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(54) MULTI-PASSAGE GUIDE SYSTEM

(76) Inventors: **Gregory T. Carew**, Tomahawk, WI (US); **Matthew J. Kusz**, Minneapolis, MN (US)

Correspondence Address:
ZIOLKOWSKI PATENT SOLUTIONS GROUP, SC (ZPS)
14135 NORTH CEDARBURG ROAD
MEQUON, WI 53097 (US)

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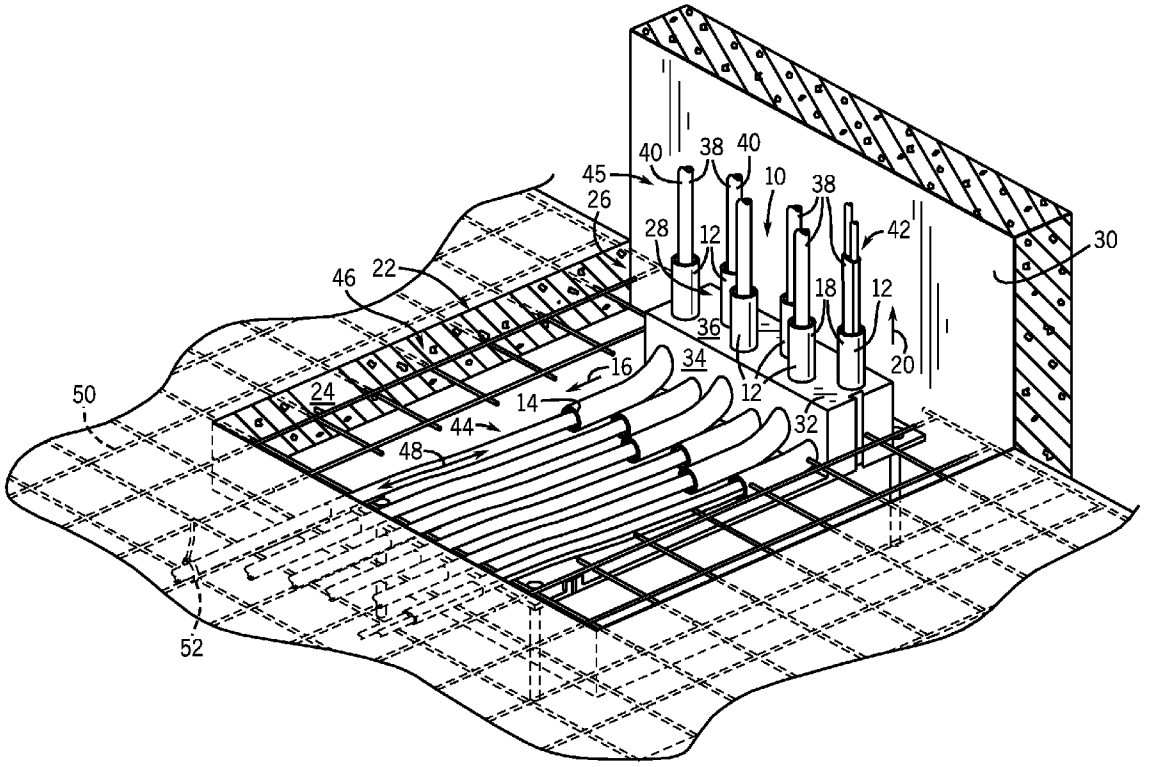
(57) **ABSTRACT**

A system for arranging a plurality of conductors includes a guide assembly having a plurality of passage guides. Each of the plurality of passage guides are constructed to guide the passage of a conduit through the guide assembly. The guide assembly is securable to a substrate and constructed to organize individual conduits passing therethrough. The individual conduits communicate any one of a fluid, an electrical power, a hydraulic fluid, or the like through the guide assembly.



