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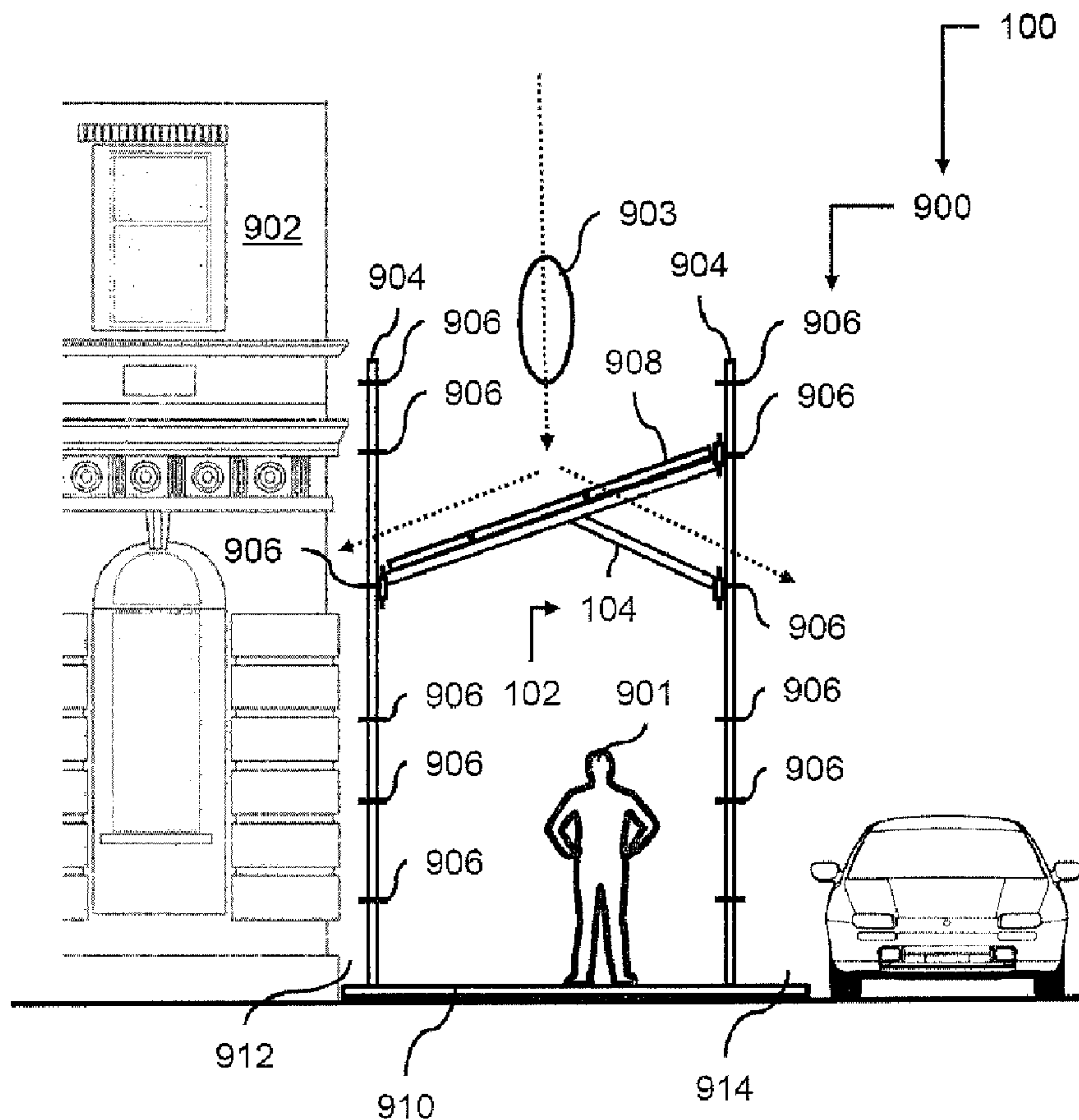
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(54) **Titre : APPAREIL COMPRENANT UN DISPOSITIF DE PALISSADE SURELEVE POUR ECHAFFAUDAGE**

(54) **Title: APPARATUS INCLUDES OVERHEAD HOARDING ASSEMBLY FOR SCAFFOLDING ASSEMBLY**



(57) **Abrégé/Abstract:**

An apparatus includes an overhead hoarding assembly configured to be installed to a scaffolding assembly. The scaffolding assembly is configured to support the weight of a work crew and materials during construction and maintenance of a man-made

(57) Abrégé(suite)/Abstract(continued):

structure. The overhead hoarding assembly includes pedestrian canopy support assemblies transversally installed to the scaffolding assembly in a spaced-apart relationship. The pedestrian canopy support assemblies are transversally aligned along a non-perpendicular direction extending through the scaffolding assembly, whereby a pedestrian canopy assembly, in use, receives and then deflects, at least in part, an unwanted element toward a side of the scaffolding assembly once the pedestrian canopy support assemblies, in use, receive and support the pedestrian canopy assembly.

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ABSTRACT

An apparatus includes an overhead hoarding assembly configured to be installed to a scaffolding assembly. The scaffolding assembly is configured to support the weight of a work crew and materials during construction and maintenance of a man-made structure. The overhead hoarding assembly includes pedestrian canopy support assemblies transversally installed to the scaffolding assembly in a spaced-apart relationship. The pedestrian canopy support assemblies are transversally aligned along a non-perpendicular direction extending through the scaffolding assembly, whereby a pedestrian canopy assembly, in use, receives and then deflects, at least in part, an unwanted element toward a side of the scaffolding assembly once the pedestrian canopy support assemblies, in use, receive and support the pedestrian canopy assembly.

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APPARATUS INCLUDES OVERHEAD HOARDING ASSEMBLY FOR SCAFFOLDING ASSEMBLY

TECHNICAL FIELD

[0001] This document relates to the technical field of (and is not limited to) an apparatus that includes (and is not limited to) an overhead hoarding assembly that is installable in a scaffolding assembly configured to support the weight of a work crew and materials during construction and maintenance of a man-made structure.

