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Mark

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(54) **PROTECTIVE SHEATHING APPARATUS**

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H02G 3/04 (2006.01)
B32B 3/06 (2006.01)

(52) **U.S. Cl.**
USPC ..... **428/100**; 428/99; 174/72 A; 174/135

(58) **Field of Classification Search**
USPC ..... 428/99, 100; 174/135, 72 A
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,600,098 A 2/1997 Kazaks
6,523,584 B1 * 2/2003 Rehrig 150/154
7,119,279 B2 10/2006 Niehaus et al.
7,438,964 B2 10/2008 Clark
2002/0098311 A1 7/2002 Lindner
2004/0099426 A1 * 5/2004 Bryl et al. ..... 174/35 C
2009/0255702 A1 10/2009 Mitchell

* cited by examiner

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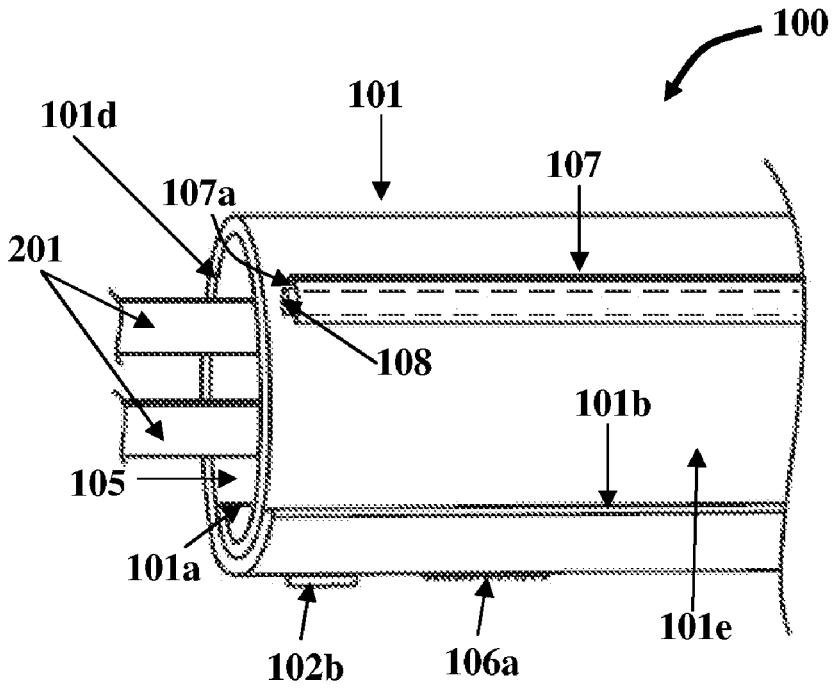
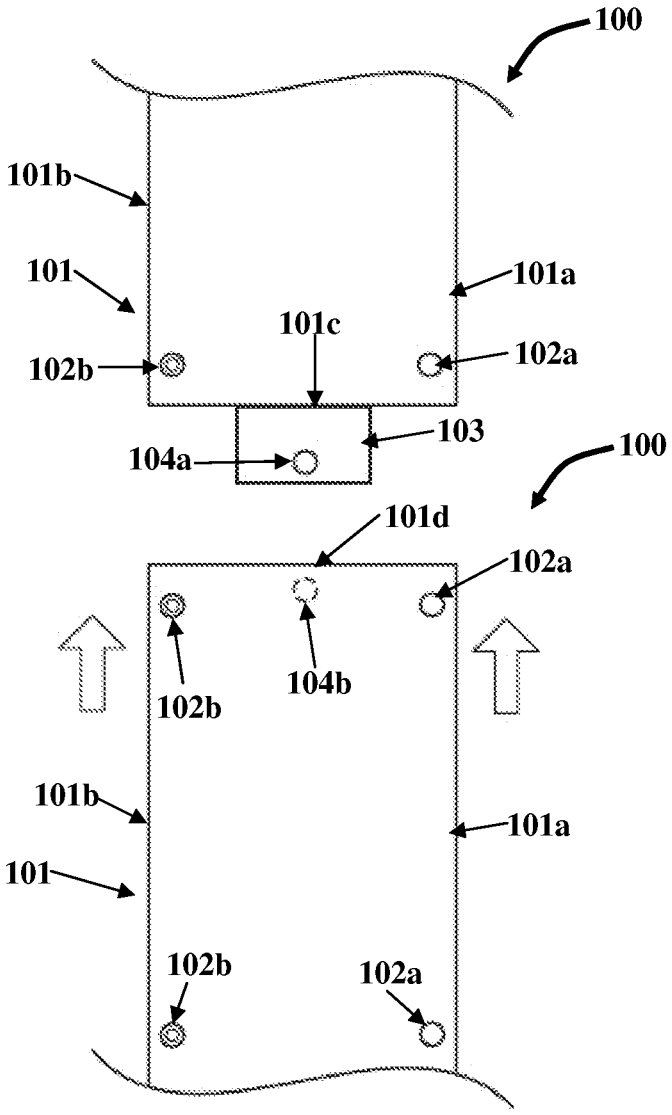
(57) **ABSTRACT**

A protective sheathing apparatus comprising an elongated flexible member, first fastening elements, second fastening elements, an attachment section, and one or more third fastening elements is provided. The first fastening elements and the second fastening elements are affixed in proximity to a first lengthwise edge and a second lengthwise edge of the elongated flexible member respectively. The affixed second fastening elements detachably engage with the affixed first fastening elements for defining a generally cylindrical lengthwise channel within the elongated flexible member for accommodating one or more longitudinal objects. The attachment section is attached to and extends outwardly from a first widthwise edge and/or a second widthwise edge of the elongated flexible member for enabling detachable engagement with another protective sheathing apparatus. The third fastening elements are affixed on an exterior surface of the elongated flexible member for enabling detachable attachment of the protective sheathing apparatus to a support surface.

13 Claims, 13 Drawing Sheets

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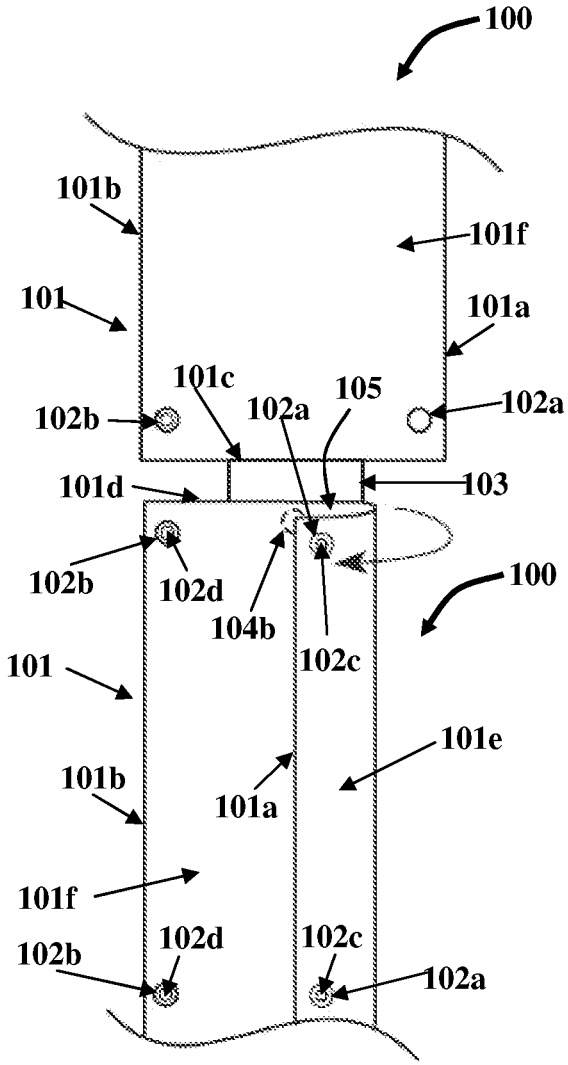
102b
104b
101b
101a
101
102b
102a

FIG. 1A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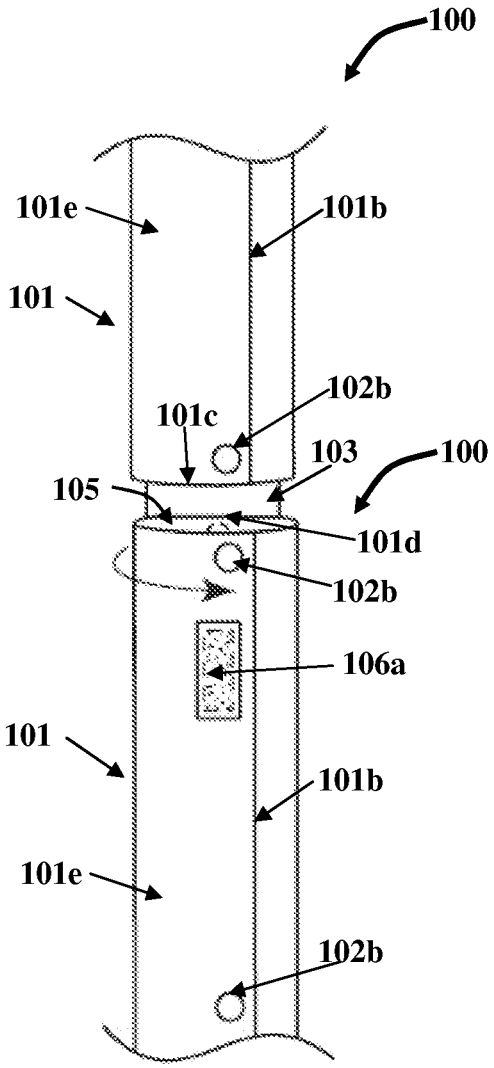
102b
102d
102c
102a

