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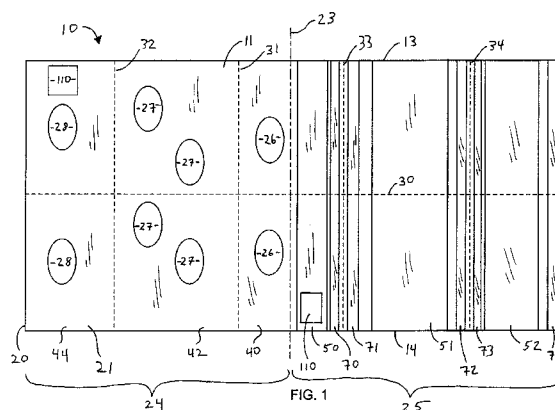
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(54) Title: SURGICAL DRAPE WITH CONFIGURABLE CHANNEL REGIONS



(57) Abstract: A surgical drape (10) capable of organizing and holding in place a number of cables, wires, cords, tubes and the like. The surgical drape (10) may be configured by a physician or surgical staff member to include a plurality of internal channels (80, 90, 100), each suited to hold one or more cables, wires, cords, or tubes in place. Anti-skid frictional members (50, 51, 52) are provided within each internal channel (80, 90, 100). Each internal channel (80, 90, 100) includes a superior opening (81, 91, 101), an inferior opening (82, 92, 102), and a plurality of apertures (26, 27, 28) communicating with the channel (80, 90, 100). Perforated lines (30, 31, 32, 33, 34) permit the surgical drape (10) to be readily separated into smaller portions, and facilitate the rapid removal of non-disposable objects retained therein following the completion of surgical procedures. Magnets (110) may optionally be employed to further secure inhibit movement or sliding of ferromagnetic objects retained within an internal channel (81, 91, 101) of the surgical drape (10).

SURGICAL DRAPE WITH CONFIGURABLE CHANNEL REGIONS

CROSS-REFERENCE TO RELATED APPLICATIONS

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[0001] This application claims the benefit of U.S. Provisional Patent Application No. 60/917,103, filed May 10, 2007, the entirety of which is hereby incorporated by reference.

TECHNICAL FIELD

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[0002] The present invention relates, in general, to surgical drapes and, more particularly, to surgical drapes capable of holding in place objects associated with a surgical procedure and required or desirable to be retained in close proximity to the patient, such as cords, tubes, wires, cables and the like.

BACKGROUND ART

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[0003] The operative field during a surgical procedure can sometimes become overcrowded with a variety of wires, cables, tubing, and similar items which may be required to be located in close proximity to a patient. During certain endoscopic procedures, for example, a significant number of additional cables, tubes, and the like may be required to be present in close association with the patient, including additional light cables, irrigating tubes, and suction tubing. The presence of all of these auxiliary items can present the surgeon and operative assistants with an inconvenient clutter to contend with during procedures. If not properly positioned and organized, this array of cables, wires and tubing on the operative field can lead to confusion, frustration, and decreased efficiency on the part of the surgeon and operative assistants.

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[0004] U.S. Pat. No. 4,040,418 to Collins discloses a surgical drape with a retaining means, namely a tie secured to the drape for retaining a tube or cord at a fixed location on the drape relative to the patient. This surgical drape appears to be capable of retaining a relatively limited number of tubes or cords in place, and does not appear to be user-configurable.

[0005] It is an object of the present invention to provide a surgical drape that is capable of organizing and holding in place a significant number of cables, wires, cords, tubes and the like. It is another object of the present invention to provide a surgical drape that is user configurable. It is another object of the present invention to provide a surgical drape that contains a plurality of user configurable channel regions. These and other objects and features of the present invention will become apparent in view of the present specification, drawings and claims.

DISCLOSURE OF THE INVENTION

[0006] The present invention comprises a surgical drape configurable to provide at least one internal channel for holding at least a portion of an object. The surgical drape includes a sheet of material having a first panel region forming a first panel and a second panel region forming a second panel, with the sheet of material being foldable proximate an axis between the first panel region and the second panel region. A first securement member is disposed on the sheet of material at a first spacing relative to the axis, with a first region being defined on the material, between the axis and the first securement member. A second securement member is disposed on the sheet of material at a second spacing relative to the axis, with the second spacing being different than the first spacing. A second region is defined on the material, between the first securement member and the second securement member. At least one channel extending through an interior of the surgical drape is formed when the sheet of material is folded proximate the axis and the first panel region is brought into contact with the second panel region.

[0007] In one embodiment of the present invention, at least two channels extending through an interior of the surgical drape are formed when the sheet of material is folded proximate the axis and the first panel region is brought into contact with the second panel region, including a first channel associated with the first region and a second channel associated with the second region. Accordingly, each of the first securement member and the second securement member form at least a portion of a boundary of a channel internal to the surgical drape.

[0008] In one embodiment of the present invention, a third securement member, disposed on the sheet of material at a third spacing relative to the axis, is provided.

The third spacing is different in length than the first and second spacings and defines a third region of the sheet of material, positioned between the second securement member and the third securement member. Moreover, at least one channel may further include at least one aperture extending through a surface of the sheet of material. At least one of these apertures may be substantially elliptical in shape. Moreover, the at least one aperture may comprises a plurality of apertures, with at least two of the apertures being associated with two different channels extending through an interior of the surgical drape.

[0009] In an embodiment of the present invention, at least one of the first securement member and the second securement member comprises an adhesive material. Moreover, at least one of the first securement member and the second securement member further includes at least one removable member, with at least a portion of the adhesive material being exposed upon removal of the at least one removable member.

[0010] At least one frictional member is provided, and is disposed on at least one of the first panel and the second panel. In one embodiment of the invention, at least one of the at least one frictional members comprises a foam material. Moreover, the sheet of material further includes at least one perforated line facilitating tearing of the sheet of material. At least one of the perforated lines is positioned along a boundary region between a first channel region and a second channel region. Moreover, the at least one perforated line may comprise a plurality of perforated lines, including a first perforated line disposed on the first panel region and a second perforated line being disposed on the second panel region, with the first and second perforated lines being substantially adjacent to and substantially parallel to each other when the sheet of

material is folded proximate the axis and the first panel region is brought into contact with the second panel region.

[0011] A third securement member is disposed on an opposing side of the sheet of material, relative to the first securement member and the second securement member, and may comprise, for example, an adhesive pad. The surgical drape may further comprise at least one magnetic member attached to the sheet of material.

[0012] One embodiment of the present invention comprises a fully assembled and configured surgical drape, already having a plurality of internal channels for holding at least a portion of a plurality of objects. The surgical drape comprises a top panel having a first end and a second end, a bottom panel having a first end and a second end, and at least two interior channels disposed between the top end and the bottom end. Each of the interior channels has a first opening proximate the first end of the top and bottom panels, and a second opening proximate the second end of the top and bottom panels. Moreover, the at least two interior channels comprises at least three interior channels.

[0013] At least one of the top panel and the bottom panel further includes at least one aperture communicating with at least one of the interior channels. The at least one aperture may comprise at least two of the apertures, with each of the at least two apertures communicating with a different interior channel of the surgical drape. At least one frictional member is provided, with at least a portion of the at least one frictional member being disposed within at least one interior channel. Moreover, at least two frictional members may be provided, with at least a portion of each of the at least two frictional members being disposed within a different respective interior

channel. In an embodiment of the present invention, at least one of the at least one frictional members comprises a foam material.