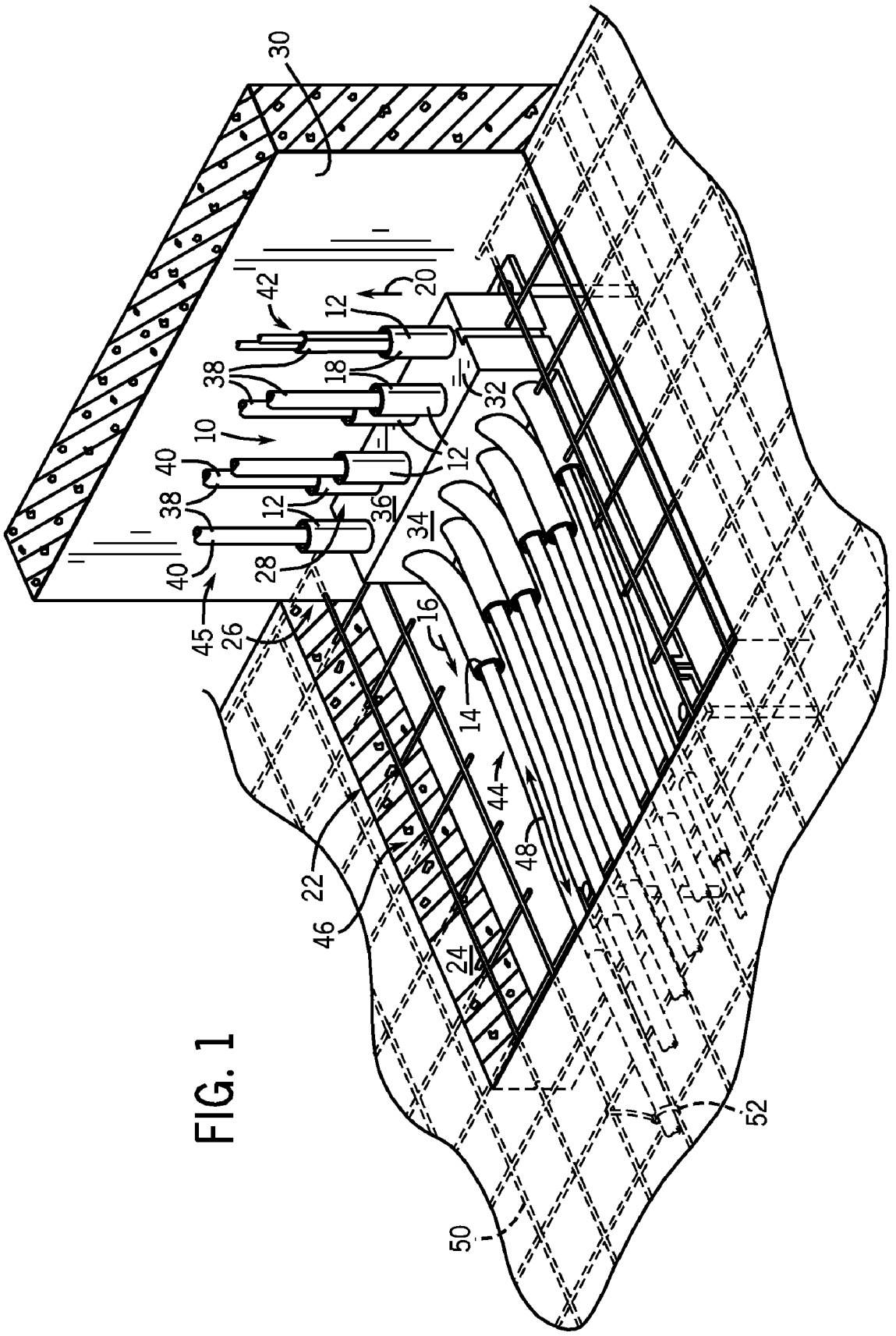

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FIG. 1

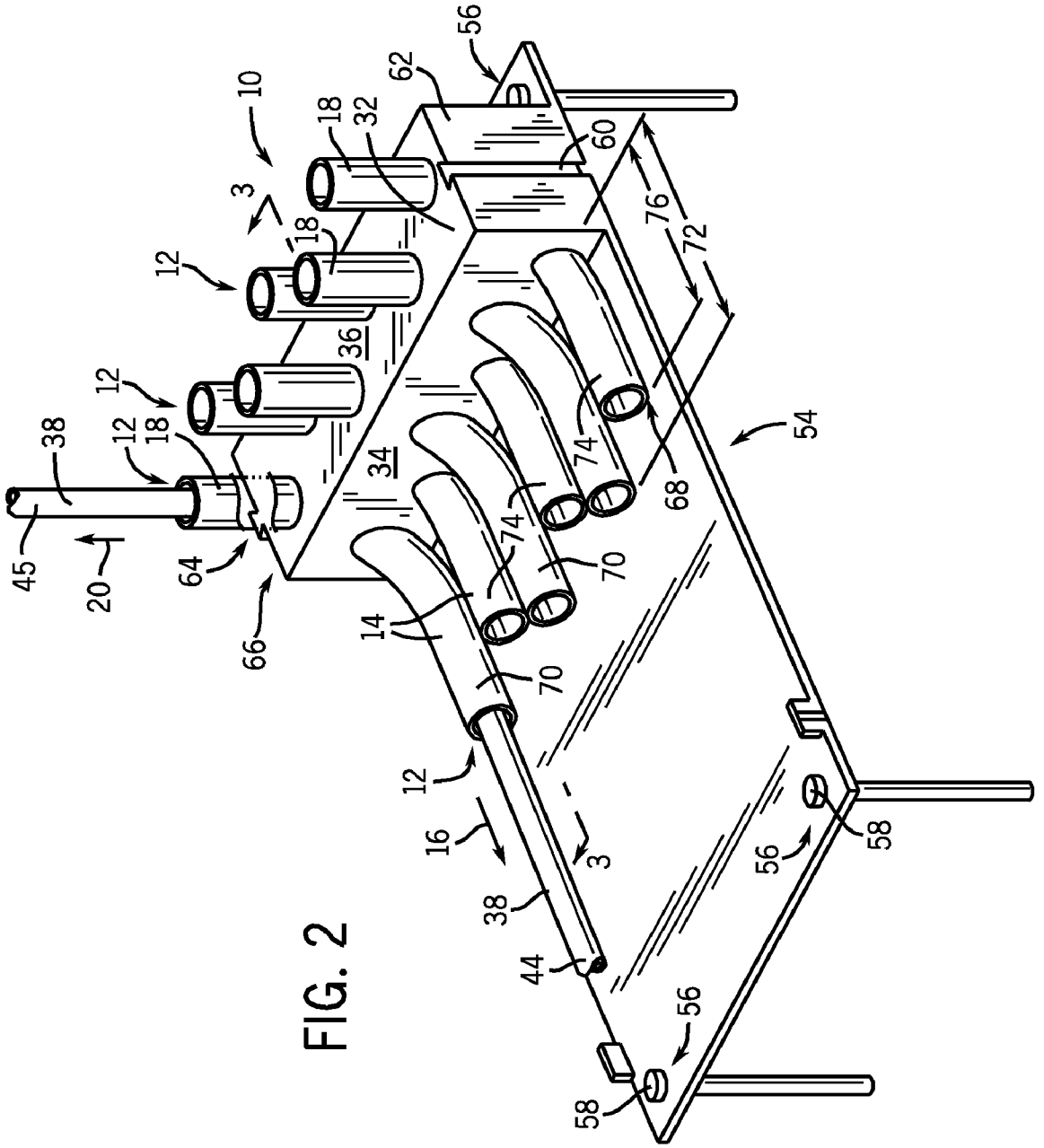
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FIG. 2