FIG. 1B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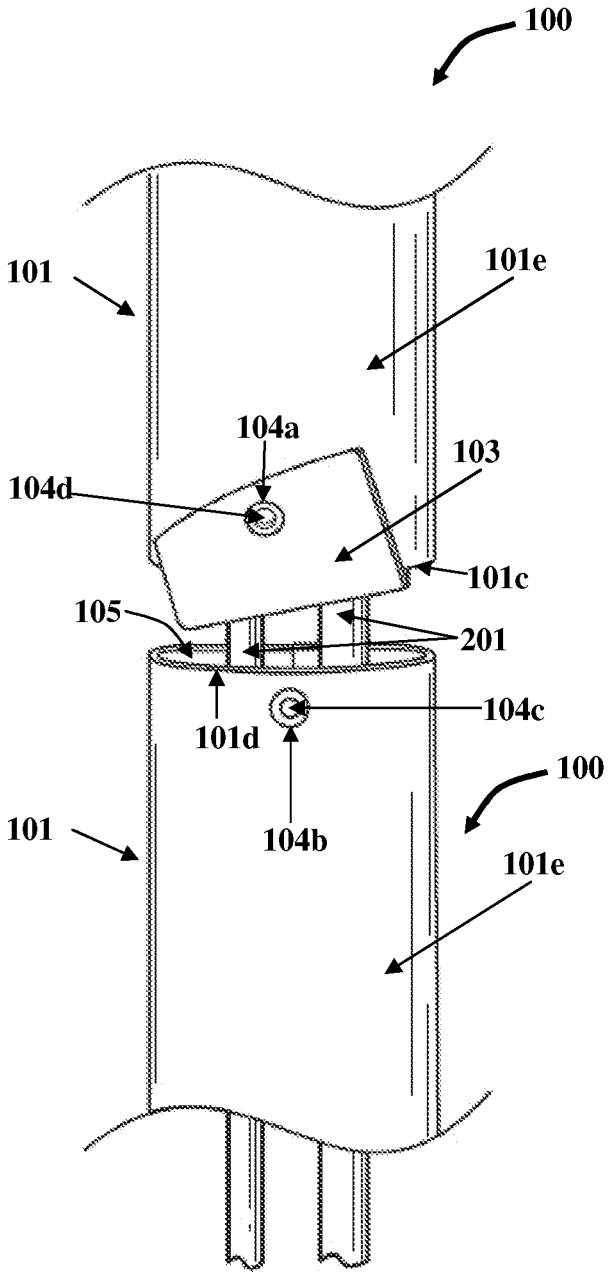
102b