[0014] At least one of the top panel and the bottom panel further includes at least one perforated line facilitating tearing of the panel. At least one of the perforated lines is positioned along a boundary region between two adjacent interior channels. Moreover, the at least one perforated line may comprise a plurality of perforated lines.

[0015] The surgical drape further includes a securement member disposed on the bottom panel. The securement member may comprise, for example, an adhesive pad. Moreover, the fully assembled and configured embodiment of the surgical drape invention may further include at least one magnetic member proximate at least one of the interior channels, and may comprises at least two magnetic members, with at least two of the magnetic members being disposed proximate different interior channels.

BRIEF DESCRIPTION OF THE DRAWINGS

[0016] Additional characteristics and advantages of the invention will become apparent from the detailed description of preferred and other embodiments of the invention, which are illustrated only by way of non-limiting examples in the accompanying drawings wherein:

[0017] Fig. 1 is top plan view of a preferred embodiment of the present surgical drape;

[0018] Fig. 2 is a bottom view of the surgical drape of Fig. 1;

[0019] Fig. 3 is a top plan view of the surgical drape of Fig. 1, showing, in particular, the surgical drape configured to include a first channel region;

[0020] Fig. 3A is a top plan view of the surgical drape of Fig. 1 configured similarly to Fig. 3, showing, in particular, removal of unused portions of the lower panel;

[0021] Fig. 4 is a top plan view of the surgical drape of Fig. 1, showing, in particular, the surgical drape configured to include a first channel region and a second channel region;

[0022] Fig. 4A is a top plan view of the surgical drape of Fig. 1 configured similarly to Fig. 4, showing, in particular, removal of unused portions of the lower panel; and

[0023] Fig. 5 is a top plan view of the surgical drape of Fig. 1, showing, in particular, the surgical drape configured to include a first channel region, a second channel region, and a third channel region.

MODES FOR CARRYING OUT THE INVENTION

[0024] A preferred embodiment of the present user configurable surgical drape invention 10 is shown in Figs. 1 and 2 as comprising base sheet 20, having top surface 21, and bottom surface 22. For purposes of explanation, one side of surgical drape 10 will be referred to herein, relative to one potential orientation of the surgical drape relative to a patient undergoing a surgical procedure, as superior side 13, with an opposing side referred to herein as inferior side 14, with the understanding that, relative to the patient, surgical drape 10 may alternatively be rotated 180 degrees, thus reversing the superior and inferior oriented sides of the surgical drape. Moreover, depending upon the particular procedure being performed and the associated cords, tubes and the like being used, surgical drape 10 may alternatively be rotated 90 degrees in either direction, with what is presently illustratively labeled the superior and inferior sides being disposed laterally on opposing sides of a sagittal plane. While in this embodiment of the present invention the surgical drape is preferably adhered to another object such as a patient surgical drape, in another embodiment of the present invention, the surgical drape is integrally formed into an overall patient surgical drape to further provide integrated channels to organize items such as cables, tubes, cords and the like.

[0025] Base sheet 20 has a transverse central axis 23 along which it will be folded by the user. Transverse central axis 23 logically bisects base sheet 20 into upper panel 24 and lower panel 25. Upper panel 24 includes eight substantially elliptical, or oval apertures extending therethrough, including first apertures 26, second apertures 27 and third apertures 28. Surgical drape 10 further includes a plurality of score lines or perforated lines, permitting portions of surgical drape 10 to be readily torn along its

perforated lines. During a surgical procedure, these perforated lines permit portions of the surgical drape to be removed and discarded, if only a portion of the user configurable channels are to be used in a given procedure. Following completion of a surgical procedure, these perforated lines permit the rapid separation of configurable channels containing disposable items from configurable channels containing non-disposable items, speeding the associated post-surgical tasks.

[0026] As shown in Figs. 1 and 2, these perforated lines include longitudinal perforated line 30, first transverse perforated line 31, second transverse perforated line 32, third transverse perforated line 33, and fourth transverse perforated line 34. First upper region 40 of surgical drape 10 is disposed between transverse central axis 23 and first transverse perforated line 31. First lower region 41 is disposed between transverse central axis 23 and third transverse perforated line 33. Second upper region 42 is disposed between first transverse perforated line 31 and second transverse perforated line 32, with third upper region 44 being disposed on an opposing side of second transverse perforated line 32. Second lower region 43 is disposed between third transverse perforated line 33 and fourth transverse perforated line 34, with third lower region 45 being disposed on an opposing side of fourth transverse perforated line 34.

[0027] As shown in Fig. 1, top surface 21 of base sheet 20 includes a plurality of frictional members and adhesive members in strip form affixed to lower panel 25 thereof. In particular, top surface 21 of lower panel 25 includes first frictional member 50, disposed within first lower region 41; second frictional member 51, disposed within second lower region 43; and third frictional member 52, disposed within third lower region 45.

[0028] A securement member, comprising first adhesive member or adhesive strip 70 is disposed within first lower region 41, adjacent third transverse perforated line 33. Second adhesive member or strip 71 is disposed within second lower region 43, adjacent an opposing side of third transverse perforated line 33. Third adhesive member or strip 72 is disposed within second lower region 43, adjacent fourth transverse perforated line 34. Fourth adhesive member or strip 73 is disposed within third lower region 45, adjacent an opposing side of fourth transverse perforated line 34. Fifth adhesive member or strip 74 is disposed adjacent an outer edge of third lower region 45.

[0029] As shown in Fig. 2, bottom surface 22 of base sheet 20 includes two adhesive members in pad form affixed to lower panel 25 thereof. In particular, bottom surface 22 of lower panel 25 includes first posterior adhesive pad 60 and second posterior adhesive pad 61. As shown in Figs 1 and 2, all of the longitudinal and transverse perforated lines are sufficiently deep to fully perforate not only base sheet 20, but also all of the frictional members and adhesive members disposed thereon.

[0030] Base sheet 20 may be constructed, for example, of a sterile, spunlaced, nonwoven, substantially lint-free fabric, such as DuPont Sontara® material. Frictional members 50, 51 and 52 may be constructed, for example, of a sterile, closed cell, polyethylene foam material such as 3M medical foam tape No. 1772, having a thickness of approximately 1/16 inch, a pressure sensitive acrylate adhesive coated on one side, and having a silicone treated, polyethylene coated 83# removable liner of bleached Kraft paper removably secured to the adhesive side. During the manufacture of sterile drape 10, the liners are removed from each frictional member, and the adhesive sides thereof are applied and adhered directly to top surface 21 of

lower panel 25, leaving the non-adhesive sides exposed to serve as non-skid pads within the configurable channels to be formed, as will be described in detail below.

[0031] The securement members, namely adhesive strips 70, 71, 72, 73 and 74, and adhesive pads 60 and 61 may all be constructed, for example, of a sterile, transparent polyethylene film, such as 3M medical double coated tape No. 9889, having a thickness of approximately 4.9 mil, coated on both sides with a hypoallergenic, pressure sensitive adhesive, and having a silicone treated, bleached removable liner of 60# Kraft-Glassine paper applied to one side. During the manufacture of sterile drape 10, the side of each adhesive strip and adhesive pad having exposed adhesive is applied and adhered directly to top surface 21 and bottom surface 22 of lower panel 25, respectively, leaving the opposing, removable liner side exposed.