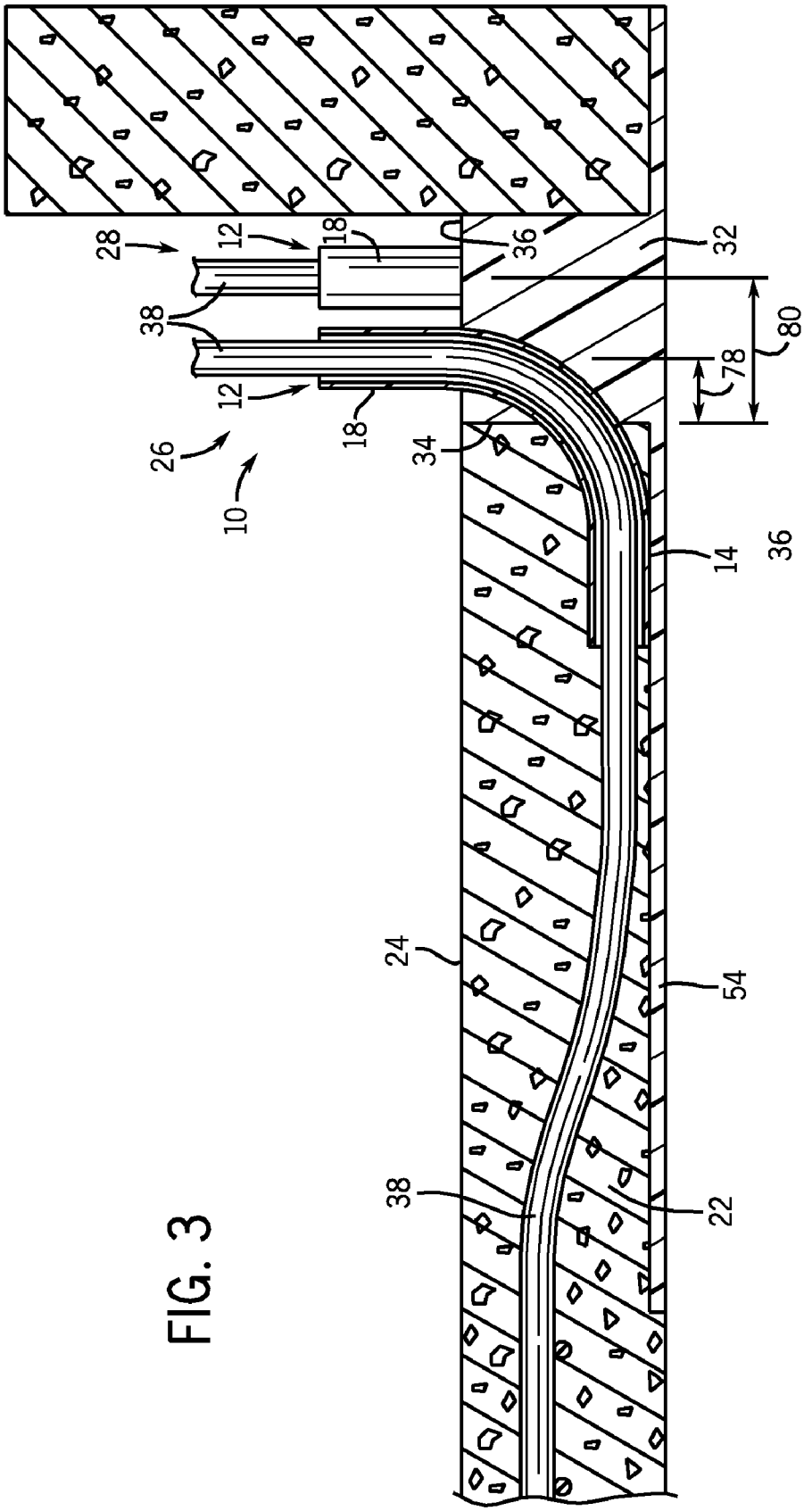

FIG. 3

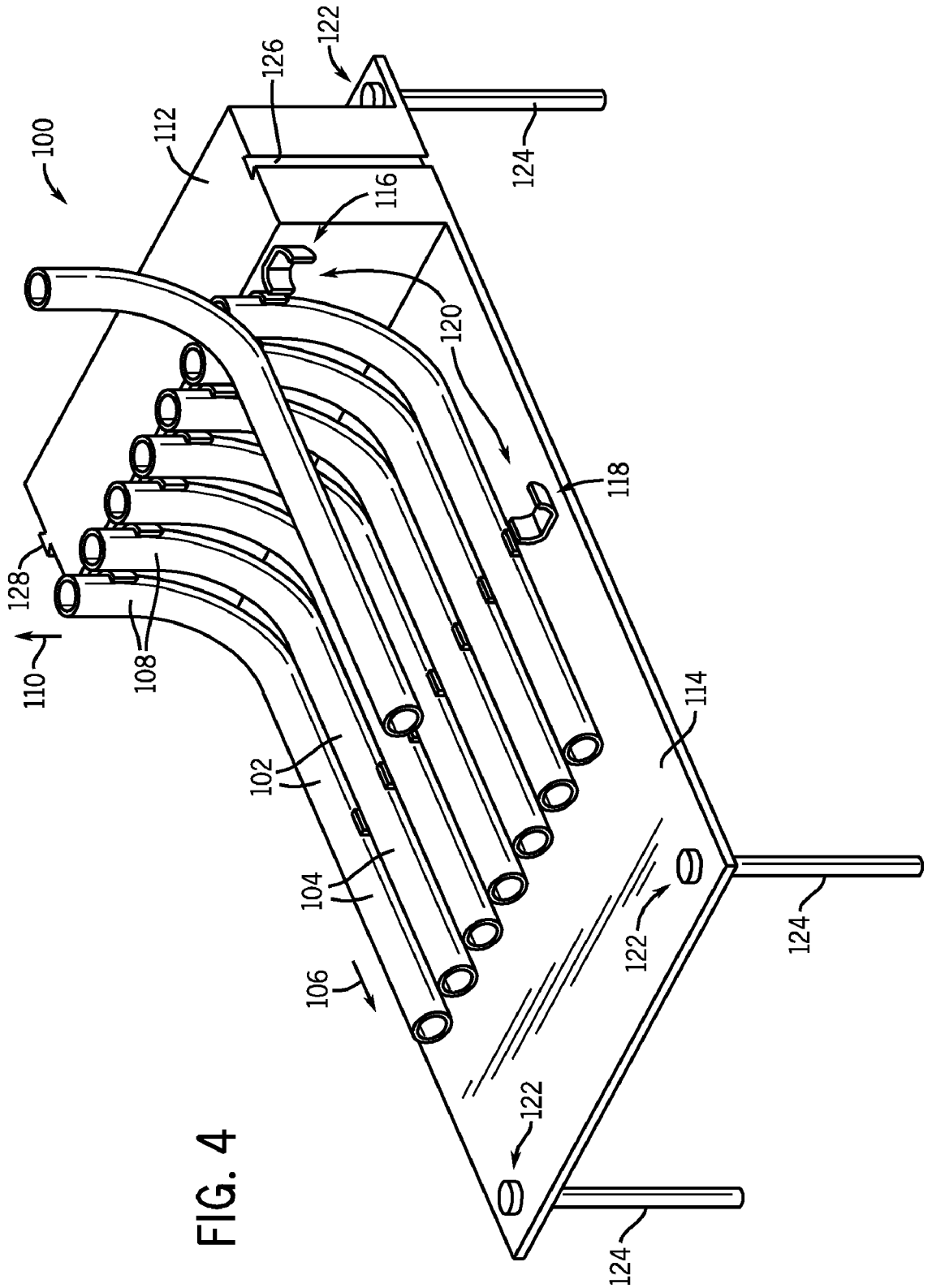

FIG. 4

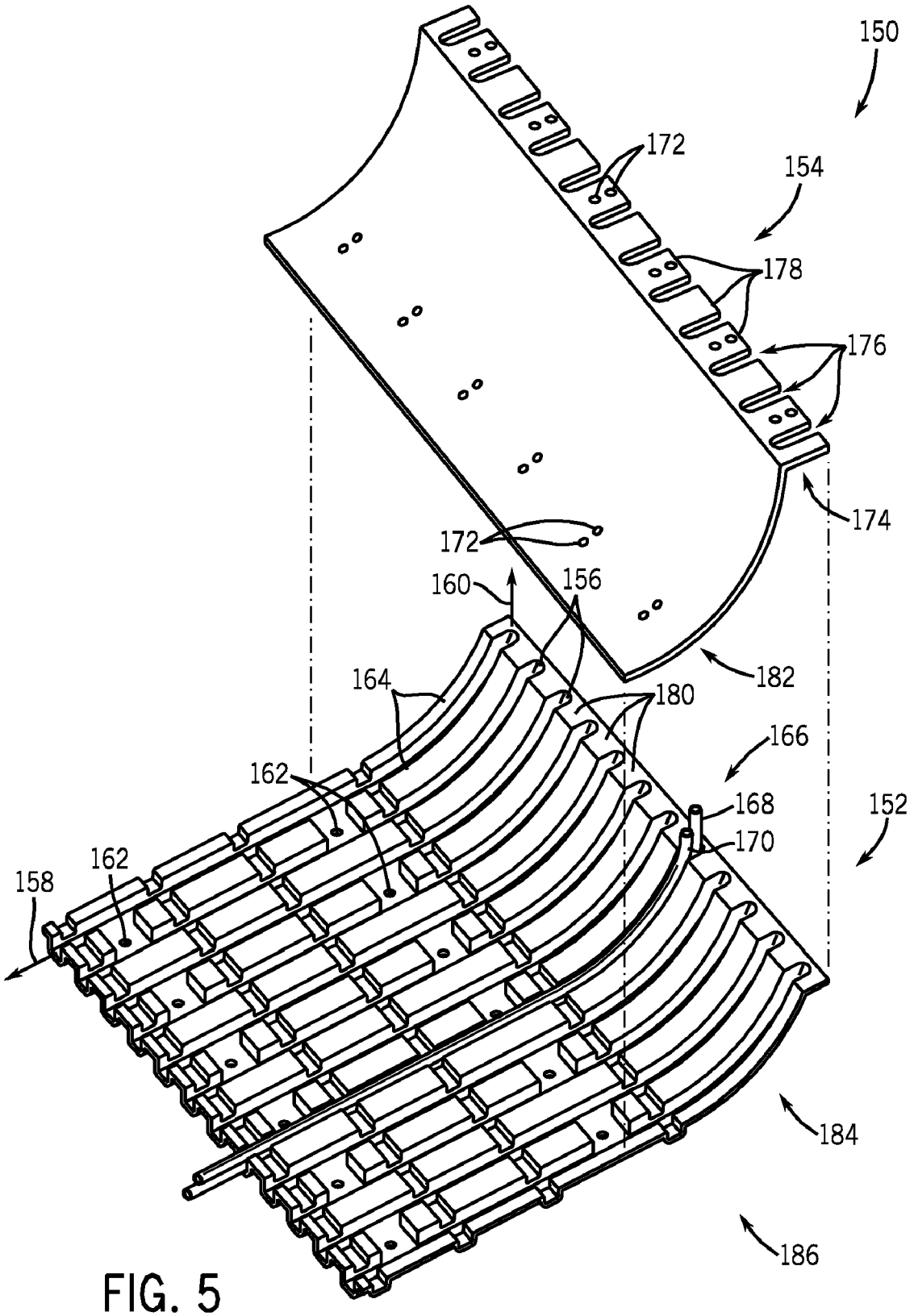
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FIG. 5

MULTI-PASSAGE GUIDE SYSTEM

CROSS REFERENCE TO RELATED APPLICATIONS

[0001] The present application is continuation-in-part of and claims priority of U.S. Ser. No. 10/908,414 filed May 11, 2005, the disclosure of which is incorporated herein by reference.

BACKGROUND OF THE INVENTION

[0002] The present invention relates generally to guide assemblies and, more particularly, to a guide assembly having multiple passage guides connected thereto.

[0003] During construction of residential and commercial facilities, it is often required to pass conductors through the structure of the facility. Such conductors include power cables, water lines, phone cables, and television signal cables. Additionally, with the proliferation of "smart buildings" it has become more desirable and cost efficient to pass computer cables as well as entertainment and security cables within wall, floor, and ceiling cavities. Such systems are often referred to as structured wiring systems and often include a bundled array of phone, computer, co-axial, and speaker cables.

[0004] Often, the devices associated with a specific system share a common point of origin. For simplicity, only one such system will be described. In buildings equipped with radiant heat systems, a plurality of radiant heating loops are connected to a manifold and extend about the building. The simplest of radiant heating loops have a first end connected to a hot water inlet, extend about the area to be heated, and have a second end connected to a return manifold thereby forming a "loop". A heating fluid, such as water, is heated by a heat source, such as a water heater or boiler, and is pumped through the heating loop. Such radiant heating loops are frequently located in close proximity to a finish floor of the area to be heated. The heating loops can be positioned beneath a subfloor or sandwiched between a subfloor or substrate, and a finish floor.

[0005] To maximize the usable space of a structure, the heating loops often extend generally transverse to the floor surfaces in close proximity to a wall surface. Such an orientation minimizes the space obstructed by the heating tubes. Often, an elbow is employed to facilitate this generally transverse directional change. For radiant heat systems, each end of a loop must be threaded through an elbow. A single loop heating system requires an elbow to be passed over each end of the heating tube. Each elbow must then be securely fastened to a sub-surface to allow a finish floor to be formed thereabout. Individually securing each elbow is a time consuming and tedious process and often delays the construction process. Although there are known elbow constructions that allow the conduit to pass radially into the elbow, these elbows only support individual conductors. That is, often multiple elbows must be individually secured and individual conductors passed therethrough or thereinto. Additionally, depending on the finish floor system formed about the heating tubes, inadvertent movement of the individual elbows can result in damage or displacement of the conductor passed therethrough during formation of the finish floor.

