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(54) **COMBINATION LIFT AND ANCHOR CONNECTOR FOR FABRICATED WALL AND FLOOR PANELS**

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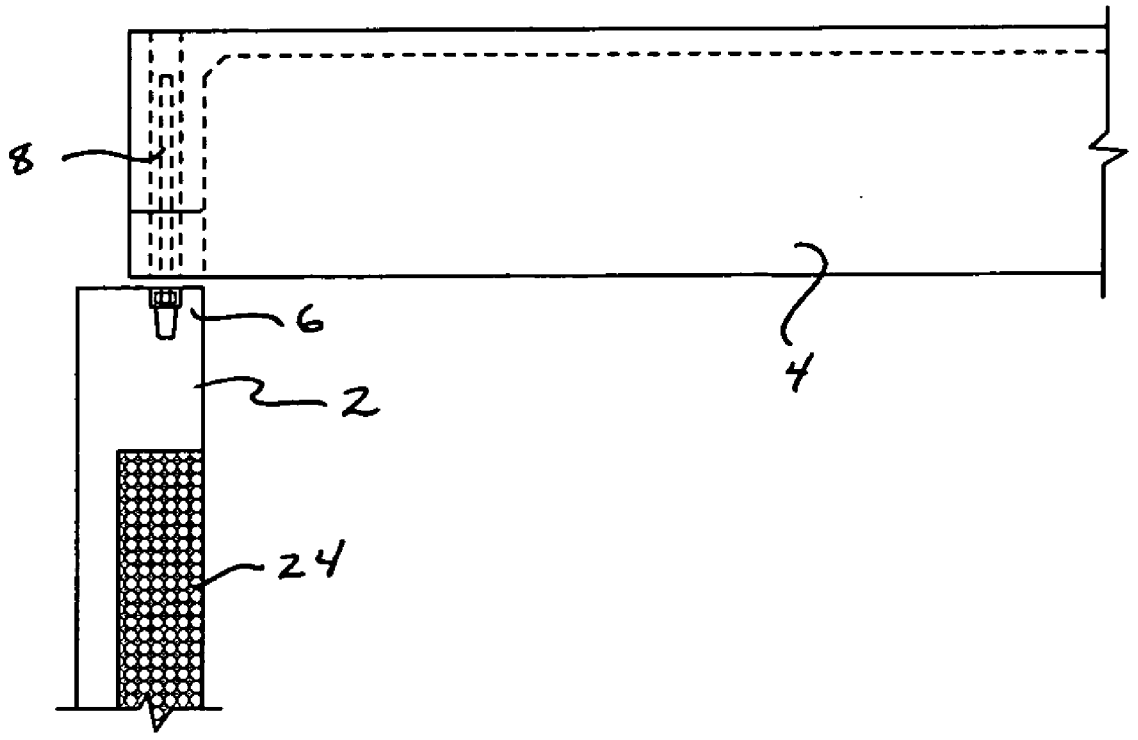
(57) **ABSTRACT**

An apparatus and method for interconnecting concrete precast floor and wall panels is provided. More specifically, one embodiment of the present invention includes an adjustable connector with a captive nut that is embedded into a wall panel. A floor panel that includes an aperture integrated therethrough is placed adjacent to the adjustable connector wherein the captive nut therein may be positioned in line with the aperture. A threaded rod is then placed through the aperture of the floor panel and a nut is placed thereon thus providing a secure interconnection between the floor panel and the wall panel.