[0032] In one embodiment of the present invention, base sheet 20 is approximately 24.5 inches long by 12 inches wide. Apertures 26, 27, and 28 are each approximately 2 inches long by 1 inch wide. Frictional members 50, 51 and 52 are each approximately 12 inches long and are approximately 1.5, 3.625, and 2.5 inches wide, respectively. Adhesive strips 70, 71, 72, 72 and 74 are each approximately 12 inches long and approximately 0.5 inches wide. Posterior adhesive pads 60 and 61 are both approximately 12 inches long by six inches wide. First transverse perforated line 31 and third transverse perforated line 33 are spaced approximately 5 inches apart, and are substantially parallel to, and equidistant from, transverse central axis 23. Second transverse perforated line 32 and fourth transverse perforated line 34 are spaced approximately 16.25 inches apart, and are substantially parallel to and equidistant from, transverse central axis 23. Longitudinal perforated line 30 bisects base sheet 20 into two substantially equal halves.

[0033] As identified above, all of the materials employed in constructing the present surgical drape are preferably sterile, medical quality materials. Moreover, the present surgical drape is preferably manufactured and assembled under sterile environmental conditions, and is then packaged in suitable sterile packaging, such as a sterile pouch having a Tyvek® backing and a peelable transparent seal. In this manner, the surgical drape of the present invention is provided in sterile form for surgical use.

[0034] As will now be described in detail, the present surgical drape may be configured by a physician or surgical assistant to include a single channel or chamber, two channels or chambers, or three channels or chambers. Moreover, depending upon the surgical application or the preferences of the user, multiple adjacent potential channels may instead be merged into larger, combined channels.

[0035] In operation, surgical drape 10 is removed from its sterile packaging, and all or desired portions of the paper liner of posterior adhesive pads 60 and 61 are removed, thus exposing the adhesive coatings of the pads on bottom surface 22 of lower panel 25. The removal of less than the entirety of a paper liner is preferably performed in cooperation with the perforated lines of the adhesive pads, if less than all of the paper liner of an adhesive pad is to be removed. The exposed adhesive is then pressed against either the epidermis of the surgical patient, a garment worn by the patient, another surgical drape, or another suitable, conveniently positioned surface, thus adhering bottom surface 22 of lower panel 25, or the selected portion thereof, in place. Surgical drape 10 may be positioned, for example, with superior side 13 facing the patient's head, and inferior side 14 facing the patient's feet.

[0036] Next, surgical drape 10 is configured as desired for use in the current surgical application. Figs. 3 and 3A show surgical drape 10 configured to have a single, relatively narrow internal channel. To obtain this configuration, referring to Figs. 1 and 3, the paper liner of first adhesive strip 70 is removed, exposing the adhesive immediately below. Upper panel 24 of surgical drape 10 is then folded over lower panel 25 along transverse central axis 23, such that first upper region 40 overlies first lower region 41, with transverse perforated lines 31 and 33 substantially parallel to and adjacent each other. Upper panel 24 is then manually pressed against lower panel 25 along first adhesive strip 70, adhering a portion of the upper and lower panels together. First channel region 80 is thus formed, having superior opening 81, inferior opening 82, and anterior openings created by first apertures 26, with first frictional member 50 extending between superior opening 81 and inferior opening 82. First frictional member 50 accordingly serves as an anti-slip or skid surface within first channel region 80, tending to retain in place items placed at least partially within the associated channel region.

[0037] Tubes, cords, wires and the like may then be fed through and retained by first channel region 80, such as between superior opening 81 and inferior opening 82, or, particularly if lateral portions of a patient are to be reached, between one of first apertures 26 and either superior opening 81 or inferior opening 82. Alternatively, tubes, cords, wires and the like may first be placed upon first frictional member 50 as desired, including potentially guiding a portion thereof through a first aperture 26, prior to removing the paper liner of first adhesive strip 70 and folding upper panel 24 over lower panel 25. In this manner, the items to be organized and retained in place

by surgical drape 10 are already in place at the time that first channel region 80 is formed.

[0038] Next, as shown in Fig. 3, the unused portion of upper panel 24 may optionally be removed, by tearing upper panel 24 along first transverse perforated line 31.

5 Moreover, as shown in Fig. 3A, the unused portion of lower panel 25 may likewise optionally be removed, by tearing lower panel 25 along third transverse perforated line 33.

[0039] Figs. 4 and 4A show surgical drape 10 configured to have two adjacent channels. To obtain this configuration, the steps of the immediately prior paragraph are not performed. Instead, referring to Figs. 1 and 4, following the formation of first channel region 80 in the manner described above, the paper liners of second adhesive strip 71 and third adhesive strip 72 are removed, exposing the adhesive immediately below. Upper panel 24 is further folded over lower panel 25, such that second upper region 42 overlies second lower region 43, with transverse perforated lines 32 and 34 substantially parallel to and adjacent each other. Upper panel 24 is then manually pressed against lower panel 25 along second adhesive strip 71 and third adhesive strip 72, adhering additional portions of the upper and lower panels together. Second channel region 90 is thus formed substantially adjacent first channel region 80, having superior opening 91 and inferior opening 92, and anterior openings created by second apertures 27, with second frictional member 51 extending between superior opening 91 and inferior opening 92. Second frictional member 51 accordingly serves as an anti-slip or skid surface within second channel region 90, tending to retain in place items placed at least partially within the associated channel region.

[0040] As with first channel region 80, tubes, cords, wires and the like may then be fed through and retained by second channel region 90, or may be placed on second frictional member 51 prior to formation of second channel region 90. Moreover, if it is desirable to organize and retain a significant quantity of tubes, cords and wires within a single channel region, first channel region 80 and second channel region 90 may be effectively merged into a single, larger channel region. This is accomplished by omitting the steps of removing the paper liners of first adhesive strip 70 and second adhesive strip 71, and manually pressing upper panel 24 against lower panel 25 along first adhesive strip 70 and second adhesive strip 71. A larger combined channel region, having a width extending from transverse central axis 23 to third adhesive strip 72, is thus formed.

[0041] Next, as shown in Fig. 4, and regardless of whether two adjacent channel regions or a wider, combined single channel region is formed, the unused portion of upper panel 24 may optionally be removed, by tearing upper panel 24 along second transverse perforated line 32. Moreover, as shown in Fig. 4A, the unused portion of lower panel 25 may likewise optionally be removed, by tearing lower panel 25 along fourth transverse perforated line 34.

[0042] Fig. 5 shows surgical drape 10 configured to have three channels regions. To obtain this configuration, the steps of the immediately prior paragraph are not performed. Instead, referring to Figs. 1 and 5, following the formation of first channel region 80 and second channel region 90, the paper liners of fourth adhesive strip 73 and fifth adhesive strip 74 are removed, exposing the adhesive immediately below. Upper panel 24 is further folded over lower panel 25, such that third upper region 44 overlies third lower region 45 and the outer, lateral edges of base sheet 20 are

substantially parallel to and adjacent each other. Upper panel 24 is then manually pressed against lower panel 25 along fourth adhesive strip 73 and fifth adhesive strip 74, adhering additional portions of the upper and lower panels together. Third channel region 100 is thus formed adjacent second channel region 90, having superior opening 101 and inferior opening 102, and anterior openings created by third apertures 28, with third frictional member 52 extending between superior opening 101 and inferior opening 102. Third frictional member 52 accordingly serves as an anti-slip or skid surface within third channel region 100, tending to retain in place items placed at least partially within the associated channel region.

