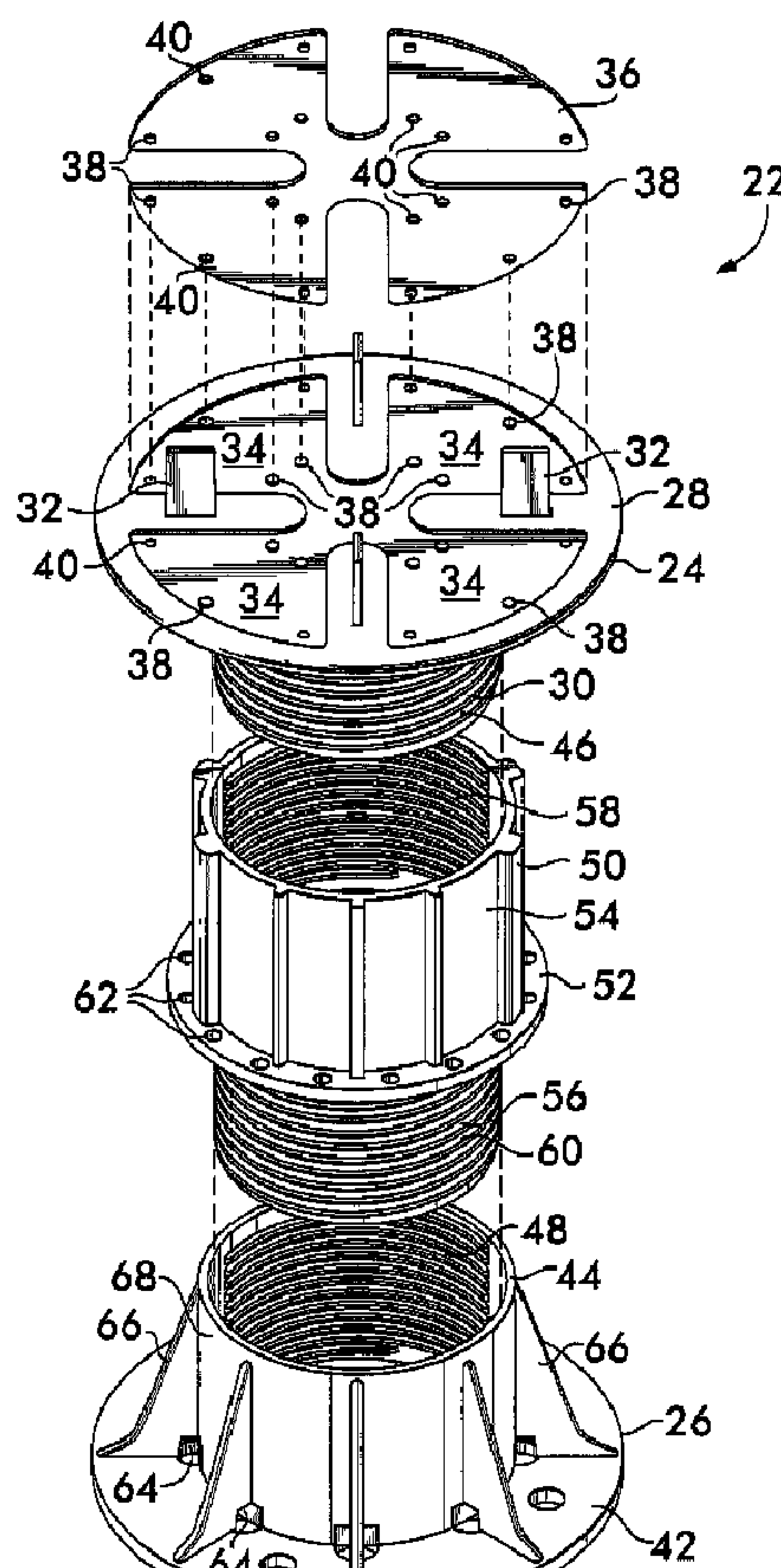




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(57) Abrégé/Abstract:

A deck system and pedestal for use in forming an elevated surface are provided. The system includes a plurality of ballast blocks, pavers or panels laterally positioned in a pattern to form a deck. Each of the blocks, pavers or panels has corner portions, and the



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

pattern includes intersection areas in which the corner portions of adjacent blocks, pavers or panels extend. The system also includes a plurality of pedestals. The pedestals are located directly beneath the intersection areas and support the corner portions of adjacent blocks, pavers or panels a spaced distance above an underlying structure. Each pedestal has a base at a lower end thereof and a support at an upper end thereof. The support is rotatable relative to the base for altering an overall height of the pedestal. One or more couplers can be added to the pedestal to alter the overall height of the pedestal. The pedestals can include a rubber pad or coating that secures and stabilizes the block, paver, or panel on the pedestals. Brace securement eyelets can be provided in a flange extending circumferentially about the coupler and in the base of the pedestal.

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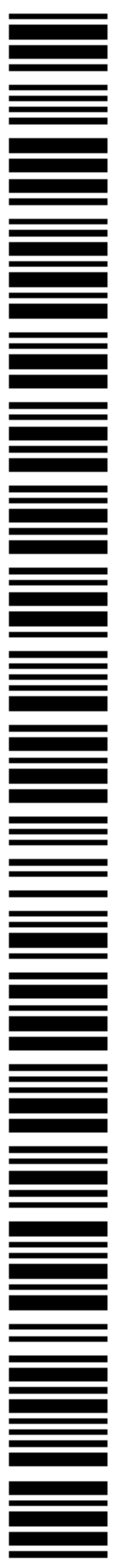
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(54) Title: PEDESTAL FOR BALLAST BLOCK DECKING

(57) Abstract: A deck system and pedestal for use in forming an elevated surface are provided. The system includes a plurality of ballast blocks, pavers or panels laterally positioned in a pattern to form a deck. Each of the blocks, pavers or panels has corner portions, and the pattern includes intersection areas in which the corner portions of adjacent blocks, pavers or panels extend. The system also includes a plurality of pedestals. The pedestals are located directly beneath the intersection areas and support the corner portions of adjacent blocks, pavers or panels a spaced distance above an underlying structure. Each pedestal has a base at a lower end thereof and a support at an upper end thereof. The support is rotatable relative to the base for altering an overall height of the pedestal. One or more couplers can be added to the pedestal to alter the overall height of the pedestal. The pedestals can include a rubber pad or coating that secures and stabilizes the block, paver, or panel on the pedestals. Brace securement eyelets can be provided in a flange extending circumferentially about the coupler and in the base of the pedestal.