FIG. 1C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104b
101e

FIG. 2A

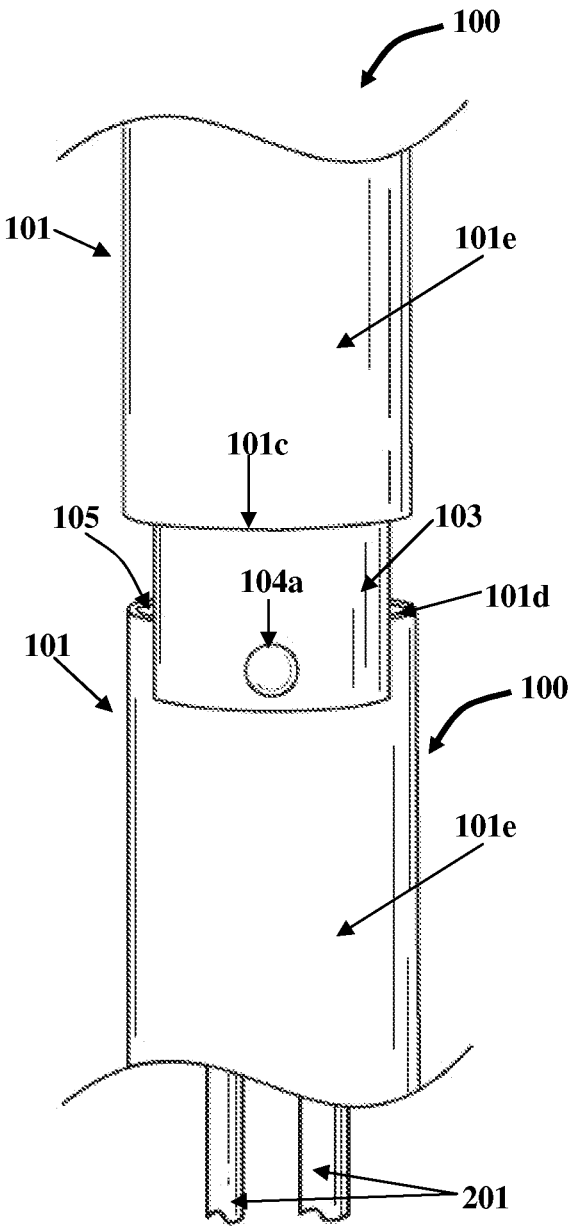


FIG. 2B

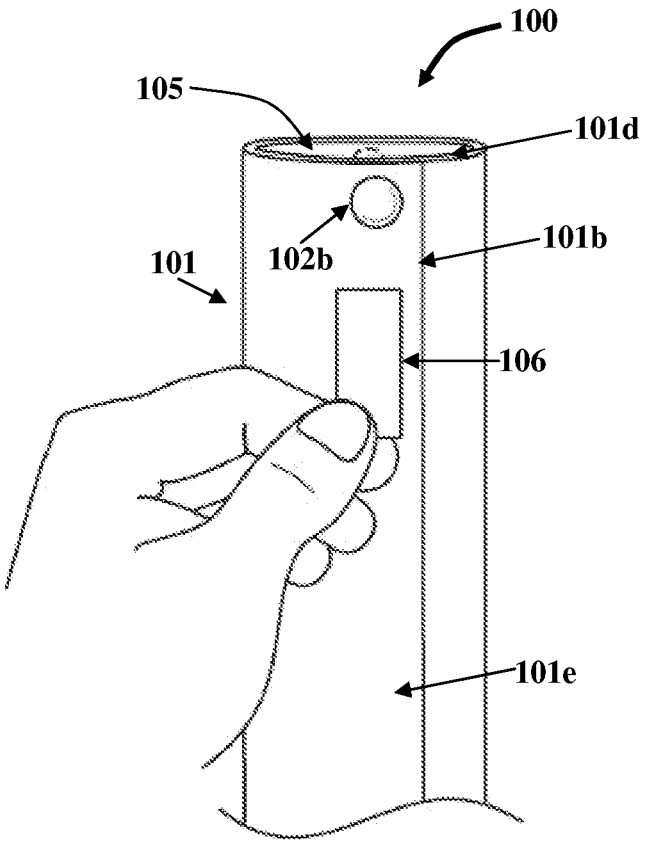


FIG. 3A

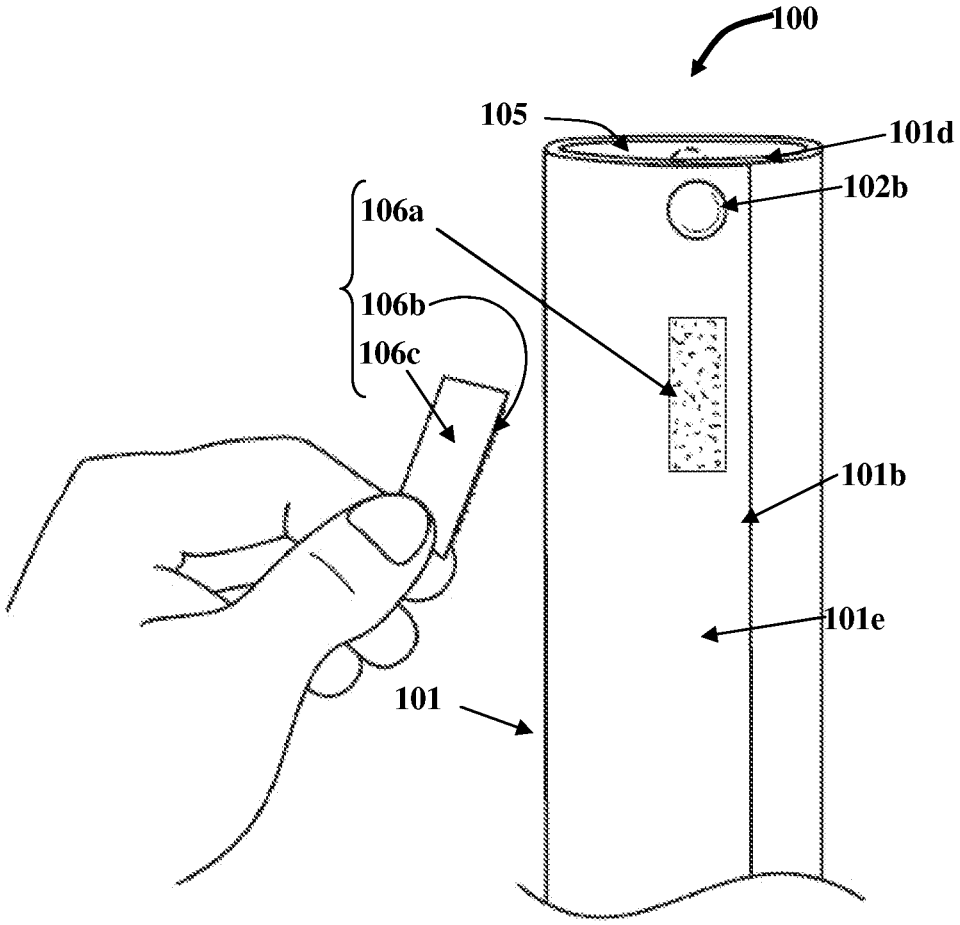


FIG. 3B

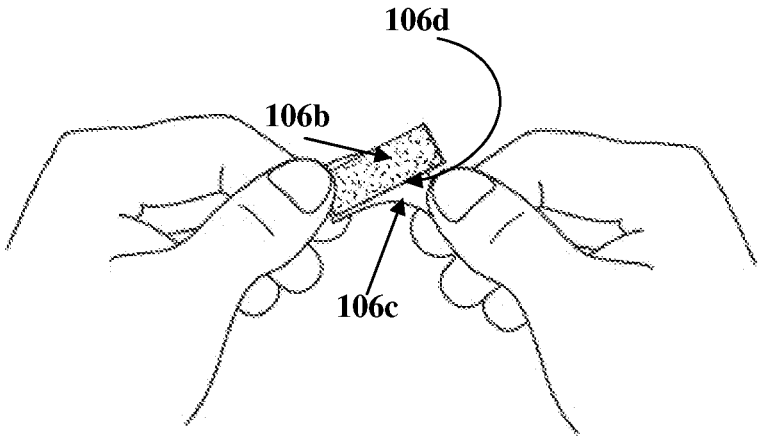
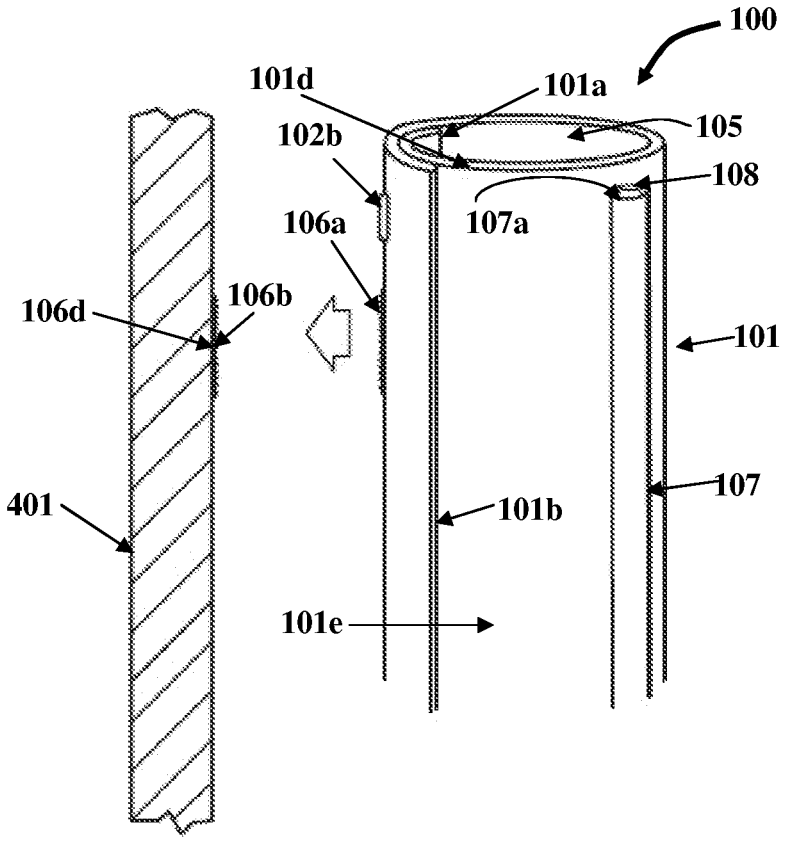


FIG. 3C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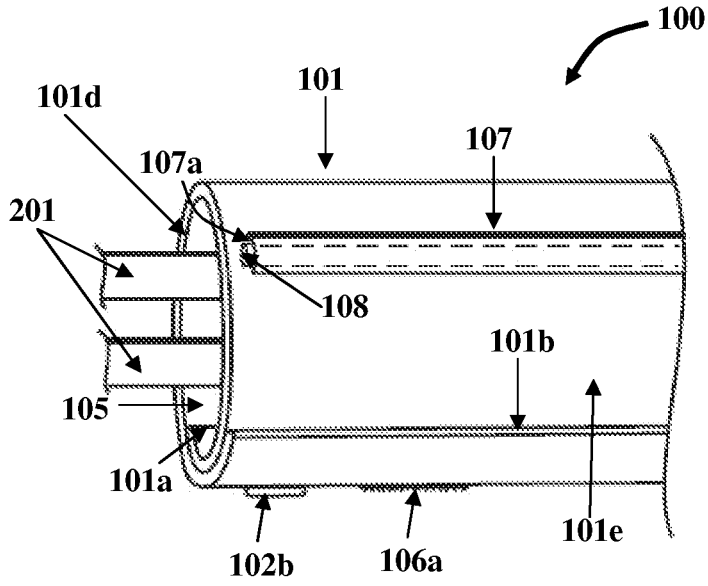
105
102b
108
106a
107a
106d
106b
101
401
107
101b
101e

FIG. 4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101
101d
107
107a
201
108
101b
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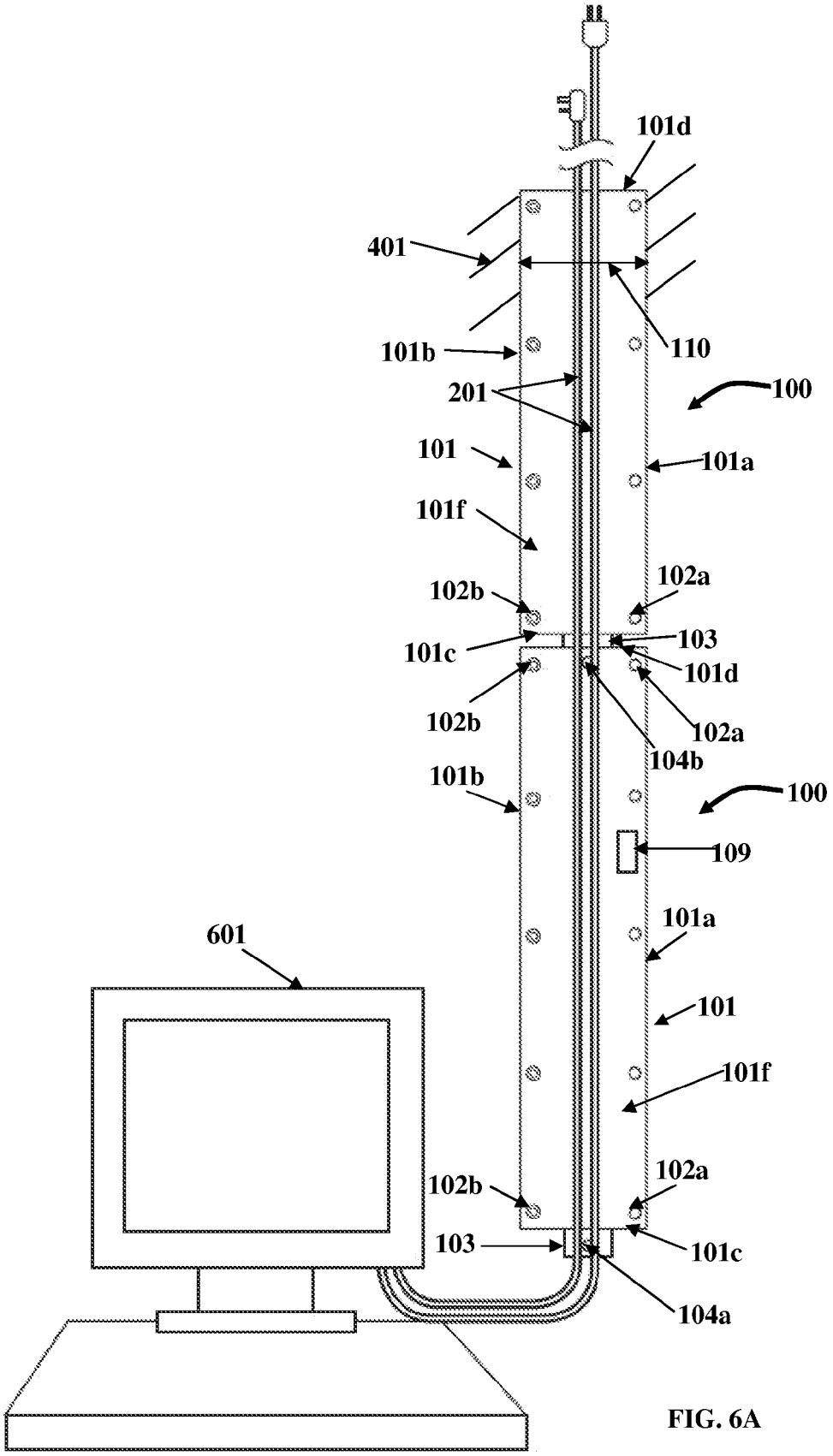
101a
101e
102b
106a

