repositioning a hemorrhoid, in accordance with some embodiments.

#### DETAILED DESCRIPTION

While the specification concludes with claims defining the features of the invention that are regarded as novel, it is believed that the invention will be better understood from a consideration of the following description in conjunction with the drawing figures, in which like reference numerals are carried forward. It is to be understood that the disclosed embodiments are merely exemplary of the invention, which can be embodied in various forms.

The present disclosure provides a novel and efficient means for the treatment of hemorrhoids. Embodiments of the disclosure provide a seat apparatus that includes a central ridge structure. Upon sitting on the seat apparatus, the user’s body will bear against the central ridge structure, imparting pressure against the affected area, urging the hemorrhoid to





extends one quarter to three quarters of an inch above the peak height of the central ridge structure, and from the front of the central ridge structure one to three inches along a top of the central ridge structure;  
 wherein the central ridge structure and the secondary ridge structure are rigid.

2. The seat apparatus of claim 1, wherein the secondary ridge structure has an upward convex profile from front to rear.

3. The seat apparatus of claim 1, wherein the rear of the central ridge structure is five to nine inches from the front of the central ridge structure.

4. The seat apparatus of claim 1, wherein the base is rectangular, and wherein the front edge and rear edge of the base have a width of six to ten inches.

5. The seat apparatus of claim 1, wherein the base and the central ridge structure are made of a material that is one of plastic, metal, glass, or wood.

6. The seat apparatus of claim 1, wherein the base and central ridge structure are integrally formed.

7. The seat apparatus of claim 1, further comprising a hole form in the base at a front right corner or a front left corner of the base.

8. A seat apparatus for repositioning a hemorrhoid, comprising:

- a base having a front edge, a rear edge, a left edge, a right edge, and a top surface, the base being rigid, flat, and planar;
- a central ridge structure that extends upward from the top surface of the base, and has a conic section shape, and has a front and a rear, the front of the central ridge structure is adjacent the front edge of the base and the central ridge structure extends to the rear edge of the base, the central ridge structure having a highest point above the top surface of the base at the front, and wherein a top of the central ridge structure slopes downward from the highest point to the rear of the central ridge structure, wherein the central ridge has a width of two to three inches at the front of the central ridge along the base, and a height of two to three and one half inches at the highest point; and
- a secondary ridge structure formed on the top of the central ridge structure at the front of the central ridge structure that extends upward from the top of the central ridge structure one half to three quarters of an inch above the top of the central ridge structure, and which extends one to three inches along the top of the central ridge structure from the front of the central ridge structure;

wherein the central ridge structure is located midway between the left edge of the base and the right edge of

the base; and wherein the central ridge structure and the secondary ridge structure are rigid.

9. The seat apparatus of claim 8, wherein the secondary ridge structure has an upward convex cross section profile from side to side, and extends toward the rear of the central ridge structure.

10. The seat apparatus of claim 9, wherein the secondary ridge structure has an upward convex profile from front to rear.

11. The seat apparatus of claim 8, wherein the rear of the central ridge structure is five to nine inches from the front of the central ridge structure.

12. The seat apparatus of claim 8, wherein the base is rectangular, and wherein the front edge and rear edge of the base have a width of six to ten inches.

13. The seat apparatus of claim 8, wherein the central ridge structure has a left bottom side and a right bottom side that converge adjacent the rear of the central ridge structure and each follow a parabolic curve inward.

14. A seat apparatus for self-repositioning of a hemorrhoid by a user, comprising:

- a flat base having a left leg area and a right leg area;
- a central ridge structure disposed between the left leg area and the right leg area which extends upward from the base to a peak height at a front of the central ridge structure of two to three and a half inches, and which slopes downward to the base at a rear of the central ridge structure from the front of the central ridge structure, and wherein the central ridge structure has a width of two to three and half inches at a front of the central ridge structure along the base, and wherein the central ridge structure narrows in width from the front to the rear of the central ridge structure; and
- a secondary ridge structure formed on a top of the central ridge structure at the front of the central ridge structure that rises one half to three quarters of an inch above the top of the central ridge structure and one to three inches along the top of the central ridge structure from the front towards the rear of the central ridge structure;

wherein the flat base, central ridge structure, and secondary ridge structure are integrally formed of a rigid material.

15. The seat apparatus of claim 14, wherein the secondary ridge structure has an upward convex cross section profile from side to side.

16. The seat apparatus of claim 14, wherein the secondary ridge structure has an upward convex profile from front to rear.

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