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PEDESTAL FOR BALLAST BLOCK DECKING

BACKGROUND OF THE INVENTION

The present invention relates generally to a deck systems for use in constructing an elevated traffic-bearing surface, such as on the roof of a building, and more particularly, the present invention relates to a height-adjustable pedestal and deck system using same.

Roof structures of many buildings are capable of supporting a substantially horizontal surface, or deck, enabling the construction of roof terraces, pedestrian walkways, roof gardens, plaza decks, sun decks, balconies, patios or the like. Such roof surfaces are often formed at a slight slope relative to horizontal for drainage purposes. Typically, the roof surface itself is not constructed of a material that provides a suitable traffic bearing surface nor is it aesthetically pleasing.

Examples of deck systems utilizing roof pavers, or ballast blocks, are disclosed by U.S. Patent Nos.: 5,887,397; 5,377,468; 5,442,882; and 6,604,330 B2 issued to Repasky. Also see U.S. Patent Nos.: 4,570,397 issued to Creske; and 5,588,264 and 6,332,292 B1 issued to Buzon.

While the rooftop ballast block deck systems disclosed in the above referenced patents may be satisfactory for their intended purposes, there is a need for a stable, readily adjustable pedestal for use in such systems. The system should permit proper drainage, for instance to an underlying roof surface, and should enable ready installation of bracing between adjacent pedestals. In addition, the pedestals should be capable of efficient manufacture and installation.

SUMMARY OF THE INVENTION

More specifically, the present invention is a deck system for forming an elevated surface. The system includes a plurality of pavers, ballast blocks, timber panels or the like laterally positioned in a pattern to form a deck. Each of the pavers, blocks or panels has corner portions, and the pattern includes intersection areas in which the corner portions of adjacent pavers, blocks, or panels extend. The system

also includes a plurality of pedestals. The pedestals are located directly beneath the intersection areas and support the corner portions of the adjacent pavers, blocks or panel a spaced distance above an underlying structure. Each pedestal has a base at a lower end thereof and a support at an upper end thereof. The support is rotatable relative to the base for altering an overall height of the pedestal.

According to some of the embodiments of the present invention, the support can include a support plate and a substantially cylindrical, externally-threaded post depending therefrom. The upper surface of the support plate can be provided with a surface that secures and stabilizes the block, paver, or panel on the pedestal. As an example, the surface can be provided by a rubber pad, coating, texture or the like applied to the upper surface. The pad, coating, texture or the like can be used to deaden noise, absorb shock, and increase friction between the pedestal and the block, paver, or panel. If a rubber pad is used, it can be provided in one piece or several separate pieces mechanically snapped onto the support plate with cooperating bosses and recesses formed in engaging surfaces of the pad and support plate. Such a pad can also be adhesively secured to the support plate.

According to some of the embodiments of the present invention, the base has a base plate and a substantially cylindrical, hollow, internally-threaded post projecting from the base plate. The externally-threaded post of the support and internally-threaded post of the base cooperatively engage to permit the support to be connected to the base and to permit the support to be rotatable relative to the base to enable the overall height of the pedestal to be adjusted. Preferably, the support plate and the base plate are of substantially the same size. For instance, the support and base plates can be circular in plan and have diameters that are substantially identical.

According to some of the embodiments of the present invention, the pedestals can include a coupler for assembly within the pedestal intermediate the support and base. The coupler has a flange, a substantially cylindrical, externally-threaded post depending from the flange, and a substantially cylindrical, internally threaded post projecting from the flange. The flange extends laterally, radially, or circumferentially about the coupler. The externally-threaded post of the coupler cooperatively engages the internally-threaded post of the base, and the internally-

threaded post of the coupler cooperatively engages the externally-threaded post of the support. Preferably, the flange extends substantially parallel to the support and base plates and has a series of spaced-apart brace securement eyelets extending therethrough. Preferably, the series of separate eyelets are equally spaced-apart circumferentially about the coupler.

According to some of the embodiments of the present invention, the base has a plurality of spaced-apart, radially-extending reinforcement walls projecting from the base plate and extending outward from an exterior wall of the internally-threaded post of the base. Preferably, each of the reinforcement walls has a bracing securement eyelet formed therein.

The present invention can also include bracing that restrains relative movement of the pedestals. For example, the bracing can be provided as a plurality of elongate wires or rods that tie adjacent pedestals together. A bracing wire can have one end secured to one of the eyelets in the coupler or base of one pedestal and an opposite end secured to one of the eyelets in the coupler or base of an adjacent pedestal. Thus, the bracing can extend coupler-to-coupler or coupler-to-base. The location of the eyelets and their availability at numerous locations about the coupler and base facilitate ease of installation of bracing between adjacent couplers.

According to another aspect of the invention, a pedestal is provided. The pedestal can have the structure discussed above with respect to the support, base, and coupler.

BRIEF DESCRIPTION OF THE DRAWINGS

The features and advantages of the present invention should become apparent from the following description when taken in conjunction with the accompanying drawings, in which:

FIG. 1 is a perspective view of a pedestal embodying the present invention;

FIG. 2 is an exploded perspective view of the pedestal of FIG. 1;

FIG. 3 is a cross-sectional elevational view of the pedestal of FIG. 1 in use with a leveler and tie down device to support pavers; and

FIG. 4 is a perspective view of a part of a deck system having cross bracing between adjacent pedestals according to the present invention.