BACKGROUND

[0002] A scaffolding system (also called scaffold, work platform or staging) is a temporary structure configured to support a work crew and materials to aid in the construction, maintenance, and repair of buildings, bridges and other types of man-made structures. Scaffolding is also configured for forming formwork and shoring, grandstand seating, concert stages, access or viewing towers, exhibition stands, ski ramps, half pipes and art projects, etc. There are several types of scaffolding systems, such as: (A) tube and coupler (fitting components) scaffolds, (B) prefabricated modular system scaffold, (C) H-frame/facade modular system scaffolds, and (D) timber scaffolds. Each type of scaffolding system is made from components, which may include: (A) a base jack or plate component, which is a load-bearing base for the scaffold; (B) the standard component, which is the upright component with connector joins; (C) the ledger (also called a horizontal brace); (D) the transom, which is a horizontal cross-section load-bearing component configured to hold a batten, a board or a decking unit; (E) a brace diagonal and/or a cross-section bracing component; (F) a batten (board) decking component configured to make a working platform; (G) a coupler, which is a fitting configured to join components together; (H) a scaffold tie configured to tie in the scaffold to structures; and/or (I) brackets configured to extend the width of working platforms, etc. Specialized components are configured to aid in their use as a temporary structure may include heavy duty load-bearing transoms, ladders or stairway units for the ingress and egress of the scaffold, beams, ladders of the type configured to span obstacles and rubbish chutes (used to convey and remove unwanted materials from the scaffold or construction project), etc.

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[0003] A construction hoarding system may be installable to the scaffolding system, and is configured to secure a construction site located adjacent to the scaffolding system. The construction hoarding system is configured to provide safety to pedestrians or the public.

SUMMARY

[0004] It will be appreciated that there exists a need to mitigate (at least in part) at least one problem associated with the existing (known) construction hoarding systems and/or scaffolding systems (also called the existing technology). After much study of the known systems and methods with experimentation, an understanding of the problem and its solution has been identified and is articulated as follows:

[0005] The existing pedestrian canopy assembly (installed to the existing construction hoarding system and/or the existing scaffolding system), in use, receives an unwanted element (such as, a falling object, weather elements (rain, snow, hail, etc.), debris, etc.), and the unwanted element remains (for the most part) on the pedestrian canopy assembly. This situation may not provide a safe environment for pedestrians that use the construction hoarding system because the unwanted elements may interfere with the safe passage of the pedestrians making their way along the existing construction hoarding system.

[0006] More specifically, it would be a very good idea to spatially position the pedestrian canopy assembly that is installed to a construction hoarding system and/or a scaffolding system in such a way that the pedestrian canopy assembly, in use, receives and then deflects, at least in part, the unwanted element toward a side of the scaffolding assembly. Preferably, the side that receives the unwanted element is the construction site side and not the roadside of the scaffolding assembly. This solution would provide a relatively safer environment for pedestrians that use the construction hoarding system because the unwanted elements are now less likely to interfere with the safe passage of the pedestrians making their way along the construction hoarding system.

[0007] To mitigate, at least in part, at least one problem associated with the existing technology, there is provided (in accordance with a major aspect) an apparatus. The apparatus includes and is not limited to an overhead hoarding assembly configured to be installed to a scaffolding assembly configured to support the weight of a work crew and materials during construction and maintenance of a man-made structure. The scaffolding assembly includes elongated scaffolding poles vertically extended and spaced apart (from

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each other) with connection points mounted at spaced-apart intervals along a length of at least some of the elongated scaffolding poles. The overhead hoarding assembly includes pedestrian canopy support assemblies that are transversally installed, in a spaced-apart relationship, to the connection points of the elongated scaffolding poles of the scaffolding assembly. The pedestrian canopy support assemblies are transversally aligned along a non-perpendicular direction extending through the scaffolding assembly (whereby, a pedestrian canopy assembly, in use, receives and then deflects, at least in part, an unwanted element toward a side of the scaffolding assembly once the pedestrian canopy support assemblies, in use, receive and support the pedestrian canopy assembly).

[0008] To mitigate, at least in part, at least one problem associated with the existing technology, there is provided (in accordance with a major aspect) an apparatus. The apparatus includes and is not limited to a scaffolding assembly configured to support the weight of a work crew and materials during construction and maintenance of a man-made structure. The scaffolding assembly includes (and is not limited to) elongated scaffolding poles vertically extended and spaced apart with connection points mounted at spaced-apart intervals along a length of at least some of the elongated scaffolding poles. The apparatus further includes an overhead hoarding assembly installed to the scaffolding assembly. The overhead hoarding assembly includes pedestrian canopy support assemblies that are transversally installed, in a spaced-apart relationship, to the connection points of the elongated scaffolding poles of the scaffolding assembly. The pedestrian canopy support assemblies are transversally aligned along a non-perpendicular direction extending through the scaffolding assembly, once installed. This is done in such a way that, whereby, a pedestrian canopy assembly, in use, receives and then deflects, at least in part, an unwanted element toward a side of the scaffolding assembly once the pedestrian canopy support assemblies, in use, receive and support the pedestrian canopy assembly.

[0009] To mitigate, at least in part, at least one problem associated with the existing technology, there is provided (in accordance with a major aspect) an apparatus. The apparatus includes and is not limited to a scaffolding assembly configured to support the weight of a work crew and materials during construction and maintenance of a man-made structure. The scaffolding assembly includes (and is not limited to) elongated scaffolding poles vertically extending (relative to a horizontal working surface), and the elongated

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scaffolding poles are also spaced apart relative to each other. Each of the elongated scaffolding poles includes connection points spaced apart from each other. The connection points are mounted at spaced-apart intervals along a length of at least some of the elongated scaffolding poles. An overhead hoarding assembly includes (and is not limited to) a pedestrian canopy assembly configured to shield a pedestrian from a falling object. The pedestrian canopy support assemblies are transversally installed to selected instances of the connection points mounted to the elongated scaffolding poles. The pedestrian canopy support assemblies are spaced-apart from each other once the pedestrian canopy support assemblies are installed to the selected instances of the connection points. The pedestrian canopy support assemblies are configured to receive and support the pedestrian canopy assembly once the pedestrian canopy support assemblies are transversally installed to the connection points. The pedestrian canopy support assemblies transversally align along a non-perpendicular direction extending between the elongated scaffolding poles that extend vertically (once installed). The pedestrian canopy assembly transversally aligns along the non-perpendicular direction extending between the elongated scaffolding poles that extend vertically (that is, along the non-parallel direction relative to the horizontal working surface) once the pedestrian canopy assembly is installed to the pedestrian canopy support assemblies (whereby, the pedestrian canopy assembly, in use, receives and then deflects, at least in part, an unwanted element toward a side of the scaffolding assembly. Preferably, the side that receives the unwanted element is the construction side and not the roadside of the scaffolding assembly.