[0043] As with first channel region 80 and second channel region 90, tubes, cords, wires and the like may then be fed through and retained by third channel region 100, prior to formation of third channel region 100. Moreover, if it is desirable to organize and retain a significant quantity of tubes, cords and wires within a single channel region, second channel region and third channel region may be effectively merged into a single, larger channel region. Moreover, if, as described above, the first and channel regions have been merged into a single, larger channel region, an even larger single channel, encompassing substantially all of the width of lower panel 25, may be formed. In either case, the merging of third channel region 100 with the adjacent channel region or channel regions is accomplished by omitting the steps of removing the paper liner of third adhesive strip 72 and fourth adhesive strip 73, and manually pressing upper panel 24 against lower panel 25 along third adhesive strip 72 and third adhesive strip 73. A larger combined channel region is thus formed.

[0044] In other embodiments of the present invention, differently sized surgical drapes of the same general configuration and construction discussed above, and

embodiments having fewer or lesser configurable channels, are also contemplated. In one embodiment, a smaller surgical drape, being approximately 6 inches square when the upper panel is folded over the lower panel, and having two, rather than three user configurable channels, is also contemplated by the present invention.

5 [0045] Moreover, it is also contemplated that the present sterile drape be permanently affixed to, or integrally formed with, another object, such as a larger sterile drape, which may be of specialized design for performing a specific surgical task. The other object may alternatively comprise a sterile surgical gown. For example, a region of an outer surface of a surgical gown may be employed to form lower panel 25 of surgical drape 10. Upper panel 24 may be integrally formed with the surgical gown, or may comprise a separate sheet of material substantially permanently affixed to the surgical gown proximate a central transverse axis 23 substantially adjacent the region of the gown forming lower panel 25. In such embodiments of the present invention, perforated lines 33 and 34, as well as the portion of perforated line 30 extending along lower panel 25, may be omitted, as may be the posterior adhesive members.

[0046] It is also contemplated by the present invention that the central transverse axis be omitted, and that the surgical drape be supplied in two separate pieces, namely a separate upper panel 24 and a separate lower panel 25. For such embodiments, the surgical drape is configured by overlying upper panel 24 congruently upon lower panel 25, such that the respective edges and perforated lines of upper panel 24 are substantially parallel to and adjacent associated edges and perforated lines of lower panel 25.

[0047] It is also contemplated that different types of securement members, other than adhesive strips 70, 71, 72, 73, and 74, may alternatively be employed. For example, on lower panel 25 of base sheet 20, one or all of the adhesive strips may alternatively be replaced with elongated Velcro®, hook and loop, or other non-adhesive type fastener. Cooperating Velcro®, hook and loop, or other non-adhesive fasteners, in the form of similarly dimensioned elongated strips, are disposed on top surface 21 of upper panel 24 of base sheet 20, at positions such that, when upper panel 24 is folded over lower panel 25 at transverse central axis 23, the cooperating non-adhesive fastener substantially aligns with an associated fastener disposed on lower panel 25. Cooperating top and bottom Velcro®, hook and loop, and other non-adhesive fasteners may thus alternatively be employed to form the boundaries of first channel region 80, second channel region 90, and third channel region 100, and permit the user to create one, two, or three configurable channels of the present surgical drape invention.

[0048] It is also contemplated that the present cord drape include a magnetic material, such as one or more self-adhesive magnetic strips. Inasmuch as many of the cords and wires associated with surgical procedures contain ferromagnetic metals, these optional magnetic strips may supplement the anti-skid function of the frictional members, serving to further retain ferromagnetic objects in place within the channel regions of the sterile drape. As shown in Fig. 1, one or more magnetic strips 110 may be optionally adhered to portions of top surface 21 of base sheet 20, or to one or more of frictional members 50, 51 and 52, so as to be situated within the interior of one or more of the channel regions that are formed by the user. As shown in Fig. 1, magnetic strips 110 may be placed, for example, proximate the superior and inferior

openings of the channel regions, by adhering the magnetic strips to base sheet 20, or to a frictional member disposed thereon.

[0049] It is further contemplated that the present sterile drape invention may alternatively or additionally be supplied in preassembled, fully configured form, wherein the upper panel and lower panel of the surgical drape are folded together and adhered to each other using adhesive members, such as the adhesive strips described above, with the transverse central axis, or fold line, and the adhesive strips forming the boundaries of the adjacent internal channel regions of the surgical drape.

[0050] Other modifications and alterations may be used in design and manufacture of the apparatus of the present invention without departing from the spirit and scope of the following claims.

What is claimed is:

1. A surgical drape configurable to provide at least one internal channel for holding at least a portion of an object, the surgical drape comprising:

5 a first panel;

a second panel;

at least one securement member disposed on at least one of the first panel and the second panel and serving to secure at least a portion of the first panel to the second panel;

wherein at least one channel extending through an interior of the surgical drape is
10 formed when at least a portion of one of the first panel and the second panel is secured to at least a portion of the other of the first panel and the second panel by the at least one securement member.

2. The invention according to claim 1, wherein the surgical drape comprises a sheet of material having a first panel region comprising the first panel and a second panel
15 region comprising the second panel, the first and second panel regions being positioned on opposing sides of and being foldable about an axis of the sheet of material.

3. The invention according to claim 2, wherein the at least one channel is formed when the sheet of material is folded proximate the axis and the first panel region is brought into contact with the second panel region.

20 4. The invention according to claim 1, wherein the at least one securement member comprises a first securement member and a second securement member, and wherein at least two channels extending through an interior of the surgical drape are formed when at least a portion of one of the first panel and the second panel is secured to at least a portion of the other of the first panel and the second panel by the first

securement member and the second securement member, each of the first securement member and the second securement member forming at least a portion of a boundary of a channel.

5 5. The invention according to claim 4, further comprising a third securement member disposed on at least one of the first panel and the second panel, the third securement member forming a boundary of a third channel formed and extending through an interior of the surgical drape when at least a portion of one of the first panel and the second panel is secured to at least a portion of the other of the first panel and the second panel by the first, second and third securement members.

10 6. The invention according to claim 1, wherein the at least one channel further includes at least one opening communicating with an exterior of the surgical drape.

7. The invention according to claim 6, wherein the at least one opening is proximate an outer edge of at least one of the first panel and the second panel.

15 8. The invention according to claim 6, wherein the surgical drape comprises a sheet of material, and the at least one opening comprises at least one aperture extending through a surface of the sheet of material.

9. The invention according to claim 1, wherein the at least one securement member comprises an adhesive material.

20 10. The invention according to claim 9, wherein the at least one securement member includes at least one removable member, at least a portion of the adhesive material being exposed upon removal of the at least one removable member.

11. The invention according to claim 1, further comprising at least one frictional member disposed on at least one of the first panel and the second panel.

12. The invention according to claim 11, wherein at least one of the at least one frictional member comprises a foam material.

13. The invention according to claim 2, wherein the sheet of material further includes at least one perforated line facilitating tearing of the sheet of material.

5 14. The invention according to claim 13, wherein at least one of the perforated lines is positioned along a boundary region between a first channel region and a second channel region of the surgical drape.

15. The invention according to claim 13, wherein the at least one perforated line comprises a plurality of perforated lines.

10 16. The invention according to claim 13, wherein the at least one perforated line comprises a first perforated line disposed on the first panel region and a second perforated line being disposed on the second panel region, the first and second perforated lines being substantially adjacent to and substantially parallel to each other when the sheet of material is folded proximate the axis and the first panel region is brought into
15 contact with the second panel region.