DETAILED DESCRIPTION OF THE PRESENT INVENTION

Referring now to the drawings, a deck 10 is constructed of a plurality of separate, substantially-rectangular pavers, ballast blocks, or panels 12 (hereinafter referred to as blocks) that are arranged in a grid layout, or pattern, and that are supported a spaced distance above a surface, such as an exterior roof surface 14 of a building. The deck 10 provides a substantially level traffic-bearing surface 16 for pedestrians and an aesthetic appearance. It can be used to convert an otherwise unusable rooftop or like space into a useful area.

Each block 12 can be made of concrete, marble, granite, wood, rubber, plastic, composite materials, or like weight-bearing substance and is typically square, rectangle, or some other shape that can be positioned in uniform patterns. Thus, each block 12 will typically have corner portions 18, and the deck 10 will have intersection areas 20 in which corner portions 18 of adjacent blocks 12 extend. A separate pedestal 22 underlies each intersection area 20 and supports the corner portions 18 of the adjacent ballast blocks 12. Thus, the entire deck 10 is elevated from an underlying structure, such as exterior roof surface 14. The spacing provided between the blocks 12 and surface 14 and between the laterally positioned blocks 12 permits proper drainage of fluids, such as rain, through the deck 10.

As best illustrated in FIG. 2, each pedestal 22 includes a support 24 at an upper end thereof and a base 26 at a lower end thereof. The presence of an intermediate coupler 50, as shown in FIG. 2, is optional. In its simplest form, the pedestal 22 can consist solely of the support 24 and base 26 without an intermediate coupler 50. The support 24 and base 26 are preferably manufactured separately and are molded of plastic. The support 24 and base 26 interconnect in a manner permitting an overall height "H" of the pedestal 22 to be adjusted. More specifically, the action of rotating the support 24 relative to the base 26 causes the height "H" of the pedestal 22 to be altered. Thus, the height "H" of each pedestal 22 in the deck 10

can be readily adjusted, as required, during installation of the deck 10 and/or during maintenance thereof.

In the illustrated embodiment, the support 24 includes a plate 28 with a substantially cylindrical post 30 depending therefrom. In use, the plate 28 is disposed in a substantially horizontal position thereby providing a surface on which the corner portions 18 of the blocks 12 can be supported. Preferably, a plurality of upstanding walls 32 project from the plate 28 and define separate quadrants 34 on the plate 28. Each quadrant 34 receives one corner portion 18 of a block 12. The walls 32 align the corner portions 18 on the pedestal 22 and define lateral spacing between adjacent blocks 12 to permit rain water and other fluids to drain through the deck 10 and around the outside of plate 28.

The upper surface of the plate 28 is provided with a surface that secures and stabilizes the block, paver, or panel on the pedestal 22. This surface functions to prevent and/or deaden noise that may otherwise be created when pedestrians walk on the blocks, pavers, or panels. In addition, the surface can provide a shock absorbing function and can increase friction between the block, paver, or panel and the pedestal 22. As an example, the surface can be provided by a pad 36 or by a coating, texture, or the like applied to an upper surface of the plate 28.

If a separately manufactured pad 36 is used, it can be made of rubber, an elastomeric material, or like material and secured on the upper surface of the plate 28. The rubber pad 36 deadens any noise that may otherwise be generated due to any slight movement between the contacting surfaces of the pedestal 22 and block 12 such as when pedestrians walk on the block. The pad 36 also increases friction between the block 12 and the pedestal 22 and can prevent damage to the upper surface of the pedestal 22 from placement of the block 12 thereon. The pad 36 can be provided as single pad or as multiple separate strips or sections.

The pad 36 can be mechanically and/or adhesively secured to the plate 28. For example, the engaging surfaces of the pad 36 and plate 28 can include a plurality of bosses 38 and recesses 40 that cooperate to provide a snap-fit connection. An adhesive can be applied between the surfaces before snap fitting the pad 36 to the plate 28.

In the illustrated embodiment, the base 26 includes a plate 42 with a substantially cylindrical, hollow post 44 projecting therefrom. In use, the plate 42 is disposed in a substantially horizontal position and the post 30 of the support 24 is received therein. Preferably, spiral threads 46 are located on an external surface of the post 30 of the support 24 and cooperating spiral threads 48 are located on the internal surface of the hollow post 44 of the base 26. The cooperating threads, 46 and 48, are sized to engage each other and permit the support 24 to be screwed into the base 26. The threads, 46 and 48, can be continuous or discontinuous. Rotation of the support 24 relative to the base 26 enables the overall height "H" of the pedestal 22 to be continuously adjustable. As an alternative arrangement, the post of the support can receive the post of the base, and the positioning of the threads can be reversed such that the support has internal threads and the base has external threads.

One or more couplers 50 can be assembled between the support 24 and base 26 to add further height to the pedestal 22. For example, FIGs. 1-3 show the use of a single coupler 50, whereas FIG. 4 shows the use of multiple couplers 50. Each coupler 50 is identical and separately manufactured from preferably the same plastic material as the support 24 and base 26.

Each coupler 50 includes a flange, or collar 52, from which a substantially cylindrical, hollow post 54 projects and a substantially cylindrical post 56 depends. In this configuration, the flange 52 extends circumferentially about a mid-section of the coupler 50 and extends laterally therefrom. Continuous or discontinuous spiral threads 58 are provided on an inner surface of the hollow post 54 and are capable of cooperatively engaging the threads 46 on post 30 of the support 24. In addition, continuous or discontinuous spiral threads 60 are provided on an outer surface of the hollow post 56 and are capable of cooperatively engaging the threads 48 on post 44 of the base 26. Accordingly, the coupler 50 can be used to interconnect the support 24 to the base 26. Further, the couplers 50 are designed to interconnect to each other so that multiple couplers 50 can be interconnected between the support 24 and the base 26. Rotation of the couplers 50, support 24, and base 26 relative to each other can be used to adjust the overall height "H" of the pedestal 22.

