United States Patent	12390022
Kind Code	B2
Date of Patent	August 19, 2025
Inventor(s)	Bullwinkel; William H. et al.

Devices, systems and methods for hanging and securing items for display

Abstract

Devices, systems and methods for hanging and securing items for display. The hanger devices and systems are self-locking, secure and do not require special tools to install and/or remove. A hanger for displaying at least one item of merchandise relative to a structure includes a first hanger member and a second hanger member that are removably coupled to each other, the first hanger member and second hanger member forming a retaining portion that retains the hanger to a structure and a hanging portion that enable items of merchandise to be placed thereon and be displayed. Additionally, a hanger capture device is provided to be mounted to a slatwall to prevent hangers from being removed from the slatwall.

Inventors: **Bullwinkel; William H. (Farmingdale, NY), Ludwig; Robert (Newton, NJ), Wachsman; David R. (Palm Beach Gardens, NY), Ma; Alvin (Irvine, CA)**

Applicant: **Innovation Lock, LLC** (Palm Beach Gardens, FL)

Family ID: **1000008763518**

Assignee: **Innovation Lock, LLC (Palm Beach Gardens, FL)**

Appl. No.: **18/671135**

Filed: **May 22, 2024**

Prior Publication Data

Document Identifier	Publication Date
US 20240306825 A1	Sep. 19, 2024

Related U.S. Application Data

continuation parent-doc US 17951324 20220923 US 11992135 child-doc US 18671135
us-provisional-application US 63261795 20210929

Publication Classification

Int. Cl.: **A47F5/00** (20060101); **A47F1/12** (20060101); **A47F5/08** (20060101)

U.S. Cl.:

CPC **A47F5/0006** (20130101); **A47F1/128** (20130101); **A47F5/0823** (20130101); **A47F5/0838** (20130101); **A47F5/0853** (20130101); **A47F5/0876** (20130101);

Field of Classification Search

CPC: A47F (5/0006); A47F (1/128); A47F (5/0823); A47F (5/0853); A47F (5/0861); A47F (5/0807); A47F (5/083); A47F (5/0838); A47F (5/0846); E05B (69/006)

USPC: 211/57.1; 211/59.1; 211/7; 211/94.01; 211/106.01; 248/221.11; 248/223.41; 248/224.61; 248/222.52; 248/222.51

References Cited

U.S. PATENT DOCUMENTS

Patent No.	Issued Date	Patentee Name	U.S. Cl.	CPC
578787	12/1896	Tily	N/A	N/A
3343684	12/1966	Galier	N/A	N/A
3409260	12/1967	Bleed	N/A	N/A
3545711	12/1969	Scheneman	N/A	N/A
3677415	12/1971	Radek	N/A	N/A
3853293	12/1973	Larson	N/A	N/A
3985324	12/1975	Larson	N/A	N/A
4026134	12/1976	Woolfson	N/A	N/A
4303217	12/1980	Garfinkle	N/A	N/A
4327888	12/1981	Scheneman	N/A	N/A
4506856	12/1984	Rich et al.	N/A	N/A
4512481	12/1984	Thalenfeld	N/A	N/A
4607753	12/1985	Radek	N/A	N/A
4666115	12/1986	Schiro	N/A	N/A
4674721	12/1986	Thalenfeld	N/A	N/A
4678151	12/1986	Radek	N/A	N/A
4832298	12/1988	Metcalf	N/A	N/A
4882868	12/1988	Fast	N/A	N/A
4889304	12/1988	Glickman et al.	N/A	N/A
5080238	12/1991	Hochman	N/A	N/A
5109992	12/1991	Miller	N/A	N/A
5423436	12/1994	Morrow	N/A	N/A
5913499	12/1998	Kiggins	N/A	N/A
6003685	12/1998	Malin	N/A	N/A
6250597	12/2000	Kuo	N/A	N/A
6357609	12/2001	Noord et al.	N/A	N/A
6364141	12/2001	Ehrgott	N/A	N/A
6393877	12/2001	Church	N/A	N/A

6564949	12/2002	Saathoff	N/A	N/A
6622875	12/2002	Humphrey	N/A	N/A
6681940	12/2003	Cash et al.	N/A	N/A
6749161	12/2003	Will et al.	N/A	N/A
6957555	12/2004	Nagel et al.	N/A	N/A
6971614	12/2004	Fischer et al.	N/A	N/A
7197902	12/2006	Barkdoll	N/A	N/A
7204375	12/2006	Paiste et al.	N/A	N/A
7484701	12/2008	Hsieh	N/A	N/A
7669723	12/2009	Kao	N/A	N/A
7753217	12/2009	Lawson	N/A	N/A
7757869	12/2009	Lawson	N/A	N/A
7900781	12/2010	Baine et al.	N/A	N/A
8240623	12/2011	Collins et al.	N/A	N/A
8286454	12/2011	Richardson et al.	N/A	N/A
8297572	12/2011	Fox	N/A	N/A
8307995	12/2011	Surma et al.	N/A	N/A
8662322	12/2013	Magnusson et al.	N/A	N/A
10051978	12/2017	Gupta	N/A	F16M 13/022
10197217	12/2018	Will et al.	N/A	N/A
10470590	12/2018	Wills et al.	N/A	N/A
10827853	12/2019	Ma et al.	N/A	N/A
D988835	12/2022	Bullwinkel	D8/338	N/A
11672361	12/2022	Keller	211/189	A47B 96/067
11992135	12/2023	Bullwinkel	N/A	A47F 5/0006
2005/0121573	12/2004	Ahlund et al.	N/A	N/A
2006/0261016	12/2005	Magid	N/A	N/A
2007/0251904	12/2006	Winig et al.	N/A	N/A
2008/0105636	12/2007	Lawson	N/A	N/A
2008/0105637	12/2007	Lawson	N/A	N/A
2009/0057244	12/2008	Conti et al.	N/A	N/A
2010/0206825	12/2009	Johnston et al.	N/A	N/A
2013/0125495	12/2012	Thrush	N/A	N/A
2018/0116427	12/2017	Gupta et al.	N/A	N/A
2019/0290023	12/2018	Ma et al.	N/A	N/A
2019/0331288	12/2018	Gupta	N/A	N/A
2021/0022527	12/2020	Keller	N/A	N/A
2022/0248875	12/2021	Fenerty	N/A	N/A
2023/0102705	12/2022	Bullwinkel	211/123	A47F 5/0006
2023/0309717	12/2022	Keller	211/189	A47B 96/067
2024/0306825	12/2023	Bullwinkel	N/A	A47F 5/0853

FOREIGN PATENT DOCUMENTS

Patent No.	**Application Date**	**Country**	**CPC**

3168274 12/2022 CA A47F 5/083

OTHER PUBLICATIONS

Hangzhou Langhong Technology Co., Ltd., Hooks Offer Sheet; Hangzhou, China; 1 page; Sep. 29, 2018. cited by applicant

---

Primary Examiner: Novosad; Jennifer E.

Background/Summary

PRIORITY (1) This application is a continuation application of U.S. application Ser. No. 17/951,324, filed Sep. 23, 2022, now U.S. Pat. No. 11,992,135, which claims priority to U.S. Provisional Patent Application Ser. No. 63/261,795, filed Sep. 29, 2021, the contents of which are hereby incorporated by reference in its entirety.

TECHNICAL FIELD

(1) The present disclosure relates generally to devices, systems and methods for preventing unauthorized removal of goods from a product display, fixture or the like, and more particularly, devices, systems and methods for hanging and securing items for display.

BACKGROUND

(2) Conventionally, items of merchandise are commonly displayed for sale on long protruding rods supported from a support structure in the nature of a peg board, a slat board, or a wire rack. These protruding rods are commonly referred to in the art as hangers, display hooks, peg board hooks, or slat board hooks. Similar rods may also protrude from a wire display rack for the same purpose.

(3) Slatwall is used to support or display a wide variety of products in an organized manner. The slatwall is typically mounted flush against a wall, and is particularly useful in retail stores, garages and the like where goods or items need to be displayed or stored, and a more finished look is desired but bulky cabinets or conventional shelving are inappropriate due to lack of space. Slatwall includes a number of horizontal boards or slats. Adjacent slats are spaced apart a given distance to form a number of uniform, horizontal slots. The slots are evenly spaced, one above the other, through the height of the slatwall. A number of hangers or supporting hardware are secured to the slatwall by inserting them into the slots. The hangers are generally cantilevered from the slatwall so that items can be hung from or supported by the hangers. The hangers or hardware can also be used to support a platform for displaying or storing smaller items such as shoes, packaged fasteners or the like.

(4) Likewise, pegboard is used to support or display a wide variety of products. The pegboard is typically mounted a predetermined distance from a wall and includes a plurality of rows of holes or apertures. A number of hangers or supporting hardware are secured to the pegboard by inserting them into the holes. The hangers are generally cantilevered from the pegboard so that items can be hung from or supported by the hangers.