17. The invention according to claim 2, further comprising a second securement member disposed on an opposing side of the sheet of material, relative to the first securement member.

18. The invention according to claim 17, wherein the securement member
20 comprises an adhesive pad.

19. The invention according to claim 1, further comprising at least one magnetic member attached to at least one of the first panel and the second panel.

20. The invention according to claim 1, wherein the surgical drape is integrally formed with a patient surgical drape.

21. A surgical drape having a plurality of internal channels for holding at least a portion of a plurality of objects, the surgical drape comprising:

5 a top panel;

a bottom panel; and

at least two interior channels disposed between the top end and the bottom end.

22. The invention according to claim 21, wherein the at least two interior channels comprises at least three interior channels.

10 23. The invention according to claim 21, wherein at least one of the interior channels further includes at least one opening communicating with an exterior of the surgical drape.

24. The invention according to claim 23, wherein the at least one opening is proximate an outer edge of at least one of the top panel and the bottom panel.

15 25. The invention according to claim 23, wherein the surgical drape comprises a sheet of material, and the at least one opening comprises at least one aperture extending through a surface of the sheet of material.

26. The invention according to claim 21, further comprising at least one frictional member, at least a portion of the at least one frictional member being disposed within at
20 least one interior channel.

27. The invention according to claim 26, wherein the at least one frictional member comprises at least two frictional members, at least a portion of each of the at least two frictional members being disposed within a different interior channel.

28. The invention according to claim 26, wherein at least one of the at least one frictional members comprises a foam material.

29. The invention according to claim 21, wherein at least one of the top panel and the bottom panel further includes at least one perforated line facilitating tearing of the
5 panel.

30. The invention according to claim 29, wherein at least one of the perforated lines is positioned along a boundary region between two adjacent interior channels.

31. The invention according to claim 29, wherein the at least one perforated line comprises a plurality of perforated lines.

10 32. The invention according to claim 21, further comprising a securement member disposed on an exterior surface of at least one of the top panel and the bottom panel.

33. The invention according to claim 32, wherein the securement member comprises an adhesive pad.

15 34. The invention according to claim 21, further comprising at least one magnetic member proximate at least one of the interior channels.

35. The invention according to claim 34, wherein the at least one magnetic member comprises at least two magnetic members, at least two of the magnetic members being disposed proximate different interior channels.

20 36. The invention according to claim 21, wherein the surgical drape is integrally formed with a patient surgical drape.

37. A method of forming a surgical drape having at least one internal channel for holding at least a portion of an object, the method comprising the steps of:

obtaining a surgical drape comprising a first panel, a second panel, and at least one securement member disposed on at least one of the first panel and the second panel and serving to secure at least a portion of the first panel to the second panel; and

forming at least one channel extending through an interior of the surgical drape by
5 securing at least a portion of one of the first panel and the second panel to at least a portion of the other of the first panel and the second panel using at least a portion of the at least one securement member.

38. The method according to claim 37, wherein the surgical drape comprises a sheet of material having a first panel region comprising the first panel region and a
10 second panel region comprising the second panel, the first and second panel regions being positioned on opposing sides of an axis of the sheet of material, the step of forming further comprising:

 folding the sheet of material about the axis and bringing the first panel region into contact with the second panel region.

15 39. The method according to claim 37, wherein the at least one securement member comprises a first securement member and a second securement member, and wherein the step of forming further comprises:

 using the first securement member and the second securement member to form at least two channels extending through an interior of the surgical drape by securing at least
20 a portion of one of the first panel and the second panel to at least a portion of the other of the first panel and the second panel, each of the first securement member and the second securement member forming at least a portion of a boundary of a channel.

40. The method according to claim 39, wherein the surgical drape further comprises a third securement member disposed on at least one of the first panel and the second panel, and wherein the step of forming further comprises:

5 using the third securement member to form a boundary of a third channel extending through an interior of the surgical drape when at least a portion of one of the first panel and the second panel is secured to at least a portion of the other of the first panel and the second panel by the first, second and third securement members.

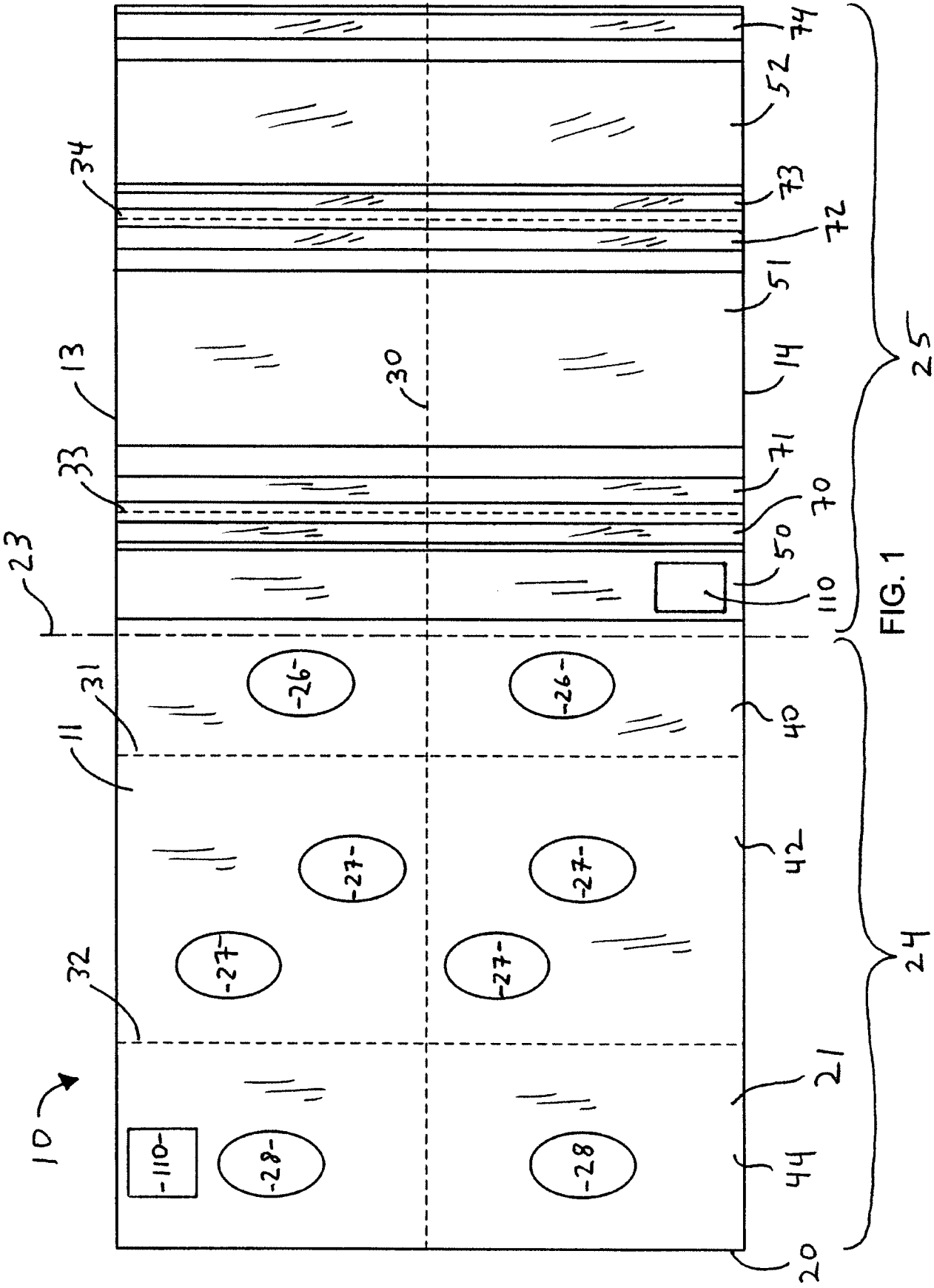
41. The method according to claim 37, wherein the at least one channel further includes at least one opening communicating with an exterior of the surgical drape.

