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(54) **IMPLANTS AND PROCEDURES FOR SUPPORTING ANATOMICAL STRUCTURES FOR TREATING CONDITIONS SUCH AS INCONTINENCE**

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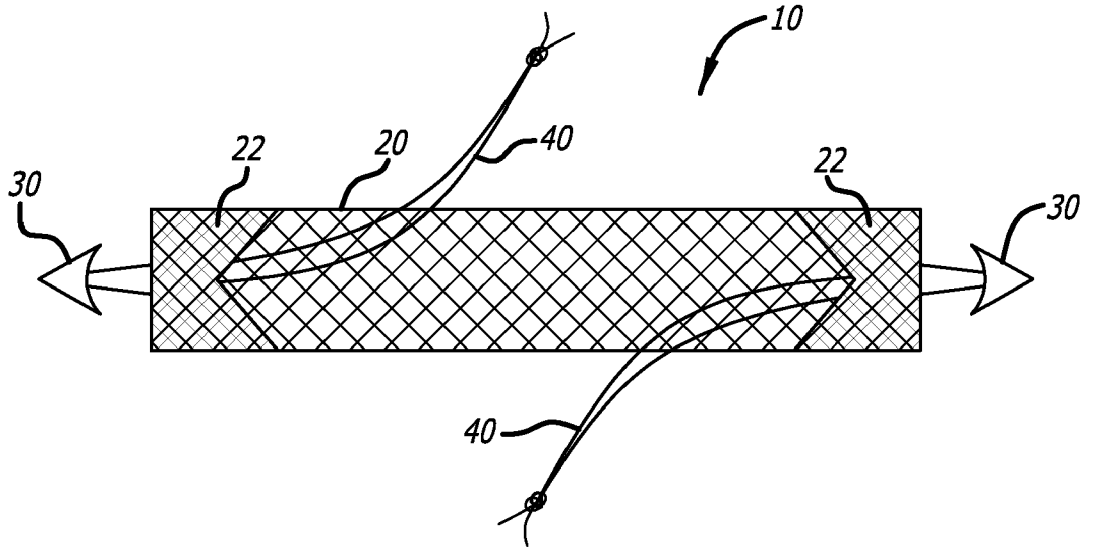
(52) **U.S. Cl.** **600/37**

(57) **ABSTRACT**

An implantable system for supporting anatomical structures and, more particularly, a sling-like implant for the treatment of incontinence and method of implementing the same is provided. The implant comprises a support portion and at least one anchor portion extending therefrom. The anchors are inserted through the supporting portion and have a removable filament extending therefrom. An end of the removable filament extends from an entry point into the patient's body and can be used so as to guide the delivery tool back to the anchor of the implant in the event that it is necessary to adjust the anchor.