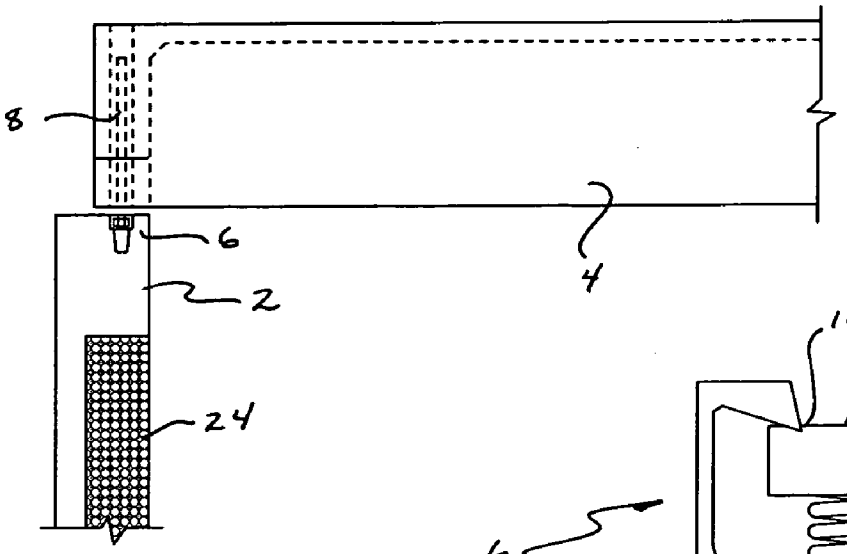


Fig. 1

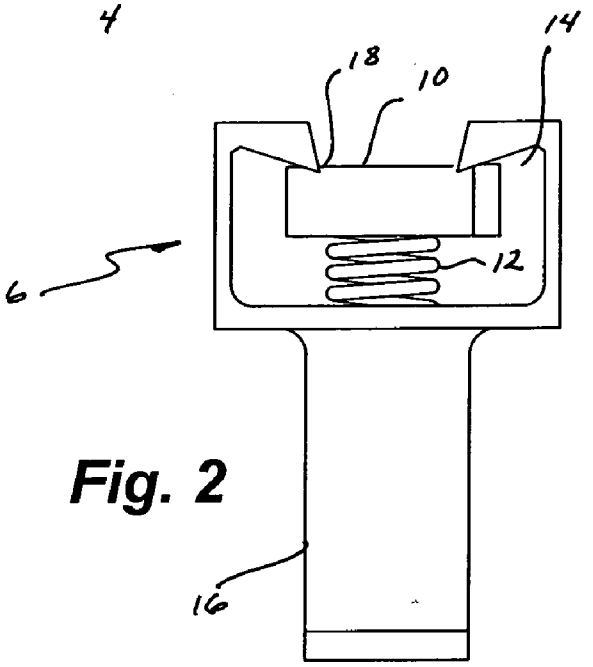
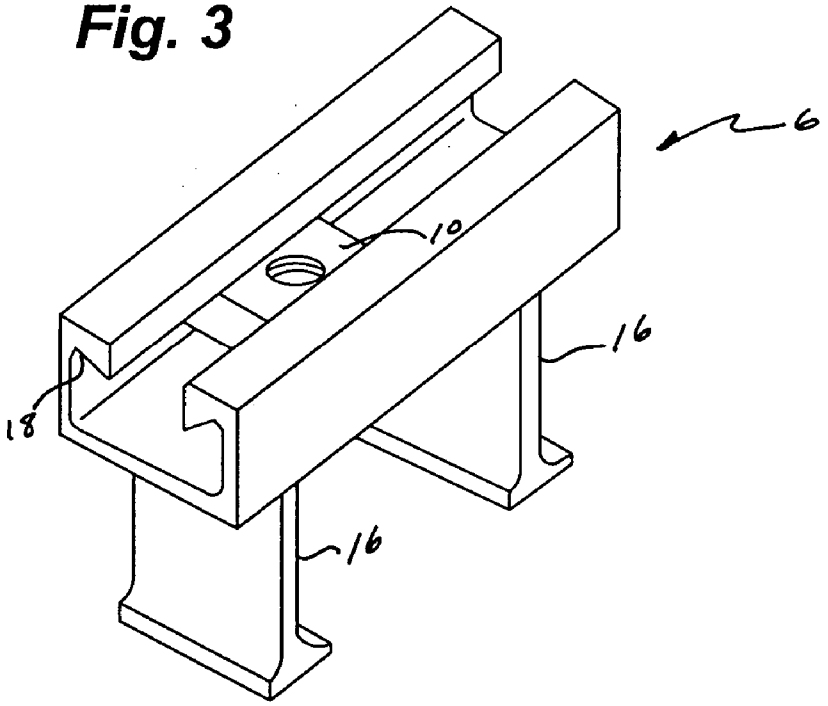