FIG. 5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401
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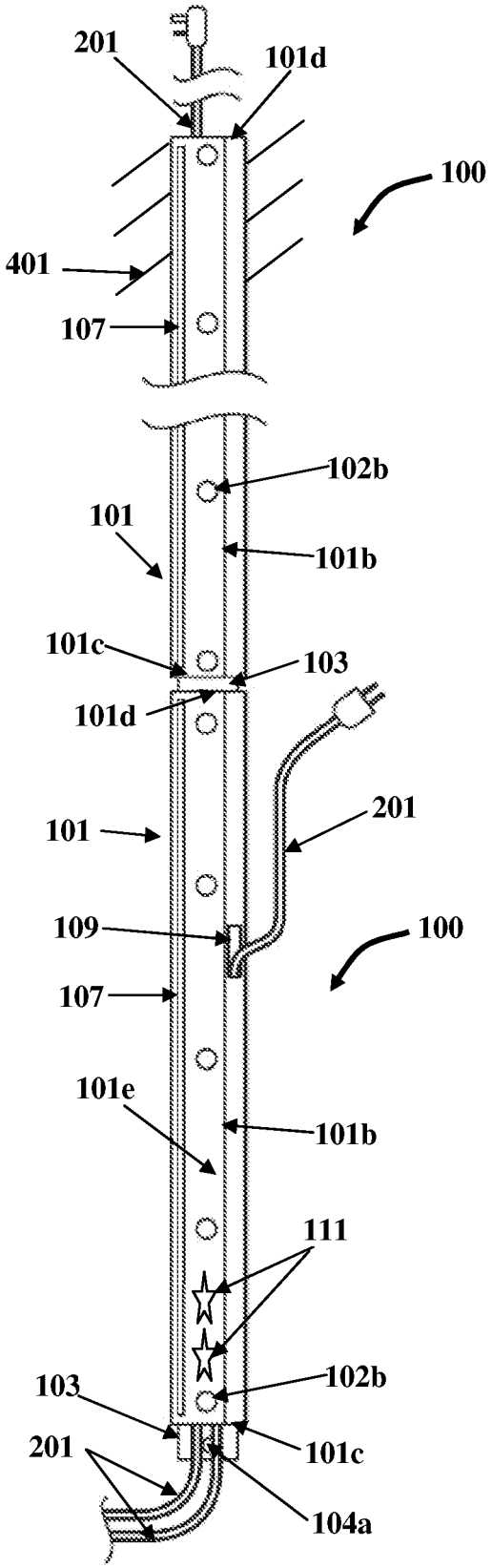
101b
100
201
101
101a
101f
102a
102b
103
101c
101d
102b
102a
104b
101b
100
109
601
101a
101
101f
102a
102b
103
101c
104a

FIG. 6A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101d
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102b
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101b
101c
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101
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101b
111
103
102b
201
101c
104a

FIG. 6B

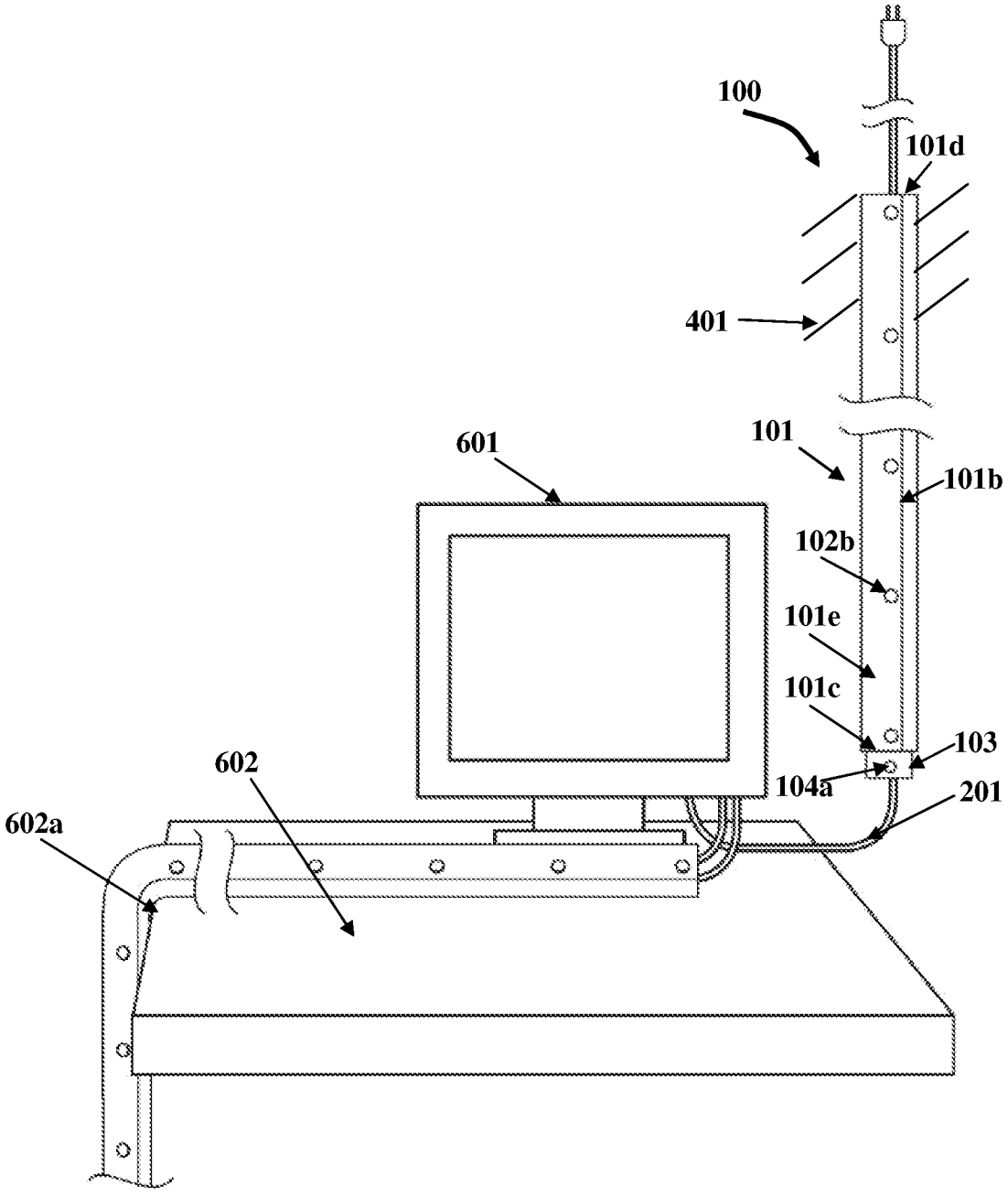

FIG. 6C

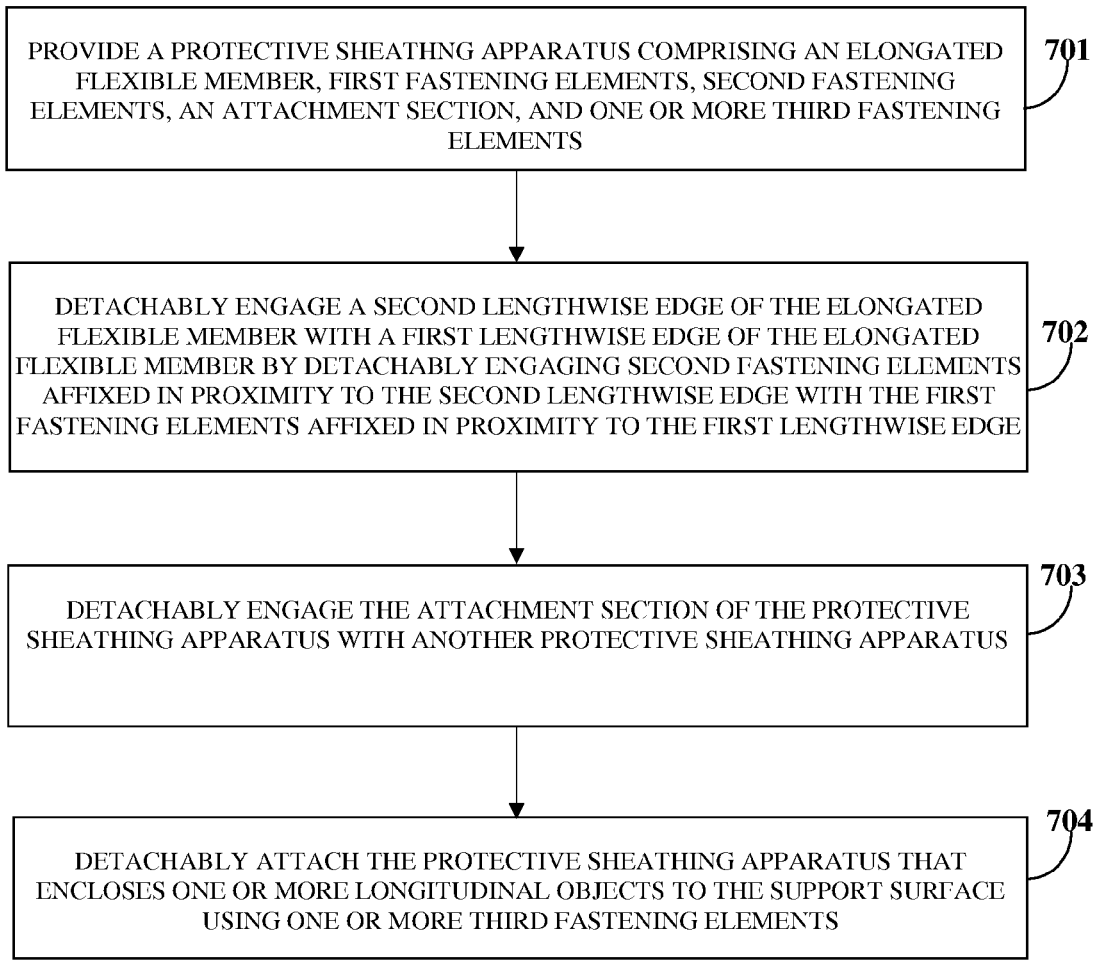
PROVIDE A PROTECTIVE SHEATHING APPARATUS COMPRISING AN ELONGATED FLEXIBLE MEMBER, FIRST FASTENING ELEMENTS, SECOND FASTENING ELEMENTS, AN ATTACHMENT SECTION, AND ONE OR MORE THIRD FASTENING ELEMENTS
701
DETACHABLY ENGAGE A SECOND LENGTHWISE EDGE OF THE ELONGATED FLEXIBLE MEMBER WITH A FIRST LENGTHWISE EDGE OF THE ELONGATED FLEXIBLE MEMBER BY DETACHABLY ENGAGING SECOND FASTENING ELEMENTS AFFIXED IN PROXIMITY TO THE SECOND LENGTHWISE EDGE WITH THE FIRST FASTENING ELEMENTS AFFIXED IN PROXIMITY TO THE FIRST LENGTHWISE EDGE
702
DETACHABLY ENGAGE THE ATTACHMENT SECTION OF THE PROTECTIVE SHEATHING APPARATUS WITH ANOTHER PROTECTIVE SHEATHING APPARATUS
703
DETACHABLY ATTACH THE PROTECTIVE SHEATHING APPARATUS THAT ENCLOSES ONE OR MORE LONGITUDINAL OBJECTS TO THE SUPPORT SURFACE USING ONE OR MORE THIRD FASTENING ELEMENTS
704

FIG. 7

PROTECTIVE SHEATHING APPARATUS

CROSS REFERENCE TO RELATED APPLICATIONS

This application claims the benefit of provisional patent application No. 61/309,878 titled "Protective Sheathing Apparatus", filed on Mar. 3, 2010 in the United States Patent and Trademark Office.