[0010] To mitigate, at least in part, at least one problem associated with the existing technology, there is provided (in accordance with a major aspect) an apparatus. The apparatus includes and is not limited to an overhead hoarding assembly. The overhead hoarding assembly includes pedestrian canopy support assemblies transversally installable to selected instances of connection points mounted to elongated scaffolding poles of a scaffolding assembly (in which the scaffolding assembly is configured to support the weight of a work crew and materials during construction and maintenance of a man-made structure). The elongated scaffolding poles vertically extend relative to a horizontal working surface. The elongated scaffolding poles are spaced apart relative to each other. The connection points are mounted at spaced-apart intervals along a length of at least some

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of the elongated scaffolding poles. The pedestrian canopy support assemblies are spaced-part from each other once the pedestrian canopy support assemblies are installed to the selected instances of the connection points. The pedestrian canopy support assemblies are configured to receive and support a pedestrian canopy assembly (once the pedestrian canopy support assemblies are transversally installed to the connection points). The pedestrian canopy assembly is configured to shield a pedestrian from a falling object (once installed). The pedestrian canopy support assemblies transversally align along a non-perpendicular direction extending between the elongated scaffolding poles that extend vertically (once the pedestrian canopy support assemblies are transversally installed to the elongated scaffolding poles). The pedestrian canopy assembly transversally align along the non-perpendicular direction extending between the elongated scaffolding poles (the elongated scaffolding poles extend vertically) once the pedestrian canopy assembly is installed to the pedestrian canopy support assemblies (whereby the pedestrian canopy assembly, in use, receives and then deflects, at least in part, an unwanted element toward a side of the scaffolding assembly. In accordance with a preferred embodiment, the side that receives the unwanted element is the construction side and not the roadside of the scaffolding assembly.

[0011] Other aspects are identified in the claims.

[0012] Other aspects and features of the non-limiting embodiments may now become apparent to those skilled in the art upon review of the following detailed description of the non-limiting embodiments with the accompanying drawings.

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BRIEF DESCRIPTION OF THE DRAWINGS

[0013] The non-limiting embodiments may be more fully appreciated by reference to the following detailed description of the non-limiting embodiments when taken in conjunction with the accompanying drawings, in which:

[0014] FIG. 1 depicts an end view of an embodiment of an apparatus including a scaffolding assembly and an overhead hoarding assembly;

[0015] FIG. 2 depicts a perspective view of an embodiment of the apparatus of FIG. 1;

[0016] FIG. 3 depicts an end view of an embodiment of the apparatus of FIG. 1; and

[0017] FIG. 4 depicts an end view of an embodiment of the apparatus of FIG. 1.

[0018] The drawings are not necessarily to scale and may be illustrated by phantom lines, diagrammatic representations and fragmentary views. In certain instances, details unnecessary for an understanding of the embodiments (and/or details that render other details difficult to perceive) may have been omitted.

[0019] Corresponding reference characters indicate corresponding components throughout the several figures of the drawings. Elements in the several figures are illustrated for simplicity and clarity and have not been drawn to scale. The dimensions of some of the elements in the figures may be emphasized relative to other elements for facilitating an understanding of the various disclosed embodiments. In addition, common, but well-understood, elements that are useful or necessary in commercially feasible embodiments are often not depicted to provide a less obstructed view of the embodiments of the present disclosure.

[0020] LISTING OF REFERENCE NUMERALS USED IN THE DRAWINGS

- 100 apparatus
- 102 overhead hoarding assembly
- 104 pedestrian canopy support assemblies
- 106 elongated y-shaped assembly
- 108 central hub
- 110 lockable connector point
- 112 first angle
- 114 second angle
- 116 elongated assembly

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- 118 spacer assembly
- 120 first elongated linear portion
- 122 second elongated linear portion
- 900 scaffolding assembly
- 901 pedestrian
- 902 man-made structure
- 903 falling object
- 904 elongated scaffolding poles
- 906 connection points
- 908 pedestrian canopy assembly
- 910 horizontal working surface
- 912 construction-facing portion
- 914 roadside-facing portion
- 916 first end section
- 918 second end section
- 920 third end section

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DETAILED DESCRIPTION OF THE NON-LIMITING EMBODIMENT(S)

[0021] The following detailed description is merely exemplary and is not intended to limit the described embodiments or the application and uses of the described embodiments. As used, the word “exemplary” or “illustrative” means “serving as an example, instance, or illustration.” Any implementation described as “exemplary” or “illustrative” is not necessarily to be construed as preferred or advantageous over other implementations. All of the implementations described below are exemplary implementations provided to enable persons skilled in the art to make or use the embodiments of the disclosure and are not intended to limit the scope of the disclosure. The scope of the invention is defined by the claims. For the description, the terms “upper,” “lower,” “left,” “rear,” “right,” “front,” “vertical,” “horizontal,” and derivatives thereof shall relate to the examples as oriented in the drawings. There is no intention to be bound by any expressed or implied theory in the preceding Technical Field, Background, Summary or the following detailed description. It is also to be understood that the devices and processes illustrated in the attached drawings, and described in the following specification, are exemplary embodiments (examples), aspects and/or concepts defined in the appended claims. Hence, dimensions and other physical characteristics relating to the embodiments disclosed are not to be considered as limiting, unless the claims expressly state otherwise. It is understood that the phrase “at least one” is equivalent to “a”. The aspects (examples, alterations, modifications, options, variations, embodiments and any equivalent thereof) are described regarding the drawings. It should be understood that the invention is limited to the subject matter provided by the claims, and that the invention is not limited to the particular aspects depicted and described.

[0022] FIG. 1 depicts an end view of an embodiment of an apparatus 100 including a scaffolding assembly 900 and an overhead hoarding assembly 102.

[0023] In accordance with the embodiment depicted in FIG. 1 (and generally to all of the FIGS.), the apparatus 100 includes (and is not limited to) a synergistic combination of a scaffolding assembly 900 and an overhead hoarding assembly 102.

[0024] The apparatus 100 generally pertains to users of the scaffolding assembly 900 for the case where the overhead hoarding assembly 102 is required for the protection of (is to be configured to protect) the public (non-workers) and/or workers.