[0006] Radiant floor heating has gained increased acceptance as the preferred heating method for spaces built on grade or in basements. The radiant tubes are often attached to a supporting structure and a concrete floor is often poured thereover. The process of finishing a concrete floor often employs the application of a power trowel. The power trowel includes a plurality of individual floats attached to an engine. Operation of the engine rotates the floats and as the power trowel is moved across the surface of the floor, the floats provide a relatively smooth and flat finish of the floor. An operator of the power trowel must be particular careful during finishing of the floor near the array of individual elbows that have been passed thereinto. Although the concrete is generally stiff enough to support the weight of the power trowel and an operator thereof, inadvertent contact between the power trowel and the elbows can result in displacement of the elbows from their secured location. Such an event produces a relatively unsightly finished alignment of the individual elbows and/or a blemish in the finish of the floor. Worse yet, if the floats of the power trowel contact the radiant tube or other conductor passed through the elbow, the float could sever the conductor or minimally form a leak in fluid communicating conductors.

[0007] It would therefore be desirable to have a system and method capable of quickly and efficiently guiding and securing a plurality of conductors in such applications.

BRIEF DESCRIPTION OF THE INVENTION

[0008] The present invention provides a system and method that solves the aforementioned drawbacks. Specifically, a system for arranging a plurality of conductors includes a guide body having a plurality of passage guides connected thereto. Each of the plurality of passage guides is constructed to direct the passage of an individual conductor therethrough. The guide body is securable to a substrate and constructed to organize the individual conductors connected thereto. The individual conductors communicate any one of a fluid, an electrical power, a hydraulic fluid, or the like through the guide body.

[0009] Therefore, in accordance with one aspect of the present invention, a method of positioning a conduit array is disclosed. The method includes the step of securing a guide block to a substrate and securing a first conduit to the block such that the first conduit extends in crossing directions from the guide block. The process also includes securing a second conduit to the guide block such that the second conduit extends in directions generally similar to the first conduit.

[0010] According to another aspect of the invention, a guide assembly having a body and a plurality of channels formed therein is disclosed. The body has a first portion which extends in a first direction and a second portion that extends in a crossing direction relative to the first portion. The plurality of channels formed in the body extend across the first portion and the second portion and each channel is constructed to receive a conductor conduit therein.

[0011] According to a further aspect of the present invention, a guide system having a guide body and a cover is disclosed. The guide body has a plurality of passages formed therein and each passage extends between a first end and a second end of the guide body. The first end of each passage extends in a first direction which is across a second direction of the second end. The cover is connectable to the guide

body and has a profile that generally matches at least a portion of a profile of the guide body. A plurality of recesses is formed in the cover and spaced apart a width of each of the plurality of passages. Each recess is constructed to allow uninterrupted passage of a conductor conduit from an associated passage of the plurality of passages of the guide body.

[0012] Various other features, objects and advantages of the present invention will be made apparent from the following detailed description and the drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0013] The drawings illustrate one preferred embodiment presently contemplated for carrying out the invention.

[0014] In the drawings:

[0015] **FIG. 1** is a perspective view of one embodiment of a guide assembly according to the present invention secured in a substrate.

[0016] **FIG. 2** is a perspective view of the guide assembly shown in **FIG. 1**.

[0017] **FIG. 3** is a cross-sectional view of the guide assembly along line **3-3** of **FIG. 2**.

[0018] **FIG. 4** is a perspective view of another embodiment of a guide assembly according to the present invention.

[0019] **FIG. 5** is a perspective view of a further embodiment of the guide assembly according to the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0020] **FIG. 1** shows one embodiment of a guide assembly **10** according to the present invention. Guide assembly **10** includes a plurality of retainers, or passage guides **12** formed therethrough. Each passage guide **12** includes a first end **14** that extends in a first direction, indicated by arrow **16**, and a second end **18** that extends in a second direction, indicated by arrow **20**. First direction **16** is oriented to generally align with a floor system **22** and second direction **20** extends outwardly therefrom. Although first direction **16** and second direction **20** are shown as generally transverse to one another, other crossing orientations are envisioned and within the scope of the appending claims. First ends **14** are generally aligned to share a common plane preferably below a finish surface **24** of floor system **22**. In one preferred embodiment, the second ends **18** are arranged in two sets. A first set **26** of second ends **18** are generally aligned with, but offset from, a second set **28** of second ends **18**. First set **26** and second set **28** of second ends **18** preferably extend along a wall **30** with the first set **26** being further from wall **30** than second set **28**.

[0021] The plurality of passage guides **12** extend through a body **32** of guide assembly **10** such that each passage extends through body **32** between first end **14** and second end **18**. First ends **14** and second ends **18** extend from a first surface **34** and a second surface **36** of body **32**, respectively. During installation, first surface **34** is constructed to be positioned within floor system **22** and second surface **36** is oriented to be generally flush or extend above finish surface **24** of floor system **22**.

[0022] Prior to forming floor system **22** about guide assembly **10**, either a plurality of conductors **38** are passed through the plurality of passage guides **12** or the passage guides **12** are connected to conduit means to allow passage of some medium therethrough. Each conductor **38** is isolated from other conductors of the plurality conductors as it passes through an associated passage guide **12** of guide assembly **10**. The plurality of conductors **38** are any of a radiant heating tube **40**, an electrical cable **42**, a computer cable, a potable water tube, a structured wiring cable, a computer cable, a phone cable, or any other conductor that is desired to be passed through floor system **22**. A first end **44** of each conductor **38** extends from first end **14** of a respective passage guide **12** and passes through floor system **22**. First end **44** of each conductor **38** can exit floor system **22** at a location remote from guide assembly **10** or loop through floor system **22** and return to guide assembly **10** and exit floor system **22** thereat. That is, where conductor **38** is a radiant heating tube **40** connected to a heat source with an intended return site located proximate guide assembly **10**, radiant heat tube **40** could enter and exit floor system **22** via guide assembly **10**. Comparatively, if conductor **38** is an electrical cable **42** desired to feed a device such as an outlet, electrical cable **42** does not need to exit floor system **22** at guide assembly **10**. Similarly, if a return site for radiant heat tube **40** is remote from guide assembly **10**, a supplemental guide assembly can be positioned at the desired exit of radiant heat tube **40** and/or electrical cable **42** from floor system **22**.