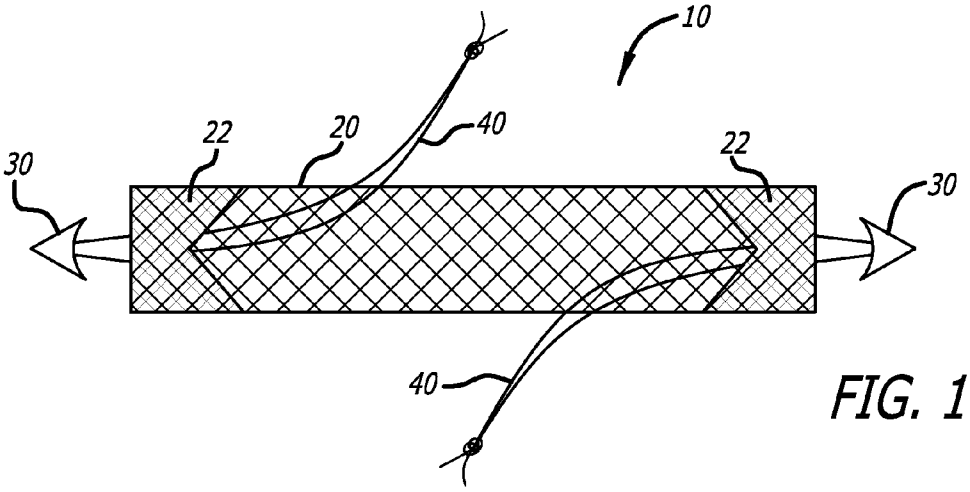


FIG. 1

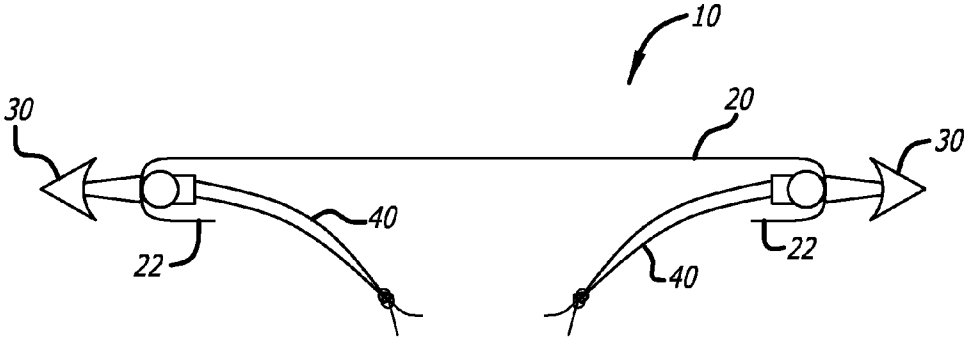


FIG. 2

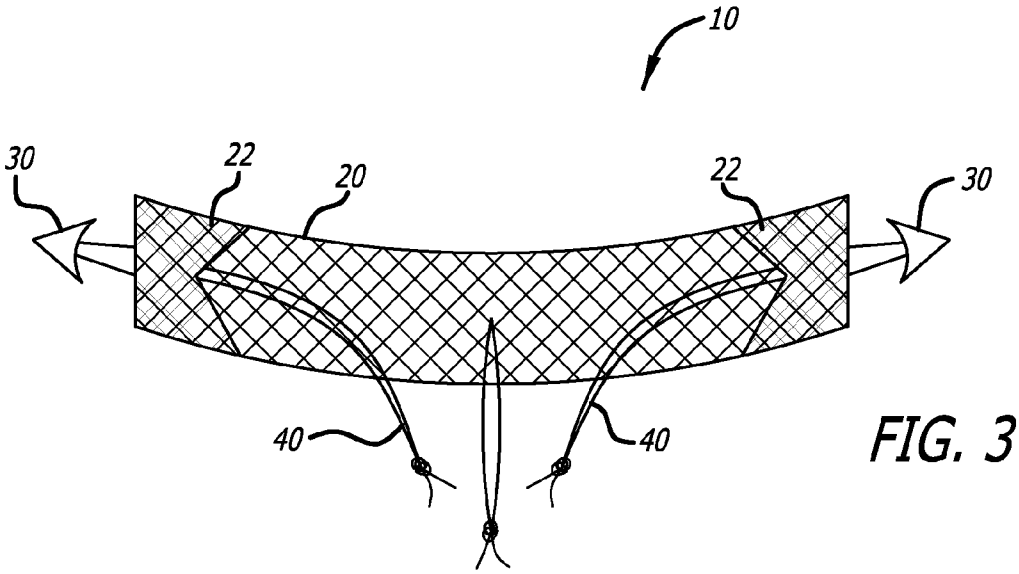


FIG. 3

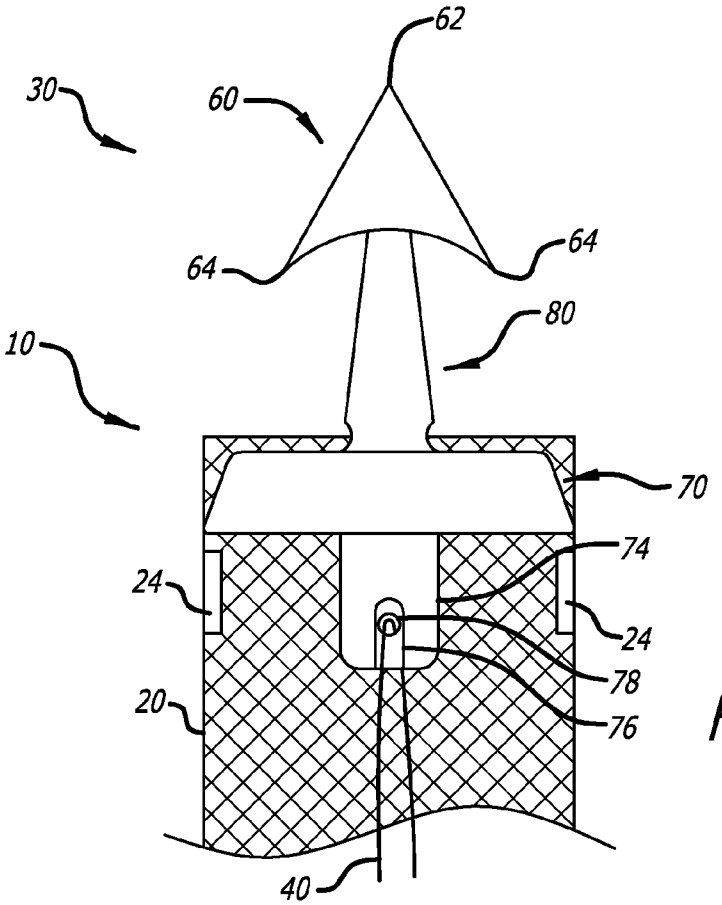


FIG. 4

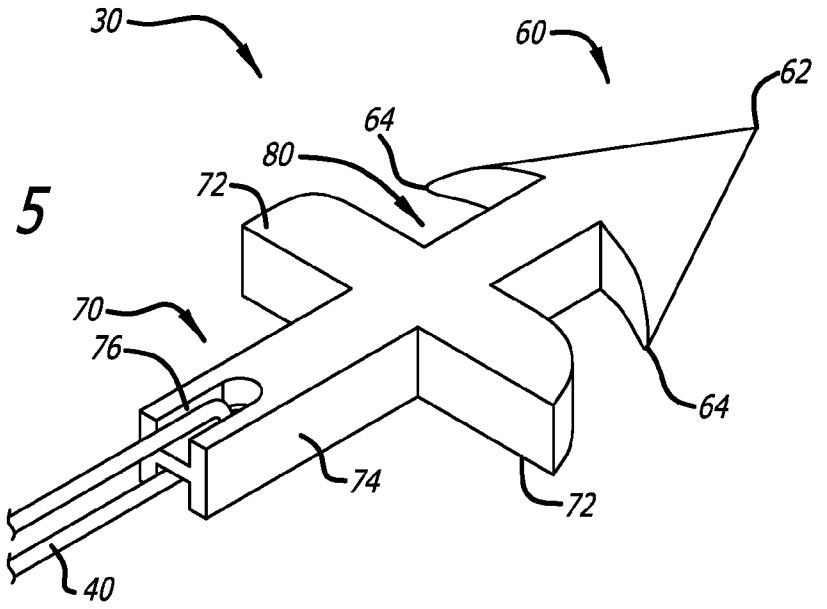


FIG. 5

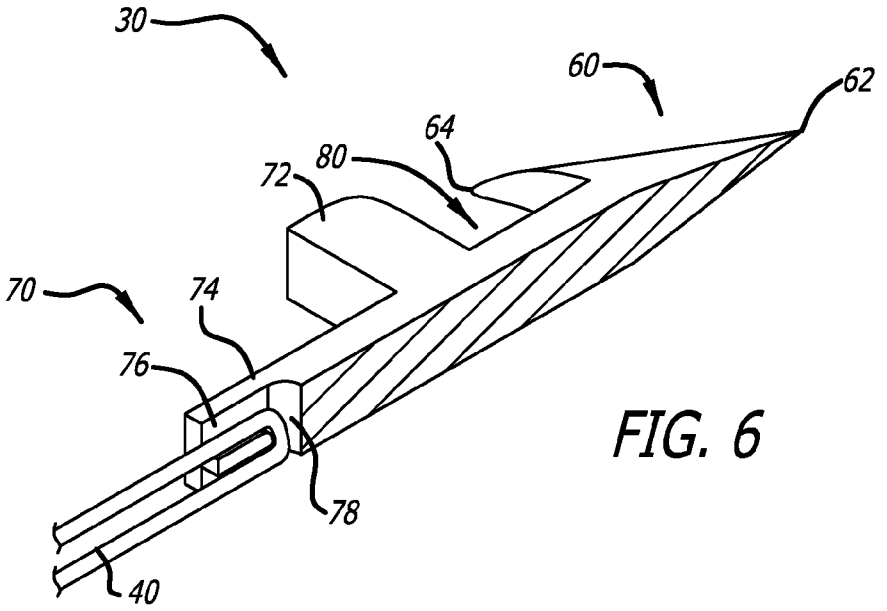


FIG. 6

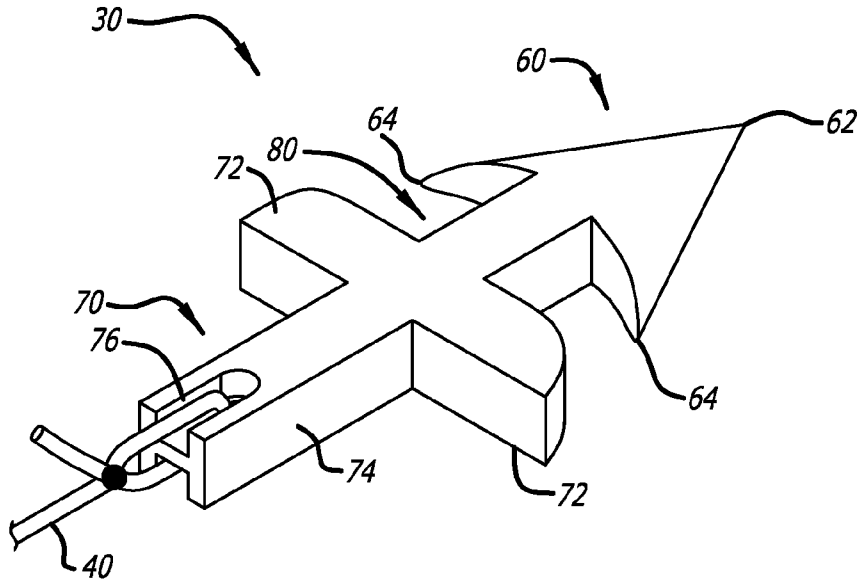


FIG. 7

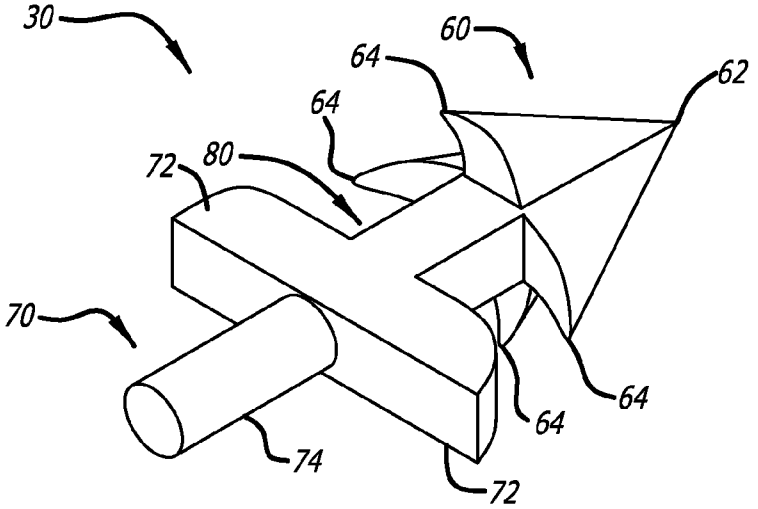


FIG. 8

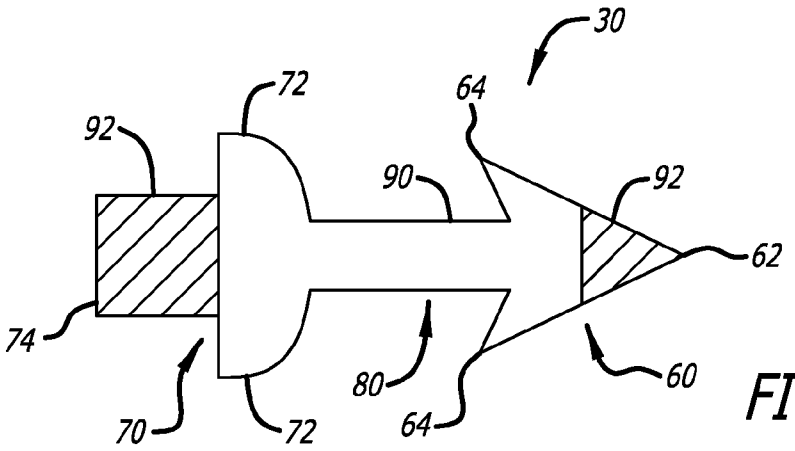

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FIG. 9A