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- [0025] In accordance with a preferred embodiment, the scaffolding assembly 900 includes a type of scaffolding system used in North America, which is called the Systems, Sure-Lock and Ring Lock scaffold. The scaffolding assembly 900 includes connection points 906 (also called, connector joins or system ledger), which are installed and positioned in the scaffolding assembly 900 (at various positions). The connection points 906 are known and, therefore, are not described herein in any detail. Examples or embodiments of the connection points 906 (which are known) are manufactured and/or supplied by any one of: (A) Layher Holding GmbH & Co., located in Göglingen-Eibensbach, Germany, (B) Mills Construction Products Inc., located in Ontario, Canada, and/or (C) Daystar Enterprises (System Scaffold & Sales) located in Cartersville, GA, USA, etc.
- [0026] Examples or embodiments of the connection points 906 are described in United States Patent Publication number US20110180350 A1 (Publication date: Jul 28, 2011, and the inventor is Steve Howard Thacker) and in United States Publication number US20140086669 A1 (Publication date Mar 27, 2014, and the inventor is Peter Rogers).
- [0027] In general terms, the scaffolding assembly 900 is configured to support the weight of a work crew and materials during the construction and maintenance of a man-made structure 902 (such as a building having a plurality of floors, etc.). The scaffolding assembly 900 is configured to be positioned adjacent to the man-made structure, and may extend horizontally (horizontal length wise) along and/or vertically along (height wise) the man-made structure.
- [0028] The overhead hoarding assembly 102 includes (and is not limited to) pedestrian canopy support assemblies 104 (also called, bracing members or ledger pieces).
- [0029] The pedestrian canopy support assemblies 104 are transversally installable (fixedly connectable, transversally installed) to the scaffolding assembly 900 in a spaced-apart relationship (that is, the instances of the pedestrian canopy support assemblies 104 are spaced apart from each other). The pedestrian canopy support assemblies 104 are transversally aligned along a non-perpendicular direction, in which the non-perpendicular direction extends through the scaffolding assembly 900 (once the pedestrian canopy support assemblies 104 are transversally installed to the scaffolding assembly 900). The pedestrian canopy support assemblies 104, in use, receive and support (directly or indirectly) a pedestrian canopy assembly 908.

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- [0030] The pedestrian canopy assembly 908, in use, receives and then deflects, at least in part, an unwanted element (such as, the falling object 903, weather elements and/or debris, tree debris, etc.) toward a side (that is, a vertical side) of the scaffolding assembly 900 once the pedestrian canopy support assemblies 104, in use, receive and support the pedestrian canopy assembly 908.
- [0031] A technical effect provided by the apparatus 100 includes (and is not limited to) any one of: (A) a reduction, at least in part, of the unwanted element on a top surface of the pedestrian canopy assembly 908; (B) an improvement, at least in part, of the safety of the construction worker using the scaffolding assembly 900 and/or the overhead hoarding assembly 102; and/or (C) an improvement, at least in part, of the safety of pedestrians using the overhead hoarding assembly 102.
- [0032] In accordance with a more specific embodiment (in accordance with more specific technical details) as depicted in FIG. 1 (and generally to all of the FIGS.), the apparatus 100 includes (and is not limited to) the synergistic combination of the scaffolding assembly 900 and the overhead hoarding assembly 102.
- [0033] The scaffolding assembly 900 includes (and is not limited to) elongated scaffolding poles 904 vertically extending relative to a horizontal working surface 910 (that is, once the elongated scaffolding poles 904 are installed on (positioned on) the horizontal working surface 910).
- [0034] The elongated scaffolding poles 904 are spaced apart relative to each other (once installed). Each of the elongated scaffolding poles 904 includes connection points 906 (also called connector joins) that are spaced apart from each other. The connection points 906 are also mounted at spaced-apart intervals along a length of at least some of the elongated scaffolding poles 904. Preferably, the connection points 906 are also mounted at spaced-apart intervals along a length of all of the elongated scaffolding poles 904.
- [0035] The overhead hoarding assembly 102 includes (and is not limited to) a synergistic combination of the pedestrian canopy assembly 908 and the pedestrian canopy support assemblies 104 (bracing members). The pedestrian canopy assembly 908 is configured to shield the pedestrian 901 from the falling object 903 (once installed to the pedestrian canopy support assemblies 104).

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[0036] The pedestrian canopy support assemblies 104 are transversally installable (transversally installed) to selected instances of the connection points 906 that are mounted to the elongated scaffolding poles 904. The pedestrian canopy support assemblies 104 are spaced-part from each other (once the pedestrian canopy support assemblies 104 are installed to the selected instances of the connection points 906). The pedestrian canopy support assemblies 104 are configured to receive and support (either directly or indirectly) the pedestrian canopy assembly 908 (once the pedestrian canopy support assemblies 104 are transversally installed) to the connection points 906. The pedestrian canopy support assemblies 104 are transversally aligned along a non-perpendicular direction extending between the elongated scaffolding poles 904 that extend vertically (once the pedestrian canopy support assemblies 104 are transversally installed to the elongated scaffolding poles 904). More preferably, the pedestrian canopy support assemblies 104 transversally align along the non-parallel direction relative to the horizontal working surface 910 (once the pedestrian canopy support assemblies 104 are transversally installed to the elongated scaffolding poles 904).

[0037] The pedestrian canopy assembly 908 is transversally aligned (transversally aligns) along the non-perpendicular direction that extends between the elongated scaffolding poles 904 (once the pedestrian canopy assembly 908 is installed to the pedestrian canopy support assemblies 104). Once the pedestrian canopy assembly 908 is installed, the pedestrian canopy assembly 908, in use, receives and then deflects, at least in part, the unwanted element (weather elements and/or debris, tree debris, etc.) toward a side of the scaffolding assembly 900.

[0038] In accordance with a more specific embodiment (also called the retrofit embodiment) as depicted in FIG. 1 (and generally to all of the FIGS.), the apparatus 100 includes (and is not limited to) the overhead hoarding assembly 102, and the apparatus 100 does not include the scaffolding assembly 900. For this case, the apparatus 100 is for installation (retrofit installation) to an existing instance of the scaffolding assembly 900.

[0039] In accordance with the embodiment as depicted in FIG. 1, the scaffolding assembly 900 has a construction-facing portion 912 and a roadside-facing portion 914. The pedestrian canopy assembly 908, in use, deflects the unwanted elements toward the construction-facing portion 912 rather than the roadside-facing portion 914.

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[0040] In accordance with the embodiment as depicted in FIG. 1, the elongated scaffolding poles 904 are configured to be fixedly positioned (stationary positioned) to extend vertically from, and abut, the horizontal working surface 910, and remain detached from the horizontal working surface 910.

[0041] In accordance with the embodiment as depicted in FIG. 1, the falling object 903 falls toward the pedestrian canopy assembly 908 along a downward vertical direction. The falling object 903 will strike the pedestrian canopy assembly 908 with a downwardly directed force, and the pedestrian canopy assembly 908 receives the downwardly directed force and then transmits this downwardly directed force to the pedestrian canopy support assemblies 104, and the pedestrian canopy support assemblies 104 are configured to dissipate the downwardly directed force to opposite sides of the scaffolding assembly 900 (that is, preferably to the instances of the elongated scaffolding poles 904 that are positioned opposite from each other and are also spaced apart from each other).

[0042] In accordance with the embodiment as depicted in FIG. 1, the scaffolding assembly 900 is spaced apart from the vehicular curbside by about 18 inches (as may be desired or required).

[0043] FIG. 2 depicts a perspective view of an embodiment of the apparatus 100 of FIG. 1.