Fig. 2

Fig. 3



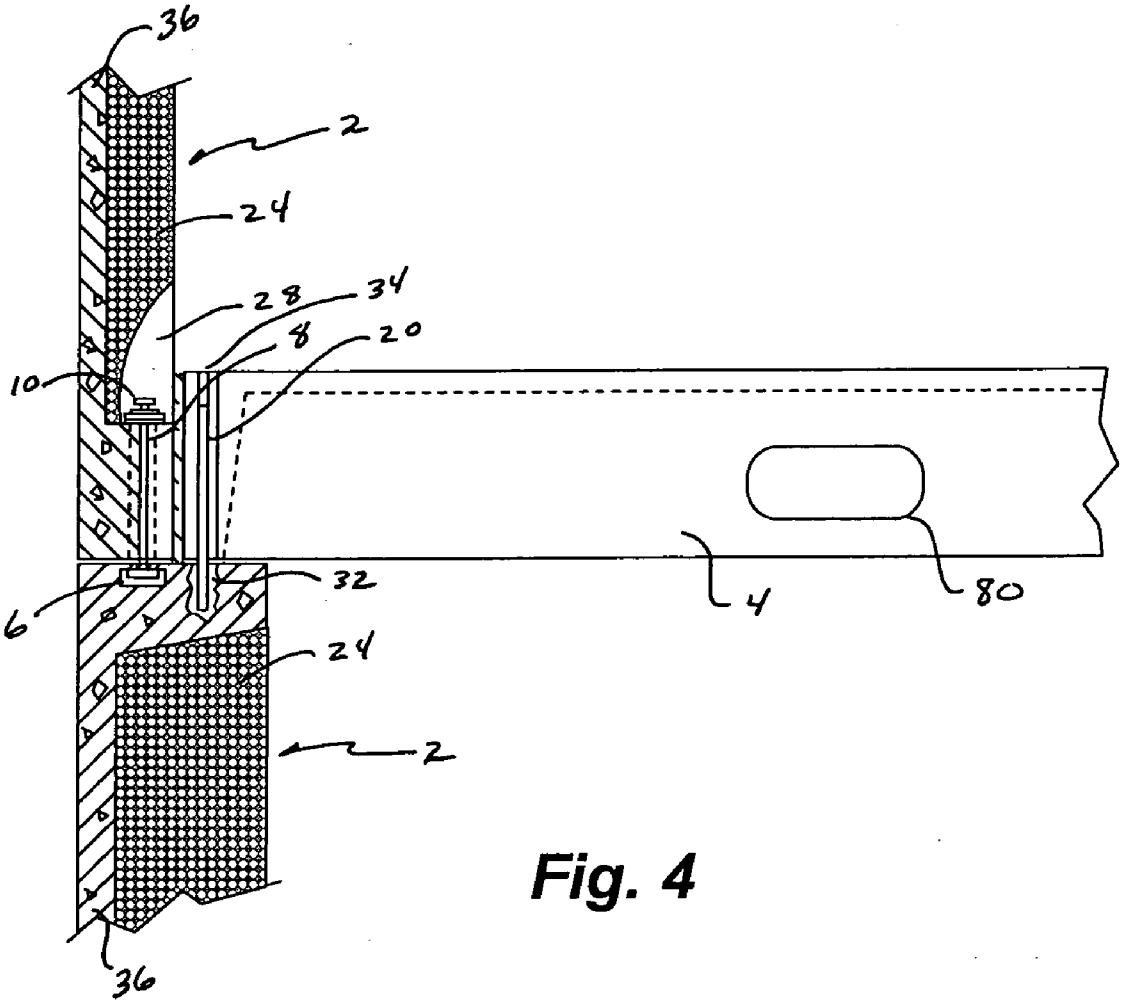


Fig. 4

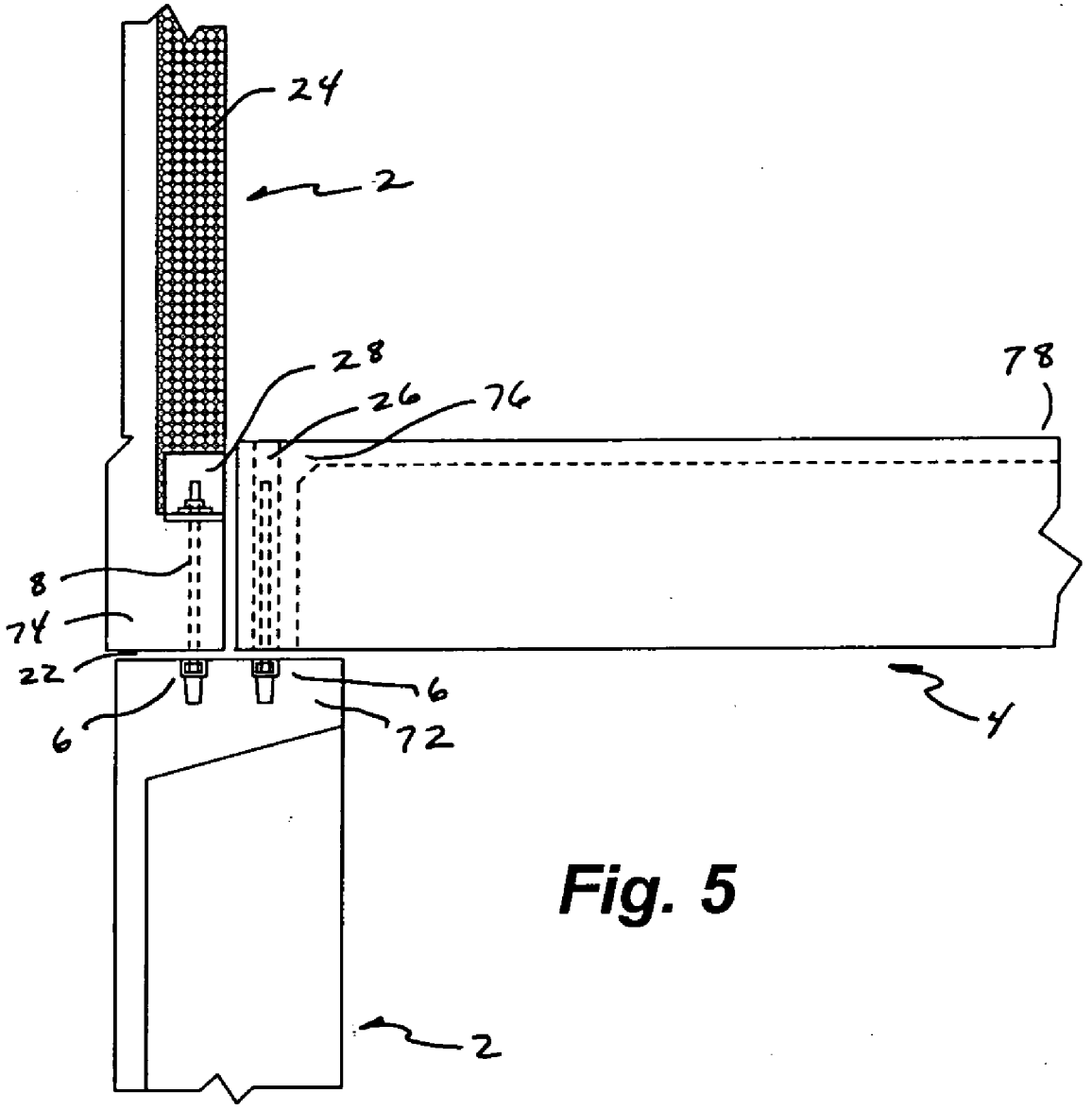


Fig. 5

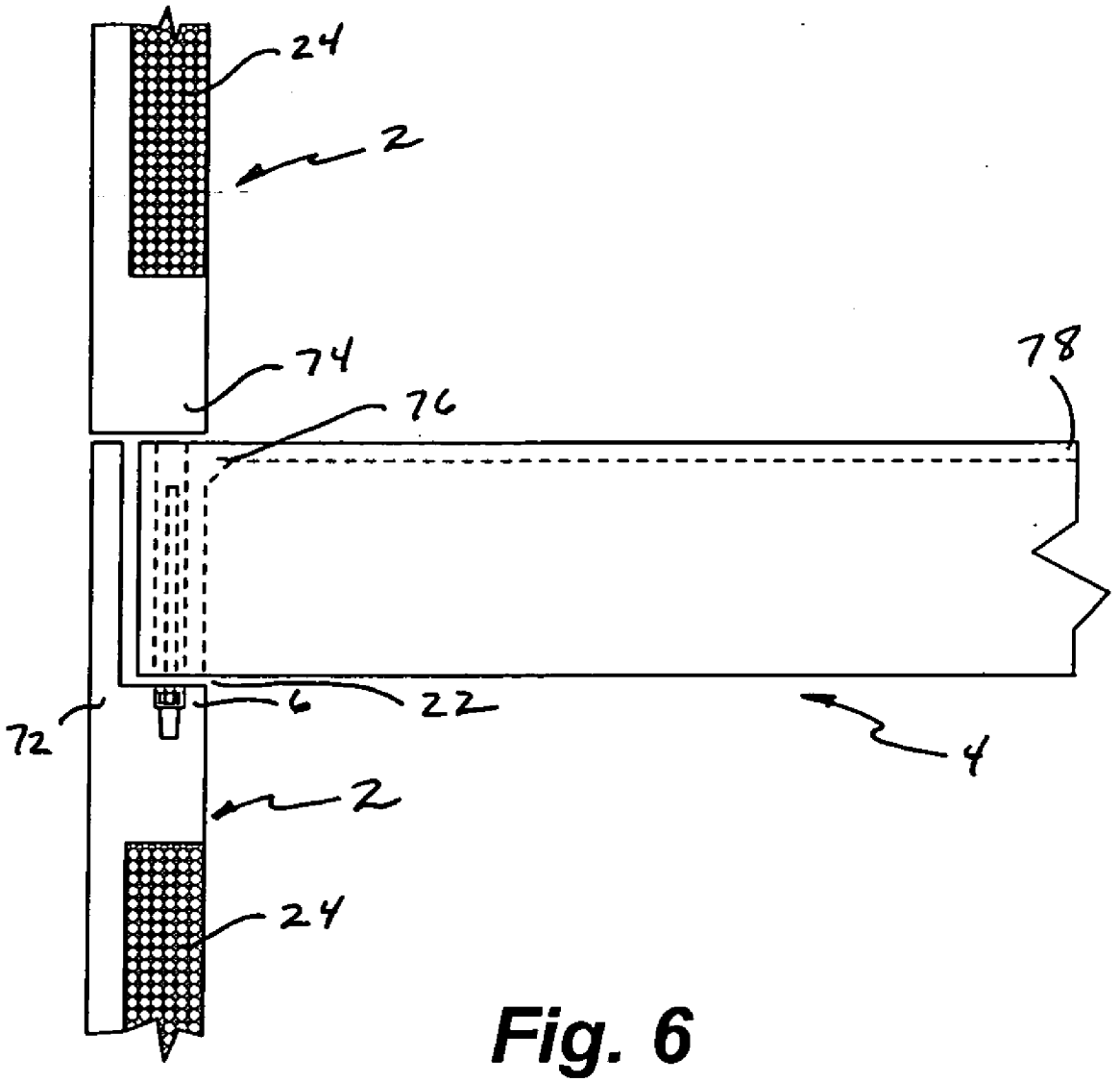


Fig. 6

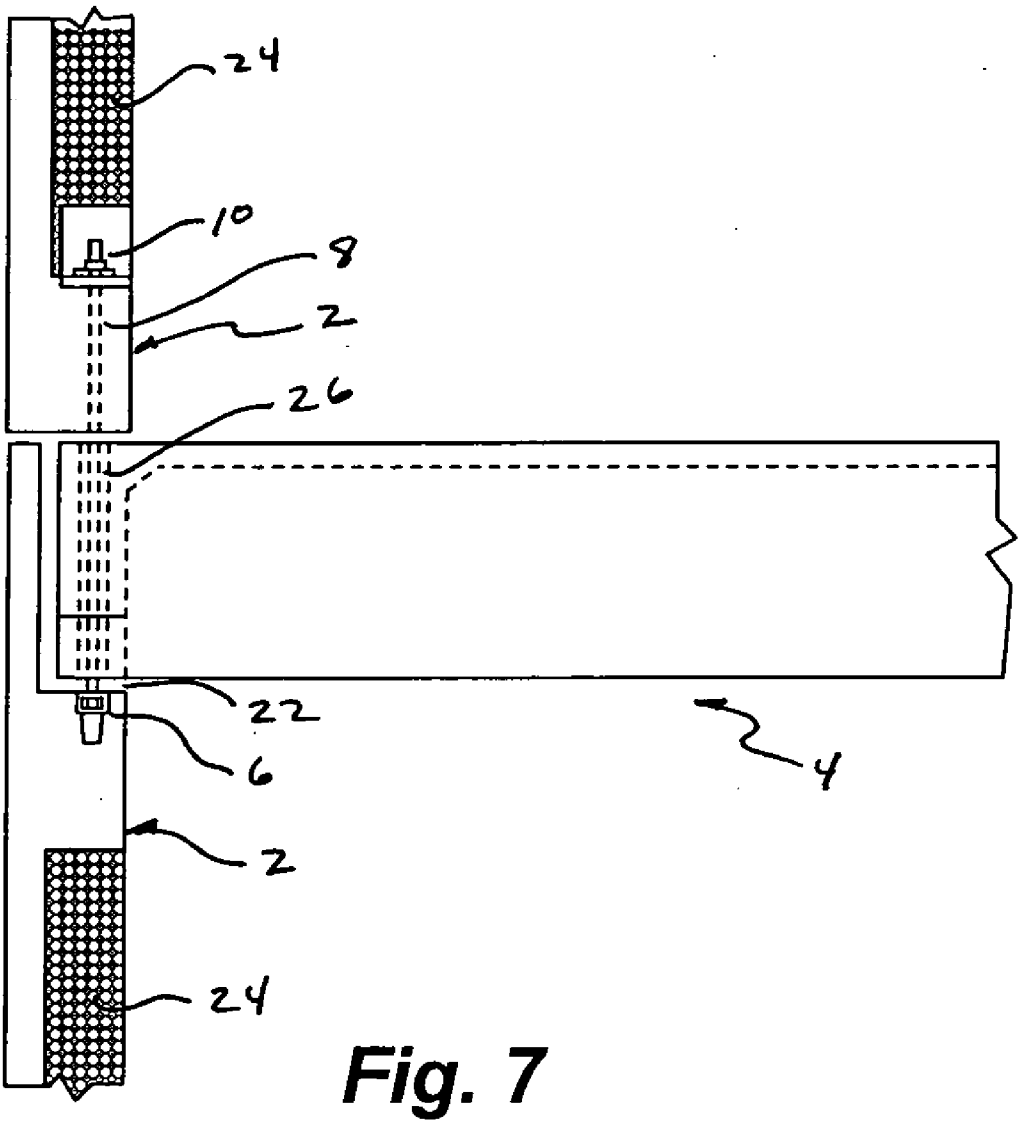


Fig. 7

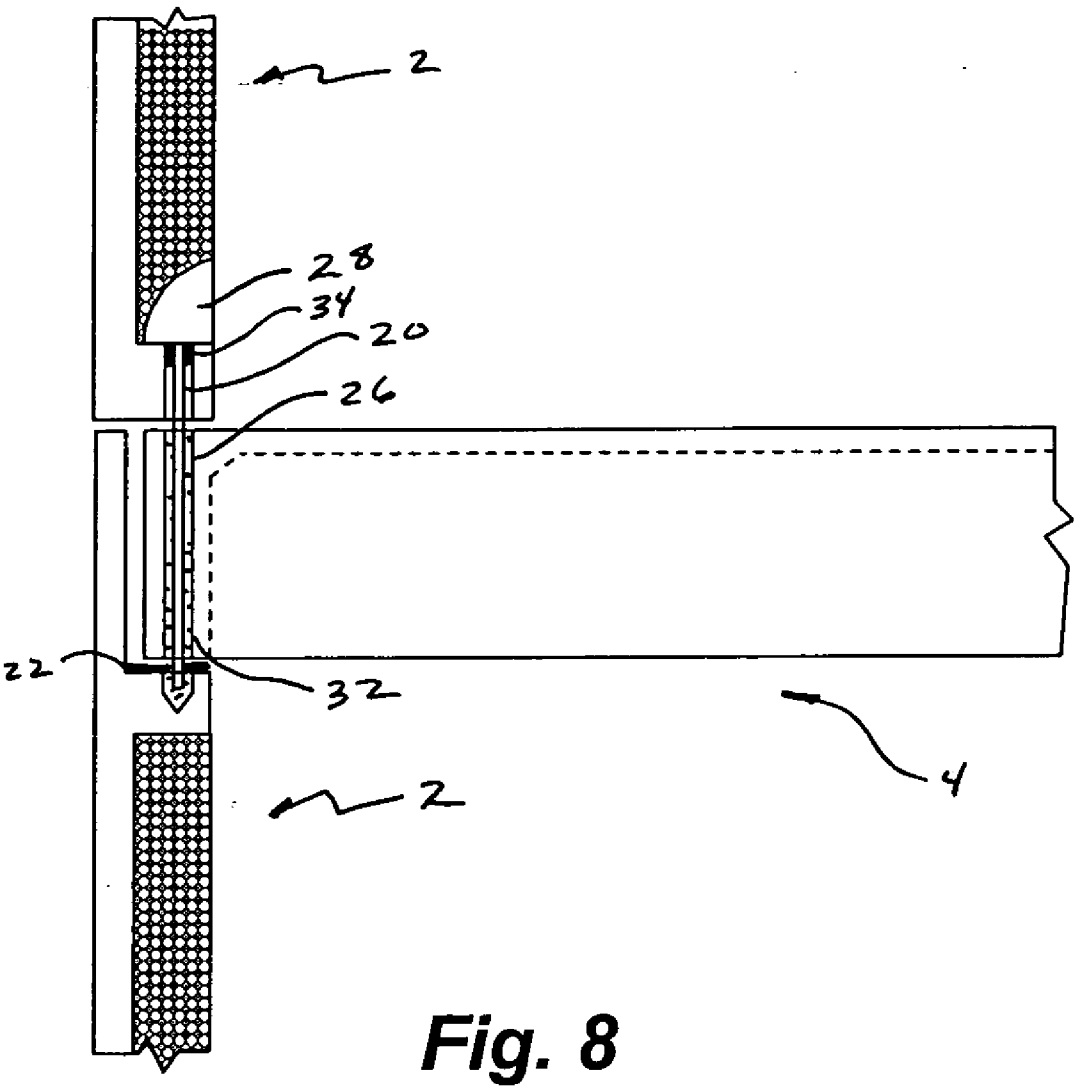


Fig. 8

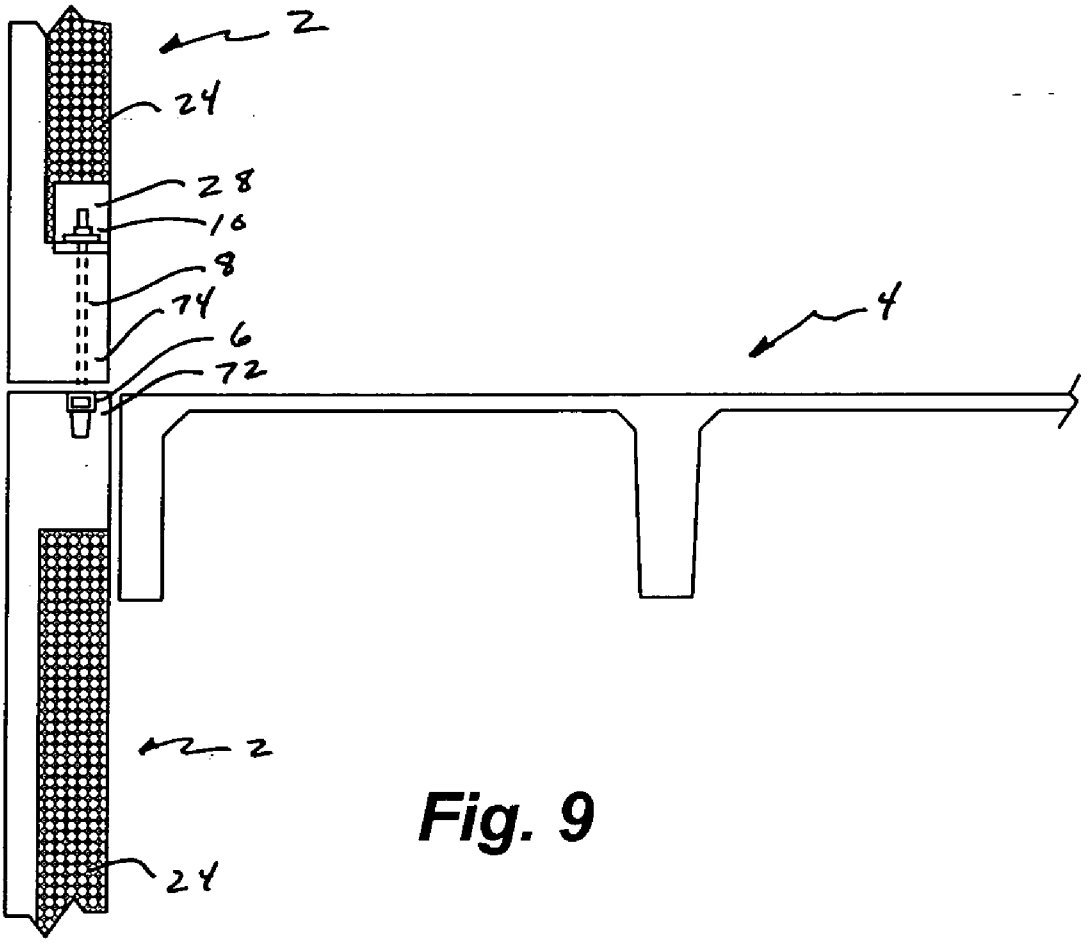


Fig. 9

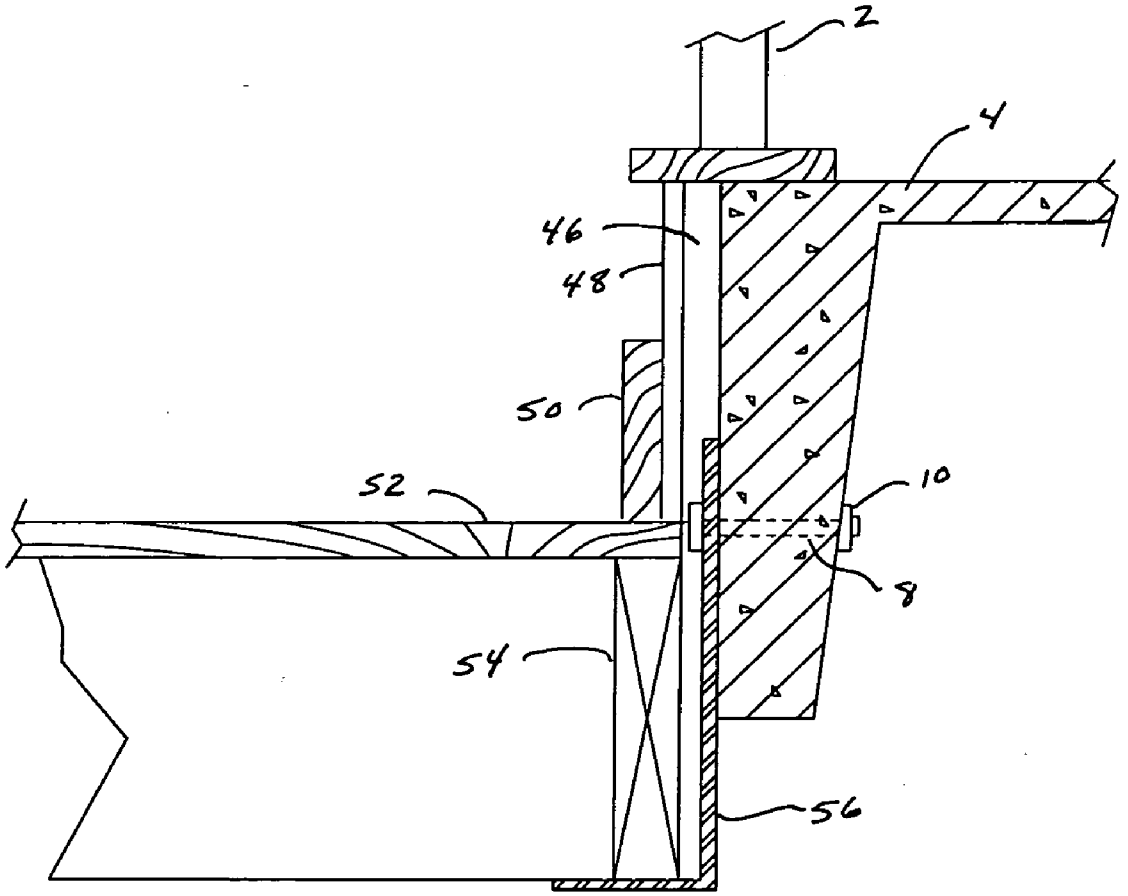


Fig. 10

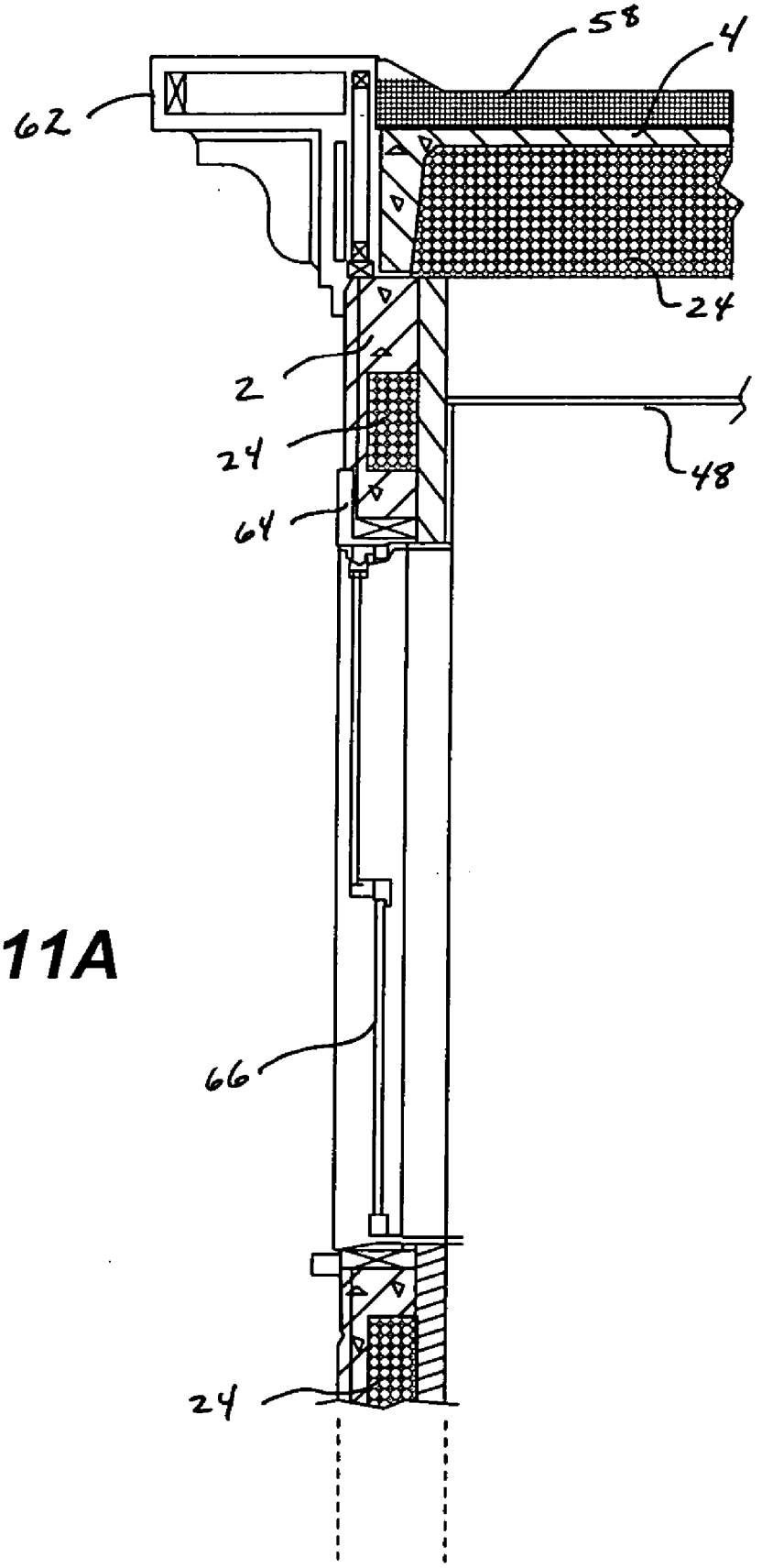


Fig. 11A

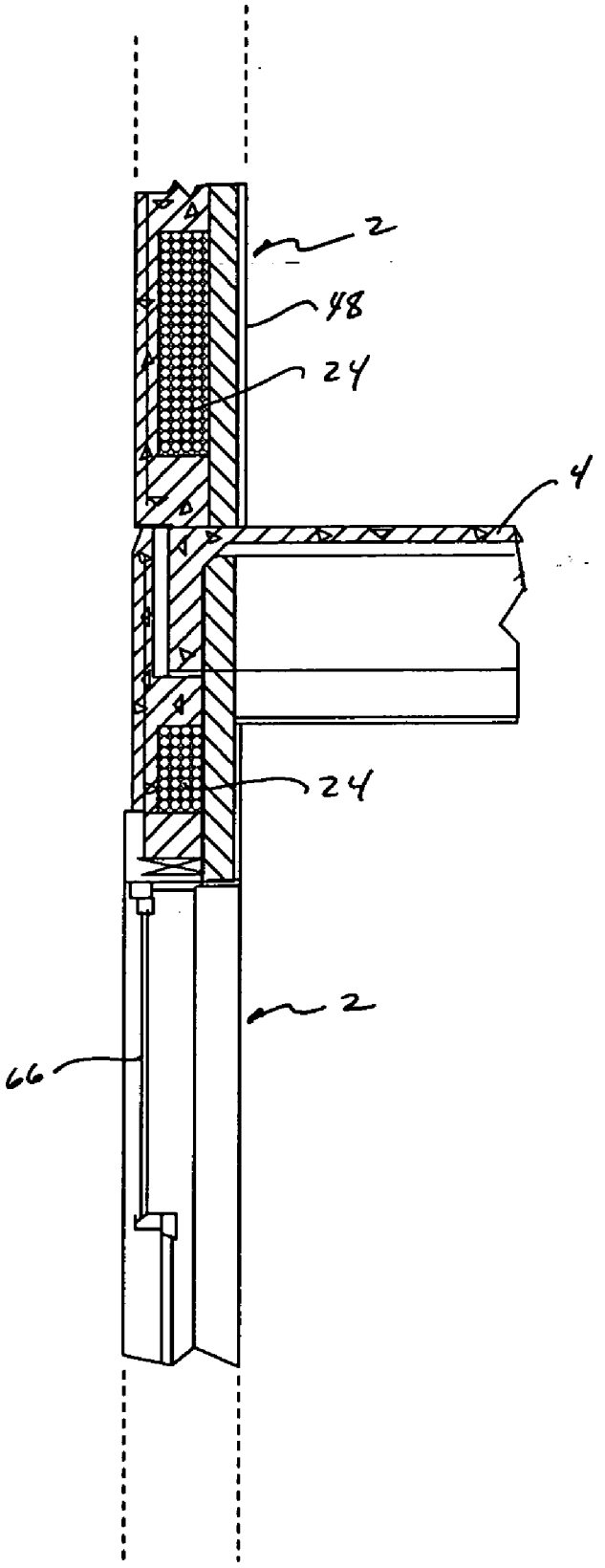


Fig. 11B

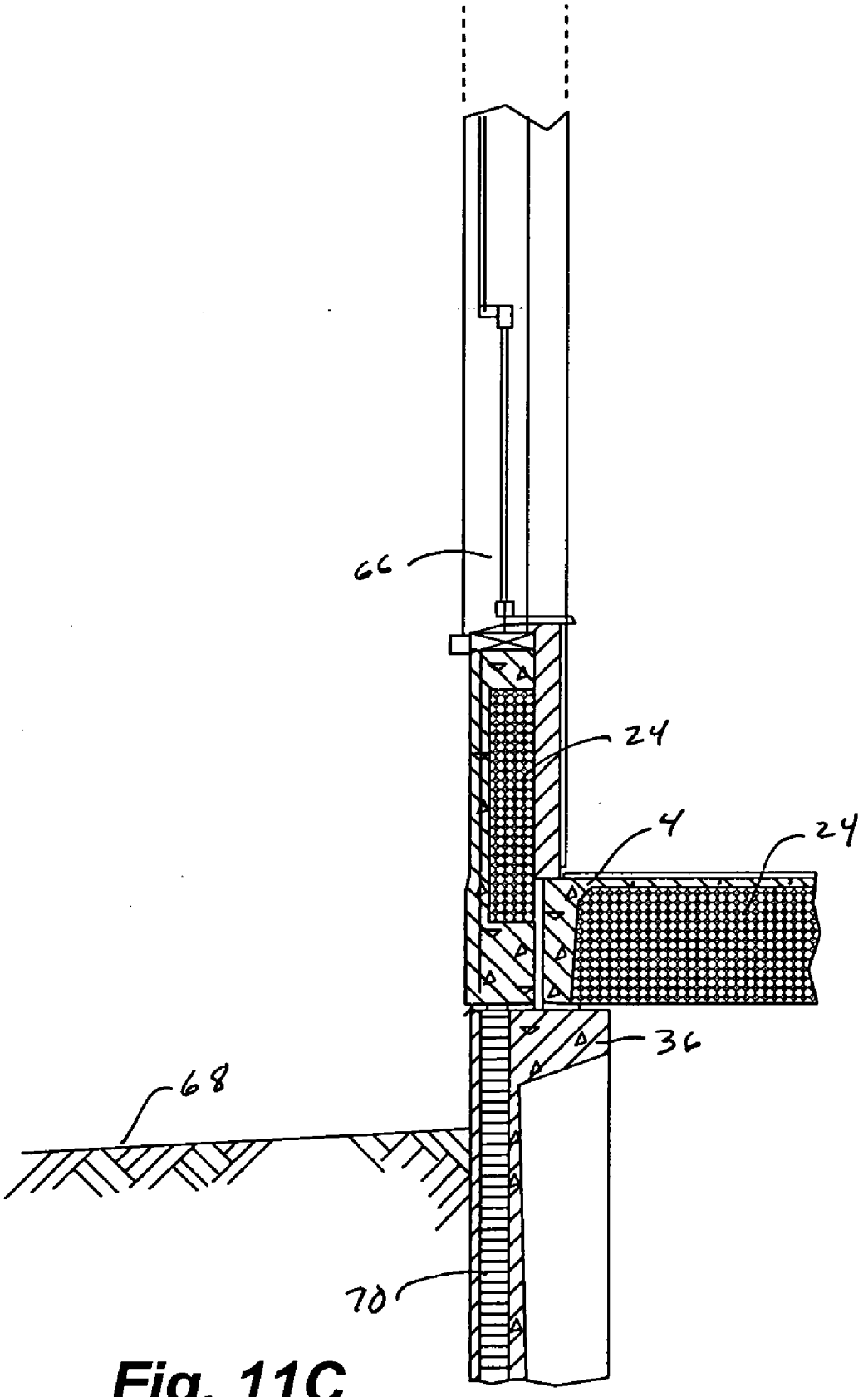


Fig. 11C

COMBINATION LIFT AND ANCHOR CONNECTOR FOR FABRICATED WALL AND FLOOR PANELS

[0001] This application claims the benefit of pending U.S. provisional patent application Ser. No. 60/667,590, filed on Apr. 1, 2005, the application being incorporated herein by reference in its entirety.

FIELD OF THE INVENTION

[0002] The present invention relates to low density prefabricated concrete building panels, and more specifically an apparatus and method for interconnecting prefabricated concrete floor and roof panels to wall panels, and which utilizes a selectively adjustable connector. More specifically, one embodiment of the invention employs an adjustable captive nut in conjunction with a threaded rod to interconnect adjoining floor and wall panels.