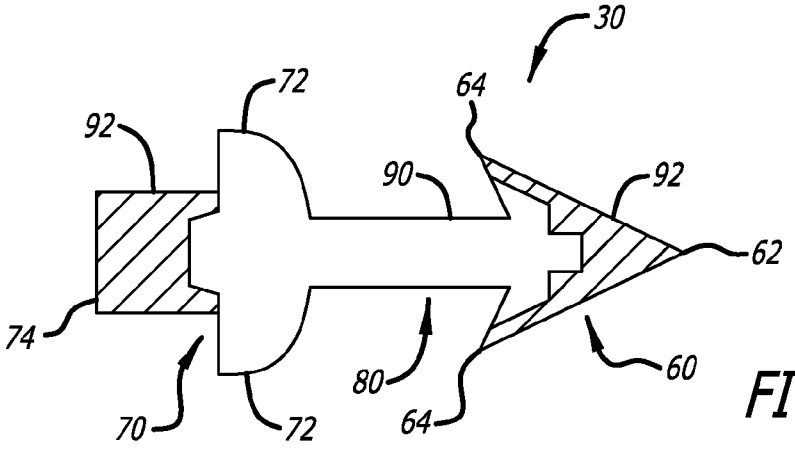
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FIG. 9B

FIG. 10A

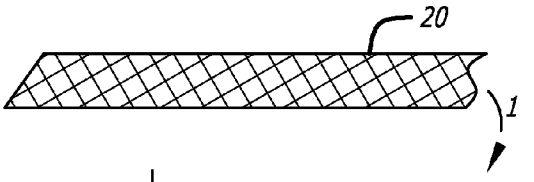


FIG. 10B

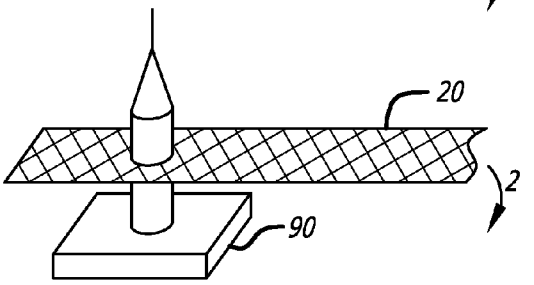


FIG. 10C

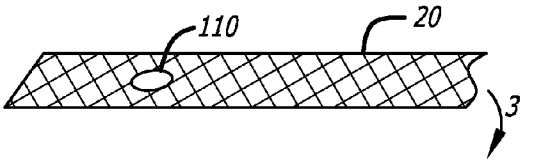


FIG. 10D

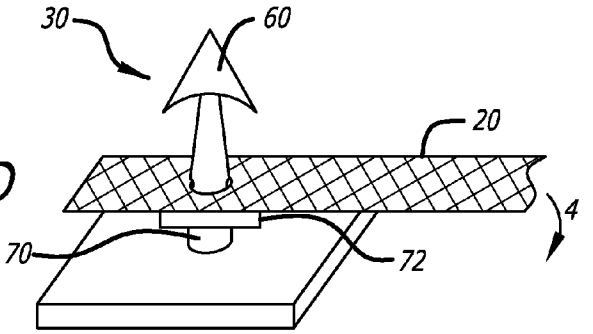


FIG. 10E

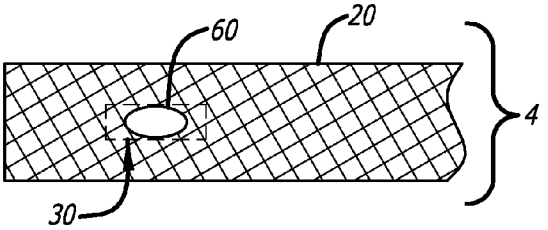
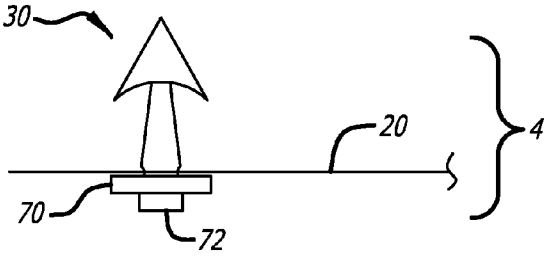


FIG. 10F



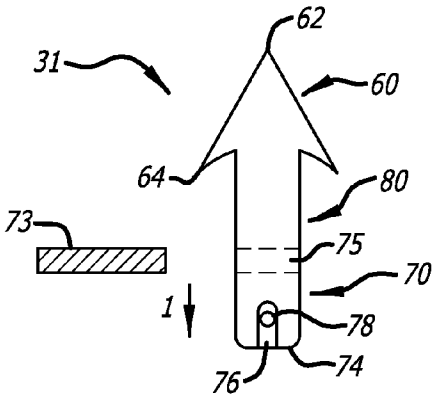
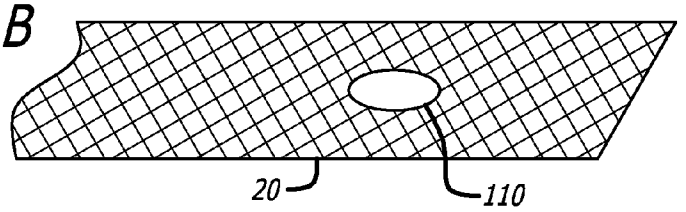