[0044] In accordance with the embodiment as depicted in FIG. 1, the elongated scaffolding poles 904 include (A) a first plurality of the elongated scaffolding poles 904, and (B) a second plurality of the elongated scaffolding poles 904. The first plurality of the elongated scaffolding poles 904 is positioned one after the other along a first row (that is, the first plurality of the elongated scaffolding poles 904 are spatially positioned and aligned along the linear first row of the elongated scaffolding poles 904). The second plurality of the elongated scaffolding poles 904 are positioned one after the other along a second row (that is, the second plurality of the elongated scaffolding poles 904 are spatially positioned and aligned along the linear second row of the elongated scaffolding poles 904). The first plurality of the elongated scaffolding poles 904 are spaced apart from the second plurality of the elongated scaffolding poles 904.

[0045] Preferably, the pedestrian canopy support assemblies 104 are configured to span, at least in part, a width of a sidewalk (that forms the horizontal working surface 910). It will be appreciated that the width of the sidewalk may vary, such as (and not limited to) from

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about three feet and ten inches to about five feet and four inches. The pedestrian canopy support assemblies 104 are configured to support the pedestrian canopy assembly 908 (depicted as a set of boards that span across the pedestrian canopy support assemblies 104) that provides, in use, overhead protection for pedestrians that are positioned below the pedestrian canopy assembly 908. The pedestrian canopy support assemblies 104 are sloped (to one side of the scaffolding assembly 900) once installed to the scaffolding assembly 900. The pedestrian canopy support assemblies 104 are configured to span (at least in part) a section of the scaffolding assembly 900, and/or to brace the scaffolding assembly 900. Preferably, the pedestrian canopy support assemblies 104 include an upper peak section configured to form a peak section on (or facing) the roadside-facing portion 914 of the scaffolding assembly 900, in such a way that the pedestrian canopy support assemblies 104 accommodates the installation of signage (advertising, etc.) to face the roadside-facing portion 914. The pedestrian canopy support assemblies 104 include a lower valley section configured to slope away from the peak section and from the roadside-facing portion 914, and towards the construction side 912 of the scaffolding assembly 900.

[0046] Preferably, the pedestrian canopy support assemblies 104 are configured to permit the movement (flow) of weather elements (rain, snow) and debris (tree debris etc.), over to the construction site side of the scaffolding assembly 900 rather than the roadside-facing portion 914 of the scaffolding assembly 900. Preferably, the pedestrian canopy support assemblies 104 are configured to permit the movement (flow) of snow and ice (snow and/or ice may more readily slide off the pedestrian canopy assembly 908) and, thereby, the area underneath the pedestrian canopy assembly 908 does not (substantially) accumulate snowmelt and/or ice melt (resulting from thawing of same material positioned on the top surface of the pedestrian canopy assembly 908). Preferably, the pedestrian canopy support assemblies 104 provide a one-piece body (thereby making for a relatively easier installation). The pedestrian canopy support assemblies 104 are configured to be installed in the scaffolding system of the type used in North America. The pedestrian canopy support assemblies 104 are configured to facilitate relatively quicker height adjustment (that is, by providing the lockable connector point 110, a worker may install the pedestrian canopy support assemblies 104 with a hammer, for instance). The pedestrian canopy support assemblies 104 are configured to withstand relatively higher load

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capacities (such as, about 75 pounds per square foot on the roof top and/or about 5,000 pounds per square foot of leg loads on the vertical standards or the elongated scaffolding poles 904), to preferably match (or exceed) the requirements associated with the scaffolding assembly 900 (such as, the type of scaffolding system used in North America). The pedestrian canopy support assemblies 104 are configured to provide a safe walkthrough passage for the public, and may also be the support foundation for a cantilevered scaffold leading to the building and/or added height beside or directly above the pedestrian canopy assembly 908. The pedestrian canopy support assemblies 104 are configured to provide a width and a capacity to meet specific constructions and/or safety requirements and construction-site conditions. The pedestrian canopy support assemblies 104 are configured to be pre-measured and engineered; once installed, there is relatively less chance of installation error due to the set slope and the lockable connector point 110 of the pedestrian canopy support assemblies 104 (to be securely connected or coupled to respective instances of the connection points 906). Preferably, the pedestrian canopy support assemblies 104 provide no loose pieces, such as nuts, bolts, or clamps, etc. The pedestrian canopy support assemblies 104 have a shape that allows the middle section of the underside of the pedestrian canopy assembly 908 to have a preferred height for the installation of pedestrian lighting to be mounted underneath the pedestrian canopy assembly 908. The pedestrian canopy support assemblies 104 are configured to be relatively quicker and easier to set up (install) and/or take down, thereby resulting in reduced labour costs. The pedestrian canopy support assemblies 104 preferably include a hot-dipped galvanized metal component or an aluminum alloy configured to resist the onset of rust or corrosion (and any equivalent thereof) while providing sufficient support strength, thereby increasing the operative life cycle of the pedestrian canopy support assemblies 104. The pedestrian canopy support assemblies 104 are configured to support a sloped instance of the pedestrian canopy assembly 908, and is configured to reduce the accumulation of weather debris such as tree debris, snow, water, etc. on the pedestrian canopy assembly 908. The pedestrian canopy support assemblies 104 are configured to facilitate the installation of advertising space to (on) the scaffolding assembly 900 (to help promote the new construction activity currently underway, etc.).

[0047] FIG. 3 depicts an end view of an embodiment of the apparatus 100 of FIG. 1.

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- [0048] In accordance with the embodiment as depicted in FIG. 1, the pedestrian canopy support assemblies 104 transversally extend at a predetermined angle relative to the horizontal working surface 910 (once the pedestrian canopy support assemblies 104 are transversally installed to the elongated scaffolding poles 904).
- [0049] In accordance with the embodiment as depicted in FIG. 1, each of the pedestrian canopy support assemblies 104 includes a first end section 916, a second end section 918 and a third end section 920. The first end section 916 is configured to be releasably connected to a selected one of the connection points 906. The second end section 918 extends from the first end section 916. The second end section 918 is configured to be releasably connected to another selected one of the connection points 906. The third end section 920 extends from the first end section 916. The third end section 920 is configured to be releasably connected to a yet another selected one of the connection points 906.
- [0050] In accordance with an embodiment (as depicted in FIG. 3), at least one of the pedestrian canopy support assemblies 104 include an elongated y-shaped assembly 106 (also called a strut or body) configured to provide overhead support for the pedestrian canopy assembly 908, with lockable connector point 110 (preferably, the lockable connector point 110 are of the wedge lock type connection point, which is known and therefore not depicted or described in detail).
- [0051] In accordance with a preferred embodiment, the elongated y-shaped assembly 106 includes branches (preferably, three branches that form the Y-shape) that extend radially from a central hub 108, and each branch of the elongated y-shaped assembly 106 is configured to connect to a selected instance of the connection points 906 that is positioned on a selected instance of the elongated scaffolding poles 904. Preferably, the branches (at least some of the branches) intersect at the central hub 108 (also called a midpoint section). The central hub 108 is, preferably, positioned midpoint. of the elongated y-shaped assembly 106.
- [0052] In accordance with a preferred embodiment, the elongated y-shaped assembly 106 includes a first elongated linear portion 120 and a second elongated linear portion 122 that extends from the first elongated linear portion 120 along an obtuse angle relative to the second elongated linear portion 122. The first elongated linear portion 120 includes the

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first end section 916 and the third end section 920. The second elongated linear portion 122 includes the second end section 918.