(5) A problem with conventional slatwall, pegboard or the like is that the hangers or supporting hardware can be dislodged. When people walk by such a structure or quickly reach for an item on the slatwall, they can inadvertently bump one or more of the hangers with enough force to rotate and dislodge the hanger and cause it and the item it is supporting to fall to the ground. This can be particularly frustrating and embarrassing to customers and storekeepers in a retail store setting and can damage the goods being displayed.

(6) Typically, hanging merchandise used on such structures is relatively small but may be expensive, such as batteries, small tools, jewelry, cosmetic products, health care products, electronics and other high theft items. Such merchandise may be a target for shoplifters because of

its relatively small size and easy accessibility. A shoplifter may be able to easily and quickly remove the items hanging from a display hanger, and then attempt to leave the store without being detected. Furthermore, a shoplifter may be able to easily and quickly remove the whole hanger from the structure with all the items disposed on the hanger, and then attempt to leave the store.
(7) Therefore, a need exists for devices, systems and methods that securely display items of merchandise on various support structures and prevent the easy removal of the items of merchandise from such support structures.

SUMMARY

(8) Devices, systems and methods for hanging and securing items for display are provided. Hanger devices of the present disclosure are self-locking, secure and do not require special tools to install and/or remove.
(9) According to one aspect of the present disclosure, a hanger for displaying at least one item of merchandise relative to a structure is provided including a first hanger member and a second hanger member that are removably coupled to each other; the first hanger member and second hanger member forming a retaining portion that retains the hanger to a structure and a hanging portion that enable items of merchandise to be placed thereon and be displayed.
(10) In another aspect, the first hanger member includes a support member configured to come into full contact with a slat of a slatwall, a first hanger leg that extends perpendicularly from the support member and an offset member couples the support member to a retaining member configured to be disposed in a slot of the slatwall.
(11) In one aspect, the second hanger member includes a first securing member and a second securing member, a second hanger leg extends from the first securing member, first securing member comes into contact with a slat above the slot where the retaining member is disposed and the second securing member comes into contact with a lower lip of the slot.
(12) In a further aspect, the first hanger member is rotatably coupled to the second hanger member via coupling member.
(13) In one aspect, a locking device is disposed over the hanging portion to prevent removal of the hanger from the structure.
(14) In another aspect, each of the first and second hanger members include a support member configured to come into contact with a pegboard; a hanger leg that extends perpendicularly from the support member; and a first retaining member and a second retaining member that extend perpendicularly from the support member in a direction opposition of the hanger leg, wherein, the first and second retaining members form right angle legs that are disposed in apertures of the pegboard.
(15) In a further aspect, the first and second hanger members are coupled by a clip.
(16) In yet another aspect, each of the first and second hanger members include a support member configured to come into contact with a slatgrid; a hanger leg that extends perpendicularly from the support member; and a first retaining member and a second retaining member that are offset substantially parallel from the support member, the first and second retaining members are configured to be disposed between two wire rails of the slatgrid when the support member is brought into contact with the slatgrid.
(17) In still another aspect, the support member includes an aperture for receiving a fastener to be coupled to a portion of the slatgrid.
(18) In one aspect, the first hanger member includes a support member configured to come into full contact with a rod-like member of a slatgird, a first hanger leg that extends perpendicularly from the support member and an offset member couples the support member to a retaining member configured to be disposed in slot of a slatgrid.
(19) In another aspect, the second hanger member includes a first securing member and a second securing member, a second hanger leg extends from the first securing member, first securing member comes into contact with the rod-like member above the slot where the retaining member is

disposed and second securing member includes a semi-circular recess that comes into contact with the rod-like members of the slot.
(20) In a further aspect, the first hanger member includes a support member configured to be disposed over a generally rectangular bar.
(21) In another aspect, the first hanger member includes a first hanger leg and the second hanger member includes a second hanger leg, the first hanger leg include at least one aperture and the second hanger leg includes at least one corresponding slot, wherein the first and second hanger members are slidingly coupled together via at least one coupling member disposed in the at least one aperture and at least one corresponding slot.
(22) In yet another aspect, the first hanger member includes a first hanger leg and the second hanger member includes a securing member, the first hanger leg include at least one slot and the securing member includes at least one aperture, wherein the first and second hanger members are slidingly coupled together via at least one coupling member disposed in the at least one aperture and at least one slot.
(23) In one aspect, the first hanger member includes a support member and a first hanger leg including a projection that extends perpendicularly from the support member, an offset member couples the support member to a retaining member configured to be disposed in a slot of a slatwall, where the offset member comes to rest on an edge of a lower slat; and the second hanger member includes a support member having a slot, an offset member and a securing member configured to be disposed in the slot of a slatwall toward an upper slat, a second hanger leg extends perpendicularly from the support member, the second hanger leg is then brought into alignment with the first hanger leg, where projection of the first hanger leg enters the slot of the support member of the second hanger member.
(24) In still another aspect, each of the first and second hanger members include a support member configured to come into contact with a slat of a slatwall; a first hanger leg that extends perpendicularly from the support member; an offset member that couples the support member to a retaining member configured to be disposed in a slot of a slatwall, wherein the support member further includes a projection tab that mates with the other hanger member and the first hanger member and the second hanger member are identical.
(25) In one aspect, each of the first and second hanger members are identical and include a support member and a hanger leg that extends perpendicularly from the support member, the support member further includes a projection tab which extends perpendicularly from the support member; a retaining member that extends perpendicularly from the hanger leg and is disposed adjacent the support member; and a projection member that extends in parallel from the support member opposite from the projection tab, wherein the first hanger member and second hanger member are slid into contact with each other in the slot of the slatwall, where projection members interlock with support members and the projection tabs stabilize the hanger the slot to prevent the hanger from rotating within the slot.
(26) In a further aspect, the first hanger member includes at least one magnet and the second hanger member includes at least one second magnet of an opposite polarity to retain the first and second hanger members together.
(27) In another aspect, a fastener for securing the hanger to the structure.
(28) In yet another aspect, the fastener includes at least one of security screws, security screws with compression, push fasteners, thumb screws and/or quick-release fasteners.
(29) In one aspect, the first hanger members is rotatably coupled to the second hanger member via a magnetically-actuated coupling member.
(30) According to another aspect of the present disclosure, a device is provided for securing at least one hanger to a slatwall the slat wall including a plurality of horizontal slats, adjacent slats are spaced apart a given distance to form a number of uniform, horizontal slots, the device includes a retaining member including a first elongated member and at least two arms extending from the first

elongated member, the at least two arms configured to be disposed in a first slot where at least one hanger is disposed, the elongated member configured to make contact with the at least one hanger to prevent removal of the at least one hanger; a securing member including a second elongated member, the elongated member including a perpendicular edge on a first side and a perpendicular lip on an opposite side, the edge configured to be disposed in a second slot of the slatwall below the first slot, the lip configured to make contact with the first elongated member to prevent removal of the first elongated member; and a locking member configured to couple the securing member to the retaining member to secure the retaining member and the securing member to the slatwall.
(31) In one aspect, the retaining member includes a first receiving member and the securing member includes a second receiving member, the first and second receiving members configured to receive the locking member when the first and second receiving members are aligned.
(32) In another aspect, the locking member is a lock.
(33) In a further aspect, the locking member is a plunger-type lock.
(34) In yet another aspect, the locking member is a fastener.
(35) In still another aspect, each arm includes an offset member and a tab, wherein the tab is disposed in the slot of the slatwall.

Description

BRIEF DESCRIPTION OF THE DRAWINGS
(1) The above and other aspects, features, and advantages of the present disclosure will become more apparent in light of the following detailed description when taken in conjunction with the accompanying drawings in which:
(2) FIG. **1** is a right, perspective view of a slatwall hanger according to an embodiment of the present disclosure;
(3) FIG. **2** is a left, perspective view of the hanger shown in FIG. **1** in accordance with the present disclosure;
(4) FIG. **3** is a right exploded perspective view of the hanger shown in FIG. **1**;
(5) FIG. **4** is a left exploded perspective view of the hanger shown in FIG. **1**;
(6) FIG. **5** is a view of the hanger shown in FIG. **1** in an open position in accordance with the present disclosure;
(7) FIG. **6** is a perspective view of the hanger shown in FIG. **1** in the open position being applied to a slatwall in accordance with the present disclosure;
(8) FIG. **7** is a side view of the hanger shown in FIG. **1** in the open position being applied to a slatwall, where the slatwall is shown in cross-section;
(9) FIG. **8** is a side of the hanger shown in FIG. **1** in a closed position applied to a slatwall;
(10) FIG. **9** is an enlarged side view of one end of the hanger disposed in the slatwall in accordance with the present disclosure;
(11) FIG. **10** is a left perspective view of the hanger shown in FIG. **1** mounted to a slatwall in accordance with the present disclosure;
(12) FIG. **11** is a left perspective view of the hanger of FIG. **1** mounted to a slatwall with a locking device mounted thereon;
(13) FIG. **12** is a left perspective view of the hanger shown in FIG. **1** mounted to a slatwall with an merchandise item disposed thereon;
(14) FIG. **13** is a right, perspective view of a pegboard hanger according to a second embodiment of the present disclosure;
(15) FIG. **14** is a left, perspective view of the hanger shown in FIG. **13** in accordance with the present disclosure;
(16) FIG. **15** is a right exploded perspective view of the hanger shown in FIG. **13**;