FIG. 11A

FIG. 11B



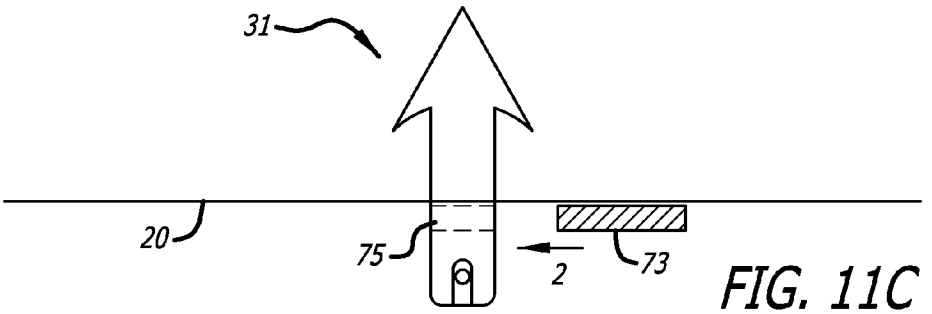


FIG. 11C

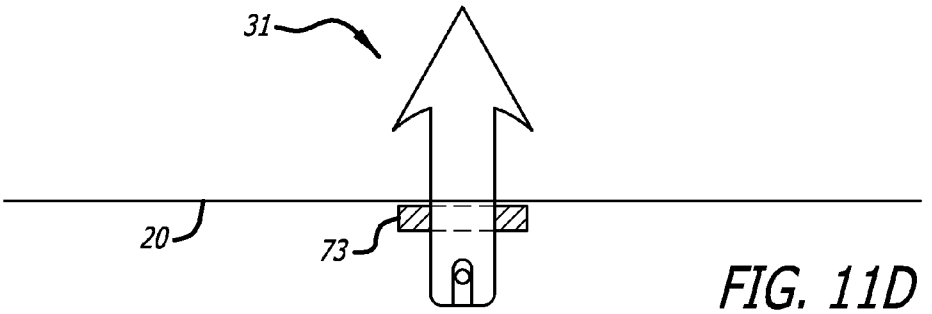


FIG. 11D

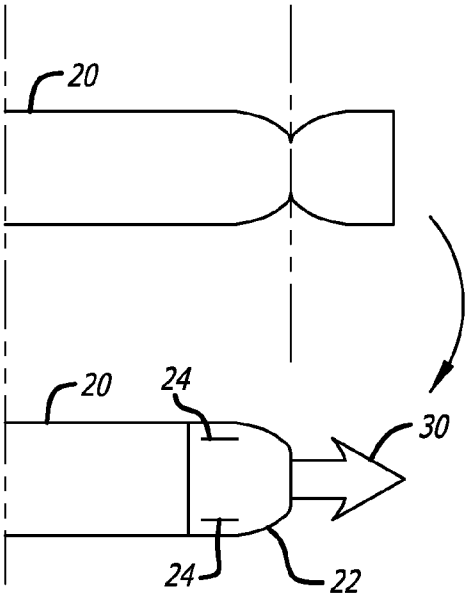


FIG. 12A

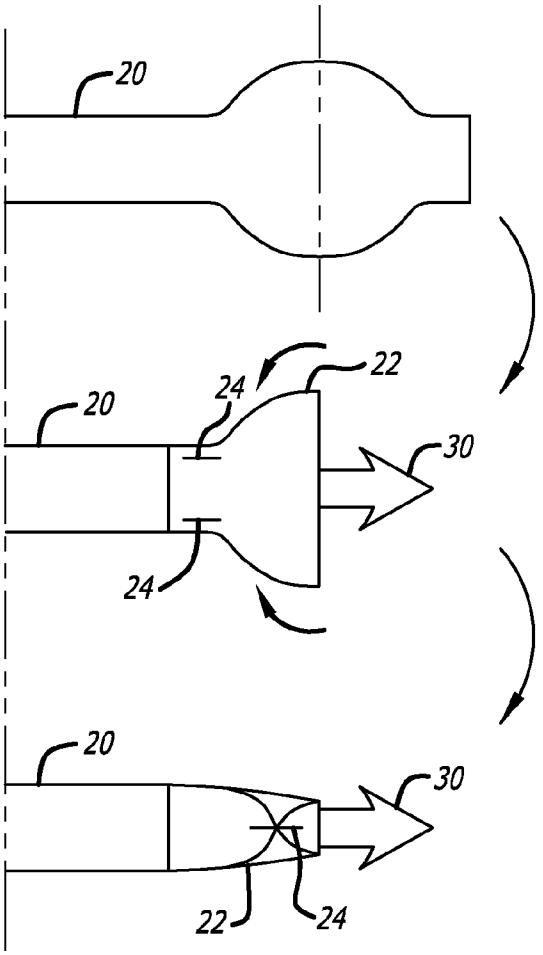


FIG. 12B

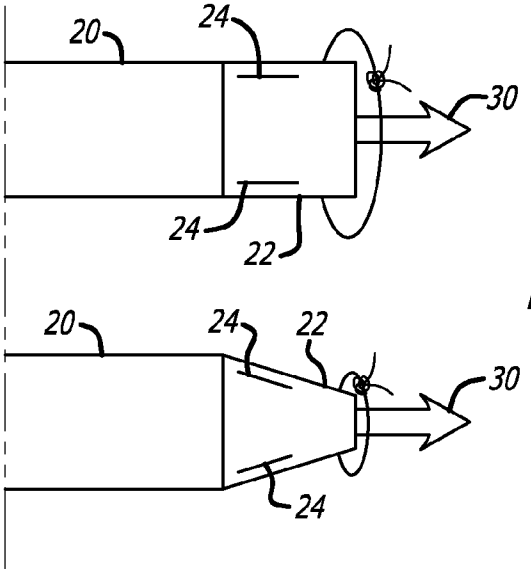


FIG. 12C

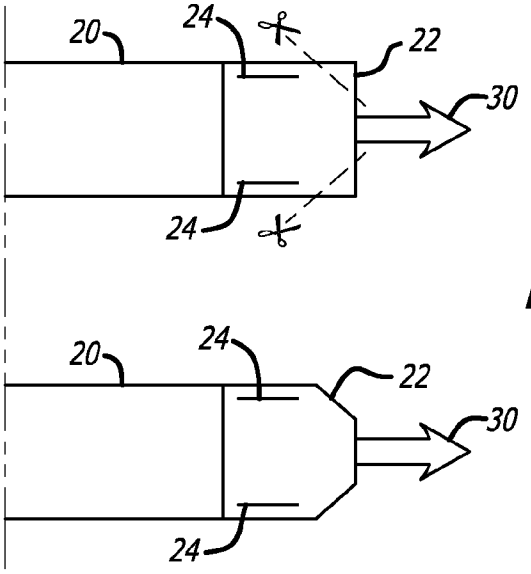


FIG. 12D

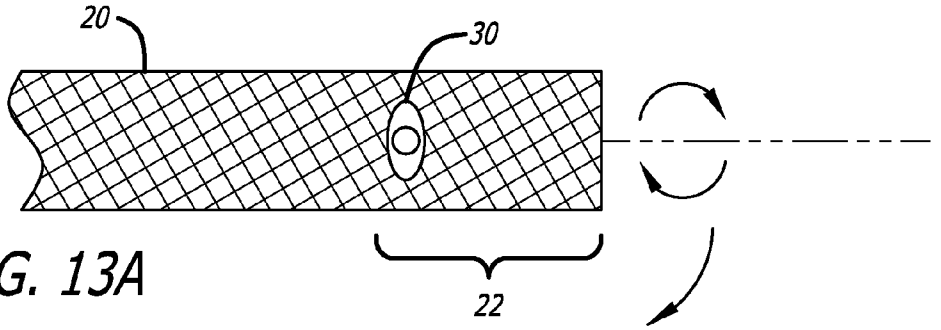


FIG. 13A

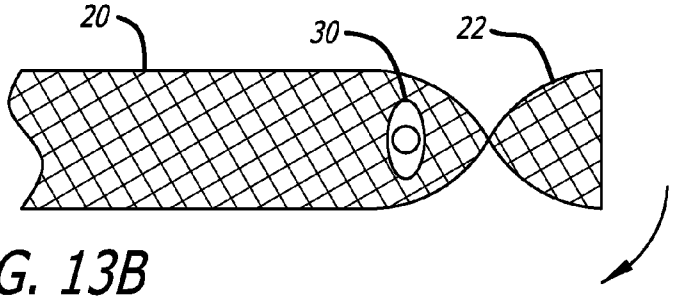


FIG. 13B

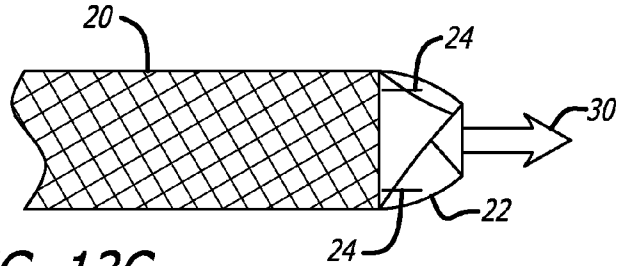


FIG. 13C

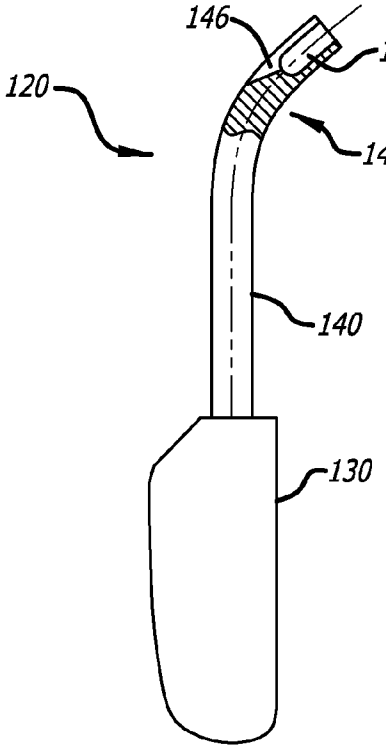


FIG. 14

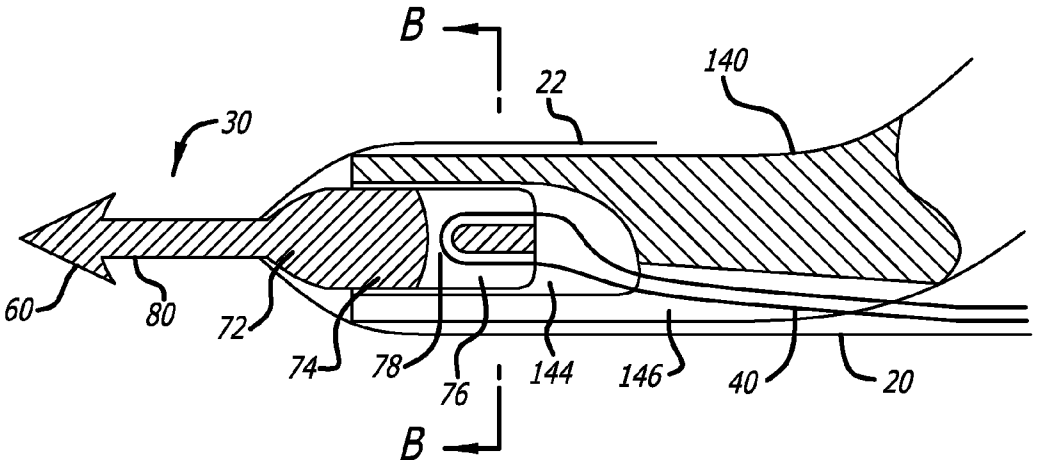


FIG. 15

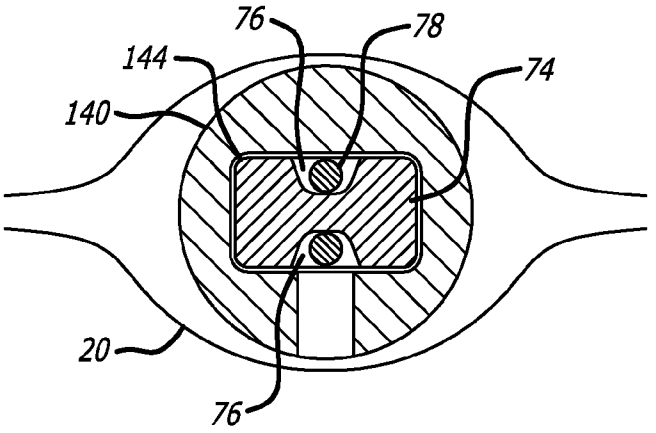


FIG. 16

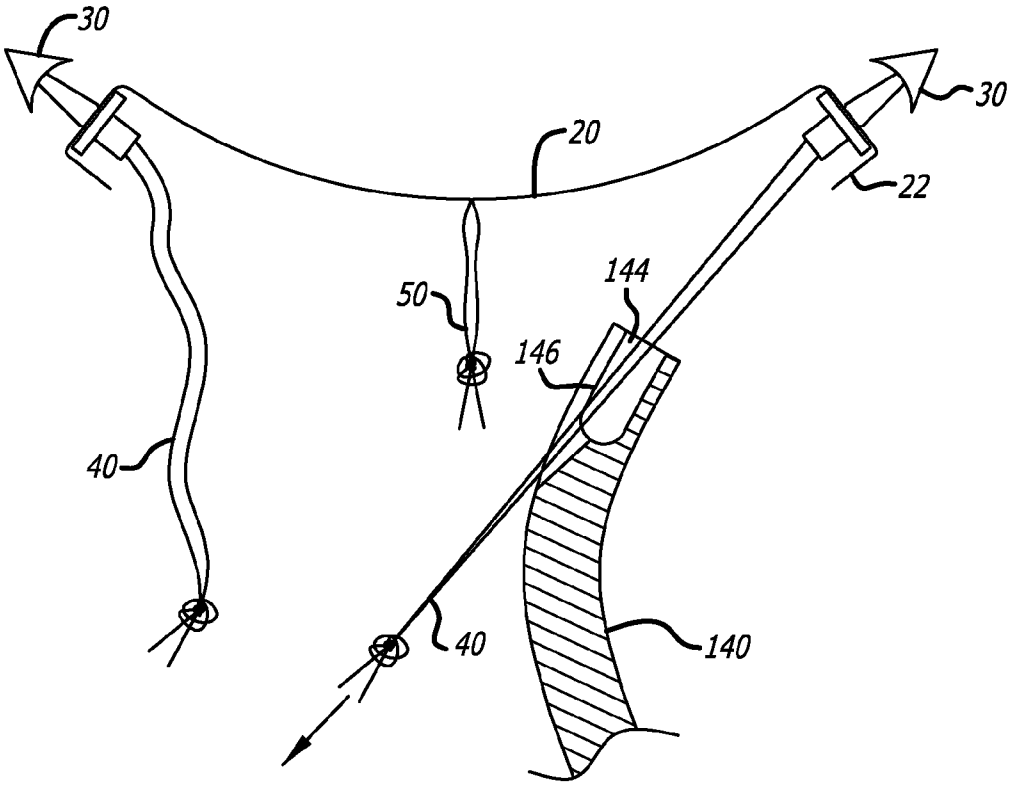


FIG. 17

IMPLANTS AND PROCEDURES FOR SUPPORTING ANATOMICAL STRUCTURES FOR TREATING CONDITIONS SUCH AS INCONTINENCE

RELATED APPLICATIONS

[0001] This application claims priority to U.S. Provisional Application Ser. No. 61/142,604 filed Jan. 5, 2009, entitled Implantable Anchors For Use With Mesh Within The Body, and is related to U.S. application Ser. No. (Not yet assigned), filed Jan. 5, 2010, entitled Implants And Procedures For Supporting Anatomical Structures For Treating Conditions Such As Pelvic Organ Prolapse, and U.S. application Ser. No. (Not yet assigned), filed Jan. 5, 2010, entitled Implants And Procedures For Supporting Anatomical Structures, all of which are hereby incorporated herein by reference.

FIELD OF THE INVENTION

[0002] The present invention pertains to the field of medical devices for anchoring and supporting anatomical structures and, more particularly, to implantable slings that are operative to provide support for a portion of a urethra of a patient.

BACKGROUND OF THE INVENTION