Preferably, the flange 52 of each coupler 50 extends in a plane that is substantially parallel to the support plate 28 and base plate 42. See FIG. 3. In the illustrated embodiments, the flange 52 is annular; however, it could be of any shape in plan. In addition, preferably, the support plate 28 is of a similar size, in plan, to that of the base plate 42. For example, both plates 28 and 42 can be provided in a circular shape, in plan, having substantially identical diameters. Alternatively, the plates, 28 and 42, and the flange 52 can be of different shapes and sizes.

The flange 52 preferably has a series of eyelets 62 extending therethrough. For instance, the eyelets 62 can be provided as apertures that are circumferentially spaced-apart about the mid-section of the coupler 50. In the illustrated embodiment, sixteen separate eyelets 62 are equally spaced-apart about the coupler 50. Fewer or more eyelets 62 can be provided on the annular flange 52. The eyelets 62 are used for securing the ends of bracing wires to the pedestal 22. The uniform distribution of closely-spaced eyelets 62 about the coupler ensures that an eyelet 62 will always be opposed to an eyelet 62 in an adjacent pedestal 22 thereby enabling ease of installation of the bracing. Thus, eyelets 62 should be readily available at most or substantially all locations about the coupler for ready coupling of bracing wires between pedestals. The bracing should not be required to be bent or the like due to the unavailability of eyelets and should not generate forces that may cause undesired rotation of any components of the pedestals 22.

The base 26 can also be provided with brace securement eyelets. For example, each base 26 can have a plurality of reinforcement walls 66 that extend radially-from an exterior 68 of the post 44. The walls 66 can be spaced-apart circumferentially about the post 44 and can extend integrally from both the plate 42 and post 44 of the base 26. Brace securement eyelets 64 can be provided in the walls 66. In the illustrated embodiment, the eyelets 64 are provided adjacent an area on the base 26 where the post 44 interconnects with the plate 42.

The deck system according to the present invention can include cross bracing that ties adjacent pedestals 22 together and restrains their movement relative to one another. See FIG. 4. The bracing can include elongate wires, or rods, 70 that are secured to adjacent pedestals 22. The bracing 70 can extend substantially horizontal

or can extend at angles to the horizontal. For instance, X-bracing patterns can be utilized. The ends of the bracing wires 70 can be crimped and secured to the eyelets, 62 and 64, of the pedestals 22, and the wires 70 can extend coupler-to-coupler using eyelets 62 or base-to-coupler using eyelets 62 and 64.

As stated above, a possible location of the deck 10 is on a sloped underlying surface, such as the sloped roof 14 of a building. Of course, the deck 10 can also be formed as a terrace, pedestrian walkway, plaza, sun deck, balcony, patio or any type of elevated flooring. Some surfaces, such as the roof surface 14, are provided at a slope for drainage or other purposes. In this case, levelers 72 (shown in phantom in FIG. 3) are used between the roof surface 14 and base plate 42 to ensure that the pedestal 22 projects substantially parallel to a vertical direction. As an example, the levelers 72 can be those disclosed in U.S. Patent No. 5,442,882 issued to Repasky, the disclosure of which is herein incorporated by reference. Accordingly, each base plate 42 of each pedestal 22 is seated within a recess of a level 72 that compensates for the slope angle of the roof so that the pedestals 22 can extend substantially parallel to a vertical direction thereby providing for ready formation of a horizontal deck surface 16.

It may be desired in some installations that the blocks 22 be mechanically tied to the pedestals 22. In this case, a corner cap 74 (shown in phantom in FIG. 3) can extend over the corner portions 18 of the blocks 12 within an intersection area 20 and be mechanically tied to the pedestal 22 with a fastener or the like. As an example, the caps 74 can be those disclosed in U.S. Patent No. 6,604,330 B2 issued to Repasky, the disclosure of which is herein incorporated by reference.

The above-described deck system and pedestal assembly according to the present invention provides a stable elevated traffic bearing surface for pedestrians and the like on an existing structure, such as rooftop. The deck is easy to install and inexpensive to manufacture. The height of each pedestal can be adjusted by rotating the support relative to the base or by adding or subtracting couplers. Cross bracing can be installed coupler-to-coupler and base-to-coupler in a manner preventing unwanted rotation of various components of the pedestal assembly.

While embodiments of the invention have been described in the detailed description, the scope of the claims should not be limited by the embodiments set forth in the examples, but should be given the broadest interpretation consistent with the description as a whole.

What is Claimed is:

1. A deck system for forming an elevated surface, comprising:
 - a plurality of blocks, pavers or panels laterally positioned in a pattern to form a deck, each of said blocks, pavers or panels having corner portions, said pattern including intersection areas in which corner portions of adjacent blocks, pavers or blocks extend; and
 - a plurality of pedestals, each of said pedestals being located directly beneath one of said intersection areas for supporting said corner portions of said adjacent blocks, pavers or panels a spaced distance above an underlying structure;
 - each of said pedestals including:
 - a support having a plate with defined separate quadrants to support the corner portions and a substantially cylindrical post extending from a lower surface of the plate;
 - a base positioned at a lower end thereof and having a base plate and a base post extending from the base plate;
 - a coupler that adjustably interconnects the support and the base, the coupler having a connection portion to engage with the base post, a flange extending substantially orthogonal from the connection portion, and a plurality of projections extending from a surface of the flange.
2. A deck system according to claim 1, wherein the support plate includes an upper surface with a pad, coating or texture on which said corner portions of said adjacent blocks, pavers or panels are supported, and wherein said pad, coating or texture secures and stabilizes said blocks, pavers or panels on said support and prevents noise from being generated when pedestrians walk on the blocks, pavers or panels.
3. A deck system according to claim 2, wherein said pad, coating or texture includes a pad made of rubber.

