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(54) **TOOL HOLDER**

(57) A tool holder (100) includes a tool holder body (110) defining at least one tool holder cavity (124). A plug element (300) is adapted to be coupled with the at least one tool holder cavity (124). The plug element (300) includes a plug body (310) defining a tool cavity (312) and a coupling element (320) coupled to the plug body (310). The coupling element (320) is adapted to be received within the at least one tool holder cavity (124). The tool

holder (100) is characterized in that the at least one tool holder cavity (124) defines a first set of ribs (126), and the coupling element (300) defines a second set of ribs (322). The first set of ribs (126) and the second set of ribs (322) engage together to allow the plug element (300) to removably couple with the at least one tool holder cavity (124) at one or more angular orientations in a stable manner.

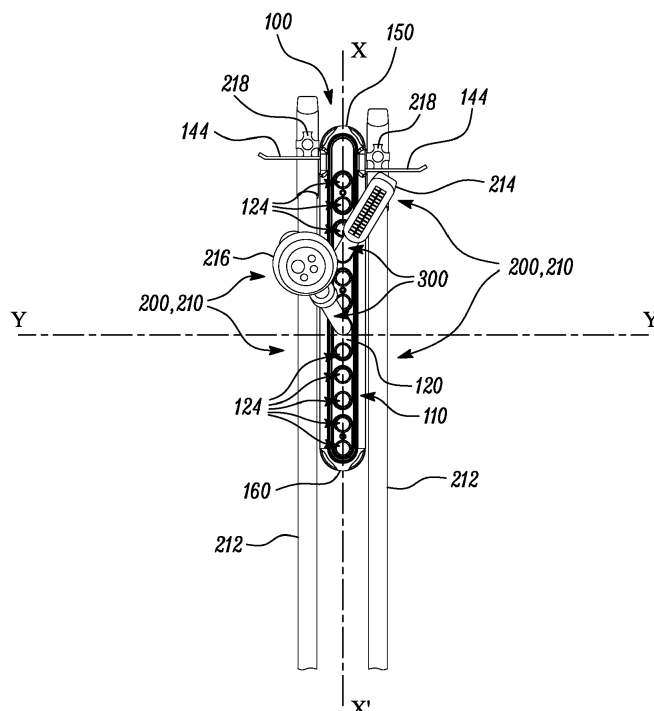


FIG. 1

Description

TECHNICAL FIELD

[0001] The present disclosure relates to a tool holder. More particularly, the present disclosure pertains to a tool holder for holding one or more tools.

BACKGROUND

[0002] A tool holder is used to support and store a tool when the tool is not in use. Further, the tool holder may be used to display the tool in promotional activities, for example, at shops. Many different types of tool holders for supporting, storing, or displaying the tool are known. One example of a tool holder includes a conventional wall bracket, which generally includes a flange for engagement against the surface of a wall and an outwardly extending angularly struck arm, the latter of which is used to hold the tool. However, these brackets are not only unattractive, but have limited versatility, i.e., they are not designed to hold different tools with substantially different sizes and shapes.

[0003] An example of a versatile tool holder is provided in United States patent 5,145,135 (hereinafter referred to as '135 reference). The '135 reference provides an object support rack comprising a plate adapted for engagement on a wall or other similar relatively flat surface and preferably a vertically disposed surface. The plate of the object support rack has a socket which receives a post. This post may extend angularly outwardly from the plate of the object support rack. In addition, elbows may be provided for changing the angulated position of a portion of the post with respect to the object support rack. Moreover, the object support racks may be mounted essentially in any position on a wall, depending upon the objects which are to be supported. However, there is still a need of an improved tool holder which allow simple, convenient, and safe storing of at least one tool.

SUMMARY

[0004] In view of the above, it is an objective of the present invention to solve or at least reduce the drawbacks discussed above. The objective is at least partially achieved by a tool holder. A tool holder includes a tool holder body defining at least one tool holder cavity. A plug element is adapted to be coupled with the at least one tool holder cavity. The plug element includes a plug body defining a tool cavity and a coupling element coupled to the plug body. The coupling element is adapted to be received within the at least one tool holder cavity. The tool holder is characterized in that the at least one tool holder cavity defines a first set of ribs, and the coupling element defines a second set of ribs. The first set of ribs and the second set of ribs engage together to allow the plug element to removably couple with the at least one tool holder cavity at one or more angular orientations

in a stable manner.

[0005] Thus, the present disclosure provides the tool holder, which advantageously includes at least one tool holder cavity to support, or store at least one tool or tool accessory at one or more angular orientations in a stable manner. The provision to store at least one tool or tool accessory at one or more angular orientations allows for storage of more than one tool or tool accessory of different shapes and sizes without any interference between tools or tool accessories. This is even more beneficial when the tool holder is used for displaying more than one tool or tool accessories of different shapes and sizes at marketplaces, or shops etc. for commercial or demonstration purposes. The one or more angular orientations allow for proper display of every tool or tool accessory supported or stored on the tool holder. The one or more angular orientations also improves the aesthetic appeal of the tool holder storing more than one tool or tool accessory of different dimensions.

[0006] According to an embodiment of the present disclosure, the plug element and the tool holder cavity together define an angle therebetween such that the angle ranges from 0 degrees to 90 degrees. In some embodiments, the angle may be 30 degrees. In some embodiments, the angle may be 45 degrees. The plug element angle relative to the tool holder cavity may have a range of values for storage of the at least one tool or tool accessory in a stable manner.