[0003] There are an estimated 19 million North American adults suffer from urinary incontinence, ranging in severity from partial to complete loss of bladder control. Adults with light incontinence, for example, may experience minimal leakage during the occurrence of a provocative event, such as laughing or coughing, whereas adults with heavy incontinence may experience continuous urine leakage. Moveover, the degree to which an adult is afflicted may change over time.

[0004] Generally, urinary incontinence is not considered a disease, but rather a symptom or side effect of another medical condition. For example, female incontinence may be caused by weakened and (or) stretched pelvic muscles, which is associated with child-birth, pregnancy, trauma, prior surgical procedures, and estrogen loss.

[0005] Each case of incontinence, however, is unique and no two people are affected by incontinence in the same way. There are, however, well-recognized types of incontinence and various ways to treat the same. Stress incontinence, which is a common type of incontinence, may be characterized as urine leakage during a provocative event such as sneezing, laughing, lifting heavy objects, or when the patient engages in any type of exercise that puts pressure on the bladder. Urge incontinence occurs when the patient wants to urinate but is incapable of exercising restraint until reaching a restroom. Additional types of incontinence include overflow incontinence, which occurs when the quantity of urine exceeds the capacity of the patient's bladder, and functional incontinence, which occurs when the patient has knowledge of the need to urinate but simply cannot access a restroom quickly enough due to a physical obstruction or debilitation.