(17) FIG. **16** is a left exploded perspective view of the hanger shown in FIG. **13**;
(18) FIG. **17** is a rear exploded perspective view of the hanger shown in FIG. **13**;
(19) FIG. **18** is a rear exploded plan view of the hanger shown in FIG. **13**;
(20) FIG. **19** is a perspective view of the hanger shown in FIG. **13** in the open position being applied to a pegboard in accordance with the present disclosure;
(21) FIG. **20** is another perspective view of the hanger shown in FIG. **13** in the open position being applied to a slatwall in accordance with the present disclosure;
(22) FIG. **21** is a left perspective view of the hanger shown in FIG. **13** mounted to a pegboard in accordance with the present disclosure;
(23) FIG. **22** is a left perspective view of the hanger of FIG. **13** mounted to a pegboard with a locking device mounted thereon;
(24) FIG. **23** is a left perspective view of the hanger shown in FIG. **13** mounted to a pegboard with an merchandise item disposed thereon;
(25) FIG. **24**A is a right, perspective view of a slatgrid hanger according to a third embodiment of the present disclosure;
(26) FIGS. **24**B-G illustrate a method for securing the slatgrid hanger shown in FIG. **24**A to a slatwall in accordance with the present disclosure;
(27) FIGS. **24**H-M illustrate a method for securing the slatgrid hanger shown in FIG. **24**A to a slatgrid in accordance with the present disclosure
(28) FIG. **25** is a rear perspective view of the hanger shown in FIG. **24**A in accordance with the present disclosure;
(29) FIG. **26** is a right exploded perspective view of the hanger shown in FIG. **24**A;
(30) FIG. **27** is a left exploded perspective view of the hanger shown in FIG. **24**A; and
(31) FIG. **28** is a rear exploded perspective view of the hanger shown in FIG. **24**A;
(32) FIG. **29** is a right, perspective view of a slatgrid hanger according to a fourth embodiment of the present disclosure;
(33) FIG. **30** is a right exploded perspective view of the hanger shown in FIG. **29**;
(34) FIG. **31** is a rear, left perspective view of the hanger shown in FIG. **29**;
(35) FIG. **32** is a rear, left exploded view of the hanger shown in FIG. **29**;
(36) FIG. **33** is a view of the hanger shown in FIG. **29** in an open position in accordance with the present disclosure;
(37) FIG. **34** is a perspective view of the hanger shown in FIG. **29** in the open position being applied to a slatgrid in accordance with the present disclosure;
(38) FIG. **35** is a left perspective view of the hanger shown in FIG. **29** mounted to a slatgrid in accordance with the present disclosure;
(39) FIG. **36** is a side of the hanger shown in FIG. **29** in a closed position applied to a slatwall;
(40) FIGS. **37**A-**37**D illustrate a hanger in accordance with a fifth embodiment of the present disclosure;
(41) FIG. **37**E is a left exploded perspective view of the hanger shown in FIG. **37**D;
(42) FIG. **37**F is a right exploded perspective view of the hanger shown in FIG. **37**D;
(43) FIGS. **38**A and **38**B illustrate a hanger in accordance with a sixth embodiment of the present disclosure;
(44) FIG. **38**C is a left exploded perspective view of the hanger shown in FIG. **38**A;
(45) FIG. **38**D is a right exploded perspective view of the hanger shown in FIG. **38**A;
(46) FIGS. **38**E-**38**I illustrate a method for securing the slatgrid hanger shown in FIG. **38**A to a slatwall in accordance with the present disclosure;
(47) FIGS. **39**A and **39**B illustrate a hanger in accordance with a seventh embodiment of the present disclosure;
(48) FIG. **39**C is a left exploded perspective view of the hanger shown in FIG. **39**A;
(49) FIG. **39**D is a right exploded perspective view of the hanger shown in FIG. **39**A;

(50) FIGS. **39**E-**39**I illustrate a method for securing the slatgrid hanger shown in FIG. **39**A to a slatwall in accordance with the present disclosure;
(51) FIG. **40**A illustrates a hanger in accordance with an eighth embodiment of the present disclosure;
(52) FIG. **40**B is a left exploded perspective view of the hanger shown in FIG. **40**A;
(53) FIG. **40**C is a right exploded perspective view of the hanger shown in FIG. **40**A;
(54) FIGS. **40**D-**40**F illustrate a method for securing the slatgrid hanger shown in FIG. **40**A to a slatwall in accordance with the present disclosure;
(55) FIGS. **41**A and **41**B illustrate a hanger in accordance with a ninth embodiment of the present disclosure;
(56) FIGS. **41**C-**41**G illustrate various views of a hanger member of the hanger shown in FIG. **41**A in accordance with the present disclosure;
(57) FIG. **41**H is a rear view and FIG. **41**I is a front view of a hanger member shown in FIG. **41**C in accordance with the present disclosure;
(58) FIGS. **41**J-**41**K illustrate a method for securing the slatgrid hanger shown in FIG. **41**A to a slatwall in accordance with the present disclosure;
(59) FIGS. **42**A and **42**B illustrate a hanger in accordance with a tenth embodiment of the present disclosure;
(60) FIGS. **42**C-**42**G illustrate various views of a hanger member of the hanger shown in FIG. **42**A in accordance with the present disclosure;
(61) FIG. **42**H is a rear view and FIG. **42**I is a front view of a hanger member shown in FIG. **42**C in accordance with the present disclosure;
(62) FIGS. **42**J-**42**L illustrate a method for securing the slatgrid hanger shown in FIG. **41**A to a slatwall in accordance with the present disclosure;
(63) FIG. **43**A is a right, perspective view of a hanger capture device on a slatwall according to an embodiment of the present disclosure;
(64) FIG. **43**B is a left, perspective view of the hanger capture device shown in FIG. **43**A in accordance with the present disclosure;
(65) FIG. **44**A is a right exploded perspective view of the hanger capture device shown in FIG. **43**A;
(66) FIG. **44**B is a left exploded perspective view of the hanger capture device shown in FIG. **43**A;
(67) FIG. **44**C is a side view of a hanger in accordance with an embodiment of the present disclosure;
(68) FIG. **45** is a right exploded perspective view of the hanger capture device shown in FIG. **43**A;
(69) FIG. **46**A is a top view of a retaining member of the hanger capture device in accordance with the present disclosure;
(70) FIG. **46**B is a front view of a retaining member of the hanger capture device in accordance with the present disclosure;
(71) FIG. **46**C is a bottom view of a retaining member of the hanger capture device in accordance with the present disclosure;
(72) FIG. **46**D is a side view of a retaining member of the hanger capture device in accordance with the present disclosure;
(73) FIG. **47**A is a top view of a securing member of the hanger capture device in accordance with the present disclosure;
(74) FIG. **47**B is a front view of a securing member of the hanger capture device in accordance with the present disclosure;
(75) FIG. **47**C is a bottom view of a securing member of the hanger capture device in accordance with the present disclosure;
(76) FIG. **47**D is a side view of a securing member of the hanger capture device in accordance with the present disclosure;

(77) FIG. **48**A is a right, perspective view of a hanger capture device on a slatwall according to another embodiment of the present disclosure;
(78) FIG. **48**B is a left, perspective view of the hanger capture device shown in FIG. **48**A in accordance with the present disclosure;
(79) FIG. **49**A is a right exploded perspective view of the hanger capture device shown in FIG. **48**A;
(80) FIG. **49**B is a left exploded perspective view of the hanger capture device shown in FIG. **48**A. FIGS. **50**A and **50**B illustrate a hanger in accordance with an eleventh embodiment of the present disclosure;
(81) FIGS. **50**C-**50**G illustrate various views of a first hanger member of the hanger shown in FIG. **50**A in accordance with the present disclosure; and
(82) FIG. **50**H is a rear view and FIG. **50**I is a front view of a hanger member shown in FIG. **50**C in accordance with the present disclosure;
(83) FIGS. **50**J-**50**P illustrate various views of a first hanger member of the hanger shown in FIG. **50**A in accordance with the present disclosure.
(84) It should be understood that the drawings are for purposes of illustrating the concepts of the disclosure and are not necessarily the only possible configuration for illustrating the disclosure.
DETAILED DESCRIPTION
(85) Preferred embodiments of the present disclosure will be described herein below with reference to the accompanying drawings. In the following description, well-known functions or constructions are not described in detail to avoid obscuring the present disclosure in unnecessary detail.
(86) Devices, systems and methods for hanging and securing items for display are provided. Hanger devices of the present disclosure are self-locking, secure and do not require special tools to install and/or remove.
(87) Referring to FIGS. **1**-**4**, a hanger **10** in accordance with an embodiment of the present disclosure is provided. Hanger **10** includes a retaining portion **12** that retains the hanger **10** in a slot of a slatwall and a hanging portion **14** that enable items of merchandise to be placed thereon and be displayed. Hanger **10** includes first hanger member **16** and second hanger member **18** which are rotatably coupled to one another via coupling member **20**, e.g., a rivet.
(88) First hanger member **16** includes a support member **22** configured to come into full contact with a slat of a slatwall. A first hanger leg **24** extends perpendicularly from the support member **22** via portion **23**. The first hanger leg **24** includes a first extension member **26** which extends perpendicularly from the first hanger leg **24**. An offset member **28** couples the support member **22** to a retaining member **30** configured to be disposed in a slot of a slatwall, the details of which will be described below. It is to be appreciated that the support member **22** is in a parallel relationship with retaining member **30** offset by the width of member **28**.
(89) The second hanger member **18** includes a first securing member **31** and a second securing member **32**. A second hanger leg **34** extends from the first securing member **31** and a second extension member **36** extends perpendicularly from the second hanger leg **34**. The first securing member **31**, second hanger leg **34** and second extension member **36** are substantially in the same parallel plane. The second securing member **32** is coupled to the first securing member **31** in a perpendicular relationship.
(90) The first hanger member **16** is rotatably coupled to the second hanger member **18** via coupling member **20**. The first hanger member **16** includes an aperture **25** disposed in portion **23** and second hanger member **18** includes aperture **38** disposed in first securing member **31**. To assemble hanger **10**, first hanger member **16** is brought into contact with second hanger member **18** so that aperture **25** of portion **23** aligns with aperture **38** of first securing member **31**. Optionally, a spacer **40** is disposed between portion **23** and first securing member. When apertures **25**, **38** are aligned, coupling member **20** is disposed through the apertures **25**, **38** (and optionally through spacer **40**). In this manner, first hanger member **16** is rotatably coupled to second hanger member **18** having a