[0007] According to an embodiment of the present disclosure, the plug element is a flexible part. The plug element may be flexible such that the orientation of the plug body relative to the tool holder cavity may be varied as per the requirement for storage of the at least one tool or tool accessory. The plug body may be flexed in a horizontal direction (or parallel) to the tool holder cavity or in a vertical direction (or perpendicular) to the tool holder cavity. Further, the plug body may be flexed in any direction between the horizontal direction and the vertical direction such that the tool cavity has a slightly upward inclination away from the direction of ground surface.

[0008] According to an embodiment of the present disclosure, the one or more angular orientations include a vertical orientation. Further, in some embodiments, the one or more angular orientations include a horizontal orientation. The orientation of the plug element relative to the at least one tool holder cavity may be changed such that multiple tools or tool accessories may be properly and conveniently stored or supported on the tool holder without any sort of hinderance.

[0009] According to an embodiment of the present disclosure, the tool cavity is adapted to receive the implement therein. The tool cavity receives and supports implements that may be removable attached to a handle of the tool. However, the tool cavity may receive and store any other tool accessory, without limiting the scope of the present disclosure.

[0010] According to an embodiment of the present disclosure, the tool cavity includes a threaded portion. Fur-

ther, in some embodiments, the tool cavity includes a plurality of protrusions. The threaded portion or the plurality of protrusions may be provided with the tool cavity to securely support the tool, or tool accessory. The threaded portion or the plurality of protrusions may prevent accidental or inadvertent dislodging of the tool, or tool accessory from the tool holder.

[0011] According to an embodiment of the present disclosure, the plug element advantageously includes a hook. The hook may be used to hang the tool or the tool accessory such as, but not limited to, the handle and the implement.

[0012] According to an embodiment of the present disclosure, the tool holder includes a plurality of holes for wall-mounting of the tool holder. Plurality of holes are drilled in the tool holder for wall-mounting of the tool holder. The plurality of holes may additionally be provided with wall-mounting option including one or more of a screw, nuts, and rivets.

[0013] Other features and aspects of this invention will be apparent from the following description and the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0014] The invention will be described in more detail with reference to the enclosed drawings, wherein:

FIG. 1 shows a front view of a coupling between a tool holder and a plurality of plug elements, in accordance with an aspect of the present disclosure;

FIG. 2 shows a perspective view of a tool holder, in accordance with an aspect of the present disclosure; and

FIG. 3 shows a perspective view of a plug element, in accordance with an aspect of the present disclosure.

DESCRIPTION OF EMBODIMENTS

[0015] The present invention will be described more fully hereinafter with reference to the accompanying drawings, in which example embodiments of the invention incorporating one or more aspects of the present invention are shown. This invention may, however, be embodied in many different forms and should not be construed as limited to the embodiments set forth herein; rather, these embodiments are provided so that this disclosure will be thorough and complete, and will fully convey the scope of the invention to those skilled in the art. For example, one or more aspects of the present invention may be utilized in other embodiments and even other types of structures and/or methods. In the drawings, like numbers refer to like elements.

[0016] Certain terminology is used herein for convenience only and is not to be taken as a limitation on the

invention. For example, "upper", "lower", "front", "rear", "side", "longitudinal", "lateral", "transverse", "upwards", "downwards", "forward", "backward", "sideward", "left", "right", "horizontal", "vertical", "upward", "inner", "outer", "inward", "outward", "top", "bottom", "higher", "above", "below", "central", "middle", "intermediate", "between", "end", "adjacent", "proximate", "near", "distal", "remote", "radial", "circumferential", or the like, merely describe the configuration shown in the Figures. Indeed, the components may be oriented in any direction and the terminology, therefore, should be understood as encompassing such variations unless specified otherwise.

[0017] **FIG. 1** illustrates a tool holder **100**. The tool holder **100** is used to hold, support, or display at least one tool **200** or tool accessory **210**. The at least one tool **200** of the present disclosure is at least one garden tool **200** and at least one tool accessory **210** is at least one handle **212** and at least one implement **214**, **216** of the at least one garden tool **200**. The at least one implement **214**, **216** may be removably coupled to the at least one handle **210** to form the at least one tool **200**. However, in actual implementation of the present disclosure, the tool holder **100** may store any other tool without limiting the scope of present disclosure in any manner. Further, for the purpose of illustration of the present disclosure, the at least one tool **200** is to be understood as two tools **200**. Similarly, the at least one handle **212** is to be understood as two handles **212** and the at least one implement is to be understood as two implements **214**, **216**. However, in actual use, the at least one tool, handle, and implement may be more than two in number.

[0018] The tool holder **100** helps in properly organizing and storing the at least one tool **200** or tool accessory **210** when not in use. The proper organization or arrangement of the at least one tool **200** or tool accessory **210** on the tool holder **100** allows easy access of the at least one tool **200** or tool accessory **210** when required for use. Further, the tool holder **100** may be utilized in tool stores, tool sheds, tool stalls, shopping malls, vendor carts, exhibition halls, or shops for proper display of the at least one tool **200** or tool accessory **210** available for purchase.

[0019] The tool holder **100** may be manufactured using one or more of a thermoplastic material, wood, or a metal. However, the tool holder **100** may be manufactured using any other material as used or known in the art, without limiting the scope of the present disclosure.