[0023] A second end **45** of each conductor **38** extends from second end **18** of a respective passage guide **12** for connection with an associated system. That is, second end **45** of radiant heat tube **40** extends from second end **18** of guide assembly **10** for connection to a heating system whereas second end **45** of electrical cable **42** extends from second end **18** of guide assembly **10** for connection to an electrical device or an electrical panel. Once the desired conductors **38** have been passed through guide assembly **10**, floor system **22** is formed thereabout. For concrete flooring systems **46**, first ends **44** of plurality of conductors **38** are secured about a length **48** of the conductor **38** to a reinforcing material **50** associated with the concrete flooring system **46**. A plurality of ties **52** secure conductors **38** to reinforcing material **50** in a desired location such that conductors **38** remain in the desired location during the process of forming floor system **22** thereabout. Alternatively, conductors **38** could be secured directly to a subfloor, substrate, or graded surface.

[0024] Understandably, floor system **22**, being a concrete floor system, is merely an exemplary application of guide assembly **10**. That is, guide assembly **10** is equally applicable with other flooring systems such as wood/tile/carpet flooring systems. Additionally, the orientation of guide assembly **10** to floor system **22** is also exemplary. That is, as shown in **FIG. 1**, second ends **18** of guide assembly **10** extend upwardly from finish floor **24**. Where passage of conductors **38** through a first floor flooring system is desired, guide assembly **10** is rotatable 180 degrees to allow the conductors that are passed therethrough to extend into a joist cavity below the first floor flooring system. As such, guide assembly **10** is applicable to multiple levels of a building structure and provides an efficient and convenient method of passing multiple conductors into and out of any flooring system.

[0025] **FIG. 2** shows guide assembly **10** removed from flooring system **22**. Body **32** of guide assembly **10** includes a base **54** extending therefrom. Base **54** is constructed to secure guide assembly **10** to a substrate. Base **54** includes a plurality of openings **56** formed therethrough. A plurality of fasteners **58** pass through openings **56** and secure guide assembly **10** to a substrate. As shown in **FIG. 2**, fasteners **58** are constructed to engage a gravel base disposed beneath a concrete floor system. Understandably, fasteners **58** could be any suitable fastener such as a nail or screw and constructed to secure guide assembly **10** to a sub-floor system of any material. Alternatively, body **32** could include a plurality of fastener openings or tabs connected thereto such that body **32** could be secured to a surface. In another alternate embodiment, the base **54** may be equipped with tabs to engage joists or studs.

[0026] Body **32** of guide assembly **10** includes a groove **60** formed in a first lateral end **62** thereof and a rib **64** extending from a second lateral end **66** thereof. Groove **60** and rib **64** each have a triangular cross-sectional shape such that rib **64** slidingly engages a corresponding groove **60** formed in another guide assembly **10**. Such a construction allows the connection of a plurality of guide assemblies **10** when more passage guides **12** are desired. Understandably, this dovetailed engagement between rib **64** and a corresponding groove **60** of another guide assembly **10** is merely exemplary. That is, other configurations such as a circular cross-section or other unique cross-sectional shapes are envisioned and within the scope the claims. Alternatively, lateral ends **62**, **66** could have substantially similar cross-sectional shapes. For such a construction, guide assembly **10** would include a connector constructed to engage a respective end of adjacent guide assemblies thereby connecting the adjacent guide assemblies. Similarly, rather than the sliding engagement between multiple guide assemblies, other connection means are envisioned such as mechanical connectors or a snap-fitting engagement between adjacent guide assemblies.

[0027] Conductor **38** passes uninterruptedly through passage guides **12** such that first end **44** of conductor **38** extends in first direction **16** along base **54** generally parallel to a floor surface. Second end **45** of conductor **38** extends from second end **18** of passage guide **12** in direction **20** and across first direction **16**. Such a construction provides a guide assembly that is robust and resistant to movement during formation of a finish floor system thereabout. Additionally, guide assembly **10** provides an aesthetically pleasing arrangement of conductors **38** as the conductors exit the floor system.

[0028] First ends **14** of passage guides **12** share a common plane, indicated by line **68**, generally parallel to a floor surface. Such a construction ensures that conductors **38** passed from first ends **14** of guide assembly **10** are a relatively uniform depth in a floor system. For heating type systems, this ensures relatively uniform heating of the floor surface. A first set **70** of first ends **14** are a first distance **72** from first surface **34** of body **32**. A second set **74** of first ends **14** are a second distance **76** from first surface **34** of body **32**. Such an orientation allows a user to readily distinguish interconnected conductors. That is, for radiant heating loops, each inlet conductor could extend from a passage guide **12** of first set **70** of first ends **14** and a return associated therewith could pass through an adjacent first end **14** of second set **74** of passage guides **12**. Such a construction is particularly helpful when multiple users are installing multiple loops. That is, each user can independently determine which passage of the plurality of passage guides **12** is required for a return associated with another users heating loop by visual inspection of the guide assembly. Such a construction becomes particularly helpful when multiple guide assemblies are connected and multiple conductors are simultaneously being passed therethrough.

[0029] **FIG. 3** shows a cross-sectional view of guide assembly **10** along line **3-3** of **FIG. 2**. As shown in **FIG. 3**, second ends **18** of guide assembly **10** extend from body **32** outwardly from floor surface **24**. Conductors **38** pass through passage guides **12** of guide assembly **10** and enter/exit floor system **22** thereat. Second ends **18** of passage guides **12** extend above second surface **36** of body **32** and prevent inadvertent contact with conductors **38** passed therethrough. Alternatively, second surface **36** could be constructed to extend above floor surface **24** to prevent contact of floor finishing tools with second ends **18** of passage guides **12** as conductors **38** passing therethrough. First set **26** of second ends **18** of passage guides **12** is a distance **78** from first surface **34** of body **32** and second set **28** of second ends **18** of passage guides **12** is another distance **80** from first surface **34**. Such a construction allows a user to quickly identify associated conductors after a floor system has been installed. That is, for radiant heating loops, a feed conductor is passed through a passage guide **12** of first set **26** and the associated return is passed through an adjacent passage guide **12** of the second set **28**. Understandably, only one of first ends **14** and second ends **18** need be constructed for operative association of conductor loops passed therethrough. Additionally, by offsetting first and second sets **26**, **28** of second ends **18**, guide assembly **10** provides a compact and visually appealing organization of the plurality of conductors **38** passed therethrough.