pivot point **21** (depicted by dashed line **21** in FIG. **3**) where the apertures align. To prevent over rotation, first hanger member **16** includes a detent **42** and second hanger member **18** includes a catch **44**. When rotated about pivot point **21**, detent **42** will come into contact with catch **44** preventing further rotation.

(91) Referring to FIG. **5**, hanger **10** is illustrated in an open position. First hanger member **16** is rotated relative to second hanger member **18** about pivot point **21**. FIGS. **6** and **7** illustrate hanger **10** coupled to slatwall **50** in an open position. Slatwall **50** includes a number of horizontal boards or slats **52**. Adjacent slats are spaced apart a given distance to form a number of uniform, horizontal slots **54**. Retaining member **30** is disposed in an appropriate slot **54** of slatwall **50** and first hanger member **16** is rotated toward slatwall **50** until support member **22** comes into contact with slat **52**. Second hanger member **18** is then rotated about pivot point **21**, in the direction of arrow A shown in FIG. **7**, until the first hanger leg **24** is aligned with second hanger leg **34**.

(92) FIGS. **8**, **9** and **10** illustrate the hanger **10** coupled to the slatwall **50** in a closed position. In the closed position, first securing member **31** comes into contact with the slat **52** above the slot **54** where the retaining member **30** is disposed. Additionally, second securing member **32** comes into contact with a lower lip **56** of slot **54**. In this manner, hanger **10** is securely disposed in slot **54**. Due to the retaining member **30** in the slot **54** and the second securing member **32** in contact with a lower lip **56** of slot **54**, the hanger **10** is prevented from being removed from the slatwall **50** when in the closed position.

(93) FIG. **11** illustrates hanger **10** coupled to slatwall **50** with a locking device **60** disposed thereon. Exemplary locking devices are shown and described in commonly-owned U.S. Pat. Nos. 10,156,008 and D899,218, the contents of which are incorporated by reference. By providing a locking device disposed over first hanger leg **24** and second hanger leg **34**, second hanger member **18** is prevented from rotating relative to first hanger member **16** (i.e., prevented from moving to an open position), thus preventing removal of the hanger **10** from the slatwall **50**.

(94) FIG. **12** illustrates hanger **10** coupled to slatwall **50** with an item of merchandise **62** disposed thereon. Typically, items of merchandise can be packaged in or mounted on cardboard, plastic, or other material capable of supporting the weight of the merchandise. The packaging materials may include a hole, slot, or opening **64**, generally near the top of the packaging, to receive the first and second hanger legs **24**, **34**. In this way, the merchandise hangs down from the first and second hanger legs **24**, **34** and is clearly displayed and easily removed by customers. Additionally, by placing the item on the first and second hanger legs **24**, **34**, the hanger **10** is prevented from being moved into an open position and removed from the slatwall **50**.

(95) Referring to FIGS. **50**A-**50**N, an alternate version of the hanger shown in FIGS. **1-12** is shown. Hanger **1200** is similar to hanger **10** where like references numerals are used for like components. For the sake of conciseness, similar components will not be described here in details. FIG. **50**A illustrates a left perspective, exploded view of hanger **1200** and FIG. **50**B illustrates a right perspective, exploded view.

(96) Hanger **1200** includes first hanger member **1016** and second hanger member **1018** which are rotatably coupled to one another via coupling member **1020**, e.g., a rivet. FIGS. **50**C-**50**I illustrates various views of the first hanger member **1016**, where FIG. **50**C is a right perspective view, FIG. **50**D is a left perspective view, FIG. **50**E is a top view, FIG. **50**F is a left side, FIG. **50**G is a bottom view, FIG. **50**H is a rear view and FIG. **50**I is a front view. FIGS. **50**J-**50**N illustrates various views of the second hanger member **1018**, where FIG. **50**J is a right perspective view, FIG. **50**K is a left perspective view, FIG. **50**L is a top view, FIG. **50**M is a left side, FIG. **50**N is a bottom view, FIG. **50**O is a front view and FIG. **50**P is a rear view.

(97) First hanger member **1016** includes a support member **1022** configured to come into full contact with a slat of a slatwall. A first hanger leg **1024** extends perpendicularly from the support member **1022** via portion **1023**. The first hanger leg **1024** includes a first extension member **1026** which extends perpendicularly from the first hanger leg **1024**. An offset member **1028** couples the

support member **1022** to a retaining member **1030** configured to be disposed in a slot of a slatwall. It is to be appreciated that the support member **1022** is in a parallel relationship with retaining member **1030** offset by the width of member **1028**.

(98) The second hanger member **1018** includes a first securing member **1031** and a second securing member **1032**. A second hanger leg **1034** extends from the first securing member **1031** and a second extension member **1036** extends perpendicularly from the second hanger leg **1034**. The extension member **1036** is configured as a semi-circular extension or catch. Similarly, a second catch **1044** is disposed on the leg **1034** adjacent first securing member **1031**. Additionally, a lip **1049** runs lengthwise along leg **1034**. The lip **1049** extends in a perpendicular manner from leg **1034**. In this manner, first hanger member **1016** is rotatably coupled to second hanger member **1018** having a pivot point where the apertures **1023**, **1025** align. In use, the first hanger member **1016** is coupled to a slatwall as described above. The second hanger member **1018** is rotated to be aligned with the first hanger member **1018**. First hanger member **1016** includes a detent **1042** that engages with catch **1044**. When rotated about pivot point, detent **1042** will engage with catch **1044**, extension member **1026** will engage with catch **1036** and leg **1024** comes into contact with lip **1049** thus securing the hanger **1200** to the slatwall.

(99) Referring to FIGS. **13-18**, a hanger **100** in accordance with another embodiment of the present disclosure is provided. Hanger **100** includes a retaining portion **112** that retains the hanger **100** to a pegboard and a hanging portion **114** that enable items of merchandise to be placed thereon and be displayed. Hanger **100** includes first hanger member **116** and second hanger member **118** which are coupled to one another via coupling member **120**, e.g., a clip.

(100) First hanger member **116** includes a support member **122** configured to come into full contact with the pegboard. A first hanger leg **124** extends perpendicularly from the first support member **122** via portion **123**. The first hanger leg **124** includes a first extension member **126** which extends perpendicularly from the first hanger leg **124**. First retaining member **128** and second retaining member **129** extend perpendicularly from first support member **122** in a direction opposition of the first hanger leg **124**. First and second retaining members **128**, **129** form right angle legs that are disposed in apertures of a pegboard during installation, the details of which will be described below.

(101) Second hanger member **118** includes a second support member **131** configured to come into full contact with the pegboard. A second hanger leg **134** extends perpendicularly from the second support member **131** via portion **127**. The second hanger leg **134** includes a second extension member **136** which extends perpendicularly from the second hanger leg **124**. Third retaining member **133** and fourth retaining member **135** extend perpendicularly from second support member **131** in a direction opposition of the second hanger leg **134**. Third and fourth retaining members **133**, **135** form right angle legs that are disposed in apertures of a pegboard during installation, the details of which will be described below.

(102) The first hanger member **116** is coupled to the second hanger member **118** via coupling member **120**, e.g., a clip, formed on the second hanger leg **134**. It is to be appreciated that the coupling member may be on either the first or second hanger leg **124**, **134**. In one embodiment, coupling member **120** includes first and second clip arms **137**, **139** that are configured to grasp (or snap onto) the first hanger leg **124** when the first and second hanger legs **124**, **134** are aligned and brought together. When the hanger **10** is installed on a pegboard, the coupling member **120** will secure the first and second hanger members **116**, **118** together preventing the hanger **10** from easily being removed or knock-off the pegboard.