[0020] With continued reference to **FIG. 1** and further reference to **FIG. 2**, the tool holder **100** includes a tool holder body **110**. The tool holder body **110** includes a front portion **120**, a back portion **130**, a pair of side portions **140**, a top portion **150** and a bottom portion **160**. The top portion **150** and the bottom portion **160** define a length of the tool holder **100** along a longitudinal axis X-X' of the tool holder **100**. The pair of side portion **130** define a width of the tool holder **100** along a lateral axis Y-Y' of the tool holder **100**. The longitudinal axis X-X' is perpendicular to the lateral axis Y-Y'. Further, the length of the tool holder **100** is preferably at least thrice the width

(along the lateral axis Y-Y') of the tool holder **100**. However, any other suitable relationship between the length and the width of the tool holder **100** may be used without limiting the scope of the present disclosure in any manner.

[0021] The front portion **120** includes a plurality of holes **122** for wall-mounting of the tool holder **100**. Plurality of holes **122** are drilled in the tool holder **100** for wall-mounting of the tool holder **100** by any means known in the related art. The plurality of holes **122** may additionally be provided with wall-mounting option including one or more of a screw, nuts, and rivets.

[0022] In some embodiments, the wall-mounting option including one or more of a screw, nuts, and rivets may be integrally received on purchase with the tool holder **100**. Such integrated wall mounting option allows to easily mount the tool holder **100** on different installations such as a wall, a column, a post, and the like in horizontal, vertical or any other orientation as desired.

[0023] The back portion **130** of the tool holder **100** faces the installations when the tool holder **100** is mounted. In some embodiments, the tool holder **100** may be suspended on different installations using a plurality of brackets (not shown) provided on the back portion **130** of the tool holder **100**. In some embodiments, the tool holder **100** may be permanently welded with the installation. In some embodiments, the tool holder **100** may be mounted on the installation using a plurality of belts attached on the back portion **130** of the tool holder **100** such that the plurality of belts may wrap upon the circular installation such as the post.

[0024] The pair of side portions **140** includes a plurality of cavities **142** (as shown in **FIG. 2**) along the lateral axis Y-Y'. The plurality of cavities **142** are adapted to hold a plurality of metal rods **144** (as shown in **FIG. 1**), i.e., one cavity **142** for one metal rod **144**. The plurality of cavities **142** of the present disclosure are formed as four cavities **142** in a row-wise arrangement such as two cavities **142** are in a first row and remaining two cavities **142** are in a second row. The shape and size of two cavities **142** in the first row differ from shape and size of two cavities **142** in the second row. This type of arrangement allows the use of metal rods **144** of different dimensions. This type of arrangement further allows the use of metal rods **144** at different depths along the longitudinal axis X-X'. Same type of cavity arrangement, as discussed above may be implemented on the other side portion **140** of the tool holder **100**. However, any other arrangement of the plurality of cavities **142** is within the scope of the present disclosure.

[0025] In some embodiments, the plurality of cavities **142** may be through cavities such that the plurality of metal rods **144** inserted from one of the side portions **140** may pass through the width of the tool holder **100** along the lateral axis Y-Y'. In case of plurality of through cavities **142**, some part of the plurality of metal rods **144** extends away from each of the two side portions or the pair of side portions **140**.

[0026] Further, the plurality of metal rods **144** held in the plurality of cavities **142** are designed to hold or support the at least one handle **212** of the at least one tool **200**. The at least one handle **212** may be manufactured from wood, aluminum, or other material without limiting the scope of the disclosure. The at least one handle **212** may be the regular handle or the telescopic handle. Further, the at least one handle **212** may include grips for properly holding the at least one handle **212** of the at least one tool **200**. The grips may be provided at more than one location along the length of the at least one handle **212** as per the ergonomic requirements. The grips may preferably be manufactured from silicone. However, any other suitable material may be employed for manufacturing of the grips.

[0027] Each of the at least one handle **212** requires two metal rods **144** out of the plurality of metal rods **144** for proper support in storage position of the at least one handle **212**. The two metal rods **144** required for support of one handle **212** may not necessarily be inserted or held in the plurality of cavities **142** arranged in the same row. However, it may be preferable to insert the two metal rods **144** required for support of one handle **212** in the plurality of cavities **142** arranged in the same row.

[0028] The at least one handle **212** includes at least one locking member **218** (as shown in **FIG. 1**) such the at least one locking member **218** removably hangs or takes support on one of the metal rods **144** out of two metal rods **144** required for support of the at least one handle **212**. Further, the other metal rod **144** out of the two metal rods **144** with which the at least one locking member **218** does not engages may prevent the accidental dislodging of the at least one handle **212** by acting as a counter for the rotational torque of the at least one handle **212**. Thus, at least one handle **212** extends along the longitudinal axis X-X' below the plurality of cavities **142** in a stable manner.

[0029] In some embodiments, the plurality of cavities **142** are formed proximate the top portion **150** of the tool holder **100**. The plurality of cavities **142** proximate the top portion **150** of the tool holder **100** ensures that there is sufficient vertical extent of the tool holder **100** along the longitudinal axis X-X' below the plurality of cavities **142**. This may serve as a counter against the gravity acting on the at least one tools **200** (or the at least one handle **212**) which hangs onto the tool holder **100**. Thus, the plurality of cavities **142** may be formed at any length along the longitudinal axis X-X' of the tool holder **100** such that a part of the at least one tools **200** (or the at least one handle **212**) extends along the longitudinal axis X-X' and receives support from the side portions **140** of the tool holder body **110** of the tool holder **100**.