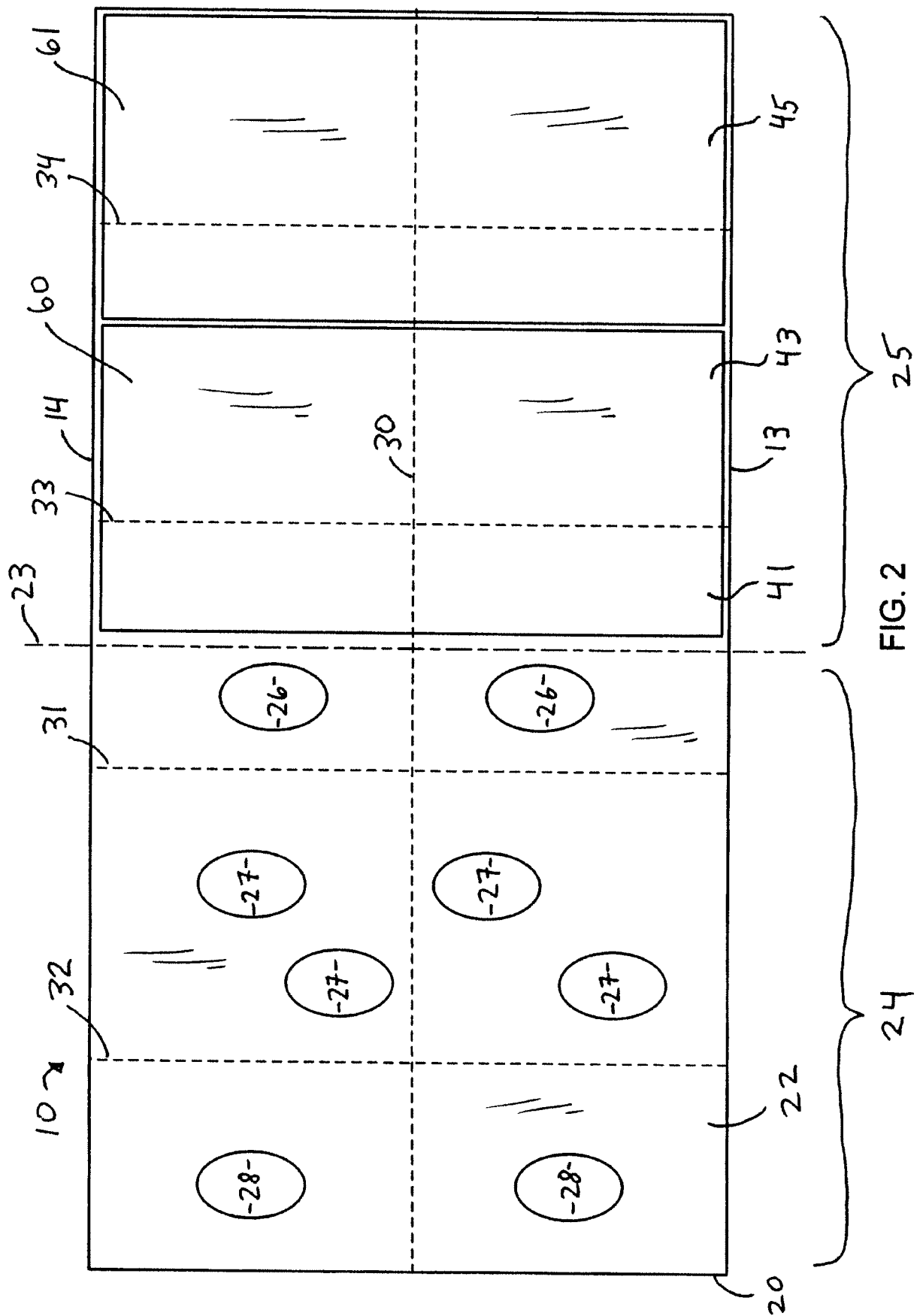
10 42. The method according to claim 37, further comprising at least one frictional member, at least a portion of the at least one frictional member being disposed within at least one interior channel.

43. The method according to claim 37, wherein at least one of the top panel and the bottom panel further includes at least one perforated line facilitating tearing of the
15 panel.

44. The method according to claim 37, further comprising the step of: inserting at least a portion of at least one object into at least a portion of the at least one channel.