(103) Referring to FIGS. **19** and **20**, hanger **100** is illustrated in an open position to be mounted or installed on a pegboard **150**. Pegboard **150** includes a number of apertures **152**. Adjacent apertures are spaced apart a given distance to form a number of uniform, horizontal rows of aperture **152**. First and second retaining members **128**, **129** of first hanger member **116** are disposed in vertically adjacent apertures **152** of pegboard **150** while third and fourth retaining members **133**, **135** of

second hanger member **118** are disposed in horizontally adjacent apertures **152** relative to the apertures **152** employed by the first hanger member **116**, as is best shown in FIG. **20**. First hanger member **116** is then horizontally brought into contact with second hanger member **118**.
(104) FIG. **21** illustrates the hanger **100** coupled to the pegboard **150** in a closed position. In the closed position, the first hanger leg **124** is in contact with second hanger leg **134** and the first and second hanger legs **124**, **134** are secured via coupling member **120**. In this manner, hanger **100** is securely disposed on the pegboard **150**.
(105) FIG. **22** illustrates hanger **100** coupling to pegboard **150** with a locking device **160** disposed thereon. Exemplary locking devices are shown and described in commonly-owned U.S. Pat. Nos. 10,156,008 and D899,218, the contents of which are incorporated by reference. By providing a locking device disposed over first hanger leg **124** and second hanger leg **134**, second hanger member **118** is prevented from being removed from first hanger member **116**, thus preventing removal of the hanger **110** from the pegboard **150**.
(106) FIG. **23** illustrates hanger **100** coupled to pegboard **150** with an item of merchandise **162** disposed thereon. Typically, items of merchandise can be packaged in or mounted on cardboard, plastic, or other material capable of supporting the weight of the merchandise. The packaging materials may include a hole, slot, or opening **164**, generally near the top of the packaging, to receive the first and second hanger legs **124**, **134**. In this way, the merchandise hangs down from the first and second hanger legs **124**, **134** and is clearly displayed and easily removed by customers. By providing a item of merchandise **162** disposed over first hanger leg **124** and second hanger leg **134**, second hanger member **118** is prevented from being removed from first hanger member **116**, thus preventing removal of the hanger **110** from the pegboard **150**.
(107) Referring to FIGS. **24**A-**28**, a hanger **200** in accordance with a third embodiment of the present disclosure is provided. Hanger **200** includes a retaining portion **212** that retains the hanger **200** to a slatgrid/slatwall and a hanging portion **214** that enable items of merchandise to be placed thereon and be displayed. Hanger **100** includes first hanger member **216** and second hanger member **218** which are coupled to one another, as will be described below.
(108) First hanger member **216** includes a support member **222** configured to come into contact with the slatgrid/slatwall. A first hanger leg **224** extends perpendicularly from the first support member **222** via portion **223**. The first hanger leg **224** includes a first extension member **226** which extends perpendicularly from the first hanger leg **224**. First retaining member **228** and second retaining member **229** are offset from first support member **222** by portion **223**. First and second retaining members **228**, **229** are offset but substantially parallel to first support member **222**.
(109) Second hanger member **218** includes a support member **231** configured to come into contact with the slatgrid/slatwall. A second hanger leg **234** extends perpendicularly from the second support member **231** via portion **227**. The second hanger leg **234** includes a second extension member **236** which extends perpendicularly from the second hanger leg **234**. Third retaining member **233** and fourth retaining member **235** are offset from second support member **231** by portion **227**. Third and fourth retaining members **233**, **235** are offset but substantially parallel to first support member **231**.
(110) Referring to FIG. **28**, second hanger member **218** includes a slot **241** configured to receive a portion **243** of first hanger leg **224**. When installing hanger **200** to a slatgrid, first hanger member **216** is coupled to second hanger member **218** by positioning first support member **222** directly behind second support member **231** and disposing portion **243** of first hanger leg **224** in slot **241** of second hanger member **218**. First, second, third and fourth retaining members **228**, **229**, **233**, **235** are then disposed between two wire rails of a slatgrid or a slot on a slatwall configuration and the first support member **222** is brought into contact with the slatgrid. It is to be appreciated that, in one embodiment, first, second, third and fourth retaining members **228**, **229**, **233**, **235** are curved and configured to substantially mate with the wire rails of the slatgrid. Additionally, first support member **222** includes aperture **225** and second support member **231** includes aperture **238**.

(111) Referring to FIG. **24**B, the hanger **200** may be coupled to a slatwall **50** by coupling each hanger member **216**, **218** to the slatwall. The support members **222**, **231** are aligned in parallel with a slot **54**. The respective retaining members **228**, **229**, **233**, **235** are then disposed in a slot **54**. As shown in FIG. **24**C, the first and second hanger members **216**, **218** are brought together and then rotated so the support members **222**, **231** are perpendicular to the slot **54**, as shown in FIG. **24**D. The first and second hangers members **216**, **218** are brought in close contact such that support member **231** overlays support member **222**, as shown in FIG. **24**E. It is to be appreciated that in the position shown in FIG. **24**E, apertures **225** and **238** align. Hanger **200** may then be secured to the slatgrid be disposing a fastener **245** through apertures **225** and **238**, where the fastener may be coupled to a portion of the slatgrid, as shown in FIGS. **24**F and **24**G.
(112) Referring to FIG. **24**H, the hanger **200** may be coupled to a slatgrid **350** by coupling each hanger member **216**, **218** to the slatgrid. The support members **222**, **231** are aligned in parallel with a slot **354**. The respective retaining members **228**, **229**, **233**, **235** are then disposed in a slot **354**. As shown in FIG. **24**I, the first and second hanger members **216**, **218** are brought together and then rotated so the support members **222**, **231** are perpendicular to the slot **354**, as shown in FIG. **24**J. The first and second hangers members **216**, **218** are brought in close contact such that support member **231** overlays support member **222**, as shown in FIG. **24**K. It is to be appreciated that in the position shown in FIG. **24**K, apertures **225** and **238** align. Hanger **200** may then be secured to the slatgrid be disposing a fastener **245** through apertures **225** and **238**, where the fastener may be coupled to a portion of the slatgrid, as shown in FIGS. **24**L and **24**M.
(113) Referring to FIGS. **29-33**, a hanger **300** in accordance with an embodiment of the present disclosure is provided. Hanger **300** includes a retaining portion **312** that retains the hanger **300** in a slot of a slatgrid and a hanging portion **314** that enable items of merchandise to be placed thereon and be displayed. Hanger **300** includes first hanger member **316** and second hanger member **318** which are rotatably coupled to one another via coupling member **320**, e.g., a rivet.
(114) First hanger member **316** includes a support member **322** configured to come into full contact with a rod-like member of a slatgrid. A first hanger leg **324** extends perpendicularly from the support member **322** via portion **323**. The first hanger leg **324** includes a first extension member **326** which extends perpendicularly from the first hanger leg **324**. An offset member **328** couples the support member **322** to a retaining member **330** configured to be disposed in between adjacent rod-like members of a slatgrid, the details of which will be described below. It is to be appreciated that the support member **322** is in a parallel relationship with retaining member **330** offset by the width of member **328**.
(115) The second hanger member **318** includes a first securing member **331**. A second hanger leg **334** extends from the first securing member **331** and a second extension member **336** extends perpendicularly from the second hanger leg **334**. The first securing member **331**, second hanger leg **334** and second extension member **336** are substantially in the same parallel plane.
(116) The first hanger member **316** is rotatably coupled to the second hanger member **318** via coupling member **320**. The first hanger member **316** includes an aperture **325** disposed in portion **323** and second hanger member **318** includes aperture **338** disposed in first securing member **331**. To assemble hanger **300**, first hanger member **316** is brought into contact with second hanger member **318** so that aperture **325** of portion **323** aligns with aperture **338** of first securing member **331**. Optionally, a spacer **340** is disposed between portion **323** and first securing member. When apertures **325**, **338** are aligned, coupling member **320** is disposed through the apertures **325**, **338** (and optionally through spacer **340**). In this manner, first hanger member **316** is rotatably coupled to second hanger member **318** having a pivot point **321** (depicted by dashed line **321** in FIG. **30**) where the apertures align. To prevent over rotation, first hanger member **316** includes a detent **342** and second hanger member **318** includes a catch **344**. When rotated about pivot point **321**, detent **342** will come into contact with catch **344** preventing further rotation. Additionally, the second extension member **336** includes a catch **337** which comes into contact with first extension member