[0030] In some embodiments, at least a part of the at least one tool **200** below the plurality of cavities **142** responsible for the support of the at least one tool **200** is about 2 cm, or any other suitable value depending upon factors such as size, weight, profile, type of the at least one tool **200** or the tool holder **100**. Thus, the part of the

at least one tool **200** which extends along the longitudinal axis X-X' gets support from the tool holder body **110**, particularly the side portions **140** of the tool holder **100**. This eliminates the general tendency of the at least one tools **200** (or the at least one handle **212**) to hang obliquely and thus allows support and proper hanging of the at least one tools **200** (or the at least one handle **212**) substantially vertically on the tool holder **100**.

[0031] With continued reference to FIGS. 1 and 2, the front portion **120** of the tool holder body **110** of the tool holder **100** is adapted to receive at least one tool **200** (or the at least one implement **214**, **216**). The at least one implement **214**, **216** may be one or more of a shovel, a rake, a plough, a hoe, a weed puller, a broom, a brush, ice scraper, a trowel, a sprayer, or the like.

[0032] The front portion **120** of the tool holder body **110** defines at least one tool holder cavity **124**. The at least one tool holder cavity **124** is defined along the length of the tool holder **100**. The at least one tool holder cavity **124** is defined along the longitudinal axis X-X'. Further, an axis Z-Z' (as shown in FIG. 2) perpendicular to the longitudinal axis X-X' and the lateral axis Y-Y' passes through the at least one tool holder cavity **124**.

[0033] The at least one tool holder cavity **124** may preferably have depth equivalent to the depth of the tool holder **100** along the Z-Z' axis. In some embodiments, the at least one tool holder cavity **124** may taper along its depth. In some embodiments, the at least one tool holder cavity **124** may preferably have a circular shape. However, the at least one tool holder cavity **124** may have any other shape without limiting the scope of the present disclosure.

[0034] In some embodiments, the at least one tool holder cavity **124** may be formed by at least one cylinder cup rotatably and removably inserted in at least one hollow portion of the tool holder **100** along the longitudinal axis X-X'.

[0035] In some embodiments, the material of the at least one tool holder cavity **124** is similar to the material of the tool holder body **110**. In some embodiments, the material of the at least one tool holder cavity **124** is different from the tool holder body **110**.

[0036] In some embodiments, the at least one tool holder cavity **124** is integrally formed the tool holder body **110** by any suitable manufacturing means known in the related art. In some embodiments, the at least one tool holder cavity **124** is formed as a separate element to be attached to the tool holder body **110** by any suitable means known in the related art after respective manufacturing of the tool holder body **110** and the at least one tool holder cavity **124**.

[0037] Further, as illustrated in FIG. 2, the at least one tool holder cavity **124** defines a first set of ribs **126**. The first set of ribs **126** includes a plurality of annular ribs in the at least one tool holder cavity **124**. The first set of ribs **126** may at least partially extend along the depth of the at least one tool holder cavity **124**. The ribs of the first set of ribs **126** may preferably be trapezoidal in shape.

However, they have any other suitable shape without limiting the scope of the present disclosure in any manner. The first set of ribs **126** of the at least one tool holder cavity **124** are operatively coupled to a plug element **300** (as shown in FIGS. 1 and 3).

[0038] The plug element **300** (as shown in FIG. 1) is adapted to be coupled with the at least one tool holder cavity **124**. The plug element **300**, as illustrated in detail in FIG. 3, includes a plug body **310** defining a tool cavity **312** and a coupling element **320** coupled to the plug body **310**. In some embodiments, the coupling between the plug body **310** and the coupling element **320** is a removable coupling. In some embodiments, the coupling between the plug body **310** and the coupling element **320** is a permanent coupling. Any suitable known coupling method may be used for the removable or permanent coupling of the plug body **310** and the coupling element **320** without limiting the scope of the present disclosure.

[0039] The coupling element **320** is adapted to be received within the at least one tool holder cavity **124**. The coupling element **320** defines a second set of ribs **322**. The second set of ribs **322** includes a plurality of annular ribs on the circumference or perimeter of the coupling element **320**. The second set of ribs **322** partially extend along the length of the coupling element **320**. The second set of ribs **322** may have a shape similar or different to the first set of ribs **126**. The coupling element **320** further includes a plurality of annular fingers **324** towards an end of the coupling element. Some (or all) of the plurality of fingers **324** include protrusions **326**. The protrusions **326** may help in removable but secure coupling between the at least one tool holder cavity **124** and the coupling element **320**. The protrusions **326** may help in friction or snap on coupling between the at least one tool holder cavity **124** and the coupling element **320**. The protrusions **326** may slide along the depth of the at least one tool holder cavity **124** until the coupling element **320** is at least partially received within the at least one tool holder cavity **124** to form secure coupling.