[0053] In accordance with a preferred embodiment, the distal ends (distal end sections) of each branch of the elongated y-shaped assembly 106 include an end section (such as, the first end section 916, the second end section 918 and the third end section 920). Each distal end includes a lockable connector point 110. Each lockable connector point 110 is configured to selectively engage and securely lock to a selected instance of the connection points 906. Each distal end is configured to receive and support the lockable connector point 110.

[0054] The lockable connector point 110 is known and therefore is not described herein in any detail. Examples or embodiments of the lockable connector point 110 (which is known) are manufactured and/or supplied by any one of: (A) Layher Holding GmbH & Co., located in Göglingen-Eibensbach, Germany, (B) Mills Construction Products Inc., located in Ontario, Canada, and/or (C) Daystar Enterprises (System Scaffold & Sales) located in Cartersville, GA, USA, etc.

[0055] Examples or embodiments of the lockable connector point 110 are described in United States Patent Publication number US20110180350 A1 (Publication date: Jul 28, 2011, and the inventor is Steve Howard Thacker) and in United States Publication number US20140086669 A1 (Publication date Mar 27, 2014, and the inventor is Peter Rogers).

[0056] The first end section 916 and the second end section 918 are spatially positioned at the same horizontal level once the pedestrian canopy support assemblies 104 are installed to the selected instances of the connection points 906, and the third end section 920 is positioned vertically above the second end section 918.

[0057] A first longitudinal axis extends from the first end section 916 to the third end section 920. A second longitudinal axis extends from the second end section 918 to the central hub 108. A first angle 112 (angle α) is formed or defined between the horizontal and the first longitudinal axis that extends from the first end section 916 to the third end section 920. A second angle 114 (angle β) is formed or defined between the second longitudinal axis that extends from the second end section 918 to the central hub 108. In accordance with a first option, the first angle 112 is fixed in magnitude (such as, about 24 degrees), and the second angle 114 is also fixed in magnitude (such as, about 19 degrees), and this

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configuration of the pedestrian canopy support assemblies 104 provides about (preferably) a seven foot clearance underneath the central hub 108 (that is, the clearance for the passage way for pedestrian traffic). In accordance with a second option, the first angle 112 is fixed in magnitude (such as, about 34 degrees), and the second angle 114 is also fixed in magnitude (such as, about 26.6 degrees), and this configuration of the pedestrian canopy support assemblies 104 provides about a seven foot clearance underneath the central hub 108 (that is, the clearance for the passage way for pedestrian traffic).

[0058] FIG. 4 depicts an end view of an embodiment of the apparatus 100 of FIG. 1.

[0059] In accordance with the embodiment as depicted in FIG. 4, at least one instance of the pedestrian canopy support assemblies 104 includes an elongated y-shaped assembly 106. The elongated y-shaped assembly 106 includes a first elongated linear portion 120, and a second elongated linear portion 122. The second elongated linear portion 122 has a second end section 918 configured to connect to an instance of the connection points 906. The second elongated linear portion 122 extends from the first elongated linear portion 120 along an obtuse angle relative to the second elongated linear portion 122. An elongated assembly 116 is affixed to the first elongated linear portion 120. The elongated assembly 116 is configured to receive and support the pedestrian canopy assembly 908. The elongated assembly 116 includes a first end section 916 configured to be releasably connected to a selected one of the connection points 906. The elongated assembly 116 also includes a third end section 920 extending from the first end section 916. The third end section 920 is configured to be releasably connected to another selected one of the connection points 906.

[0060] In accordance with an option, a spacer assembly 118 is spatially positioned between the elongated assembly 116 and the first elongated linear portion 120. The spacer assembly 118 is fixedly connected to the elongated assembly 116 and the first elongated linear portion 120.

[0061] It will be appreciated that persons skilled in the art would know that technical features of each embodiment may be deployed (where possible) in other embodiments even if not expressly stated as such above. It will be appreciated that persons skilled in the art would know that other options would be possible for the configuration of the components of the apparatus 100 (if so desired) to adjust to manufacturing requirements and still remain

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within the scope of the invention as described in at least one or more of the claims. This written description uses examples to disclose the invention, including the best mode, and also to enable any person skilled in the art to make and use the invention. The patentable scope of the invention is defined by the claims, and may include other examples that occur to those skilled in the art. Such other examples are within the scope of the claims if they have structural elements that do not differ from the literal language of the claims, or if they include equivalent structural elements with insubstantial differences from the literal language of the claims.

[0062] It may be appreciated that the assemblies and modules described above may be connected with each other as required to perform desired functions and tasks within the scope of persons of skill in the art to make such combinations and permutations without having to describe each and every one in explicit terms. There is no particular assembly or component that may be superior to any of the equivalents available to the person skilled in the art. There is no particular mode of practicing the disclosed subject matter that is superior to others, so long as the functions may be performed. It is believed that all the crucial aspects of the disclosed subject matter have been provided in this document. It is understood that the scope of the present invention is limited to the scope provided by the independent claim(s), and it is also understood that the scope of the present invention is not limited to: (i) the dependent claims, (ii) the detailed description of the non-limiting embodiments, (iii) the summary, (iv) the abstract, and/or (v) the description provided outside of this document (that is, outside of the instant application as filed, as prosecuted, and/or as granted). It is understood, for this document, that the phrase “includes” is equivalent to the word “comprising.” The foregoing has outlined the non-limiting embodiments (examples). The description is made for particular non-limiting embodiments (examples). It is understood that the non-limiting embodiments are merely illustrative as examples.