BACKGROUND OF THE INVENTION

[0003] Precast concrete panels are well known in the art and have been used for decades as cost effective building components. More specifically, Precast concrete panels are commonly found in office buildings, parking garages, homes, bridges, etc., and are desirable for their resistance to fire, wind, seismic activity and various other occurrences that would destroy or severely damage common wood or steel structures. Precast concrete structures are generally inexpensive and quick to construct since the building members, i.e. floor and wall panels, are prefabricated off-site and shipped to the construction site to be erected. However, there are some drawbacks of the method of assembling precast concrete walls and floors found in the prior art.

[0004] One drawback of assembling precast concrete building panels of the prior art is that the operation is often labor intensive. More specifically, the construction of existing concrete structures usually requires complicated alignments and connections of the wall panels and the floor panels. Since the panels are heavy, often weighing tons, and are placed by cranes, alignment and placement of the concrete wall and floor panels may also be dangerous. In addition, sometimes unintended collisions of the panels may lead to damage thereto wherein new panels must be obtained, thus increasing the time for construction.

[0005] Another related drawback of constructing concrete buildings of the prior art is that the floor and wall panels often are erected in a complicated interlocking scheme. More specifically, cut-outs and/or protrusions that are designed to interlock and bear upon each other are generally provided that must be carefully aligned. Thus, the inherently customized panels of the structure make the construction process limited wherein the interchangeability of the panels is not possible. Further, also increasing the time and expense and possible damage to the panels, field drilling is often required to allow for the interconnection of metal fasteners that tie adjacent panels together. After the metal fasteners are inserted, grout or other ceiling materials are used to seal the field drilled holes, thus increasing the time it takes to erect the structure.

[0006] Still yet another drawback of concrete building structures is that the interlocking joints of the prior art are often stable and rigid. This may not seem at first glance as a drawback, however