[0006] To treat urinary incontinence, several options are available. Among the more effective types of recognized treatment include behavioral techniques, such as biofeedback, bladder training, and pelvic muscle exercises, and modifications of the patient's diet and fluid intake. With respect to the latter, it is known that eliminating or cutting back on certain types of substances, such as caffeine and alcohol, can help alleviate incontinence. Additionally, there are medications available, such as dicyclomine (Bentyl), flavoxate (Urispas), hyoscyamine sulfate (Anaspaz), imipramine (Tofranil), oxybutynin (Ditropan), tolterodine (Detrol), and propantheline (Pro-Banthine), phenylpropanolamine (Dexatrim), and pseudoephedrine (Sudafed) that are helpful in controlling urinary incontinence.

[0007] Surgery may additionally be an option to treat urinary incontinence. Along these lines, surgical implants are available that provide structural support to the urethra for the treatment of stress incontinence. In this regard, the implant is operative to provide structural support to the urethra such that during a provocative event, the device will provide structural support to the urethra thus causing the urine to be retained within the bladder and not leak through the urethra. Implants for females, such as the In-Fast Ultra device, produced by American Medical Systems, Inc., of Minneapolis, Minn. is a commercially available surgical implant that may be operative to provide structural support to the urethra for the treatment of stress incontinence.

[0008] Utilizing these supportive or sling implants to treat incontinence, however, has been known to have numerous drawbacks. Securing suburethral sling implants into position typically requires the use of bone screws, which are well-known in the art to be difficult and time consuming to deploy, and can result in significant patient discomfort, especially within the first couple of weeks following the surgical implantation.

[0009] In addition, implanting suburethral slings are often times difficult to secure into position with the optimal degree of tension. Indeed, the implantation of suburethral slings for the treatment of incontinence is well-recognized as complex, time consuming and can produce suboptimal clinical outcomes. Moreover, it is well recognized among surgeons that perform such implant procedures that sutures attached to bone anchors and/or sutures attached to bone screws utilized to secure the sling into position frequently break and that often times additional bone anchors or screws must be secured into position. In fact, each suture attached to bone anchors and or bone screws must typically be re-tensioned two to three times before optimal sling positioning and structural support to the urethra is achieved.

[0010] Accordingly, there is a substantial need in the art for a suburethral sling implant for the treatment of incontinence that is substantially easier to surgically secure into position and that can further provide an optimal degree of urethral support to thus effectively treat urinary incontinence. There is additionally a need in the art for an implant that is of simple construction, easy to surgically manipulate, and can be manufactured at relative low cost utilizing known implant materials, whether it be synthetic materials, natural tissues, or combinations thereof. There is yet a further need in the art for such an implant that can be secured into position such that the implant defines a suburethral sling portion operatively positioned at or distal to the mid-urethral region that remains securely anchored following implantation.

OBJECTS AND SUMMARY OF THE INVENTION

[0011] The present invention addresses and alleviates the above-identified deficiencies in the art. In this regard, the present invention is directed to an implant for supporting an anatomical structure comprising a support member and a plurality of anchors extending through the support member proximate the ends of the support member. The present invention is further directed to a system for implanting an implant

for supporting an anatomical structure comprising an implant having a support member and at least one anchor and a delivery tool comprising a handle, a shaft and a cavity for engaging the implant. The present invention is also directed to a method for supporting an anatomical structure comprising the steps of engaging an implant with a delivery tool; and advancing the tool to a target tissue and securing the implant in the target tissue.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] These and other aspects, features and advantages of which embodiments of the invention are capable of will be apparent and elucidated from the following description of embodiments of the present invention, reference being made to the accompanying drawings, in which

[0013] FIG. **1** is a plan view of an implant according to an embodiment of the present invention.

[0014] FIG. **2** is a front elevation view of an implant according to an embodiment of the present invention.

[0015] FIG. **3** is a perspective view of an implant according to an embodiment of the present invention.

[0016] FIG. **4** is a plan view of one end of an implant according to an embodiment of the present invention.

[0017] FIG. **5** is a perspective view of an anchor according to an embodiment of the present invention.

[0018] FIG. **6** is a cross-sectional view of an anchor according to an embodiment of the present invention.

[0019] FIG. **7** is a perspective view of an anchor according to an embodiment of the present invention.

[0020] FIG. **8** is a perspective view of an anchor according to an embodiment of the present invention.

[0021] FIGS. **9**A and **9**B are cross-sectional views of an anchor according to an embodiment of the present invention.

[0022] FIGS. **10**A-**10**F is a series of drawings showing a process of assembling an implant according to an embodiment of the present invention.

[0023] FIG. **11**A is a plan view of an anchor according to an embodiment of the present invention.

[0024] FIGS. **11**B-**11**D is a series of drawings showing a process of assembling an implant according to an embodiment of the present invention.

[0025] FIGS. **12**A-**12**D are plan views of one end of an implant according to certain embodiments of the present invention.

[0026] FIGS. **13**A-**13**C is a series of drawings showing a process of assembling an implant according to one embodiment of the present invention.

[0027] FIG. **14** is a side elevation view and a cut-away view of a delivery system according to an embodiment of the present invention.

[0028] FIG. **15** is a cutaway view of a delivery system according to an embodiment of the present invention.

[0029] FIG. **16** is a cross-sectional view of a delivery system taken along section line A-A FIG. **15**.

[0030] FIG. **17** is a perspective view of and implant and a delivery system according to an embodiment of the present invention.

DESCRIPTION OF EMBODIMENTS

[0031] Specific embodiments of the invention will now be described with reference to the accompanying drawings. This invention may, however, be embodied in many different forms and should not be construed as limited to the embodiments set forth herein; rather, these embodiments are provided so that this disclosure will be thorough and complete, and will fully convey the scope of the invention to those skilled in the art. The terminology used in the detailed description of the embodiments illustrated in the accompanying drawings is not intended to be limiting of the invention. In the drawings, like numbers refer to like elements.

[0032] Unless otherwise defined, all terms (including technical and scientific terms) used herein have the same meaning as commonly understood by one of ordinary skill in the art to which this invention belongs. It will be further understood that terms, such as those defined in commonly used dictionaries, should be interpreted as having a meaning that is consistent with their meaning in the context of the relevant art and will not be interpreted in an idealized or overly formal sense unless expressly so defined herein.

[0033] The implant according to the present invention may, for example, be employed to provide suburethral support and thereby prevent or minimize the leakage of urine or incontinence. In this respect, the implant is operative to act as a suburethral sling, as is known in the art, but is advantageously operative to be more easily secured into position than prior art sling implants. The implant of the present invention is further capable of being deployed in a manner that is far less traumatic than prior art sling implants and methods of surgically implanting the same, and further utilizes a novel attachment approach that provides for optimal suburethral positioning of the implant.

[0034] As shown in FIGS. **1-3**, according to certain embodiments of the present invention, an implant **10** employs a support member **20** through which two or more anchors **30** are inserted. The anchors **30** are employed to pierce a target tissue, such as obturator internus muscle, obturator internus fascia, obturator membrane, arcus tendineus levator ani, and levator ani muscle, thereby suspend the support member across an internal regions of the body. Extending from the anchors **30** are anchor sutures **40** that facilitate locating the relevant anchor **30** and reengagement of a delivery system with the anchors **30**. As shown in FIG. **3**, extending from the support member **20** is one or more support member suture **50**. The support member suture **50** thereby provides a marker indicating an approximate position of the mid-point of the support member **20** during and after implantation.

[0035] With respect to the support member **20**, the support member **20** is a piece of material having a generally rectangular or oblong shape. The support member **20** may be fabricated of a synthetic material, such as surgical mesh and the like, natural tissues, such as tissues harvested from either an animal, cadaverous source or the patient himself, and/or combinations of synthetic and natural materials. In a preferred embodiment, the support member **20** is fabricated of a mesh or weave. The support member **20** may, for example, be 5-30 mm wide by 30-150 mm long, and preferably 8-15 mm wide by 50-90 mm long.