[0040] Further, when the coupling element **320** is received within the at least one tool holder cavity **124**, the first set of ribs **126** and the second set of ribs **322** engage together to allow the plug element **300** to removably couple with the at least one tool holder cavity **124** at one or more angular orientations in a stable manner. Crest of the ribs of the first set of ribs **126** may engage with trough of the ribs of the second set of ribs **322**. Likewise, crest of the ribs of the second set of ribs **322** may engage with the trough of the ribs of the first set of ribs **126**. Further, the spacing between the ribs of the first set of ribs **126** is less than the spacing between the ribs of the second set of ribs **322**. However, in some embodiments of the present disclosure, the spacing between the ribs of the first set of ribs **126** is equal to the spacing between the ribs of the second set of ribs **322**.

[0041] In some embodiments, the coupling element **320** may be fixed to the tool holder **100** at various angular orientations in the stable manner by firstly removing the

coupling element **320** from the at least one tool holder cavity **124** and then inserting back the coupling element **320** in the at least one tool holder cavity **124** in a manner that the orientation of the plug body **310** is changed relative to the Z-Z' axis passing through the at least one tool holder cavity **124**.

[0042] In some embodiments, the coupling element **320** may be fixed to the tool holder **100** at various angular orientations in the stable manner without removing the coupling element **320** from the at least one tool holder cavity **124**. The coupling element **320** may remain inserted inside the at least one tool holder cavity **124** and may be internally rotated by applying rotary manual force on the plug body **310** of the plug element **300**. The rotation may be possible due to elasticity of the second set of ribs **322**.

[0043] In some embodiments, the first set of ribs **126** and the second set of ribs **322** may mutually rotate in a manner that may mimic a gear mechanism (activated by the manual intervention or force) and the orientation of the plug body **310** may change relative to the Z-Z' axis passing through the at least one tool holder cavity **124**. The manner in which plug element **300** is removably coupled with the at least one tool holder cavity **124** at one or more angular orientations may be governed by the material characteristics, dimensions, shapes of the first set of ribs **126** and the second set of ribs **322**, mechanical characteristics of the at least one tool holder cavity **124** and the coupling element **320** among other factors.

[0044] In some embodiments, the one or more angular orientations may include a vertical orientation. Further, in some embodiments, the one or more angular orientations may include a horizontal orientation. The orientation of the plug element **300** relative to the at least one tool holder cavity **124** or the tool holder body **110** or the Z-Z' axis may be changed such that the at least one tool **200** or tool accessories **210** may be properly and conveniently stored or supported on the tool holder **100** without any sort of hinderance.

[0045] Further, as illustrated in FIGS. 1 and 3, the at least one tool cavity **312** is adapted to receive the at least one implement **214**, **216**. The at least one tool cavity **312** receives and supports the at least one implement **214**, **216** that may be removable attached to the at least one handle **212** of the at least one tool **200**. However, the at least one tool cavity **312** may receive and store any other tool accessory **210** without limiting the scope of the present disclosure. The at least one tool cavity **312** may be such that it may be capable of receiving different types of commonly known and available implements **214**, **216** thereby adding versatility to the tool holder **100**. In some embodiments, the at least one implement may be provided with at least one implement adapter (not shown), one end of which may be fixed to the at least one implement **214**, **216** and the other end of which may be received in the at least one tool cavity **312**. In some embodiments, the one end of the implement adapter may correspond in cross-section to the cross-section of the

at least one implement **214**, **216** and the other end of which may have cross-section corresponding to the cross-section of the at least one tool cavity **312**.

[0046] In some embodiments, the tool cavities **312** may be uniform and may have equal diameters. In some embodiments, the tool cavities **312** may be non-uniform and may have different diameters such as to cater to the holding of implements **214**, **216** of different dimensions.

[0047] In some embodiments, the at least one tool cavity **312** may include a threaded portion. Further, in some embodiments, the at least one tool cavity **312** may include a plurality of protrusions. The threaded portion or the plurality of protrusions may be provided with the at least one tool cavity **312** to securely support the at least one tool **200**, or the at least one tool accessory **210**. The threaded portion or the plurality of protrusions may prevent accidental or inadvertent dislodging of the at least one tool **200**, or the at least one tool accessory **210** from the tool holder **100** thereby preventing accidents or damage of the at least one tool **200**, or the at least one tool accessory **210**.

[0048] Further, as illustrated in FIG. 2, the plug element **300** may advantageously include a hook **328**. The hook **328** may additionally be used to hang the at least one tool **200**, or the at least one tool accessory **210** from the tool holder **100**. The at least one tool **200**, or the at least one tool accessory **210** may include a loop portion for insertion in the hook **328**.

[0049] In some embodiments, the plug element **300** and the at least one tool holder cavity **124** may together define an angle therebetween such that the angle may range from 0 degrees to 90 degrees. In some embodiments, the angle may be 30 degrees. In some embodiments, the angle may be 45 degrees. The plug element angle relative to the tool holder cavity **124** may have a range of values for storage of the at least one tool **200**, or the at least one tool accessory **210** in a stable manner. The plug body **310** may be flexible such that the orientation of the plug body **310** relative to the at least one tool holder cavity **124** may be varied as per the requirement for storage of the at least one tool **200**, or the at least one tool accessory **210**. The plug body **310** may be flexed in a horizontal direction (or parallel) to the at least one tool holder cavity **124** or in a vertical direction (or perpendicular) to the at least one tool holder cavity **124**. The plug body **310** may be flexed along the Z-Z' axis or the longitudinal axis X-X' or the lateral axis Y-Y'.