326.
(117) Referring to FIG. **33**, hanger **300** is illustrated in an open position. First hanger member **316** is rotated relative to second hanger member **318** about pivot point **321**. FIG. **34** illustrates hanger **300** coupled to slatgrid **350** in an open position. Slatgird **350** includes a number of horizontal rod-like members **352** joined together by vertical rod-like members **356**. Adjacent rod-like members **352** are spaced apart a given distance to form a number of uniform, horizontal slots **354**. Retaining member **330** is disposed in an appropriate slot **354** of slatgrid **350** and first hanger member **316** is rotated toward slatgird **350** until support member **322** comes into contact with rod-like members **352**. Second hanger member **318** is then rotated about pivot point **221**, in the direction of arrow B shown in FIG. **34**, until the first hanger leg **324** is aligned with second hanger leg **334**.
(118) FIGS. **35** and **36** illustrate the hanger **300** coupled to the slatgrid **350** in a closed position. In the closed position, the retaining member **330** comes into contact with the rod-like member **352** above the slot **354** where the retaining member **330** is disposed. Additionally, first securing member **331** includes a semi-circular recess that comes into contact with the same rod-like member **352** of slot **354**. In this manner, hanger **300** is securely disposed in slot **54**.
(119) Referring to FIGS. **37**A-**37**F, a hanger **400** in accordance with a fifth embodiment of the present disclosure is provided. Hanger **400** is configured to be coupled to a generally rectangular bar or rail **450**. Hanger **400** includes a retaining portion **412** that retains the hanger **400** on a rail or bar **450** and a hanging portion **214** that enable items of merchandise to be placed thereon and be displayed. Hanger **400** includes first hanger member **416** and second hanger member **418** which are rotatably coupled to one another via coupling member **420**, e.g., a rivet. Optionally, a spacer **440** is provided between the first and second member **416**, **418** with the coupling member **420** disposed therein.
(120) First hanger member **416** includes a support member **422** configured to come into full contact with the rail or bar **450**. A first hanger leg **424** extends perpendicularly from the support member **422**. The first hanger leg **424** includes a first extension member **426** which extends perpendicularly from the first hanger leg **424**. An offset member **428** couples the support member **422** to a retaining member **430** configured to be disposed against a rear surface of the rail or bar **450**.
(121) The second hanger member **418** includes a first securing member **431**. A second hanger leg **434** extends from the first securing member **431** and a second extension member **436** extends perpendicularly from the second hanger leg **434**. The first hanger member **416** is rotatably coupled to the second hanger member **418** via coupling member **420**.
(122) In use, the support member **422**, offset member **428** and retaining member **430** are disposed over the rail or bar **450**, as shown in FIGS. **37**B-C. The second hanger member **418** is then rotated to align with the first hanger member **416**. When the first and second hanger members **416**, **418** are aligned, the right angle cut out portion **433** comes into contact with a lower portion of rail or bar **450** securing the hanger **400** in place, that is, the rail or bar **450** is secured between the retaining member **430** and the right angle cut out portion **433**, as shown in FIG. **37**D.
(123) Referring to FIGS. **38**A and **38**B, a hanger **50**O in accordance with a sixth embodiment of the present disclosure is provided. FIG. **38**C is a left exploded perspective view of the hanger **50**O and FIG. **38**D is a right exploded perspective view of the hanger **500**. Hanger **50**O includes a retaining portion **512** that retains the hanger **500** in a slot of a slatwall and a hanging portion **514** that enable items of merchandise to be placed thereon and be displayed. Hanger **50**O includes first hanger member **516** and second hanger member **518** which are slidingly coupled to one another via coupling members **520**, e.g., a rivet, screw, etc.
(124) First hanger member **516** includes a support member **522** configured to come into full contact with a slat of a slatwall. A first hanger leg **524** extends perpendicularly from the support member **522**. The first hanger leg **524** includes a first extension member **526** which extends perpendicularly from the first hanger leg **524**. An offset member **528** couples the support member **522** to a retaining member **530** configured to be disposed in a slot of a slatwall, where the offset member **528** comes

to rest on an edge of a lower slat of the slot. The second hanger member **518** includes a first securing member **531**. A second hanger leg **534** extends from the first securing member **531**.
(125) The first hanger member **516** is slidingly coupled to the second hanger member **518** via coupling members **520**. The first hanger member **516** includes slots **525** disposed in first hanger leg **524** and second hanger member **318** includes apertures **527** in the second hanger leg **534**.
(126) To assemble hanger **500**, first hanger member **516** is brought into contact with second hanger member **518** so that slots **525** of the first hanger leg **524** aligns with apertures **527** of second hanger leg **534**. When slots **525** and apertures **527** are aligned, coupling members **520** (e.g., a screw, rivet, pin, etc.) are disposed through the slots **525** to apertures **527** and first hanger leg **524** is in a parallel relationship to second hanger leg **534**, as shown in FIG. **38**E. In this manner, first hanger member **516** is slidingly coupled to second hanger member **518**. In use, the retaining member **530** is disposed in a slot of a slatwall, as shown in FIG. **38**F, such that offset member **528** comes to rest on an upper edge of a lower slat, as shown in FIG. **38**G. Second hanger member **518** is then slid toward the slatwall and the retaining member **531** of the second hanger member **518** enters the slot, shown in FIG. **38**H. The coupling member **520** may then be secured, e.g., by tightening, to secure the hanger **50**O to the slatwall, as shown in FIG. **38**I.
(127) Referring to FIGS. **39**A and **39**B, a hanger **600** in accordance with a seventh embodiment of the present disclosure is provided. FIG. **39**C is a left exploded perspective view of the hanger **600** and FIG. **39**D is a right exploded perspective view of the hanger **600**. Hanger **600** is configured in a similar manner to hanger **500**. Hanger **600** includes a retaining portion **612** that retains the hanger **600** in a slot of a slatwall and a hanging portion **614** that enable items of merchandise to be placed thereon and be displayed. Hanger **600** includes first hanger member **616** and a securing member **631** which are slidingly coupled to one another via a coupling member **620**, e.g., a rivet, screw, etc.
(128) First hanger member **616** includes a support member **622** configured to come into full contact with a slat of a slatwall. A first hanger leg **624** extends perpendicularly from the support member **622**. The first hanger leg **624** includes a first extension member **626** which extends perpendicularly from the first hanger leg **624**. An offset member **628** couples the support member **622** to a retaining member **630** configured to be disposed in a slot of a slatwall, where the offset member **628** comes to rest on an upper edge of a lower slat.
(129) The first hanger member **616** is slidingly coupled to the securing member **631** via coupling member **620**. The first hanger member **616** includes slot **625** disposed in first hanger leg **624** and securing member **631** includes an aperture **627**. To assemble hanger **600**, first hanger member **616** is brought into contact with securing member **631** so that slot **625** of the first hanger leg **624** aligns with aperture **627** of securing member **631**, as shown in FIG. **39**E. When slot **625** and aperture **627** are aligned, coupling member **620** (e.g., a screw, rivet, pin, etc.) is disposed through the slot **625** to aperture **627**. In this manner, first hanger member **516** is slidingly coupled to securing member **631**. In use, the retaining member **630** is disposed in a slot of a slatwall, as shown in FIG. **39**F, such that offset member **628** comes to rest on an edge of a lower slat, as shown in FIG. **39**G. The securing member **631** is then slid or rotated toward the slatwall and the retaining member **631** enters the slot, as shown in FIG. **39**H. The coupling member **625** may then be secured, e.g., by tightening, to secure the hanger **600** to the slatwall, as shown in FIG. **39**I. It is to be appreciate that hanger **600** is configured in a similar manner to hanger **500**; however, hanger **600** does not include a second hanger leg.
(130) Referring to FIG. **40**A, a hanger **700** in accordance with an eighth embodiment of the present disclosure is provided, where FIG. **40**B is a left exploded perspective view of the hanger **700** and FIG. **40**C is a right exploded perspective view of the hanger **700**. Hanger **700** includes a retaining portion **712** that retains the hanger **700** in a slot of a slatwall and a hanging portion **714** that enable items of merchandise to be placed thereon and be displayed. Hanger **700** includes first hanger member **716** and a second hanger member **718** which are slidingly coupled to one another.
(131) First hanger member **716** includes a support member **722** configured to come into full contact

with a slat of a slatwall. A first hanger leg **724** extends perpendicularly from the support member **722**. The first hanger leg **724** includes projection **721** and a first extension member **726** which extends perpendicularly from an end of the first hanger leg **724**. An offset member **728** couples the support member **722** to a retaining member **730** configured to be disposed in a slot of a slatwall, as shown in FIG. **40**D, where the offset member **728** comes to rest on an upper edge of a lower slat, as shown in FIG. **40**E.

(132) Second hanger member **716** includes a support member **732** having a slot **735**, an offset member **733** and a securing member **731** configured to be disposed in a slot of a slatwall. A second hanger leg **734** extends perpendicularly from the support member **732**. The second hanger leg **734** includes a second extension member **736** which extends perpendicularly from an end of the second hanger leg **734**. The offset member **733** couples the support member **732** to a retaining member **731** configured to be disposed in a slot of a slatwall. In use, the retaining member **730** is disposed in a slot of a slatwall such that offset member **728** comes to rest on an upper edge of a lower slat. The securing member **731** is then disposed in the same slot toward an upper slat, as shown in FIG. **40**E. The second hanger leg **734** is then brought into alignment with the first hanger leg **724**, where projection **721** enters slot **735**, as shown in FIG. **40**F. It is to be appreciated that retaining member **730** and securing member **731** are disposed in the same slot of a slatwall but in opposite directions to secure the hanger in the slot.