The specification of the above referenced application is incorporated herein by reference in its entirety.

BACKGROUND

Conventional cable covers available commercially comprise a single piece of material for covering cables, for example, hardware equipment cables, computer cables, printer cables, fax cables, etc., enclosed within the cable covers. While these cable covers cover and shield cables, these cable covers do not efficiently prevent tangling of a large number of cables of different lengths and do not allow flexibility of use, maintenance, and organization of the cables in a work area.

Moreover, conventional cable covers are configured to accommodate particular types of wires, cables, etc. These cable covers become unusable, for example, when wiring configurations in a work area change, thereby necessitating the use of new cable covers for the changed environment. When such cable covers are used for a prolonged period of time, they develop a tendency to attract static electricity charges from the cables or wires resulting in hazardous situations. Moreover, these cable covers do not provide a facility for inserting or removing cables at any location as per the needs of a user. Furthermore, when long cables are used, the conventional cable covers cannot accommodate and therefore cannot be used to cover cables over long distances.

Furthermore, cable covers are typically confined to ground surfaces or table surfaces on which they are disposed, without any facility for suspending, hanging, or providing easier access to the enclosed cables during cleaning or maintenance. These cable covers disallow management of the enclosed cables in a work area having multiple contours as they do not have a provision for shaping the cable covers into a shapeable turn around contoured edges of the work area, which leads to wear and tear of the cable covers and constriction of the enclosed cables enclosed in the cable covers which affects the workability of the enclosed cables.

Hence, there is a long felt but unresolved need for a protective sheathing apparatus that covers multiple objects, for example, cables, of different lengths and prevents dust build up over the enclosed objects. Moreover, there is a need for a protective sheathing apparatus that provides easier accessibility of the enclosed objects of different lengths and allows efficient management and organization of the enclosed objects in any area. Furthermore, there is a need for a protective sheathing apparatus that can be attached to any support surface, for example, a wall, a board, a table surface, etc., during cleaning and maintenance, and that allows the protective sheathing apparatus to be maneuvered along contours of one or more support surfaces.

SUMMARY OF THE INVENTION

This summary is provided to introduce a selection of concepts in a simplified form that are further described in the detailed description of the invention. This summary is not intended to identify key or essential inventive concepts of the claimed subject matter, nor is it intended for determining the scope of the claimed subject matter.

The protective sheathing apparatus disclosed herein addresses the above stated needs for covering multiple objects of different lengths and preventing dust build up over the enclosed objects. The protective sheathing apparatus disclosed herein provides easier accessibility of the enclosed objects of different lengths and allows efficient management and organization of the enclosed objects in any area. The protective sheathing apparatus disclosed herein can be attached to any support surface, for example, a wall, a board, a table surface, etc., during cleaning and maintenance. The protective sheathing apparatus disclosed herein can be maneuvered along contours of one or more support surfaces.

The protective sheathing apparatus disclosed herein comprises a generally rectangular elongated flexible member, multiple first fastening elements, multiple second fastening elements, an attachment section, and one or more third fastening elements. The elongated flexible member comprises a first lengthwise edge, a second lengthwise edge, a first widthwise edge, and a second widthwise edge. The first fastening elements are affixed in proximity to the first lengthwise edge of the elongated flexible member. The second fastening elements are affixed in proximity to the second lengthwise edge of the elongated flexible member. The first fastening elements and the second fastening elements are, for example, mating snap fasteners.

The second fastening elements are configured to detachably engage with the first fastening elements when the second lengthwise edge of the elongated flexible member is rolled over towards the first lengthwise edge of the elongated flexible member. When the second lengthwise edge of the elongated flexible member is rolled over towards the first lengthwise edge of the elongated flexible member and fastened using the second fastening elements and the first fastening elements, the generally rectangular elongated flexible member takes a form of a generally cylindrical elongated flexible member. The detachable engagement of the second fastening elements with the first fastening elements defines a generally cylindrical lengthwise channel within the elongated flexible member for accommodating one or more longitudinal objects, for example, wires, cables, cords, etc. The elongated flexible member encloses the longitudinal objects within the generally cylindrical lengthwise channel.

The attachment section of the protective sheathing apparatus is attached to and extends outwardly from the first widthwise edge and/or the second widthwise edge of the elongated flexible member for enabling detachable engagement with another protective sheathing apparatus. The protective sheathing apparatus disclosed herein further comprises one or more fourth fastening elements affixed on the attachment section and in proximity to the first widthwise edge and/or the second widthwise edge of the elongated flexible member of another protective sheathing apparatus for detachably engaging the protective sheathing apparatus to another protective sheathing apparatus.

The third fastening elements are affixed on an exterior surface of the elongated flexible member for enabling detachable attachment of the protective sheathing apparatus enclosing the longitudinal objects to a support surface, for example, a wall. The third fastening elements are, for example, hook and loop fasteners. Hook sides or loop sides of the hook and loop fasteners are affixed on the exterior surface of the elongated flexible member. An opposing one of the hook sides and the loop sides of the hook and loop fasteners are attached to the support surface for allowing detachable attachment of the protective sheathing apparatus to the support surface. In an

embodiment, the protective sheathing apparatus disclosed herein further comprises one or more patterns and textual information displayed on the exterior surface of the elongated flexible member for decorative and/or instructional purposes.

In an embodiment, the protective sheathing apparatus disclosed herein further comprises a support sleeve attached along the exterior surface of the elongated flexible member. The support sleeve defines a pocket along the elongated flexible member for incorporating a shaping rod within the defined pocket. The shaping rod enables the protective sheathing apparatus to be maneuvered along contours of one or more support surfaces.

In an embodiment, the protective sheathing apparatus disclosed herein further comprises one or more slots defined on the elongated flexible member for allowing one or more of the longitudinal objects to be inserted into and exited out from the generally cylindrical lengthwise channel defined within the elongated flexible member.

BRIEF DESCRIPTION OF THE DRAWINGS

The foregoing summary, as well as the following detailed description of the invention, is better understood when read in conjunction with the appended drawings. For the purpose of illustrating the invention, exemplary constructions of the invention are shown in the drawings. However, the invention is not limited to the specific components and methods disclosed herein.

FIG. **1**A exemplarily illustrates a front orthogonal view of a protective sheathing apparatus detachably engageable with another protective sheathing apparatus.

FIGS. **1**B-**1**C exemplarily illustrate front orthogonal views of the protective sheathing apparatus detachably engaged with another protective sheathing apparatus, showing creation of a generally cylindrical lengthwise channel within an elongated flexible member of the protective sheathing apparatus.

FIGS. **2**A-**2**B exemplarily illustrate front orthogonal views of the protective sheathing apparatus detachably engaged with another protective sheathing apparatus for enclosing longitudinal objects.

FIGS. **3**A-**3**C exemplarily illustrate a third fastening element affixed on an exterior surface of the elongated flexible member of the protective sheathing apparatus for enabling detachable attachment of the protective sheathing apparatus that encloses the longitudinal objects to a support surface.

FIG. **4** exemplarily illustrates a front orthogonal view showing the detachable attachment of the protective sheathing apparatus to a support surface using a third fastening element.

FIG. **5** exemplarily illustrates a perspective view of the protective sheathing apparatus, showing a support sleeve attached along an exterior surface of the elongated flexible member of the protective sheathing apparatus.

FIGS. **6**A-**6**C exemplarily illustrate the use of the protective sheathing apparatus for enclosing and organizing one or more longitudinal objects of an electronic device.

FIG. **7** illustrates a method for enclosing and organizing one or more longitudinal objects on a support surface.

DETAILED DESCRIPTION OF THE INVENTION

FIG. **1**A exemplarily illustrates a front orthogonal view of a protective sheathing apparatus **100** detachably engageable with another protective sheathing apparatus **100**. The protective sheathing apparatus **100** disclosed herein comprises an elongated flexible member **101**, multiple first fastening elements **102***a*, and multiple second fastening elements **102***b*. The elongated flexible member **101** is made of a light and flexible material, for example, fabric, plastic, rubber, etc., or any combination thereof. The elongated flexible member **101** can therefore be bent to any arbitrary shape to be attachable to a support surface **401**, **602**, etc., as exemplarily illustrated in FIG. **4** and FIGS. **6**A-**6**C. The elongated flexible member **101** is generally rectangular is shape and comprises a first lengthwise edge **101***a*, a second lengthwise edge **101***b*, a first widthwise edge **101***c*, and a second widthwise edge **101***d*. The first fastening elements **102***a* are affixed in proximity to the first lengthwise edge **101***a* of the elongated flexible member **101**. The second fastening elements **102***b* are affixed in proximity to the second lengthwise edge **101***b* of the elongated flexible member **101**. The first fastening elements **102***a* and the second fastening elements **102***b* are affixed in proximity to the first lengthwise edge **101***a* and the second lengthwise edge **101***b* of the elongated flexible member **101** respectively, for example, by sewing, plying, etc.