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CLAIMS

WHAT IS CLAIMED IS:

1. An apparatus, comprising:

an overhead hoarding assembly being configured to be installed to a scaffolding assembly configured to support the weight of a work crew and materials during construction and maintenance of a man-made structure, the scaffolding assembly including elongated scaffolding poles being vertically extended and spaced apart with connection points being mounted at spaced-apart intervals along a length of at least some of the elongated scaffolding poles; and

the overhead hoarding assembly, including:

pedestrian canopy support assemblies being transversally installed, in a spaced-apart relationship, to the connection points of the elongated scaffolding poles of the scaffolding assembly; and

the pedestrian canopy support assemblies transversally aligning along a non-perpendicular direction extending through the scaffolding assembly; and

whereby a pedestrian canopy assembly, in use, receives and then deflects, at least in part, an unwanted element toward a side of the scaffolding assembly once the pedestrian canopy support assemblies, in use, receive and support the pedestrian canopy assembly; and

wherein at least one instance of the pedestrian canopy support assemblies includes a one-piece body forming a set slope.

2. An apparatus, comprising:

a scaffolding assembly configured to support the weight of a work crew and materials during construction and maintenance of a man-made structure; and

the scaffolding assembly, including:

elongated scaffolding poles being vertically extended and spaced apart with connection points being mounted at spaced-apart intervals along a length of at least some of the elongated scaffolding poles; and

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an overhead hoarding assembly being installed to the scaffolding assembly; and
the overhead hoarding assembly, including:

pedestrian canopy support assemblies being transversally installed,
in a spaced-apart relationship, to the connection points of the elongated
scaffolding poles of the scaffolding assembly; and

the pedestrian canopy support assemblies transversally aligning
along a non-perpendicular direction extending through the scaffolding
assembly; and

wherein at least one instance of the pedestrian canopy support
assemblies includes a one-piece body forming a set slope; and

whereby a pedestrian canopy assembly, in use, receives and then
deflects, at least in part, an unwanted element toward a side of the
scaffolding assembly once the pedestrian canopy support assemblies, in use,
receive and support the pedestrian canopy assembly.

3. An apparatus, comprising:

an overhead hoarding assembly configured for installation in a scaffolding
assembly configured to support the weight of a work crew and materials during
construction and maintenance of a man-made structure, and the scaffolding assembly,
including elongated scaffolding poles vertically extending relative to a horizontal working
surface, and the elongated scaffolding poles being spaced apart relative to each other, and
each of the elongated scaffolding poles including connection points being spaced apart
from each other, and the connection points also being mounted at spaced-apart intervals
along a length of at least some of the elongated scaffolding poles; and
the overhead hoarding assembly including:

a pedestrian canopy assembly being configured to shield a pedestrian from
a falling object; and

pedestrian canopy support assemblies being transversally installed to
selected instances of the connection points being mounted to the elongated

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scaffolding poles, and the pedestrian canopy support assemblies being spaced-part from each other once the pedestrian canopy support assemblies are installed to the selected instances of the connection points; and

the pedestrian canopy support assemblies being configured to receive and support the pedestrian canopy assembly once the pedestrian canopy support assemblies are transversally installed to the connection points; and

the pedestrian canopy support assemblies transversally aligning along a non-perpendicular direction extending between the elongated scaffolding poles that extend vertically;

the pedestrian canopy assembly transversally aligning along the non-perpendicular direction extending between the elongated scaffolding poles that extend vertically once the pedestrian canopy assembly is installed to the pedestrian canopy support assemblies; and

wherein at least one instance of the pedestrian canopy support assemblies includes a one-piece body forming a set slope; and

whereby the pedestrian canopy assembly, in use, receives and then deflects, at least in part, an unwanted element toward a side of the scaffolding assembly.

4. The apparatus of claim 3, wherein:

the scaffolding assembly has a construction-facing portion and a roadside-facing portion; and

the pedestrian canopy assembly, in use, deflects an unwanted element toward the construction-facing portion rather than the roadside-facing portion.

5. The apparatus of any one of claim 3 and claim 4, wherein:

at least one instance of the pedestrian canopy support assemblies transversally extends at a predetermined angle relative to the horizontal working surface once the at least one instance of the pedestrian canopy support assemblies are transversally installed to the elongated scaffolding poles.

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6. The apparatus of any one of claim 3, claim 4 and claim 5, wherein:

the scaffolding assembly is configured to be positioned adjacent to the man-made structure, and extends horizontally and vertically along the man-made structure; and

the elongated scaffolding poles are configured to be fixedly positioned to extend vertically from, and abut, the horizontal working surface, and remain detached from the horizontal working surface.

7. The apparatus of any one of claim 3, claim 4, claim 5 and claim 6, wherein:

the elongated scaffolding poles include:

a first plurality of the elongated scaffolding poles positioned one after the other along a first row; and

a second plurality of the elongated scaffolding poles positioned one after the other along a second row; and

the first plurality of the elongated scaffolding poles being spaced apart from the second plurality of the elongated scaffolding poles.

8. The apparatus of any one of claim 3, claim 4, claim 5, claim 6 and claim 7, wherein:

at least one instance of the pedestrian canopy support assemblies includes:

a first end section being configured to be releasably connected to a selected one of the connection points; and

a second end section extending from the first end section, and the second end section being configured to be releasably connected to another selected one of the connection points; and

a third end section extending from the first end section, and the third end section being configured to be releasably connected to a yet another selected one of the connection points.

9. The apparatus of any one of claim 3, claim 4, claim 5, claim 6, claim 7 and claim 8, wherein:

at least one instance of the pedestrian canopy support assemblies includes:

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an upper peak section configured to form a peak section facing a roadside-facing portion of the scaffolding assembly; and

a lower valley section configured to slope away from the peak section and from the roadside-facing portion, and towards the construction side of the scaffolding assembly.

10. The apparatus of any one of claim 3, claim 4, claim 5, claim 6, claim 7, claim 8, and claim 9, wherein:

at least one instance of the pedestrian canopy support assemblies has a shape configured to allow a middle section of an underside of the pedestrian canopy assembly to have a height for installation of lighting that is mounted underneath the pedestrian canopy assembly.

11. The apparatus of any one of claim 3, claim 4, claim 5, claim 6, claim 7, claim 8, claim 9, and claim 10, wherein:

at least one instance of the pedestrian canopy support assemblies includes:

an elongated y-shaped assembly configured to provide overhead support for the pedestrian canopy assembly; and

the elongated y-shaped assembly including:

instances of a lockable connector point each being configured to selectively engage and lock to a selected instance of the connection points.

12. The apparatus of claim 11, wherein:

the elongated y-shaped assembly includes;

a central hub being positioned midpoint of the elongated y-shaped assembly; and

branches extending radially from the central hub; and

at least some of the branches intersecting at the central hub; and

each branch of the branches being configured to connect to the selected instances of the connection points.