45. The method according to claim 37, wherein the surgical drape is integrally
20 formed with a patient surgical drape.





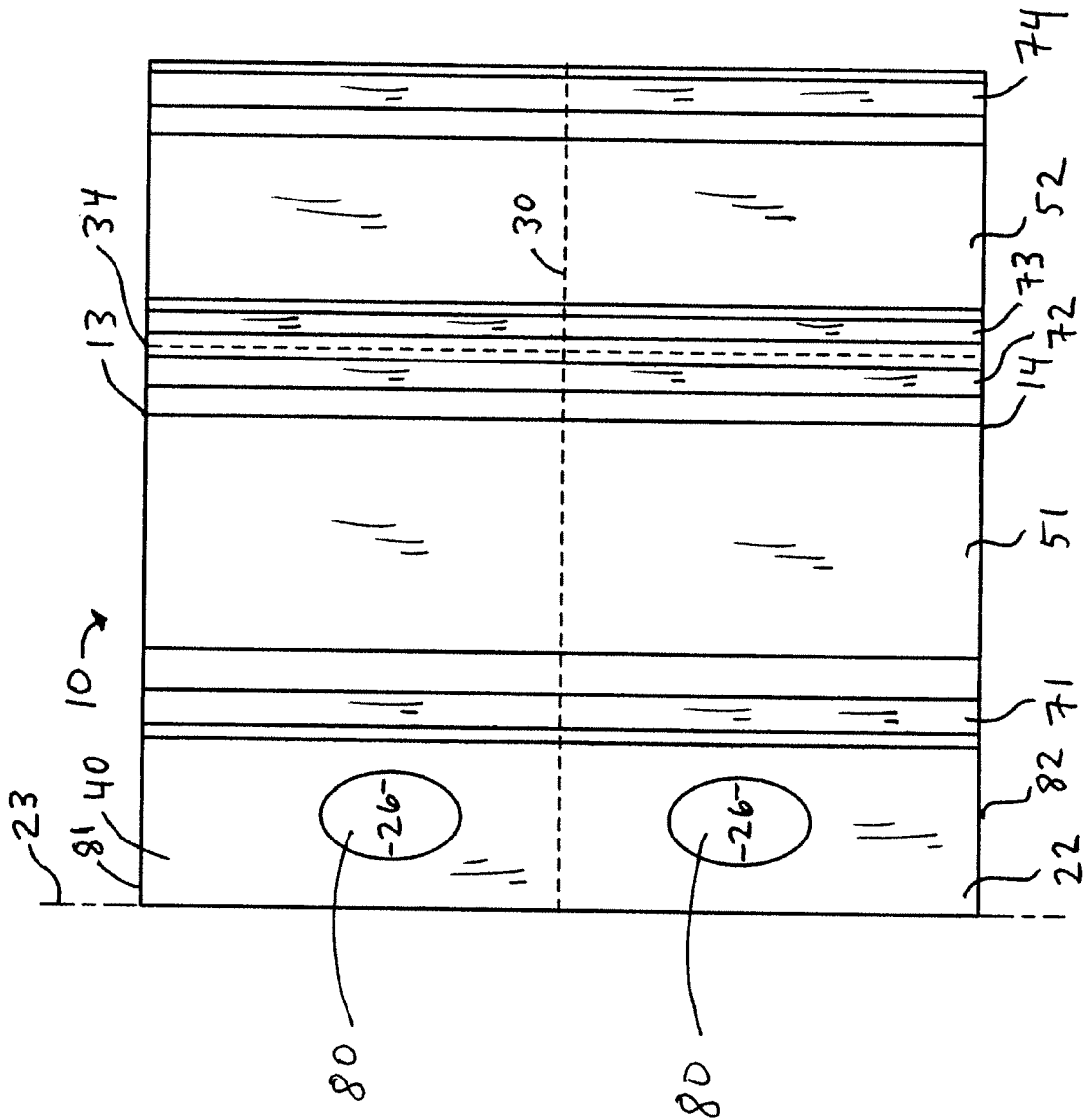


FIG. 3