In an embodiment, the first fastening elements **102***a* and the second fastening elements **102***b* are opposingly affixed at different distances in proximity to the first lengthwise edge **101***a* and the second lengthwise edge **101***b* of the elongated flexible member **101** respectively. In another embodiment, the first fastening elements **102***a* and the second fastening elements **102***b* are affixed in proximity to the first lengthwise edge **101***a* and the second lengthwise edge **101***b* of the elongated flexible member **101** respectively on opposing surfaces **101***e* and **101***f* of the elongated flexible member **101** as exemplarily illustrated in FIG. **1**B. In another embodiment, the second fastening elements **102***b* and the first fastening elements **102***a* are affixed in proximity to the second lengthwise edge **101***b* and the first lengthwise edge **101***a* of the elongated flexible member **101** respectively on a same surface **101***e* or **101***f* of the elongated flexible member **101**.

The second fastening elements **102***b* are configured to detachably engage with the first fastening elements **102***a* when the second lengthwise edge **101***b* of the elongated flexible member **101** is rolled over towards the first lengthwise edge **101***a* of the elongated flexible member **101**. The first fastening elements **102***a* and the second fastening elements **102***b* are, for example, mating snap fasteners. The detachable engagement of the second fastening elements **102***b* with the first fastening elements **102***a* defines a generally cylindrical lengthwise channel **105** within the elongated flexible member **101** as exemplarily illustrated in FIGS. **1**B-**1**C. The generally cylindrical lengthwise channel **105** accommodates one or more longitudinal objects **201**, for example, wires, cables, cords, hoses, etc., as exemplarily illustrated in FIGS. **2**A-**2**B and FIGS. **6**A-**6**C.

The protective sheathing apparatus **100** further comprises an attachment section **103** attached to and extending outwardly from the first widthwise edge **101***c* and/or the second widthwise edge **101***d* of the elongated flexible member **101** for enabling detachable engagement with another protective sheathing apparatus **100**. In an embodiment, the attachment section **103** is provided as a part of the first widthwise edge **101***c* and/or the second widthwise edge **101***d* of the elongated flexible member **101** and is configured to detachably engage with the first widthwise edge **101***c* or the second widthwise edge **101***d* of the elongated flexible member **101** of another protective sheathing apparatus **100**, for example, using interlocking fastening elements **104***a* and **104***b*. The interlocking fastening elements **104***a* and **104***b* are, for example, mating snap fasteners.

In another embodiment, the attachment section **103** is provided as an extension to the first widthwise edge **101***c* and/or

the second widthwise edge **101***d* of the elongated flexible member **101** and is configured to detachably engage with the first widthwise edge **101***c* or the second widthwise edge **101***d* of the elongated flexible member **101** of another protective sheathing apparatus **100** using interlocking fastening elements **104***a* and **104***b*. As exemplarily illustrated in FIGS. **1**A-**1**C, the attachment section **103** is rigidly attached to the first widthwise edge **101***c* of the elongated flexible member **101** of one protective sheathing apparatus **100** and configured to detachably engage with the second widthwise edge **101***d* of the elongated flexible member **101** of another protective sheathing apparatus **100** using interlocking fastening elements **104***a* and **104***b*. In another embodiment, the attachment section **103** is provided as an external attachment section that can be detachably attached to the first widthwise edge **101***c* and/or the second widthwise edge **101***d* of the elongated flexible member **101** of one protective sheathing apparatus **100** and configured to detachably engage with the first widthwise edge **101***c* or the second widthwise edge **101***d* of the elongated flexible member **101** of another protective sheathing apparatus **100** using interlocking fastening elements **104***a* and **104***b*.

The attachment section **103** serves as an interconnecting mechanism to interconnect the protective sheathing apparatus **100** to another protective sheathing apparatus **100**, to increase the length of the protective sheathing apparatus **100** and enclose longitudinal objects **201** of long lengths in locations such as factories, computer server rooms, etc., that require management of longitudinal objects **201** with long lengths. Therefore, multiple protective sheathing apparatuses **100** can be connected to each other using the attachment section **103** for increasing the length of the protective sheathing apparatus **100** in order to accommodate and organize lengthy longitudinal objects **201**.

FIGS. **1**B-**1**C exemplarily illustrate front orthogonal views of the protective sheathing apparatus **100** detachably engaged with another protective sheathing apparatus **100**, showing creation of a generally cylindrical lengthwise channel **105** within the elongated flexible member **101** of the protective sheathing apparatus **100**. To create the generally cylindrical lengthwise channel **105**, the second fastening elements **102***b* affixed in proximity to the second lengthwise edge **101***b* on the interior surface **101***f* of the elongated flexible member **101** detachably engage with the first fastening elements **102***a* affixed in proximity to the first lengthwise edge **101***a* on the exterior surface **101***e* of the elongated flexible member **101**, when the second lengthwise edge **101***b* of the elongated flexible member **101** is rolled over towards the first lengthwise edge **101***a* of the elongated flexible member **101** as exemplarily illustrated in FIGS. **1**B-**1**C. The first fastening elements **102***a* and the second fastening elements **102***b* are a pair of interlocking discs. For example, each of the first fastening elements **102***a* comprises a stud **102***c*, while each of the second fastening elements **102***b* comprises a socket **102***d*. The stud **102***c* of each of the first fastening elements **102***a* fits into the socket **102***d* of each of the corresponding second fastening elements **102***b* to create a rigid joint, when a force is applied.

When the second lengthwise edge **101***b* of the elongated flexible member **101** is rolled over towards the first lengthwise edge **101***a* of the elongated flexible member **101** and fastened using the second fastening elements **102***b* and the first fastening elements **102***a*, the generally rectangular elongated flexible member **101** takes a form of a generally cylindrical elongated flexible member **101** as exemplarily illustrated in FIG. **1**C. The detachable engagement of the second fastening elements **102***b* with the first fastening elements **102***a* defines the generally cylindrical lengthwise channel **105** within the elongated flexible member **101** for accommodating one or more longitudinal objects **201** as exemplarily illustrated in FIGS. **2**A-**2**B and FIGS. **6**A-**6**C. As exemplarily illustrated in FIG. **1**B, the attachment section **103** rigidly attached to and extending outwardly from the first widthwise edge **101***c* of the elongated flexible member **101** of one protective sheathing apparatus **100** is detachably engaged with the second widthwise edge **101***d* of the elongated flexible member **101** of the other protective sheathing apparatus **100** using the fastening elements **104***a* and **104***b*.

The protective sheathing apparatus **100** further comprises one or more third fastening elements **106** affixed on an exterior surface **101***e* of the elongated flexible member **101**, as exemplarily illustrated in FIGS. **3**A-**3**C, for enabling detachable attachment of the protective sheathing apparatus **100** enclosing one or more longitudinal objects **201** to a support surface **401**, for example, a wall, as exemplarily illustrated in FIG. **4**. The third fastening elements **106** are, for example, hook and loop fasteners such as Velcro®, having hook sides **106***a* and loop sides **106***b*. The hook sides **106***a* or the loop sides **106***b* of the third fastening elements **106** are affixed on the exterior surface **101***e* of the elongated flexible member **101**, while an opposing one of the hook sides **106***a* and the loop sides **106***b* of the third fastening elements **106** are attached to the support surface **401** for allowing the detachable attachment of the protective sheathing apparatus **100** to the support surface **401**. For example, if the hook sides **106***a* of the third fastening elements **106** are affixed on the exterior surface **101***e* of the elongated flexible member **101**, the loop sides **106***b* of the third fastening elements **106** are attached to the support surface **401** and vice versa. As exemplarily illustrated in FIG. **1**C, a hook side **106***a* of a third fastening element **106** is affixed on the exterior surface **101***e* of the elongated flexible member **101**. The hook sides **106***a* or the loop sides **106***b* of one or more third fastening elements **106** are affixed on the exterior surface **101***e* of the elongated flexible member **101**, for example, by sewing, using adhesives, etc.

FIGS. **2**A-**2**B exemplarily illustrate front orthogonal views of the protective sheathing apparatus **100** detachably engaged with another protective sheathing apparatus **100** for enclosing longitudinal objects **201**. The elongated flexible member **101** encloses one or more longitudinal objects **201** within the generally cylindrical lengthwise channel **105** defined within the elongated flexible member **101**. The longitudinal objects **201** are, for example, cables, cords, wires, etc. The attachment section **103** is rigidly attached to and extends outwardly from the first widthwise edge **101***c* of the elongated flexible member **101**, as exemplarily illustrated in FIG. **2**A, for enabling detachable engagement with another protective sheathing apparatus **100** as exemplarily illustrated in FIG. **2**B.

The attachment section **103** on the first widthwise edge **101***c* of the elongated flexible member **101** of one protective sheathing apparatus **100** detachably engages with the second widthwise edge **101***d* of the elongated flexible member **101** of another protective sheathing apparatus **100**, for example, using the fastening elements **104***a* and **104***b*. For example, one fastening element **104***a* provided with a socket **104***d* is affixed on the attachment section **103** of the protective sheathing apparatus **100**, while another fastening element **104***b* with a stud **104***c* is affixed in proximity to the second widthwise edge **101***d* of the elongated flexible member **101** of another protective sheathing apparatus **100** as exemplarily illustrated in FIG. **2**A. The fastening element **104***b* provided with the stud **104***c* fits into the socket **104***d* of the fastening element **104***a* to create a rigid joint, when a force is applied as exem-

plarily illustrated in FIG. **2**B. The engaged protective sheathing apparatuses **100** accommodate longitudinal objects **201** having long lengths within the extended generally cylindrical lengthwise channel **105** defined within the elongated flexible members **101**.