(133) Referring to FIGS. **41**A and **41**B, a hanger **800** in accordance with a ninth embodiment of the present disclosure is provided. Hanger **800** includes a retaining portion **812** that retains the hanger **800** in a slot of a slatwall and a hanging portion **814** that enable items of merchandise to be placed thereon and be displayed. Hanger **800** includes first hanger member **816** and a second hanger member **818** which are slidingly coupled to one another.

(134) It is to be appreciated that first hanger member **816** and second hanger member **818** are identical. For the sake of simplicity, FIGS. **41**C-**41**I illustrates various views of the second hanger member **818**, where FIG. **41**C is a right perspective view, FIG. **41**D is a left perspective view, FIG. **41**E is a top view, FIG. **41**F is a left side, FIG. **41**G is a bottom view, FIG. **41**H is a rear view and FIG. **41**I is a front view.

(135) First hanger member **816** includes a support member **822** configured to come into contact with a slat of a slatwall. A first hanger leg **824** extends perpendicularly from the support member **822**. The first hanger leg **824** includes a first extension member **826** which extends perpendicularly from an end of the first hanger leg **824**. An offset member **828** couples the support member **822** to a retaining member **830** configured to be disposed in a slot of a slatwall. Support member **822** further includes a projection tab **821**. Retaining member **830** further includes an aperture **851** for receiving a fastener, e.g., a screw. Similarly, second hanger member **818** includes support member **832**, offset member **833**, securing member **831**, projection tab **835**, second hanger leg **834** and second extension member **836**.

(136) In use, retaining member **831** is disposed in a slot **54-2** below a predetermined slat **52** of a slatwall. Then retaining member **830** is disposed in a slot **54-1** above the predetermined slat **52**, as shown in FIG. **41**J. The first hanger leg **824** is then brought into alignment with the second hanger leg **834**, as shown in FIG. **41**K. Hanger **800** may then be secured by disposing a fastener such as a screw into aperture **851** of retaining member **830**. It is to be appreciated that retaining member **831** may also include an aperture **837** configured to receive a fastener to secure hanger **800**.

(137) Referring to FIGS. **42**A and **42**B, a hanger **900** in accordance with a tenth embodiment of the present disclosure is provided. Hanger **900** includes a retaining portion **912** that retains the hanger **900** in a slot of a slatwall and a hanging portion **914** that enable items of merchandise to be placed thereon and be displayed. Hanger **900** includes first hanger member **916** and a second hanger member **918** which are slidingly coupled to one another.

(138) It is to be appreciated that first hanger member **916** and second hanger member **918** are identical. For the sake of simplicity, FIGS. **42**C-**42**I illustrates various views of the second hanger

member **918**, where FIG. **42**C is a right perspective view, FIG. **42**D is a left perspective view, FIG. **42**E is a top view, FIG. **42**F is a left side, FIG. **42**G is a bottom view, FIG. **42**H is a rear view and FIG. **42**I is a front view.

(139) First hanger member **916** includes a support member **922** where a first hanger leg **924** extends perpendicularly from the support member **922**. The first hanger leg **924** includes a first extension member **926** which extends perpendicularly from an end of the first hanger leg **924**. A retaining member **930** extends perpendicularly from the first hanger leg **924** and is disposed adjacent the support member **922**. Support member **922** further includes a projection tab **921** which extends perpendicularly from the support member **922**. A projection member (not shown in FIG. **42**B but similar to projection **933**) extends in parallel from the support member **928** opposite from the projection tab **921**. Similarly, second hanger member **918** includes support member **932**, projection tab **935**, securing member **931**, projection member **933**, second hanger leg **934** and second extension member **936**.

(140) In use, support member **922** of first hanger member **916** is disposed in a slot of a slatwall where the support member **922** comes in contact with an upper edge of the slot **54** and retaining member **930** comes into contact with the slat **52** above the slot. Support member **932** of second hanger member **918** is disposed in the slot of the slatwall where the support member **932** comes in contact with a lower edge of the slot and retaining member **931** comes into contact with the slat below the slot, as shown in **42**J. First hanger member **916** and second hanger member **918** are slid into contact with each other in slot, as illustrated in FIG. **42**K, where projection member **928** interlocks with support member **932** and projection member **933** interlocks with support member **928**, as shown in FIG. **42**L. It is to be appreciated that projection tabs **921**, **935** stabilize the hanger **900** in the slot, i.e., prevent the hanger **900** from rotating within the slot.

(141) It is to be appreciated that any of the above-described hangers may be secured in place by providing a locking device disposed over the first hanger leg and the second hanger leg, i.e., the second hanger member is prevented from rotating relative to first hanger member, thus preventing removal of the hanger from the various described structures. Locking devices may include, but are not limited to, a lock, a product being disposed on the hanger, a clip, a price ticket, a label plate, etc. Exemplary locks are shown and described in commonly-owned U.S. Pat. Nos. 10,156,008 and D899,218, the contents of which are incorporated by reference.

(142) Additionally, the first hanger member may be prevented from rotating relative to second hanger, thus preventing removal of the hanger from the various described structures, by disposing a magnet on the first hanger member and/or second hanger member. A first magnet(s) may be placed on the first hanger member with a second corresponding magnet (i.e., a magnet with an opposite polarity from the first magnet) placed on the second hanger leg. It is to be appreciated that the first magnet and second corresponding magnet may be positioned on surfaces other the first and second hanger legs as long as the surfaces of the first and second hanger members come into contact (or close proximity) to each other.

(143) In one embodiment, the first and second hanger members may be prevented to be rotated relative to each other by coupling member (e.g., coupling member **20**, **320**, **430**, **520**, **620**). When the first hanger leg is positioned adjacent to the second hanger leg (for example, as shown in FIG. **10**), the coupling member may be configured to lock the first hanger member in place relative to the second hanger member, for example, by a groove on the coupling member and a slot on the hanger members. In a further embodiment, the coupling member may be magnetically actuated, i.e., a magnet is employed to actuate the coupling member so the hanger members may be allowed to rotate relative to each other. In yet another embodiment, the coupling member may be spring-loaded requiring a special tool to enable removal or actuation of the coupling member.

(144) Furthermore, the first and second hanger member may be coupled to each other via other various means such as, but not limited to, security screws, security screws with compression, push fasteners, thumb screws, etc.

(145) It is further to be appreciated that an assembled hanger may be secured to the various structures described above (for example, a slatwall, pegboard, slatgird, etc.) by various means such as, but not limited to, security screws, security screws with compression, push fasteners, thumb screws, etc. In one embodiment, once the hanger is coupled to the structure, a fastener may be disposed through the support member that comes into contact with the structure and the fastener is coupled to the structure. As shown in FIG. **27**, first support member **222** includes aperture **225** and second support member **231** includes aperture **238**. Hanger **200** may then be secured to the slatgrid by disposing a fastener through apertures **225** and **238**, where the fastener may be coupled to a portion of the slatgrid. Although some of the embodiments described above do not show apertures in the support members, the support members of the hangers of the present disclosure may be configured to have such apertures to receive fasteners. As mentioned above, the fasteners may include security screws, security screws with compression, push fasteners, thumb screws, etc. . . . In one embodiment, the fastener may be magnetically actuated, i.e., a magnet is employed to actuate the fastener so the hanger may be removed from the structure. In yet another embodiment, the fastener may be spring-loaded requiring a special tool to enable removal or actuation of the fastener. In yet another embodiment, the fasteners may be quick-release fasteners such as QUICKLOC® and QUICKLOC® SOLID fasteners commercially available from Bollhoff of Germany.

(146) Referring to FIGS. **43**A-**47**D, a hanger capture device **1000** is provided in accordance with an embodiment of the present disclosure. Referring to FIGS. **43**A-B, the hanger capture device **1000** is illustrated mounted to a slatwall **50**. As described above, the slatwall **50** includes a number of horizontal boards or slats **52**. Adjacent slats **52** are spaced apart a given distance to form a number of uniform, horizontal slots **54**. The slots **54** are generally a T-shaped cavity, however other shapes are contemplated to be within the scope of the present disclosure. Conventional hangers **1002** may be disposed in the slots **54** of the slatwall. Hanger **1002** includes a hanging portion **1004** for hanging and displaying items for sale and a coupling portion **1006** for coupling the hanger **1002** to the slatwall **50**. A side view of hanger **1002** is illustrated in FIG. **44**C. The coupling portion **1006** includes a first member **1008**, a second member **1010** and a third member **1012**. The first, second and third members **1008**, **1010**, **1012** form a hook-like assembly where third member **1012** is configured to be disposed in a slot **54** and first member **1008** comes into contact with the slat **52** below the slot **53**. When the hanger **1002** is coupled to the slatwall **50**, a rear surface **1009** of the first member **1008** is in full contact with the slat **52** and the hanging portion **1004** extends perpendicularly from the slatwall **50**. As shown in FIGS. **43**A-B, when the hanger capture device **1000** is mounted to the slatwall **50**, the hangers **1002** are prevented from being removed from the slatwall **50**, as will be described in detail below.