[0036] As seen in FIGS. **3** and **17**, in certain embodiments, the support member suture **50** is advantageously attached to the support member **20**. The support member suture **50** is looped through, tied to, or otherwise associated with the support member **20**. Preferably, the support member suture **50** is affixed to the support member **20** at a proximate midpoint of the support member **20**. As would be understood by one of ordinary skill in the art, it may also be advantageous to employ a plurality of the support member sutures **50** at predetermined positions on or within the support member **20** in

order to provide a plurality of markers along a length of the support member. In order to distinguish the various individual sutures, the support member sutures, as well as the anchor sutures, may be provided in different colors, lengths, or other indicating means that would allow a user to distinguish one suture from another.

[0037] Turning next to FIGS. **4-8**, FIGS. **4-8** show various embodiments of the anchor **30** of the present invention. The anchor **30** has a distal portion **60** and a proximal portion **70** associated with one another by mid-portion **80**. A proximal end of the distal portion **60** of the anchor **30** is associated with or attached to a distal end of the mid-portion **80**. Conversely, a distal end of the proximal portion **70** is associated with or attached to a proximal end of the mid-portion **80** of the anchor **30**. The mid-portion **80** of anchor **30** is formed as a shaft or spacer that serves to provide space between the distal portion **60** and the proximal portion **70** to, for example, accommodate a depth of tissue through which the distal portion **60** has penetrated.

[0038] The distal portion **60** of the anchor **30** employs a piercing tip **62** for penetrating tissue and a tissue-retention protrusion **64** proximal of the piercing tip **60** that anchors or secures the distal portion **30** within tissue. The distal portion **60** may have, for example, an arrowhead-like shape as shown in FIGS. **5-7**. Alternatively, distal portion **60** may have a more complex shape configured to employ more than two, for example as shown in FIG. **8**, four tissue-retention protrusions **64**. The distal portion **60** may further employ a conical or cone-like shape having a circular tissue-retention protrusion **64**. One of ordinary skill in the art would recognize that alternative shapes and configuration of the distal portion **60** are possible while still achieving the desired objective. For example, distal portion **60** may employ resilient, spring loaded and/or self-tensioning tissue-retention protrusions **64**.

[0039] The proximal portion **70** of anchor **30** comprises a shoulder **72** for providing a back-stop for the support member **20** and a guide member **74** for engagement with a delivery system, as discussed in greater detail below. The proximal portion **70** may, optionally, further employ recesses **76** and eyelet **78**. The anchor suture **40** passes through the eyelet **78** and is, for example, secured back to itself to form a loop. The recesses **76** may be positioned on one or both side of the eyelet **78** and configured so as to accept the anchor suture **40** such that the presence of the anchor suture **40** does not add to or change an outer dimension of the guide member **74**.

[0040] The anchor **30** may be formed from a variety of materials, including but not limited to metal alloys, such as titanium, stainless steel, or cobalt-chome alloys, polymeric materials, such as polyethylene (PE), polypropylene (PP), polysulfone, polyether ether ketone (PEEK), polyether imide (PEI), and biodegradable materials, such as polylactic acid (PLA) and polyglycolic acid (PGA) based materials. The anchor **30** may be formed of a single material or a combination thereof. For example, as illustrated in FIGS. **9**A and **9**B, the anchor **30** may be formed of a combination of primary material **90**, such as titanium, and a biodegradable material **92** assembled or molded over the primary material **90**.

[0041] Turning next to FIGS. **10**A-**10**F, FIGS. **10**A-**10**F show the steps of assembling the implant **10** according to various embodiments of the present invention. For the sake of clarity, FIGS. **10**A-**10**F show only the assembly of one side of the implant **10**. First, a tool **90** is used to form an opening **110** through the support member **20** proximate an end of the support member **20** by penetrating, stretching, or spreading the mesh or knitted material of the support member **20**. The tool **90** has a tapered or pointed end and a cross-section shape in the form of a circle, rectangle, oval or most any other shape. The distal portions **60** of the anchors **30** are then inserted through the openings **110** in the support member **20** until the support member **20** rests against the shoulders **72** of the proximal portions **72** of the anchors **30**. In a preferred embodiment, the openings **110** are formed interior of the outer perimeter of the support member **20** such that there is sufficient material of supporting member **20** so that the openings **110** do not substantially expand or rip though the outer perimeter of the support member **20**. With the anchors **20** inserted through the support member **20**, the implant **10** may then be implanted into the patient.

[0042] In an alternative embodiment of the present invention, as shown in FIG. **11**A-**11**D, the shoulder of the anchor **31** is formed of a plastic or metal pin **73** that is inserted through a receiving hole **75** formed through the proximal portion of the anchor **31**. During assembly of the implant **10**, once the openings **110** are formed through the support member **20**, the guide **74** and/or proximal portion **70** of anchor **31** is placed through the opening **110** and the pin **73** is inserted through the receiving hole **75** to form a element functionally similar to the shoulder **72** previously described. As one of ordinary skill in the art would recognize, this embodiment provides the advantage that a smaller opening **110** may be formed when assembling the implant **10**. The smaller opening **110**, in turn, provides the advantage of the support member **20** having a greater resistance to tearing and deformation.

[0043] In certain other embodiments of the present invention, the assembled implant **10** as described above may be subjected to additional fabrication steps. For instance, as shown in FIGS. **1-3**, and **12-14**, after insertion of the anchor **30** through the opening **110** of support member **20**, a portion of the support member **20** between the opening **10** and the outer perimeter of the support member **20** is folded over the shoulder of the anchor **30** back on to itself to form a folded portion **22**. The folded portion **22** may then be bonded, sutured, welded, or tacked to it self to form bond **24** to better maintain the fold. Formation of the folded portion **22** serves, in part, to decrease resistance to penetration of the anchor **30** into tissue. The fold **22** may additionally help insure that the anchor **30** remains inserted through the support member **20** during handling and implantation of the implant **10**, as well as provide a more visually appealing appearance to the implant **10**. As shown in FIGS. **12**A-**12**D and **13**, the shape of the portion of the support member **20** that forms the fold **22** may be manipulated so as to, for example, result in an implant **10** that has a tapered end. A tapered end may be formed by forming a portion of the support member **20** so as to have a width that narrows at a fold line **26**, as shown in FIG. **12**A. A tapered end may also be formed through a secondary folding of the extremities or corners of the fold **22** towards one another, as shown in FIG. **12**B. Alternatively, as shown in FIG. **12**C, once the folded portion **22** is formed a suture may be threaded through the fold **22** and cinched and bound to itself so as to form a tapered end of the anchor **30**. A tapered end may also be formed in the implant **10** by cutting or trimming the corners of the fold **22** after the fold **22** has been formed, as shown in FIG. **12**D.

[0044] FIGS. **13**A-C show yet another embodiment of the implant **10** in which, prior to formation of the fold **22**, the support member **20** is twisted 180 degrees or more. Again, this method of assembly decreases resistance to penetration

of the anchor and helps ensure that the anchor **30** remains inserted through the support member **20** during handling and implantation. One of ordinary skill in the art will, however, recognize that other methods of assembling the support member **20** and the anchor **30** to achieve the desired characteristics of the implant **10** are known in the art.

[0045] Turning now to the delivery system of the present invention. Broadly speaking, the delivery system is configured to receive a portion of the anchor **30** of the assembled implant **10**. FIG. **14** shows a delivery system **120** having a handle **130** and a shaft **140**. The handle **130** is preferably ergonomically shaped to facilitate grasping and manipulating. The handle **130** is preferably marked, colored, textured or otherwise configured so as to indicate to a user the orientation of the delivery system **120**. The shaft **140** protrudes from or is an extension of the handle **120**. The shaft **130** is, for example, formed of stainless steel or other metal in the general shape of a needle. A curved distal portion **142** of the shaft **140** includes a cavity **144** and a slot **146**.