[0050] Further, the plug body **310** may be flexed in any direction between the horizontal direction and the vertical direction such that the at least one tool cavity **312** has a slightly upward inclination away from the direction of ground surface. The plug body **310** may flex from the junction between the plug body **310** and the coupling element **320**. The plug body **310** may be permanently or removably coupled to the coupling element **320** at the junction between the plug body **310** and the coupling element **320**.

[0051] Thus, the present disclosure provides the safe

and user-friendly tool holder **100**, which advantageously includes the at least one tool holder cavity **124** to support or store the at least one tool **200** or the at least one tool accessory **210** at one or more angular orientations in the stable manner. The provision to store the at least one tool **200** or the at least one tool accessory **210** at one or more angular orientations allows for storage of the at least one tool **200** or the at least one tool accessory **210** of different shapes and sizes without any interference between the at least one tool **200** or the at least one tool accessory **210** or between the at least one tool **200** and the at least one tool accessories **210**. This is even more beneficial when the tool holder **100** is used for displaying between the at least one tool **200** or the at least one tool accessory **210** of different shapes and sizes at shops. The one or more angular orientations allows for proper display of the at least one tool **200** or the at least one tool accessory **210** supported or stored on the tool holder **100**. The one or more angular orientations also improves the aesthetic appeal of the tool holder **100** storing the at least one tool **200** or the at least one tool accessory **210** of different dimensions.

[0052] In the drawings and specification, there have been disclosed preferred embodiments and examples of the invention and, although specific terms are employed, they are used in a generic and descriptive sense only and not for the purpose of limitation of the scope of the invention being set forth in the following claims.

LIST OF ELEMENTS

[0053]

100	Tool Holder
110	Tool Holder Body
120	Front Portion
122	Holes
124	Tool Holder Cavity
126	Ribs
130	Back Portion
140	Side Portion
142	Cavity
144	Metal Rod
150	Top Portion
160	Bottom Portion
200	Tool
210	Tool Accessory
212	Handle
214,216	Implement
218	Locking Member
300	Plug Element
310	Plug Body
312	Tool Cavity
320	Coupling Element
322	Ribs
324	Fingers
326	Protrusions
328	Hook

X-X'	Longitudinal Axis
Y-Y'	Lateral Axis
Z-Z'	Axis

Claims

1. A tool holder (**100**) comprising:

a tool holder body (**110**) defining at least one tool holder cavity (**124**);
a plug element (**300**) adapted to be coupled with the at least one tool holder cavity (**124**), the plug element (**300**) including:

a plug body (**310**) defining a tool cavity (**312**); and
a coupling element (**320**) coupled to the plug body (**310**), wherein the coupling element (**320**) is adapted to be received within the at least one tool holder cavity (**124**);

characterized in that:

the at least one tool holder cavity (**124**) defines a first set of ribs (**126**); and
the coupling element (**320**) defines a second set of ribs (**322**);
wherein the first set of ribs (**126**) and the second set of ribs (**322**) engage together to allow the plug element (**300**) to removably couple with the at least one tool holder cavity (**124**) at one or more angular orientations in a stable manner.

2. The tool holder (**100**) of claim 1, wherein the plug element (**300**) and the tool holder cavity (**124**) together define an angle therebetween such that the angle ranges from 0 degrees to 90 degrees.

3. The tool holder (**100**) of claim 2, wherein the angle is 30 degrees.

4. The tool holder (**100**) of claim 2 or 3, wherein the angle is 45 degrees.

5. The tool holder (**100**) of any of the preceding claims, wherein the plug element (**300**) is a flexible part.

6. The tool holder (**100**) of claim 1, wherein the one or more angular orientations include a vertical orientation.

7. The tool holder (**100**) of claim 1, wherein the one or more angular orientations include a horizontal orientation.

8. The tool holder (**100**) of claim 1, wherein the tool

cavity **(312)** is adapted to receive an implement **(214, 216)** therein.

9. The tool holder **(100)** of claim 8, wherein the tool cavity **(312)** includes a threaded portion. 5
10. The tool holder **(100)** of claim 8 or 9, wherein the tool cavity **(312)** includes a plurality of protrusions.
11. The tool holder **(100)** of claim 1, wherein the plug element **(300)** includes a hook **(328)**. 10
12. The tool holder **(100)** of any of the preceding claims, wherein the tool holder **(100)** includes a plurality of holes **(122)** for wall-mounting of the tool holder **(100)**. 15