4. A deck system according to claim 3, wherein said upper surface of said support plate has a plurality of upstanding walls that project therefrom and that define quadrants on said support plate, each of said quadrants supporting one of said corner portions of said adjacent blocks, pavers or panels, and each of said upstanding walls defining lateral spacing between said adjacent blocks, pavers or panels to permit drainage of fluid through said deck to the underlying structure.

5. A deck system according to claim 4, wherein said pad is mechanically snapped onto said support plate with cooperating bosses and recesses formed in engaging surfaces of said pad and support plate.

6. A deck system according to claim 5, wherein said pad is adhesively secured to said support plate.

7. A deck system according to claim 1, wherein said support post is a substantially cylindrical, externally-threaded post depending from said support plate,

wherein said base plate is a substantially cylindrical, hollow, internally- threaded post projecting from said base plate, and

wherein said externally-threaded post of said support and internally- threaded post of said base are cooperatively engagable to permit said support to be connected to said base and to permit said support to be rotatable relative to said base to enable said overall height of said pedestal to be altered.

8. A deck system according to claim 7, wherein said support plate and said base plate are of substantially the same size.

9. A deck system according to claim 8, wherein said support plate and said base plate are circular in plan and have diameters that are substantially identical.

10. A deck system according to claim 7, wherein said coupler includes a substantially cylindrical, externally-threaded post depending from said flange, and a substantially cylindrical, internally threaded post projecting from said flange.

11. A deck system according to claim 10, wherein said flange has a series of spaced-apart brace securement eyelets extending therethrough.

12. A deck system according to claim 11, wherein said series of eyelets are equally spaced-apart circumferentially about said coupler, whereby the uniform distribution of closely-spaced eyelets about the coupler ensures that an eyelet will substantially always be opposed to an eyelet in an adjacent pedestal thereby permitting ready placement of bracing wires between pedestals.

13. A deck system according to claim 11, wherein said externally-threaded post of said coupler is cooperatively engagable with said internally-threaded post of said base to permit said coupler to be connected to said base and to permit said coupler to be rotatable relative to said base to enable said overall height of said pedestal to be altered, and

wherein said internally-threaded post of said coupler is cooperatively engagable with said externally-threaded post of said support to permit said coupler to be connected to said support and to permit said coupler to be rotatable relative to said support to enable said overall height of said pedestal to be altered.

14. A deck system according to claim 11, wherein, when one or more of the couplers are assembled with said support and base, said flange of said one or more of the couplers extends substantially parallel with said support plate and base plate.

15. A deck system according to claim 11, further comprising bracing for restraining movement of said pedestals, said bracing including an elongate wire or rod having one end secured to one of said eyelets in one of said pedestals and another end secured to one of said eyelets in an adjacent one of said pedestals.

16. A deck system according to claim 11, wherein said base has a plurality of spaced-apart, radially-extending reinforcement walls projecting from said base plate and extending outwardly from an exterior wall of said internally-threaded post of said base, and
wherein each of said reinforcement walls has a bracing securement eyelet formed therein.
17. A deck system according to claim 16, further comprising bracing for restraining movement of said pedestals, said bracing including an elongate wire or rod having one end secured to one of said eyelets in said coupler of one of said pedestals and another end secured to one of said eyelets in said base of an adjacent one of said pedestals.
18. A deck system according to claim 1, further comprising a plurality of slope compensators, each compensator supporting one of said pedestals in a manner ensuring that the pedestal extends substantially vertical despite the underlying structure being sloped relative to horizontal.
19. A deck system according to claim 1, further comprising a plurality of removable caps, each cap overlying the corner portions of the blocks, pavers or panels in one of said intersection areas and being removably secured to an underlying one of said pedestals.
20. A deck system according to claim 1, wherein said pedestal is made of a moldable plastic material.
21. A ballast block deck system for forming an elevated surface on an exterior roof structure, comprising a plurality of ballast blocks and a plurality of pedestals, said ballast blocks being laterally positioned in a pattern to form a deck, each of said ballast blocks having corner portions, said pattern including intersection areas in which corner portions of adjacent ballast blocks extend, one of said pedestals being located directly beneath one of said intersection areas for supporting said corner portions of said adjacent ballast blocks a spaced distance above said underlying roof structure, each of said pedestals being made of molded plastic and comprising:

a base at a lower end thereof and a support at an upper end thereof for supporting said corner portions of said adjacent ballast blocks thereon, said support being rotatable relative to said base for altering an overall height of said pedestal;

said support including a support plate and a substantially cylindrical, externally-threaded post depending from said support plate, said support plate having an upper surface with a plurality of upstanding walls that define quadrants on said support plate, each of said quadrants supporting one of said corner portions of said adjacent ballast blocks, and each of said upstanding walls defining lateral spacing between said adjacent ballast blocks to permit drainage of fluid through said deck to the underlying roof structure;

said base having a base plate and a substantially cylindrical, hollow, internally-threaded post projecting from said base plate, said externally-threaded post of said support and internally-threaded post of said base being cooperatively engagable to connect said support to said base in a manner permitting said support to be rotated relative to said base to enable said overall height of said pedestal to be altered;

and

one or more couplers intermediate said support and said base for further altering said overall height of said pedestal;

each of said couplers having a circumferentially-extending flange, a substantially cylindrical, externally-threaded post depending from said flange, and a substantially cylindrical, internally threaded post projecting from said flange;

said externally-threaded post of said coupler being cooperatively engagable with said internally-threaded post of said base to permit said coupler to be connected to said base and to permit said coupler to be rotatable relative to said base to enable said overall height of said pedestal to be altered, and said internally-threaded post of said coupler is cooperatively engagable with said externally-threaded post of said support to permit said coupler to be connected to said support and to permit said coupler to be rotatable relative to said support to enable said overall height of said pedestal to be altered; and

said flange defining a series of brace securement eyelets equally spaced-apart circumferentially about said coupler.