[0046] Referring now to FIGS. **15** and **16**, FIG. **15** shows the implant **10** and delivery system **120** assembled ready for implantation of the implant **10**. FIG. **16** shows a cross-sectional view of the assembled implant **10** and delivery system **120** viewed along section line A-A of FIG. **15**. As will be noted, the shape of the cavity **144** corresponds to the shape of the guide **74** of the anchor **30**. That is to say that the guide **74** of the anchor **30** of the implant **10** and the cavity **144** of the shaft **140** of the delivery system **120** are complementary elements, the cavity **144** forms a female receiving element for the male guide **74**. Preferably, the cavity **144** and the guide **74** are formed in the shape of a square, rectangle, oval, triangle, star, or other shape that resists the guide **74** rotating within the cavity **144**. In certain embodiments of the present invention, the cavity **144** and the guide **74** form a friction fit such that the guide **74** is maintained within the cavity **144** during handling and deployment of the implant **10** but is readily released from the cavity **144** upon engagement of the distal portion **60** of the anchor **30** with tissue.

[0047] A portion of the slot **146** penetrates radially through the shaft **140** into the cavity **174** and extends axially along a length of the distal portion **142** of the shaft **140**. Preferably, the slot **146** extends axially along the shaft **140** to a greater extent than the cavity **174**. The slot **146** thereby receives and forms a channel through which the anchor suture **40** of anchor **30** is positioned along an axis of the shaft **140**.

[0048] A method for deploying or implanting the implant **10** according to certain embodiments of the present invention will now be described. First, a single incision or entry point is made in the patient followed by blunt dissection as necessary or desired. For example, the entry point may be made in the anterior wall of the vagina. One side of the implant **10** that is engaged with the delivery system **120**, as previously described, is then inserted through the entry point and the anchor **30** that is engaged with the delivery system **120** is forced into or through a portion of the target tissue. The delivery system **120** is retracted away from the anchor **30** that has penetrated the target tissue thereby breaking the engagement between the delivery system **120** and the anchor **30**. During this process and particularly while the delivery system **120** is being retracted, the user secures the corresponding anchor suture **40** such that the delivery system **120** is retracted while an end of the anchor suture **40** is maintained extending out from the entry point. A second side of the implant **10** that is engaged with the delivery system **120** is then implanted as described with regard to the first side. Substantially concurrent with the implantation of the second side of the implant **10**, the support member **20** of the implant **10** is positioned so as to support the desired organ, for example a portion of the urethra. The support member suture **50**, shown in FIGS. **3** and **17**, may be used to determine the position and/or tension of the implanted support member **20**. The tension of the support member **20** of the implant **10** is initially adjusted by pushing the delivery system **20** such that the second side of the implant **10** is forced further into the target tissue. The delivery system **120** is then retracted from the second side of the implant **10**. An end of the second anchor suture **30** is also maintained such that it extends out from the entry point.

[0049] Should it be determined that greater tension is desired or if it is otherwise desirable to reengage of the delivery system **120** with one of the anchors **30**, the present invention provides a particularly advantageous means for achieving such. As shown in FIG. **17**, the end of the anchor suture **40** of the relevant anchor **30** that extends from the entry point is tensioned and secured. The slot **146** of the delivery system **120** is then positioned such that the anchor suture **40** passes through the slot **146**, and serves as a guide for the delivery system **120** to the relevant anchor **30**. The delivery system **120** is advanced towards the relevant anchor **30** along the anchor suture **40**. The guide **74** of the anchor **30** is thereby received by the cavity **144** of the delivery system **120** and, if desired, the friction fit between the anchor **30** and the delivery system **120** is reestablished. It is then possible to adjust the tension of the support member **20** of the implant **10** by pushing the delivery system **120** so as to drive the anchor further into the target tissue. The implant **10** can be retracted by pulling on the anchor suture **40** thereby releasing all or a portion of the tension present in the implant **10**.

[0050] Upon completion of the implantation of the implant **10**, the anchor sutures **40** and support member sutures **50** can be left in place for possible use in a follow-up procedure or may be removed from the patient.

[0051] While the present invention has been described for use in slings for treating incontinence, it would be understood by one of skill in the art that the present invention, either in part in its entirety, can also be used for treating pelvic floor disorders, for supporting a broad range of organs within the body, and for fixing tissue or implants within the body.

[0052] Although the invention has been described in terms of particular embodiments and applications, one of ordinary skill in the art, in light of this teaching, can generate additional embodiments and modifications without departing from the spirit of or exceeding the scope of the claimed invention. Accordingly, it is to be understood that the drawings and descriptions herein are proffered by way of example to facilitate comprehension of the invention and should not be construed to limit the scope thereof.

What is claimed is:

1. A system for supporting an anatomical structure comprising:

a supporting member having a first end and a second end;

a first anchor extending through the support member proximate to the first end; and

a second anchor extending through the support member proximate to the second end.

2. The system of claim **1** wherein the supporting member is mesh.

3. The system of claim **1** wherein the supporting member comprises at least one fold.

4. The system of claim **3** wherein the at least a portion of said at least one fold is attached to itself.

5. The system of claim **1** wherein at least one removable filament extends from the supporting member.

6. The system of claim **1** wherein a removable filament extends from an approximate mid-portion of the supporting member.

7. The system of claim **1** wherein the first and second anchors extend through an opening formed through the support member.

8. The system of claim **1** wherein at least one of said first and second anchors comprises at least one eyelet from which a filament extends.

9. The system of claim **1** wherein a portion of at least one of said first and second anchors is arrow shaped.

10. The system of claim **1** wherein at least one of said first and second anchors comprises a shoulder formed by a pin inserted through an eyelet.

11. The system of claim **1** wherein a portion of at least one of said first and second anchors comprises a polymer.

12. The system of claim **1** wherein a portion of at least one of said first and second anchors is biodegradable.

13. A system for implanting an implant for supporting an anatomical structure comprising:

an implant having a support member and at least one anchor extending through the support member proximate an end of the support member, said anchor having a proximal protrusion; and

a delivery tool comprising a handle and a shaft, said shaft having a cavity formed within a distal portion, the cavity having a cross-sectional shape complementary to a cross-sectional shape of the proximal protrusion of the anchor.

14. The system of claim **13** wherein the distal portion of the delivery tool comprises a slot that extends axially along at least a portion of the shaft.

15. The system of claim **14** wherein a removable filament extends from the proximal protrusion of the anchor through the slot of the delivery tool when the proximal protrusion of the anchor is inserted within the cavity of the delivery tool.

16. The system of claim **14** wherein a removable filament extends from an eyelet formed in the proximal protrusion of the anchor.

17. The system of claim **14** wherein a removable filament extends through a recess formed in the proximal protrusion of the anchor.

18. The system of claim **13** wherein the proximal protrusion of the anchor forms a friction fit with the cavity of the delivery tool.

19. A method for supporting an anatomical structure comprising:

(a) engaging a first anchor of an implant with a tool;

(b) introducing a removable filament extending from said first anchor into a guide slot of said tool;

(c) advancing said tool engaged with said first anchor to a first target tissue;

(d) securing said first anchor of said implant to said target tissue;

(e) withdrawing said tool from said first target tissue;

(f) repeating steps (a) through (e) with a second anchor of said implant at a second target tissue.

20. The method of claim **19** further comprising the steps of:

reintroducing said removable filament through said guide slot of said tool;

reengaging one of said first or second anchors of said implant with said tool; and

advancing said tool engaged with said anchor further into said target tissue thereby increasing a tension between said first and second portion of said implant.

21. The method of claim **19** further comprising the steps of pulling said removable filament extending form one of said first or second anchors thereby releasing a portion of a tension between said first and second anchors of said implant.

22. The method of claim **19** further comprising the step of determining a position of said implant relative to said first and second target tissue by a removable filament attached to said implant.

23. The method of claim **19** further comprising the steps of pulling a removable filament extending from a support member of said implant thereby releasing a portion of a tension between said first and second portion of said implant.

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