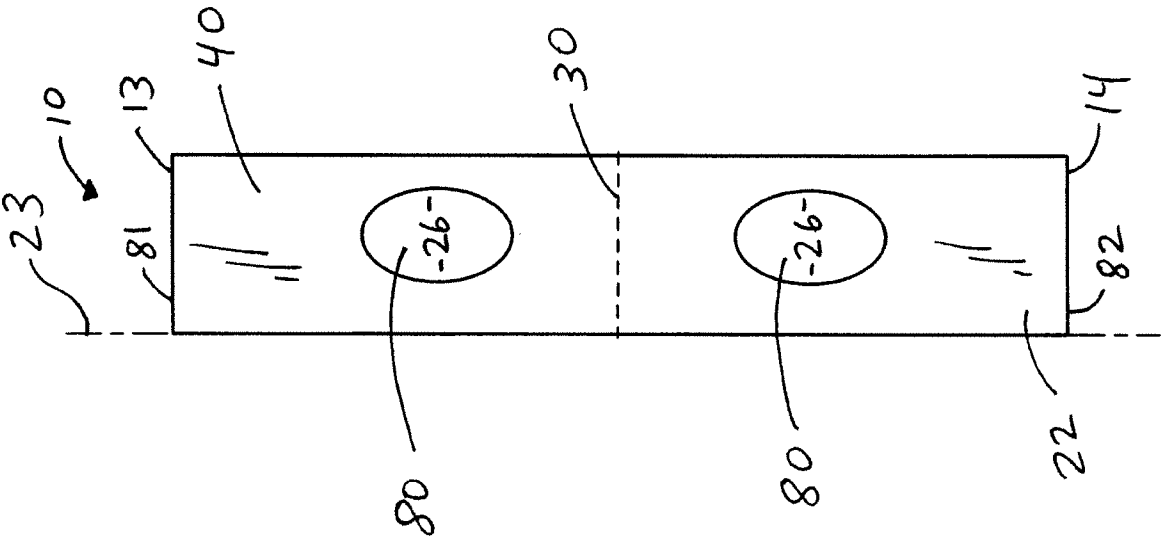


FIG. 3A

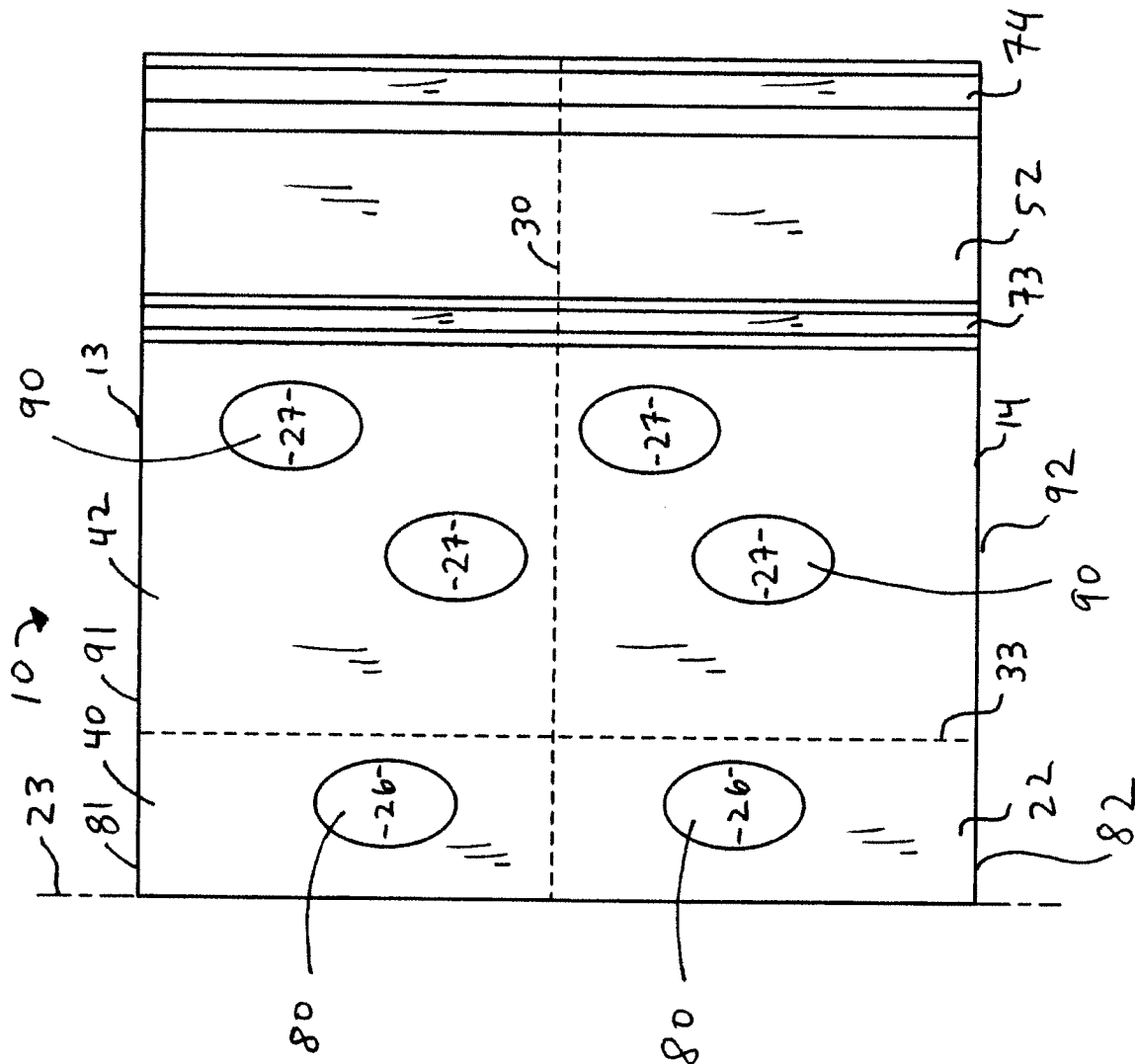


FIG. 4

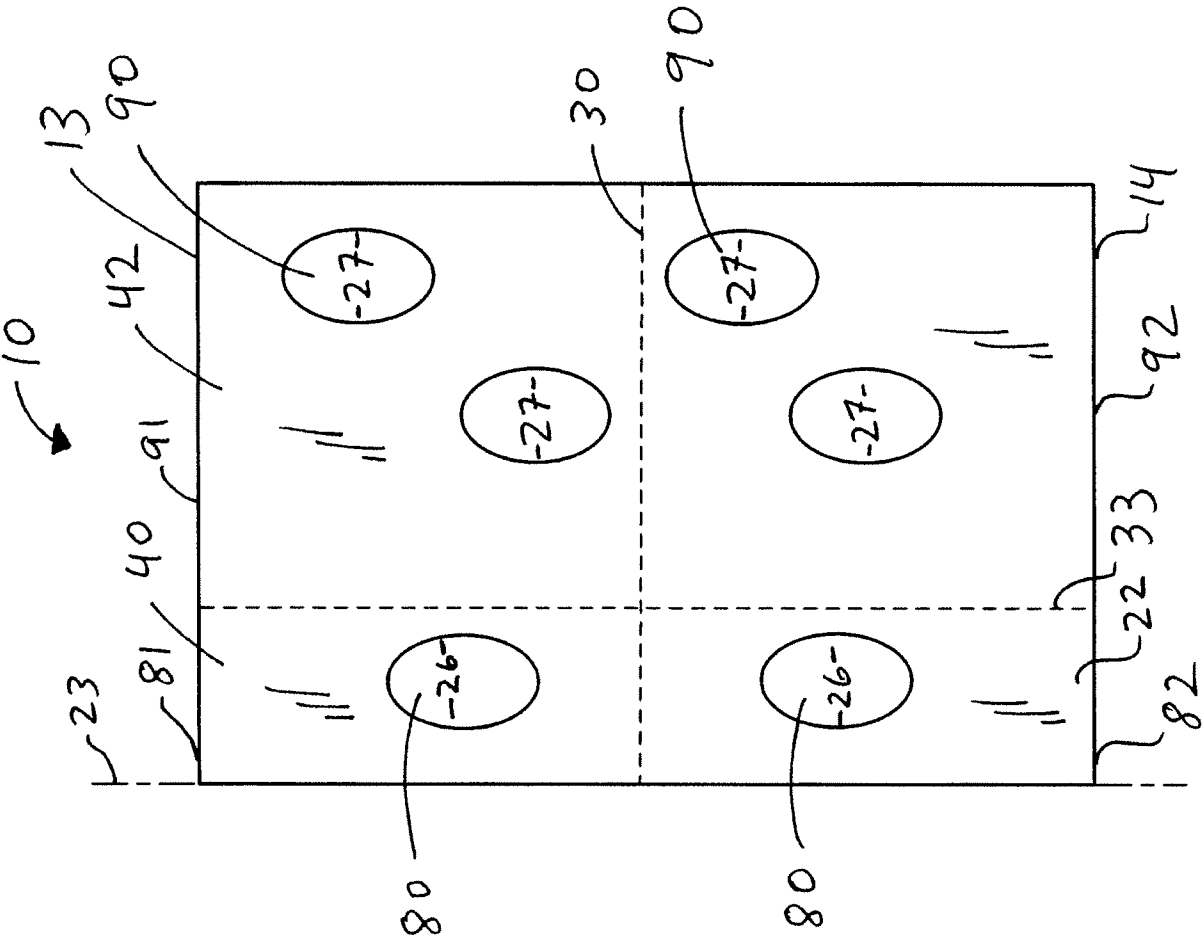


FIG. 4A

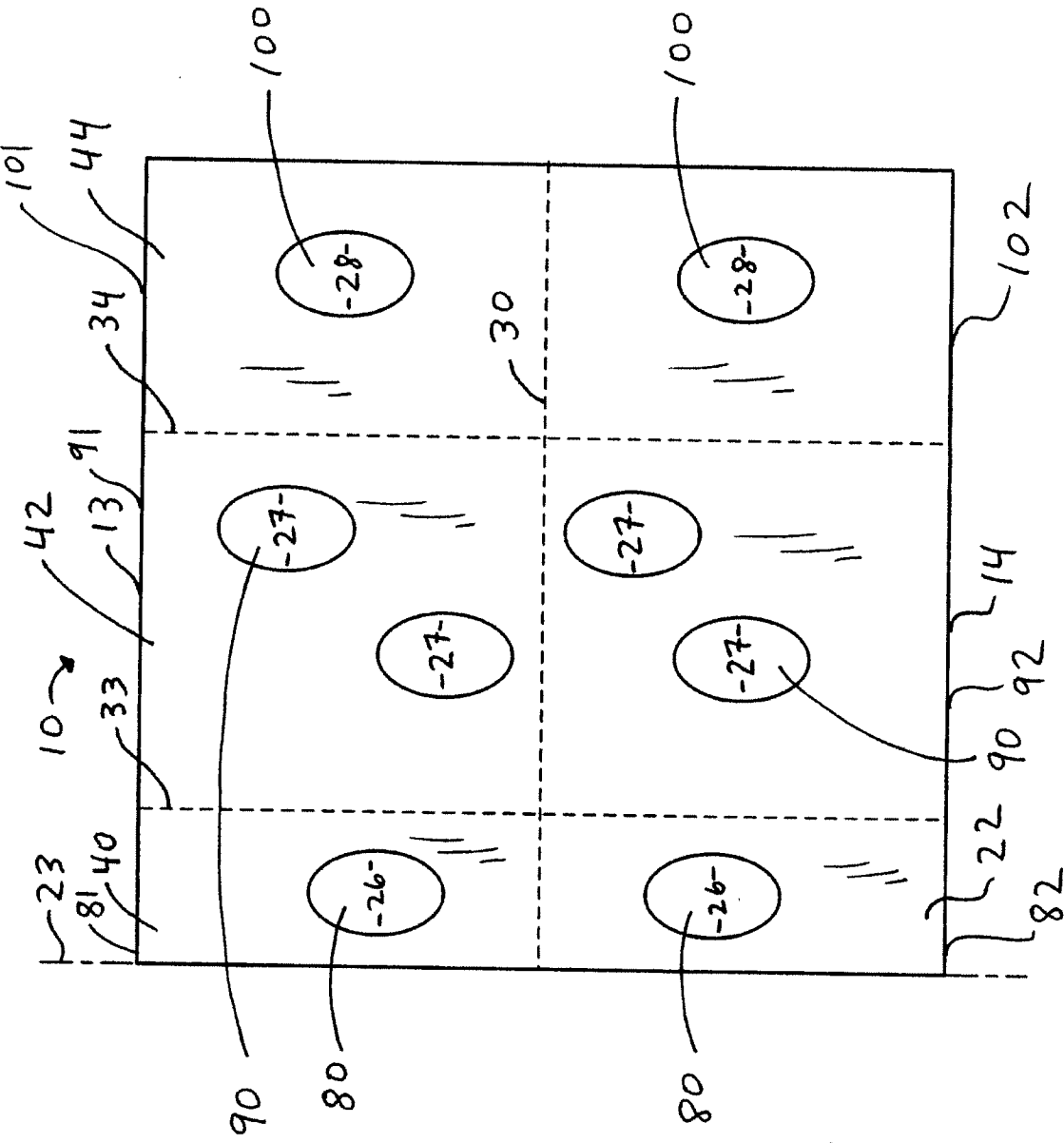


FIG. 5