(147) Referring to FIG. **45**, the hanger capture device **1000** includes a retaining member **1050**, a securing member **1052** and in certain embodiments, a locking member **1054**. Referring to FIGS. **46**A-**46**D, various views of the retaining member **1050** are illustrated. The retaining member **1050** includes an elongated member **1056** and at least two arms **1058**. It is to be appreciated that the number of arms **1058** may vary depending on the length of the elongated member **1056**. Each arm **1058** includes an offset member **1060** and a tab **1062**, as shown in FIG. **46**D. The retaining member **1050** further includes a first receiving member **1064** configured to receive the locking member **1054**, the receiving member **1064** extends perpendicular from a plane of the elongated member **1056**.

(148) Referring to FIGS. **47**A-**47**D, various views of the securing member **1052** are illustrated. The securing member **1052** includes an elongated member **1070** including a perpendicular lip **1072** along one length of the elongated member **1070** and a perpendicular edge **1074** along an opposite length of the elongated member **1070**, as shown in FIG. **47**D. The securing member **1052** further includes a second receiving member **1076** configured to receive the locking member **1054**, the second receiving member **1076** extends perpendicular from a plane of the lip **1072**.

(149) Referring to FIGS. **43**A-**44**B, the mounting and securing of hangers **1002** to a slatwall **50** will now be described. As in FIG. **44**A, at least one hanger **1002** is coupled to the slatwall **50**. Third member **1012** of hanger **1002** is disposed in slot **54**A such that third member **1012** enters a lower portion of the slot **54**A. The rear surface **1009** of first member **1008** of hanger **1002** then comes in contact with and rests on slat **52**A. This is the normal resting position of hanger **1002**. In this state, the hanger **1002** can easily be removed from the slatwall **50** by lifting end **1005** of hanging portion **1004** in the direction of arrow C.
(150) To secure the at least one hanger **1002** to the slatwall **50**, the hanger capture device **1000** may be coupled to the slatwall **50**. Tabs **1062** of arms **1058** are disposed in an upper portion of the same slot that the hanger **1002** was disposed in, for example, slot **54**A. Each of the arms **1058** of retaining member **1050** then makes contact and comes to rest on slat **52**A. Edge **1074** of securing member **1052** is then disposed in an adjacent slot **54**B below the slot **54**A. The securing member **1052** is then rotated such that second receiving member **1076** aligns with first receiving member **1064**. A locking member **1054** may then be placed over the aligned first and second receiving members **1064**, **1076** to secure the retaining member **1050** and securing member **1052** in place. The lip **1072** will prevent the elongated member **1056** of the retaining member **1050** from being moved away from the slatwall **50**. Once secured in place, the elongated member **1056** comes into contact with a lower end of the first member **1008** of hanger **1002**. In this manner, the hanger **1002** is prevented from rotating from the slatwall **50** and being removed.
(151) In one embodiment, the locking member **1054** may include a lock, e.g., a plunger type locking device. An exemplary locking device is described in commonly-owned U.S. Pat. No. 10,156,088, the contents of which are hereby incorporated by reference. Referring to FIG. **44**A, the first receiving member **1064** includes an aperture **1065** and second receiving member **1076** includes an aperture **1077**. When the first and second receiving members **1064**, **1076** align, aperture **1065** and aperture **1077** also align. Locking member **1054** is then disposed over the first and second receiving members **1064**, **1076**. In the embodiment using a plunger-type locking device, a plunger (not shown) will pass through the apertures **1065**, **1077** locking the securing member **1052** to the retaining member **1050**.
(152) It is to be appreciated that other locks or locking devices are contemplated to be employed as the locking member and still remain in the scope of the present disclosure.
(153) Referring to FIGS. **48**A-**49**B, a hanger capture device **1100** is provided in accordance with another embodiment of the present disclosure. In this embodiment, the retaining member **1150** and securing member **1152** are substantially the same as the retaining member **1050** and securing member **1052** described above. In this embodiment, the locking member **1154** may be a fastener, for example, a screw, rivet, tie wrap, etc. The retaining member **1150** includes an aperture **1167** in first receiving member **1164**. The securing member **1152** includes slot **1179** in second receiving member **1176**. In use, when the first and second receiving members **1164**, **1176** are aligned as described above, fastener **1154** is inserted through slot **1179** and subsequently through aperture **1167** to secure the securing member **1152** to the retaining member **1150**, as shown in FIGS. **48**A-B.
(154) It is also to be appreciated that the various features shown and described are interchangeable, that is, a feature shown in one embodiment may be incorporated into another embodiment.
(155) While the disclosure has been shown and described with reference to certain preferred embodiments thereof, it will be understood by those skilled in the art that various changes in form and detail may be made therein without departing from the spirit and scope of the disclosure.
(156) Furthermore, although the foregoing text sets forth a detailed description of numerous embodiments, it should be understood that the legal scope of the invention is defined by the words of the claims set forth at the end of this patent. The detailed description is to be construed as exemplary only and does not describe every possible embodiment, as describing every possible embodiment would be impractical, if not impossible. One could implement numerous alternate embodiments, using either current technology or technology developed after the filing date of this

patent, which would still fall within the scope of the claims.
(157) It should also be understood that, unless a term is expressly defined in this patent using the sentence “As used herein, the term ‘_____’ is hereby defined to mean . . . ” or a similar sentence, there is no intent to limit the meaning of that term, either expressly or by implication, beyond its plain or ordinary meaning, and such term should not be interpreted to be limited in scope based on any statement made in any section of this patent (other than the language of the claims). To the extent that any term recited in the claims at the end of this patent is referred to in this patent in a manner consistent with a single meaning, that is done for sake of clarity only so as to not confuse the reader, and it is not intended that such claim term be limited, by implication or otherwise, to that single meaning. Finally, unless a claim element is defined by reciting the word “means” and a function without the recital of any structure, it is not intended that the scope of any claim element be interpreted based on the application of 35 U.S.C. § 112, sixth paragraph.

Claims

1. A hanger for displaying at least one item of merchandise comprising: a first hanger member including a support member configured to come into contact with a slatgrid in a parallel relationship, a first hanger leg that extends perpendicularly from the support member and an offset member that couples the support member to a retaining member in a parallel relationship, the retaining member configured to be disposed in a slot of the slatgrid; a second hanger member including a first securing member and a second hanger leg that extends from the first securing member, the first securing member configured to come into contact with the slot of the slatgrid; the first hanger member and the second hanger member are rotatably coupled to each other such that, when the first hanger leg aligns with the second hanger leg, the retaining member and the first securing member form a retaining portion that retains the hanger to the slatgrid and the first hanger leg and second hanger leg form a hanging portion that enables items of merchandise to be placed thereon and be displayed, wherein the slatgrid includes a plurality of horizontal rod-like members where adjacent rod-like members are spaced apart a given distance to form a number of uniform, horizontal slots, the support member configured to come into contact with at least one rod-like member of the slot that the retaining member is disposed in.
2. The hanger of claim 1, wherein the first securing member includes a semi-circular recess that comes into contact with at least one rod-like member of the slot that the retaining member is disposed in when the first hanger leg aligns with the second hanger leg.
3. The hanger of claim 2, wherein the first securing member is configured to come into contact with a rod-like member above the slot where the retaining member is disposed.
4. The hanger of claim 1, wherein the first hanger member is rotatably coupled to the second hanger member via a coupling member.
5. The hanger of claim 1, wherein the first hanger member is rotatably coupled to the second hanger member via a magnetically-actuated coupling member.
6. The hanger of claim 1, wherein the first hanger member includes at least one magnet and the second hanger member includes at least one second magnet of an opposite polarity to retain the first and second hanger members together.
7. The hanger of claim 1, further comprising a fastener for securing the hanger to the slatgrid.
8. The hanger of claim 7, wherein the fastener includes at least one of security screws, security screws with compression, push fasteners, thumb screws and/or quick-release fasteners.
9. The hanger of claim 1, wherein a locking device is disposed over the hanging portion to prevent removal of the hanger from the slatgrid.
10. The hanger of claim 9, wherein the locking device includes at least one of a lock, a product being disposed on the hanging portion, a clip, a price ticket and/or a label plate.
11. The hanger of claim 9, wherein the locking device is a fastener.

12. The hanger of claim 9, wherein the locking device is a plunger-type lock.
13. The hanger of claim 1, wherein the first hanger leg includes a detent and the second hanger leg includes a catch, the detent comes into contact with the catch when aligning the first and second hanger leg to prevent over rotation.
14. The hanger of claim 1, wherein the first hanger leg includes a first extension member which extends perpendicularly from an end of the first hanger leg and the second hanger leg includes a catch at an end of the second hanger leg, the first extension member comes into contact with the catch when aligning the first and second hanger leg to prevent over rotation.
15. The hanger of claim 1, wherein the second hanger member includes a lip that runs lengthwise along the second hanger leg, the first hanger leg engages the lip when the first hanger leg aligns with the second hanger leg.