22. A deck system according to claim 21, wherein said base has a plurality of spaced-apart, radially-extending reinforcement walls projecting from said base plate and extending outwardly from an exterior wall of said internally-threaded post of said base, and wherein each of said reinforcement walls has a bracing securement eyelet formed therein.

23. A deck system according to claim 22, further comprising bracing for restraining movement of said pedestals, said bracing including an elongate wire or rod having one end secured to one of said eyelets in said coupler of one of said pedestals and another end secured to one of said eyelets in said base of an adjacent one of said pedestals.

24. A deck system according to claim 22, wherein said flange of said coupler extends parallel to said support plate and base plate.

25. A deck system according to claim 24, wherein each of said pedestals further comprises a rubber pad or coating on an upper surface of said support plate on which said corner portions of said adjacent ballast blocks are supported.

26. A deck system according to claim 25, wherein said rubber pad or coating is a pre-manufactured pad that is mechanically snapped onto said support plate with cooperating bosses and recesses formed in engaging surfaces of said pad and support plate.

27. A deck system according to claim 26, wherein said pad is adhesively secured to said support plate.

28. A deck system according to claim 25, wherein said support plate, base plate and flange have circular peripheries in plan, and wherein said support and base plates have diameters that are substantially identical.

29. A deck system according to claim 28, further comprising a plurality of slope compensators, each compensator supporting one of said pedestals in a manner ensuring that the

pedestal extends substantially vertical despite the underlying roof structure being sloped relative to horizontal.

30. A deck system according to claim 29, further comprising a plurality of removable caps, each cap overlying the corner portions of the ballast blacks in one of said intersection areas and being removably secured to an underlying one of said pedestals.