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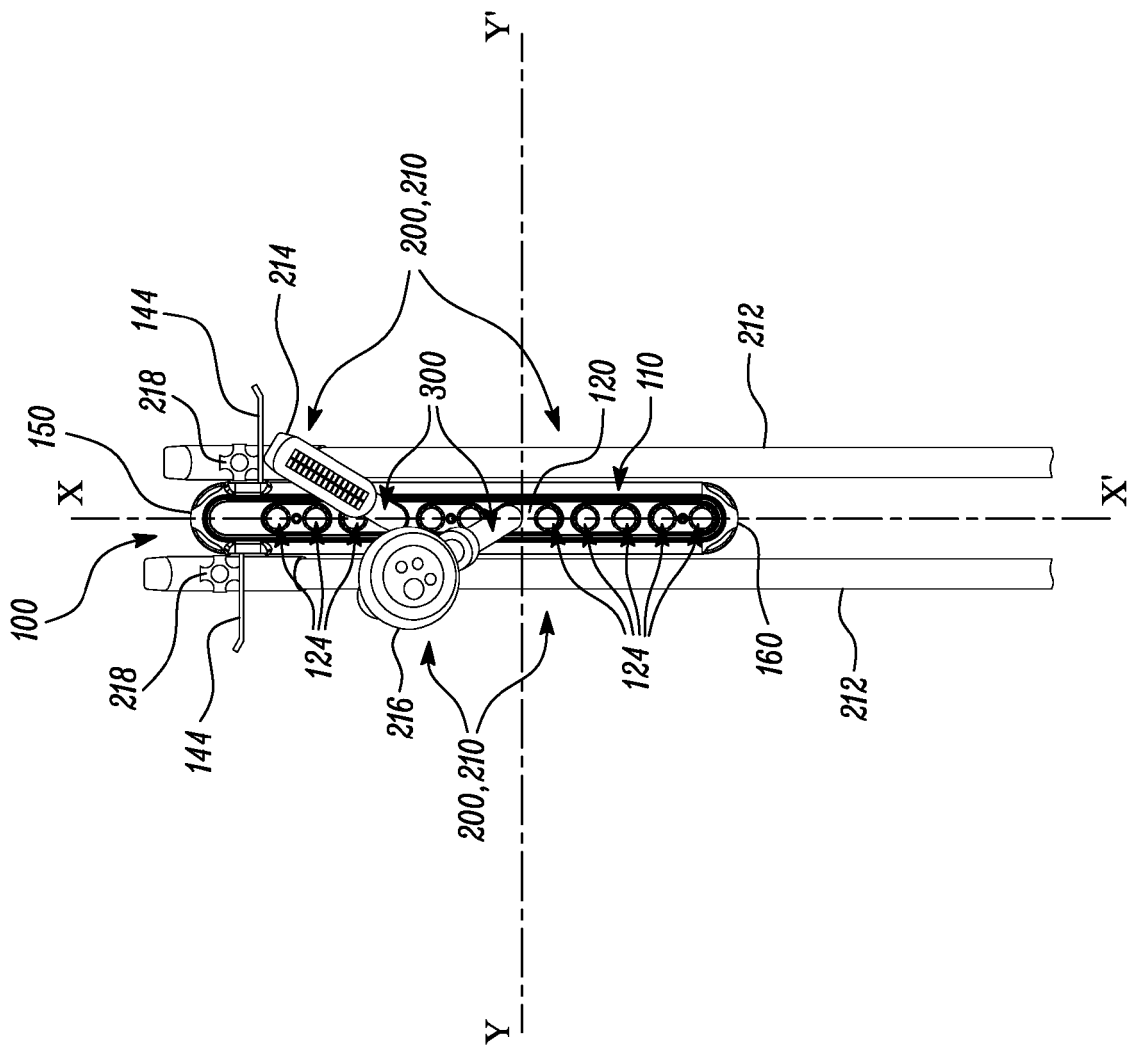