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13. The apparatus of claim 11, wherein:

the elongated y-shaped assembly includes:

a first elongated linear portion; and

a second elongated linear portion extending from the first elongated linear portion along an obtuse angle relative to the second elongated linear portion; and

the first elongated linear portion includes:

a first end section configured to connect with the connection points;

and

a third end section spaced apart from the first end section, and the third end section configured to connect with the connection points; and

the second elongated linear portion includes:

a second end section configured to connect with the connection points.

14. The apparatus of claim 11, wherein:

distal ends of the elongated y-shaped assembly include:

an end section configured to support the lockable connector point being configured to selectively engage and lock to the connection points.

15. The apparatus of claim 13, wherein:

the first end section and the second end section are spatially positioned at the same horizontal level once installed to the selected instances of the connection points of the elongated scaffolding poles; and

the third end section is positioned vertically above the second end section once installed to the connection points of the elongated scaffolding poles.

16. The apparatus of any one of claim 3, claim 4, claim 5, claim 6, claim 7, claim 8, claim 9, claim 10 and claim 11, wherein:

a first longitudinal axis extends from a first end section to a third end section;

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a second longitudinal axis extends from a second end section to a central hub positioned on the first longitudinal axis;

a first angle is formed or defined between the horizontal and the first longitudinal axis that extends from the first end section to the third end section;

a second angle is formed or defined between the second longitudinal axis extends from the second end section to the central hub.

17. The apparatus of any one of claim 3, claim 4, claim 5, claim 6, claim 7, claim 8, claim 9, claim 10, claim 11 and claim 16, wherein:

at least one instance of the pedestrian canopy support assemblies includes:

an elongated y-shaped assembly being configured to provide overhead support for the pedestrian canopy assembly; and

the elongated y-shaped assembly includes:

a first elongated linear portion having a first end section and a third end section; and

wherein the pedestrian canopy assembly is configured to be affixed to the first elongated linear portion.

18. The apparatus of any one of claim 3, claim 4, claim 5, claim 6, claim 7, claim 8, claim 9, claim 10, claim 11, claim 16 and claim 17, wherein:

at least one instance of the pedestrian canopy support assemblies includes:

an elongated y-shaped assembly including:

a first elongated linear portion;

a second elongated linear portion having a second end section being configured to connect to an instance of the connection points; and

the second elongated linear portion extending from the first elongated linear portion along an obtuse angle relative to the second elongated linear portion; and

an elongated assembly being affixed to the first elongated linear portion; and

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the elongated assembly being configured to receive and support the pedestrian canopy assembly; and

the elongated assembly including:

a first end section being configured to be releasably connected to a selected one of the connection points; and

a third end section extending from the first end section, and the third end section being configured to be releasably connected to another selected one of the connection points.

19. The apparatus of claim 18, further comprising:

a spacer assembly being spatially positioned between the elongated assembly and the first elongated linear portion; and

the spacer assembly being fixedly connected to the elongated assembly and the first elongated linear portion.

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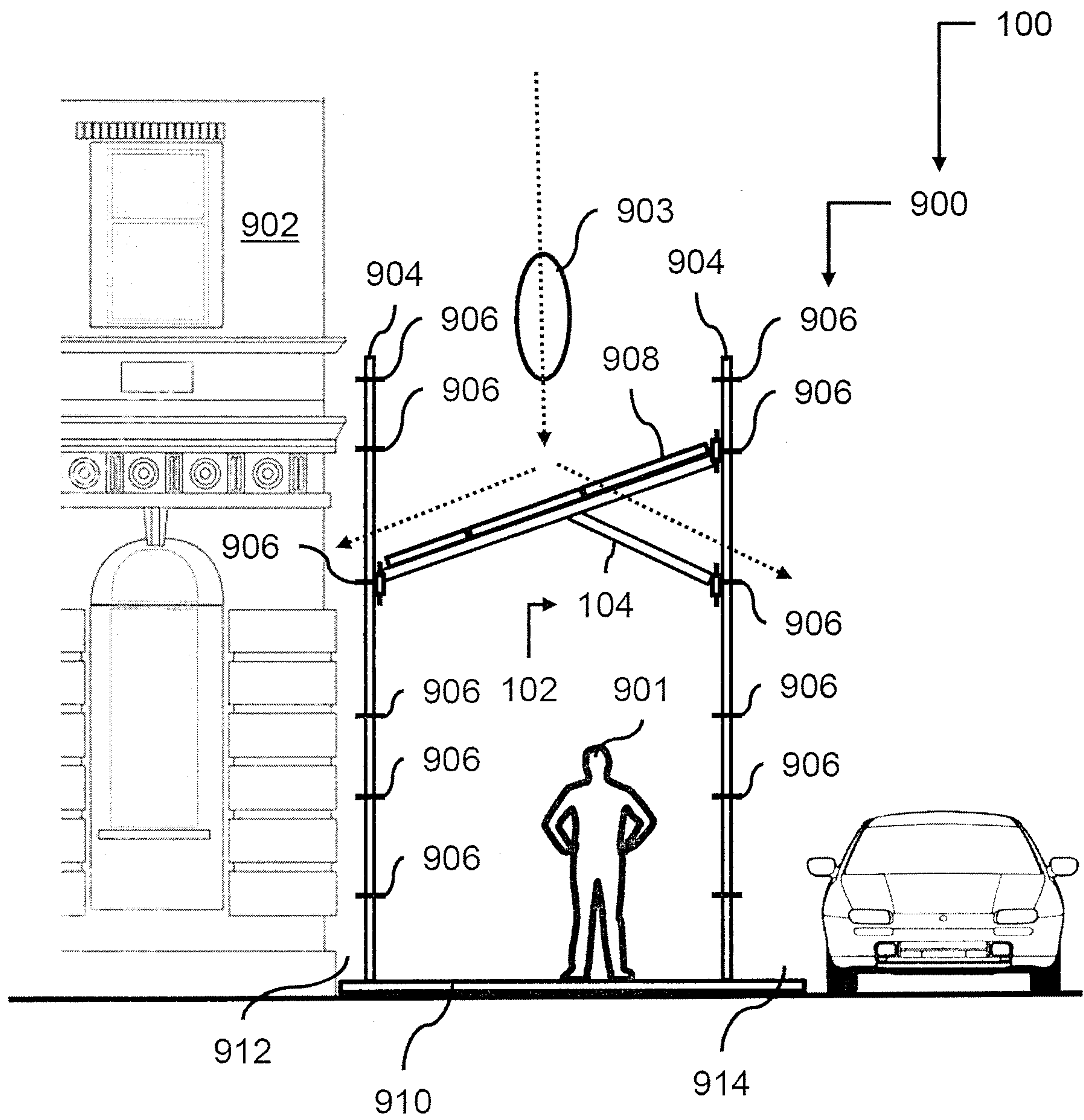


FIG. 1

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