FIGS. **3**A-**3**C exemplarily illustrate a third fastening element **106** affixed on an exterior surface **101***e* of the elongated flexible member **101** of the protective sheathing apparatus **100** for enabling detachable attachment of the protective sheathing apparatus **100** that encloses the longitudinal objects **201** to a support surface **401**. The hook side **106***a* of the third fastening element **106** affixed on the exterior surface **101***e* of the elongated flexible member **101** is covered by the loop side **106***b* of the third fastening element **106** having a seal **106***c* as exemplarily illustrated in FIGS. **3**A-**3**B. A user can remove the loop side **106***b* from the hook side **106***a*, as exemplarily illustrated in FIG. **3**B, for detachable attachment of the loop side **106***b* to a support surface **401** as exemplarily illustrated in FIG. **4**. The user can then remove the seal **106***c* of the loop side **106***b* of the third fastening element **106**, as exemplarily illustrated in FIG. **3**C, to expose an adhesive side **106***d* of the third fastening element **106**. The adhesive side **106***d* of the third fastening element **106** is attached to the support surface **401**. The protective sheathing apparatus **100** enclosing the longitudinal objects **201** can then be detachably attached to the support surface **401** by detachably engaging the hook side **106***a* and the loop side **106***b* of the third fastening element **106** as disclosed in the detailed description of FIG. **4**.

FIG. **4** exemplarily illustrates a front orthogonal view showing the detachable attachment of the protective sheathing apparatus **100** to a support surface **401** using a third fastening element **106**. The protective sheathing apparatus **100** is detachably attached to the support surface **401**, for example, a wall using the third fastening element **106**. The third fastening element **106** is, for example, a hook and loop fastener having a hook side **106***a* and a loop side **106***b*. A hook and loop fastener comprises two lineal fabric strips attached to opposing surfaces **101** and **401** to be fastened. When the hook side **106***a* and the loop side **106***b* of the third fastening element **106** are pressed together, the elongated flexible member **101** binds to the support surface **401**. This enables the protective sheathing apparatus **100** to be held in a particular position, for example, a raised position, to provide easy access, for example, during cleaning of floors.

As exemplarily illustrated in FIG. **4**, the hook side **106***a* of the third fastening element **106** is affixed on the exterior surface **101***e* of the elongated flexible member **101**, for example, by sewing, using adhesives, etc., while the loop side **106***b* of the third fastening element **106** is attached to the support surface **401**, for example, using adhesives, via the adhesive side **106***d* as disclosed in the detailed description of FIGS. **3**A-**3**C. When the hook side **106***a* of the third fastening element **106** affixed on the exterior surface **101***e* of the elongated flexible member **101** of the protective sheathing apparatus **100** is pressed against the loop side **106***b* of the third fastening element **106** attached to the support surface **401**, the hook side **106***a* of the third fastening element **106** having hooks catch in the hair like structures or loops on the loop side **106***b* of the third fastening element **106**, thereby resulting in binding or attachment of the protective sheathing apparatus **100** to the support surface **401**. Also exemplarily illustrated in FIG. **4** is a support sleeve **107** attached along the exterior surface **101***e* of the elongated flexible member **101** of the protective sheathing apparatus **100** as disclosed in the detailed description of FIG. **5**.

FIG. **5** exemplarily illustrates a perspective view of the protective sheathing apparatus **100**, showing a support sleeve **107** attached along the exterior surface **101***e* of the elongated flexible member **101** of the protective sheathing apparatus **100**. In an embodiment, the protective sheathing apparatus **100** disclosed herein further comprises the support sleeve **107** attached along the exterior surface **101***e* of the elongated flexible member **101**. The support sleeve **107** defines a pocket **107***a* along the elongated flexible member **101** for incorporating a shaping rod **108** within the defined pocket **107***a*. The shaping rod **108** is, for example, an extruded shaping rod made of plastic that provides strength and stability to the protective sheathing apparatus **100**, when the protective sheathing apparatus **100** encloses longitudinal objects **201** within the generally cylindrical lengthwise channel **105** defined within the elongated flexible member **101**. In an embodiment, the shaping rod **108** is manufactured, for example, using a plastic extrusion process, in which a plastic material is melted and formed into a continuous profile.

The shaping rod **108** enables the protective sheathing apparatus **100** to be smoothly maneuvered along contours **602***a* of one or more support surfaces **602** of, for example, a table as exemplarily illustrated in FIG. **6**C or along other irregular surfaces. The shaping rod **108** allows bending of the protective sheathing apparatus **100** into a shapeable turn around the contours **602***a* of one or more support surfaces **602**. The shaping rod **108** provides for controlled positioning and organization of the enclosed longitudinal objects **201** on support surfaces **401**, **602**, for example, a wall, a table surface, a floor, etc., and for increasing the strength and flexibility of the protective sheathing apparatus **100**. The shaping rod **108** sustains a particular shape or a particular configuration of the protective sheathing apparatus **100** for a substantially long period of time.

FIGS. **6**A-**6**C exemplarily illustrate the use of the protective sheathing apparatus **100** for enclosing and organizing longitudinal objects **201** of an electronic device **601**. The protective sheathing apparatus **100** disclosed herein is used for enclosing and organizing one or more longitudinal objects **201**, for example, computer cables, of an electronic device **601** such as a computer. During usage, the protective sheathing apparatus **100** is first kept open, that is, the first fastening elements **102***a* are not engaged with the second fastening elements **102***b* and hence the first lengthwise edge **101***a* and the second lengthwise edge **101***b* of the elongated flexible member **101** are separated by a distance **110** as exemplarily illustrated in FIG. **6**A. The longitudinal objects **201**, for example, a bunch of computer cables, are positioned lengthwise within the elongated flexible member **101** between the first lengthwise edge **101***a* and the second lengthwise edge **101***b*.

The first fastening elements **102***a* affixed in proximity to the first lengthwise edge **101***a* of the elongated flexible member **101** are then engaged with the second fastening elements **102***b* affixed in proximity to the second lengthwise edge **101***b* of the elongated flexible member **101**, thereby defining the generally cylindrical lengthwise channel **105** within the elongated flexible member **101** as exemplarily illustrated in FIGS. **1**B-**1**C. The elongated flexible member **101** encloses the longitudinal objects **201** as exemplarily illustrated in FIGS. **6**B-**6**C. If more than one protective sheathing apparatus **100** is needed, the attachment section **103** of one protective sheathing apparatus **100** is detachably engaged to another protective sheathing apparatus **100** using the interlocking fastening elements **104***a* and **104***b*. When the longitudinal objects **201**, for example, the computer cables, are enclosed or wrapped in the protective sheathing apparatuses **100**, the protective sheathing apparatuses **100** can then be attached to the support sur-

face **401**, **602**, etc., of a wall or a desk to hold the protective sheathing apparatuses **100** in place as exemplarily illustrated in FIG. **6**A and FIG. **6**C.

In an embodiment, one or more patterns **111** and textual information are displayed on the exterior surface **101***e* of the elongated flexible member **101** as exemplarily illustrated in FIG. **6**B for decorative and/or instructional purposes. In an embodiment, the protective sheathing apparatus **100** disclosed herein further comprises one or more slots **109** defined on the elongated flexible member **101** for allowing one or more of the longitudinal objects **201** to be inserted into and exited out from the generally cylindrical lengthwise channel **105** defined within the elongated flexible member **101** as exemplarily illustrated in FIG. **6**B.

The exterior surface **101***e* of the elongated flexible member **101** of each of the protective sheathing apparatuses **100** can be attached to the support surface **401**, for example, using a third fastening element **106** as disclosed in the detailed description of FIG. **4**. The protective sheathing apparatus **100** may be vertically attached to a support surface **401**, for example, a wall, as exemplarily illustrated in FIGS. **6**B-**6**C. The protective sheathing apparatus **100** may also be horizontally attached to a support surface **602**, for example, a table surface, as exemplarily illustrated in FIG. **6**C. The protective sheathing apparatus **100** takes an arbitrary shape as desired by a user and remains attached on the support surface **401**, **602**, etc., until the protective sheathing apparatus **100** is required for a purpose such as for inserting additional longitudinal objects **201** into the generally cylindrical lengthwise channel **105** defined within the elongated flexible member **101** of the protective sheathing apparatus **100**, for cleaning, for reattaching the protective sheathing apparatus **100** to a different location on the support surface **401**, **602**, etc., or for reshaping the protective sheathing apparatus **100** into a different desired arbitrary shape, etc. Enclosing and organization of the longitudinal objects **201** using the protective sheathing apparatus **100** disclosed herein results in efficient use of space and avoids entangling of the enclosed longitudinal objects **201**. This results in efficient use of the enclosed longitudinal objects **201** and prevents users from experiencing electric shock, tripping, inconvenience during cleaning or maintenance, etc.