[0030] Although guide assembly **10** is shown in **FIGS. 1-3** as having six passage guides **12** formed therethrough, understandably other numbers of passages are envisioned and within the scope of the claims. That is, guide assembly **10** could be constructed to have any number of passage guides formed therethrough. Additionally, it is understood and within the scope of the claims to provide a guide system having a first guide assembly having a number of passage guides formed therethrough and a second guide assembly having the same or a different number of passage guides formed therethrough. The first and second guide assemblies are connectable to provide a guide system having an application specific number of passage guides. Such a system is highly versatile and limits waste by providing a guide assembly that provides a desired number of passage guides.

[0031] **FIG. 4** shows an alternate embodiment of a guide assembly **100** according to the present invention. Guide assembly **100** includes a plurality of retainers or passage guides **102** removably connectable thereto. Passage guides **102** are generically referred to as elbows and have a first end **104** that extends in a first direction, indicated by arrow **106**, and a second end **108** that extends in a second direction, indicated by arrow **110**. A body **112** is attached to a base **114** and extends therefrom. A first set of clips **116** are attached to body **112** and a second set of clips **118** are attached to base **114** remote from body **112**. Passage guides **102** individually engage an associated clip pair **120** of first set of clips **116** and

second set of clips **118**. Such a construction allows guide assembly **100** to include no more than a desired number of passage guides **102**.

[**0032**] Associated clip pairs **120** engage respective passage guides **102** and secure the position of the passage guide during formation of a floor surface thereabout. Alternatively, it is further understood and within the scope of the claims to construct clip pairs **120** to directly engage a conductor connected to guide assembly **100**. That is, each conductor could be attached to guide assembly **100** without passage guides **102**. Base **114** includes a plurality of openings **122** formed therethrough. Openings **122** are constructed to allow a fastener **124** to pass therethrough. Fasteners **124** secure guide assembly **100** to a subsurface of the floor formed thereabout. Alternatively, it is understood and within the scope of the claims to form openings **122** through body **112**.

[**0033**] Body **112** includes a groove **126** formed therein and a rib **128** extending therefrom. Groove **126** and rib **128** cooperate to allow guide assembly **100** to be securely connected to additional guide assemblies **100**. Such a construction provides a guide assembly that is highly versatile and has only a desired number of passage guides or conductors connected thereto. Similar to passage guides **12** of guide assembly **10**, passage guides **102** of guide assembly **100** are constructed to allow any one of a plurality of different types of conductors to pass therethrough. That is, passage guides **102** are constructed to allow uninterrupted guided passage of radiant heat tubes, potable water tubes, electrical cables, computer cables, structured wiring cable bundles, or the like, through guide assembly **100**. Such a guide system provides a highly versatile, relatively rugged, and visually appealing orientation of the plurality of individual conductors directed by guide assembly **100**.

[**0034**] The guide assemblies **10**, **100** provide a compact and versatile guide assembly. The guide assemblies include a plurality of passage guides and are quickly and efficiently attachable to additional guide assemblies. Such a construction provides a multi-passage guide system that can be quickly adapted to provide a desired number of passage guides. Additionally, the structure of guide assemblies **10**, **100** allows the guide assembly to be quickly and securely attached to a sub-floor surface thereby preventing movement of the guide assembly during formation of a floor thereabout. Guide assemblies **10**, **100** provide a compact and esthetically pleasing organization for a plurality of conductors desired to pass through a floor system.

[**0035**] **FIG. 5** shows another embodiment of a guide assembly **150** according to the present invention. Guide assembly **150** includes a guide block **152** and an optional cover **154** exploded therefrom. Guide block **152** includes a plurality of grooves or passages **156** which extend therethrough. Passages **156** extend in a first direction, indicated by arrow **158**, and a second direction, indicated by arrow **160**. Guide block **152** also includes a plurality of first openings **162**. Each opening **162** is constructed to pass a fastener therethrough for securing the guide block to a substrate during installation. Guide block **152** also includes a plurality of second openings **164** constructed to secure cover **154** thereto. Understandably, depending on the type of fastener used to secure cover **154** to guide block **152** and the type of fastener used to secure guide block **152** to the substrate, openings **162**, **164** may pass completely or partially through guide block **152**. That is, openings **162**, **164** can be constructed to slidably engage a fastener such as a nail, spike, or tie, or threadingly engage a screw fastener.

[**0036**] Each passage **156** is constructed to receive a pair of conductor conduits **166**. Understandably, during installation, conductor conduit **166** can be arranged such that a first conductor conduit **168** is a delivery conduit and a second conductor conduit **170** is a return conduit such that each pair of conductors forms a service loop. Each pair of conductor conduits **166** is received in a respective passage such that the conductor conduits **166** do not interfere with the engagement of cover **154** with guide block **152**. Alternatively, guide block **152** could be constructed to snap-fittingly receive and secure conductor conduits **166**. Conductor conduits **166** can be any of radiant heat tubes, potable water tubes, electrical cables, computer cables, structured wiring cable bundles, or the like.

[**0037**] Cover **154** includes a plurality of openings **172** constructed to receive a fastener (not shown) which secures the cover to guide block **152**. Understandably, openings **172** could be constructed to pass completely through cover **154** to receive the fastener or simply be depressions for positioning the fasteners. Alternatively, cover **154** could be constructed to snap-fittingly engage guide block **152** such that cover **154** can be secured to the guide block without requiring separate fasteners. A first portion **174** of cover **154** includes a plurality of recesses **176** and a plurality of tabs **178** formed thereat. Recesses **176** are constructed to allow uninterrupted passage of conductor conduits **166** through cover **154** when the cover is connected to guide block **152**. Tabs **178** are constructed to generally align cover **154** with guide block **152** and extend over a respective partition **180** between adjacent passages of guide block **152**. Openings **172** formed in a tab **178** of cover **154** are constructed to align with an opening **164** formed in a partition **180** and secure the first portion of **174** of cover **154** to guide block **152**. When cover **154** is secured to guide block **152**, plurality of passages **156** are generally isolated from one another.