FIG. 1

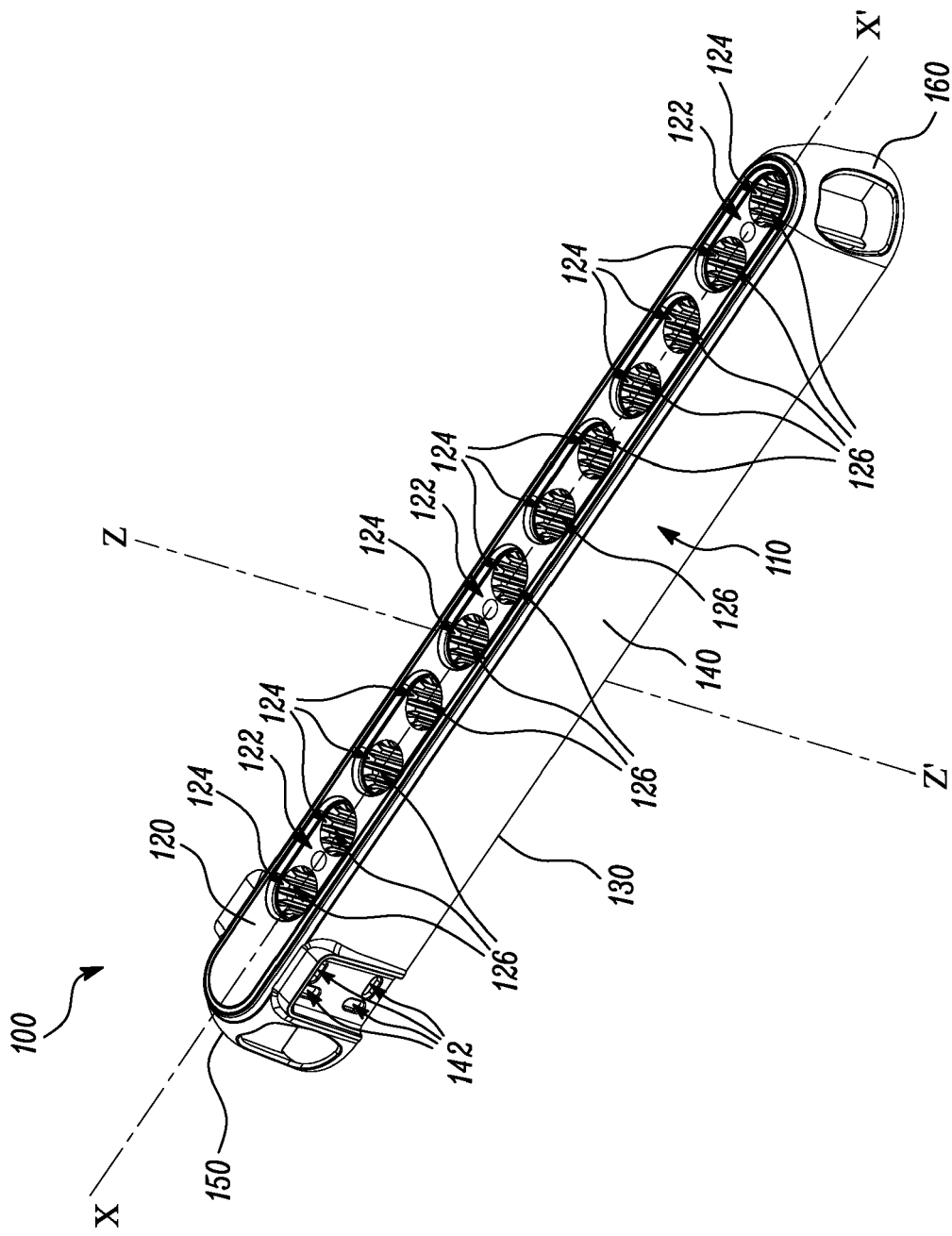


FIG. 2

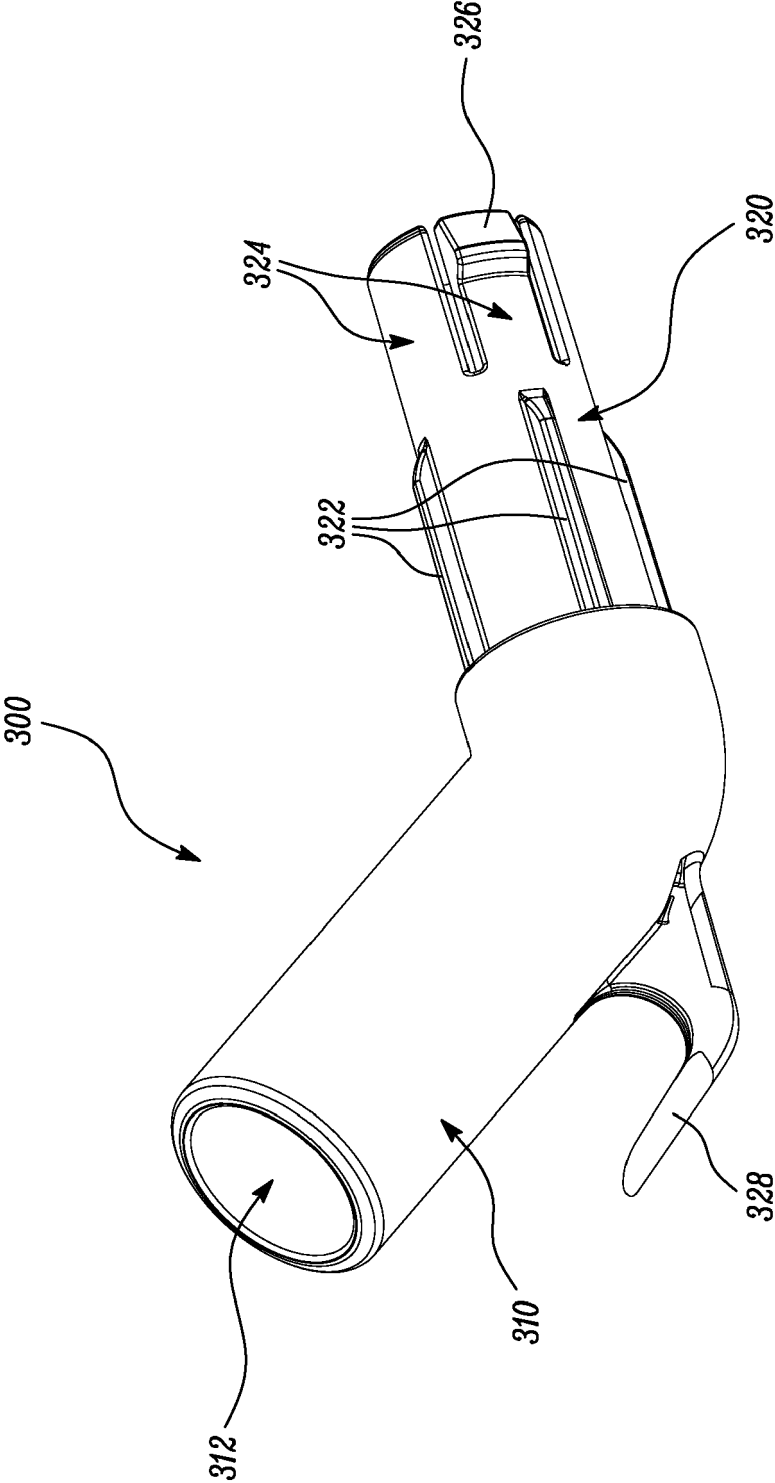


FIG. 3



EUROPEAN SEARCH REPORT

Application Number

EP 22 16 0080

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (IPC)
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Place of search		Date of completion of the search	Examiner
Munich		21 July 2022	Messai, Sonia
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5 This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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21-07-2022

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REFERENCES CITED IN THE DESCRIPTION

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