FIG. **7** illustrates a method for enclosing and organizing one or more longitudinal objects **201** on a support surface **401**, **602**, etc. The protective sheathing apparatus **100** comprising the elongated flexible member **101** having a first lengthwise edge **101***a*, a second lengthwise edge **101***b*, a first widthwise edge **101***c*, and a second widthwise edge **101***d*, the first fastening elements **102***a*, the second fastening elements **102***b*, the attachment section **103**, and one or more third fastening elements **106** as disclosed in the detailed description of FIGS. **1**A-**1**C, FIGS. **3**A-**3**C, and FIG. **5** is provided **701**. The second lengthwise edge **101***b* of the elongated flexible member **101** is detachably engaged **702** with the first lengthwise edge **101***a* of the elongated flexible member **101** by detachably engaging the second fastening elements **102***b* affixed in proximity to the second lengthwise edge **101***b* with the first fastening elements **102***a* affixed in proximity to the first lengthwise edge **101***a* as exemplarily illustrated in FIGS. **1**B-**1**C. The detachable engagement of the second fastening elements **102***b* with the first fastening elements **102***a* defines a generally cylindrical lengthwise channel **105** within the elongated flexible member **101** for accommodating one or more longitudinal objects **201**. The elongated flexible member **101** encloses the longitudinal objects **201**.

The attachment section **103** attached to and extending outwardly from the first widthwise edge **101***c* and/or the second widthwise edge **101***d* of the elongated flexible member **101** is detachably engaged **703** with another protective sheathing apparatus **100** using the interlocking fastening elements **104***a* and **104***b* as exemplarily illustrated in FIGS. **2**A-**2**B. The protective sheathing apparatus **100** that encloses the longitudinal objects **201** is then detachably attached **704** to a support surface **401**, **602**, etc., using one or more third fastening elements **106** as exemplarily illustrated in FIG. **4** and FIGS. **6**B-**6**C. In an embodiment, a shaping rod **108**, as exemplarily illustrated in FIGS. **4**-**5**, is incorporated in the pocket **107***a* defined by the support sleeve **107** attached along the exterior surface **101***e* of the elongated flexible member **101** for maneuvering the protective sheathing apparatus **100** along the contours **602***a* of a support surface **602**, for example, a table surface as exemplarily illustrated in FIG. **6**C. Furthermore, one or more of the longitudinal objects **201** may be inserted into or exited out from the generally cylindrical lengthwise channel **105** defined within the elongated flexible member **101** via one or more of the slots **109** as exemplarily illustrated in FIG. **6**B.

By using the fastening elements **102***a*, **102***b*, **104***a*, and **104***b*, for example, mating snap fasteners, the longitudinal objects **201** can be inserted into the protective sheathing apparatus **100** such that the ends of the longitudinal objects **201** can exit at different points along the connected protective sheathing apparatuses **100**. The protective sheathing apparatus **100** enclosing the longitudinal objects **201** can be raised off the floor and attached to any support surface **401**, **602**, etc., to allow, for example, easy access to carpets for vacuuming, access to hardwood floors for dusting, etc. The protective sheathing apparatus **100** may be made of fabrics of different lengths, designs, colors, and patterns.

For purposes of illustration, the detailed description refers to the first fastening elements **102***a*, the second fastening elements **102***b*, and the interlocking fastening elements **104***a* and **104***b* being snap fasteners; however, the scope of the protective sheathing apparatus **100** disclosed herein is not limited to snap fasteners but may be extended to include any fasteners of an interlocking type, for example, button snaps, hook and loop fasteners such as Velcro®, eyelets, buttons and button holes, hook and eye fasteners, etc. Similarly, the third fastening elements **106** are not limited to hook and loop fasteners such as Velcro® but may be extended to include any fasteners of an interlocking type, for example, snap fasteners, button snaps, eyelets, buttons and button holes, hook and eye fasteners, etc. In an embodiment, the third fastening elements **106** are of a non-interlocking type, for example, foam adhesive tapes.

The foregoing examples have been provided merely for the purpose of explanation and are in no way to be construed as limiting of the present invention disclosed herein. While the invention has been described with reference to various embodiments, it is understood that the words, which have been used herein, are words of description and illustration, rather than words of limitation. Further, although the invention has been described herein with reference to particular means, materials and embodiments, the invention is not intended to be limited to the particulars disclosed herein; rather, the invention extends to all functionally equivalent structures, methods and uses, such as are within the scope of the appended claims. Those skilled in the art, having the benefit of the teachings of this specification, may affect numerous modifications thereto and changes may be made without departing from the scope and spirit of the invention in its aspects.

I claim:

1. A protective sheathing apparatus comprising:

an elongated flexible member comprising a first lengthwise edge, a second lengthwise edge, a first widthwise edge, and a second widthwise edge;

a plurality of first fastening elements affixed in proximity to said first lengthwise edge of said elongated flexible member;

a plurality of second fastening elements affixed in proximity to said second lengthwise edge of said elongated flexible member, wherein said second fastening elements are configured to detachably engage with said first fastening elements when said second lengthwise edge of said elongated flexible member is rolled over towards said first lengthwise edge of said elongated flexible member, wherein said detachable engagement of said second fastening elements with said first fastening elements defines a generally cylindrical lengthwise channel within said elongated flexible member for accommodating one or more longitudinal objects, and wherein said one or more longitudinal objects within said generally cylindrical lengthwise channel are enclosed by said elongated flexible member;

an attachment section attached to and extending outwardly from one or more of said first widthwise edge and said second widthwise edge of said elongated flexible member for enabling detachable engagement with another said protective sheathing apparatus;

one or more third fastening elements affixed on an exterior surface of said elongated flexible member for enabling detachable attachment of said protective sheathing apparatus enclosing said one or more longitudinal objects to a support surface; and

a support sleeve attached along said exterior surface of said elongated flexible member, wherein said support sleeve defines a pocket along said elongated flexible member for accommodating a shaping rod within said defined pocket, wherein said shaping rod enables said protective sheathing apparatus to be maneuvered along contours of one or more support surfaces.

2. The protective sheathing apparatus of claim 1, wherein said first fastening elements and said second fastening elements are mating snap fasteners.

3. The protective sheathing apparatus of claim 1, wherein said one or more third fastening elements are hook and loop fasteners, wherein one of hook sides and loop sides of said hook and loop fasteners are affixed on said exterior surface of said elongated flexible member.

4. The protective sheathing apparatus of claim 3, wherein an opposing one of said hook sides and said loop sides of said hook and loop fasteners are attached to said support surface for allowing said detachable attachment of said protective sheathing apparatus to said support surface.

5. The protective sheathing apparatus of claim 1, further comprising one or more slots defined on said elongated flexible member for allowing one or more of said one or more longitudinal objects to be inserted into and exited out from said generally cylindrical lengthwise channel defined within said elongated flexible member.

6. The protective sheathing apparatus of claim 1, further comprising one or more fourth fastening elements affixed on said attachment section and in proximity to one or more of said first widthwise edge and said second widthwise edge of said elongated flexible member of said another said protective sheathing apparatus for detachably engaging said protective sheathing apparatus to said another said protective sheathing apparatus.

7. The protective sheathing apparatus of claim 1, further comprising one or more patterns and textual information displayed on said exterior surface of said elongated flexible member.

8. A method for enclosing and organizing one or more of a plurality of longitudinal objects on a support surface, comprising:

providing a protective sheathing apparatus comprising:

an elongated flexible member comprising a first lengthwise edge, a second lengthwise edge, a first widthwise edge, and a second widthwise edge;

a plurality of first fastening elements affixed in proximity to said first lengthwise edge of said elongated flexible member;

a plurality of second fastening elements affixed in proximity to said second lengthwise edge of said elongated flexible member, wherein said second fastening elements are configured to detachably engage with said first fastening elements;

an attachment section attached to and extending outwardly from one or more of said first widthwise edge and said second widthwise edge of said elongated flexible member;

one or more third fastening elements affixed on an exterior surface of said elongated flexible member; and

providing a support sleeve attached along said exterior surface of said elongated flexible member, wherein said support sleeve defines a pocket along said elongated flexible member for accommodating a shaping rod within said defined pocket;

detachably engaging said second lengthwise edge of said elongated flexible member with said first lengthwise edge of said elongated flexible member by detachably engaging said second fastening elements affixed in proximity to said second lengthwise edge with said first fastening elements affixed in proximity to said first lengthwise edge, wherein said detachable engagement of said second fastening elements with said first fastening elements defines a generally cylindrical lengthwise channel within said elongated flexible member for accommodating said one or more longitudinal objects, and wherein said one or more longitudinal objects within said generally cylindrical lengthwise channel are enclosed by said elongated flexible member;

detachably engaging said attachment section of said protective sheathing apparatus with another said protective sheathing apparatus;

detachably attaching said protective sheathing apparatus that encloses said one or more longitudinal objects to said support surface using said one or more third fastening elements;

maneuvering said protective sheathing apparatus along contours of one or more support surfaces using said shaping rod.

9. The method of claim 8, wherein said protective sheathing apparatus further comprises one or more slots defined on said elongated flexible member for allowing one or more of said longitudinal objects to be inserted into and exited out from said generally cylindrical lengthwise channel defined within said elongated flexible member.

10. The method of claim 8, wherein said protective sheathing apparatus further comprises one or more fourth fastening elements affixed on said attachment section and in proximity to one or more of said first widthwise edge and said second widthwise edge of said elongated flexible member of said another said protective sheathing apparatus for detachably

engaging said attachment section of said protective sheathing apparatus to said another said protective sheathing apparatus.

11. The method of claim **8**, wherein said first fastening elements and said second fastening elements of said protective sheathing apparatus are mating snap fasteners.

12. The method of claim **8**, wherein said one or more third fastening elements of said protective sheathing apparatus are hook and loop fasteners, wherein one of hook sides and loop sides of said hook and loop fasteners are affixed on said exterior surface of said elongated flexible member of said protective sheathing apparatus.

13. The method of claim **12**, wherein an opposing one of said hook sides and said loop sides of said hook and loop fasteners are attached to said support surface for allowing said detachable attachment of said protective sheathing apparatus to said support surface.

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