[**0038**] A profile **182** of cover **154** substantially matches a portion **184** of a profile **186** of the guide block **152** such that cover **152** snuggly engages guide block **152** and thereby secures conductor conduits **166** within respective passages **156** of guide block **152**. Understandably, although guide block **152** and cover **152** are shown to form twelve passages **156** which smoothly transition conductor conduits **166** from first direction **158** to second direction **160**, the number of passages **156** can be selected to satisfy a particular application. For example, if a specific application only requires four passages, guide assembly **150** may be provided with four passages or can be cut in the field to satisfy the particular application. Alternatively, if more than twelve passages are required, a guide block assembly having more than twelve passages may be provided or multiple guide block assemblies can be connected together to provide the desired number of guided passages. As such, guide assembly **150** is as functionally dynamic as guide assemblies **10** and **100**.

[**0039**] Therefore, one embodiment of the present invention includes a guide assembly that has a body having a first surface and a second surface, wherein the first surface is arranged in a first direction and the second surface is arranged in a second direction that extends outwardly from the first direction. The guide assembly also includes a

number of passage guides extending through the body, each passage guide having an inlet generally aligned with the first surface of the body and an outlet generally aligned with the second surface. The passage guides are constructed to allow the passage of a plurality of conduits or conductors therethrough between the first surface to the second surface.

[0040] Another embodiment of the present invention includes a guide system that has a first body, a second body connected to the first body, and a plurality of tubes. The tubes are connected to at least one of the first and second bodies and each tube has a first end facing a first common direction and a second end facing a second common direction, wherein the two directions are other than parallel.

[0041] A further embodiment of the present invention includes a method of securing a conduit array that includes the step of securing a guide block to a substrate and securing a first conduit to the block such that the first conduit extends in crossing directions from the guide block. The process also includes securing a second conduit to the guide block such that the second conduit extends in directions generally similar to the first conduit.

[0042] Yet another embodiment of the present invention includes a guide assembly having a body with first and second portions, wherein the second portion extends from the first portion. A first set of retainers is attached to the first portion of the body in and a second set of retainers is attached to the second portion of the body and is generally aligned with the first set of retainers. The retainers are constructed to retain a plurality of conduits therein.

[0043] Another embodiment of the present invention includes a guide assembly having a body and a plurality of channels formed therein. The body has a first portion which extends in a first direction and a second portion that extends in a crossing direction relative to the first portion. The plurality of channels formed in the body extend across the first portion and the second portion and each channel is constructed to receive a conductor conduit therein.

[0044] A further embodiment of the present invention includes guide system having a guide body and a cover. The guide body has a plurality of passages formed therein and each passage extends between a first end and a second end of the guide body. The first end of each passage extends in a first direction which is across a second direction of the second end. The cover is connectable to the guide body and has a profile that generally matches at least a portion of a profile of the guide body. A plurality of recesses is formed in the cover and spaced apart a width of each of the plurality of passages. Each recess is constructed to allow uninterrupted passage of a conductor conduit from an associated passage of the plurality of passages of the guide body.

[0045] The present invention has been described in terms of the preferred embodiment, and it is recognized that equivalents, alternatives, and modifications, aside from those expressly stated, are possible and within the scope of the appending claims.

What is claimed is:

1. A guide assembly comprising:

a body having a first portion extending in a first direction and a second portion extending in a crossing direction relative to the first portion; and

a plurality of channels formed in the body and extending across the first portion and the second portion, each channel constructed to receive a conductor conduit therein.

2. The guide assembly of claim 1 wherein a majority of the plurality of channels is encompassed by the body.

3. The guide assembly of claim 1 further comprising a cover connectable to the body and constructed to traverse the plurality of channels.

4. The guide assembly of claim 3 wherein the cover and the body include a plurality of openings, the plurality of openings oriented to be generally aligned when the cover is engaged with the body.

5. The guide assembly of claim 3 wherein a cross-sectional shape of the cover generally matches a cross-sectional shape of at least a portion of the body.

6. The guide assembly of claim 3 wherein the cover further comprises a plurality of tabs extending from the cover and constructed to align with a space between adjacent channels of the plurality of channels.

7. A guide system comprising:

a guide body having a plurality of passages formed therein, each passage extending between a first end and a second end of the guide body, the first end extending in a first direction across a second direction of the second end;

a cover connectable to the guide body and having a profile which generally matches at least a portion of a profile of the guide body; and

a plurality of recesses formed in the cover and spaced apart a width of each of the plurality of passages, each recess constructed to allow uninterrupted passage of a conductor conduit from an associated passage of the plurality of passages of the guide body.

8. The guide system of claim 7 wherein the first direction is generally transverse to the second direction.

9. The guide system of claim 7 further comprising a plurality of tabs extending from the cover between adjacent recesses of the plurality of recesses, each tab constructed to snuggly engage the guide body between adjacent passages.

10. The guide system of claim 7 wherein each passage is constructed to receive more than one conductor conduit.

11. A method of positioning a conduit array comprising the steps of:

securing a guide block to a substrate;

securing a first conduit to the guide block such that the first conduit extends in crossing directions from the guide block; and

securing a second conduit to the guide block such that the second conduit extends in directions generally similar to the first conduit.

12. The method of claim 11 further comprising the step of securing another guide block to the guide block.

13. The method of claim 11 wherein at least one of the steps of securing the first conduit and securing the second conduit further comprises passing the at least one of the first conduit and the second conduit through a guide passage formed through the guide block.

14. The method of claim 11 wherein at least one of the steps of securing the first conduit and securing the second conduit further comprises the step of engaging the at least

one of the first conduit and the second conduit with at least one clip attached to the guide block.

15. The method of claim 11 wherein at least one of the steps of securing the first conduit and securing the second conduit further comprises the step of passing the at least one of the first conduit and the second conduit through an elbow and the step of securing the at least elbow to the guide block.

16. The method of claim 15 wherein the step of securing the elbow to the guide block further comprises snap-fittingly engaging the elbow with at least one clip attached to the guide block.

17. The method of claim 11 further comprising the step of connecting a cover to the guide block such that the cover generally traverses at least one of the first conduit and the second conduit.

18. The method of claim 11 further comprising the step of forming a plurality of grooves in the guide block wherein each groove is constructed to receive at least one of the first conduit and the second conduit.

19. The method of claim 18 wherein each groove is constructed to receive more than one conduit.

20. The method of claim 11 further comprising attaching at least one of the first conduit and the second conduit to at least one of an electrical system, a hydronic system, a potable water system, a structured wiring system, and a hydraulic system.

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