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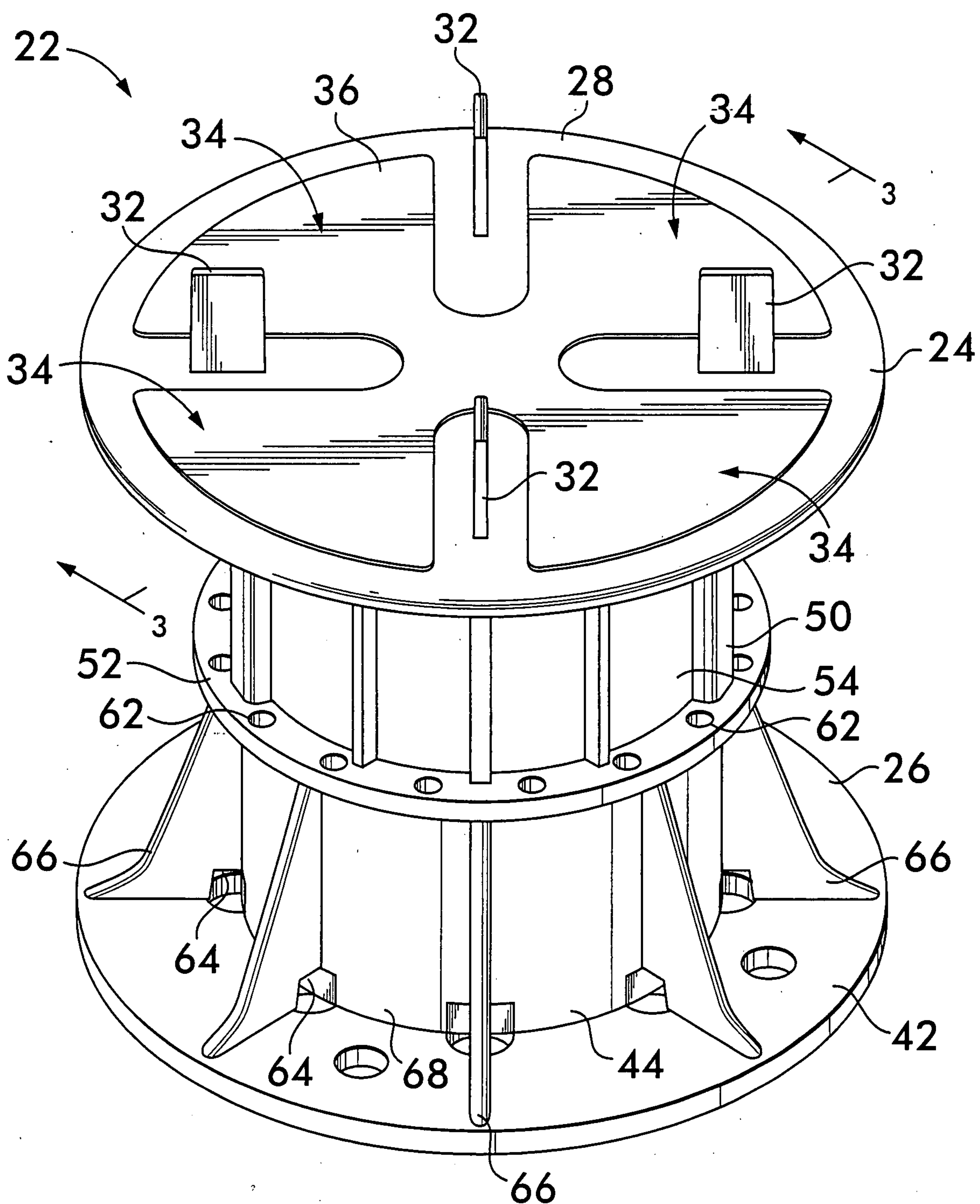
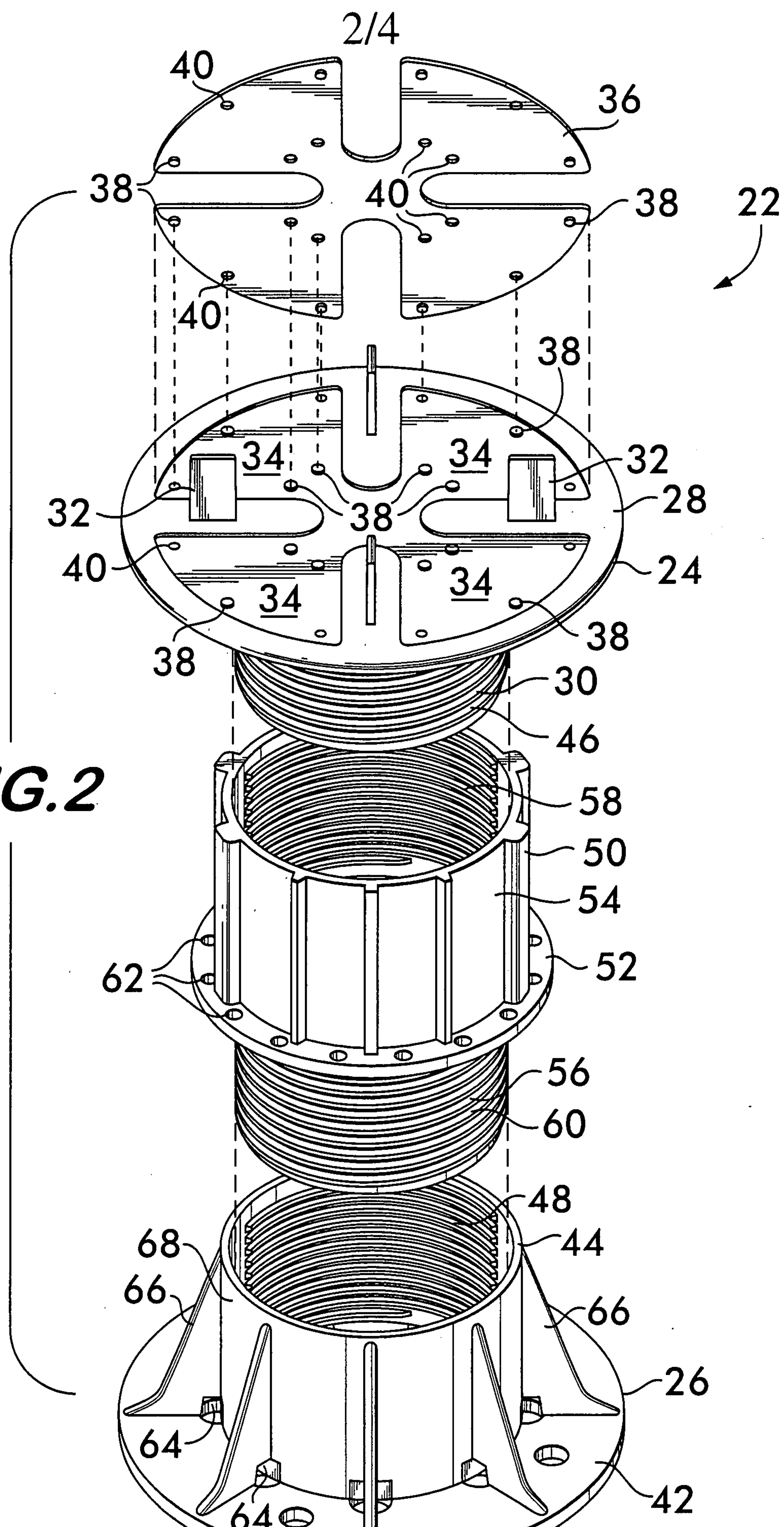
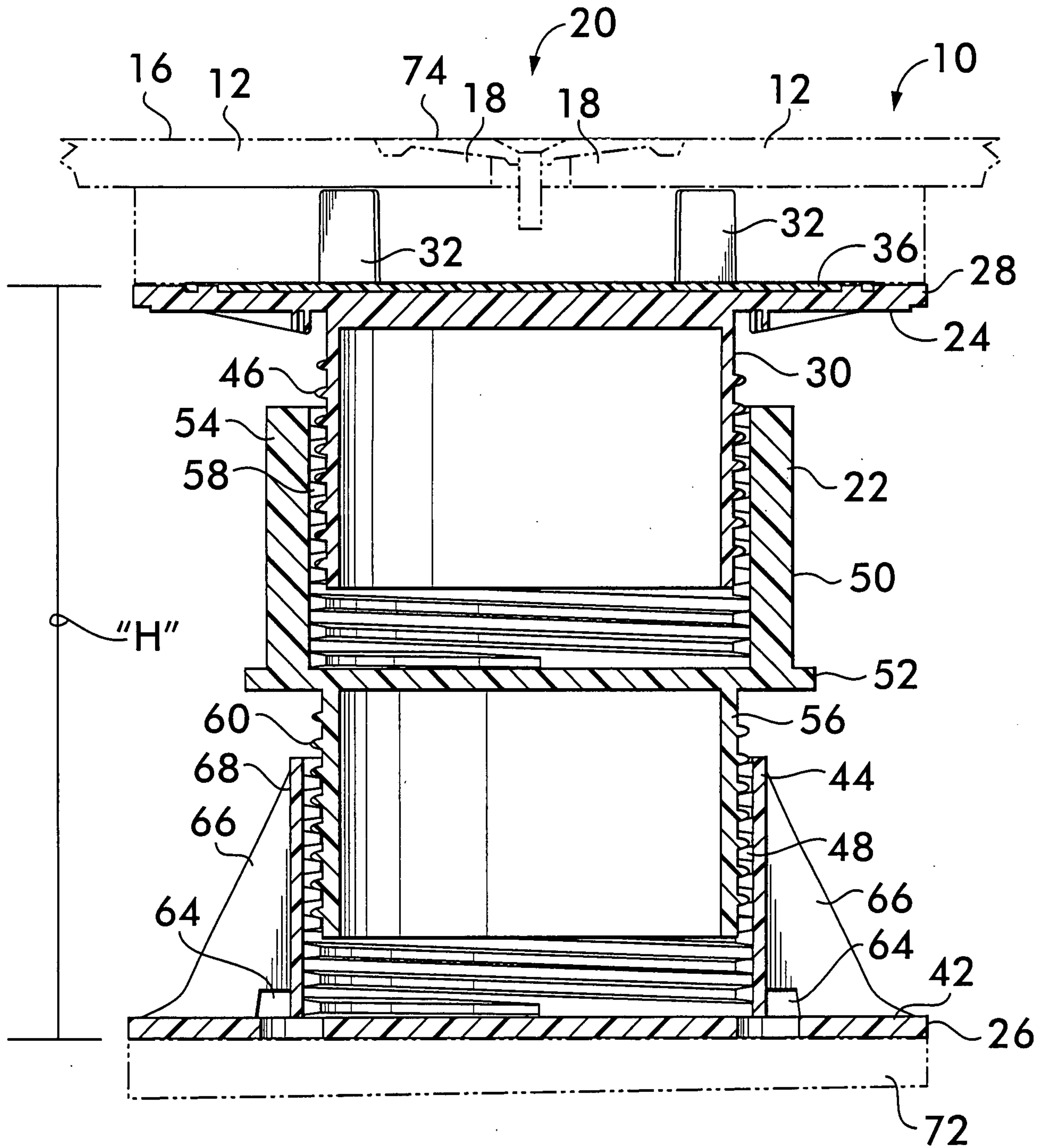
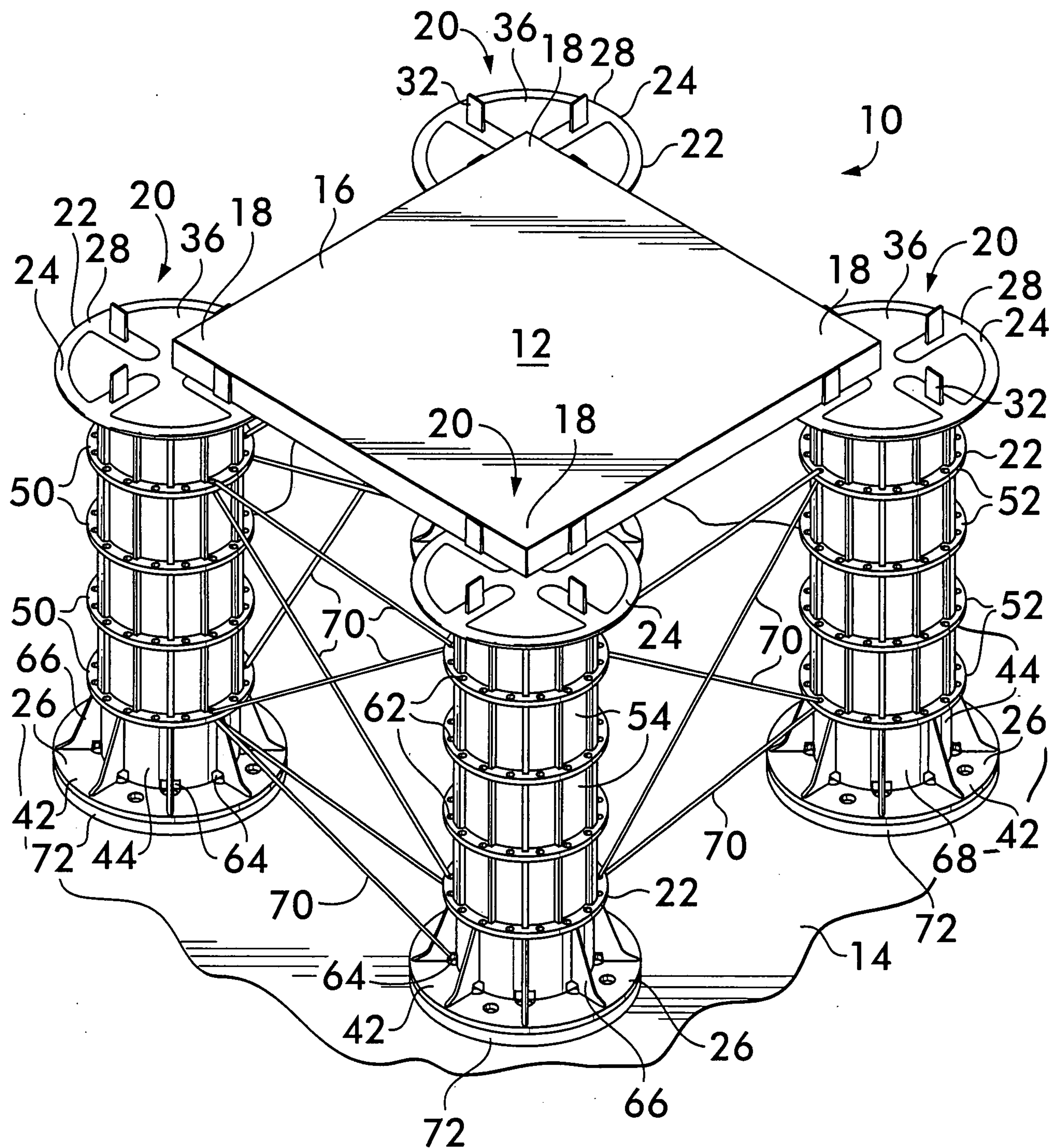
**FIG. 1**

FIG. 2

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**FIG. 3**

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**FIG. 4**