it is often desirable to let a building "float" wherein vibrations caused by high winds or seismic activity are compensated. Fixed joints and size or simple bearing joints found in the prior art are often too rigid or not rigid enough to withstand an earthquake or hurricane, for example.

[0007] Accordingly, there is a significant need in the construction and building industry to provide a precast concrete building panel for use in modular construction that is lightweight, provides superior strength and has high insulative values. Further, a method for lifting, transporting and interconnecting building panels and floor and ceiling panels needed that is inexpensive, utilizes commonly known manufacturing equipment, and which can be easily integrated into mass produced building panels for use in the modular construction of warehouses, low cost permanent housing, hotels and other buildings.

[0008] Still yet another drawback of concrete building construction is that the interlocking joints of the prior art are often stable and rigid. This may not seem at first glance as a drawback, however, it is often desirable to let a building "float" wherein vibrations caused by high winds or seismic activity may be compensated therefor. The rigid joints or simple bearing joints may often be too rigid or not rigid enough to withstand an earthquake or hurricane, for example.

[0009] Accordingly, there is a significant need in the construction and building industry to provide a composite building panel that may be used in modular construction and which is lightweight, provides superior strength and has high insulative values. Further, a method for lifting, transporting and interconnecting building panels and floor and ceiling panels needed that is inexpensive, utilizes commonly known manufacturing equipment, and which can be used to mass produce building panels for use in the modular construction of warehouses, low cost permanent housing, hotels, and other buildings.

SUMMARY OF THE INVENTION

[0010] It is one aspect of the present invention to provide a system for interconnecting a precast concrete wall panel with a precast concrete floor panel, and alternatively to interconnect two wall panels with or without a floor or roof panel. More specifically, one embodiment of the present invention includes a selectively adjustable connector with a captive nut that is adapted for interconnection with a threaded rod that is placed through an aperture provided in the floor panel. In addition, the floor panel may include a steel sheath embedded within the aperture to provide a location for a lifting device to be attached. More specifically, one embodiment of the present invention is a concrete floor panel having an internally positioned tube with a plurality of holes or other preferred geometric profile integrated therein. Lifting mechanisms such as a lift pin or bolt may be inserted into the lifting tube of the floor panel for engagement with the apertures or locking geometric profile. The lifting mechanism may then be removed from the apertures of the sheath after the floor panel is properly placed, and a connector rod or other attachment hardware inserted into the sheath during interconnection of the floor/roof panel to a wall panel.

[0011] As briefly mentioned above, the adjustable connector in one embodiment includes a captive nut. Once the floor

panel is placed over the wall panel, with the aperture of the floor panel aligned with the adjustable connector embedded in the wall panel, a threaded rod is placed through the aperture. A nut is then threaded onto the rod and secured, thus substantially fixing the fabricated floor and wall panels together. Next, a combination of sand or other granular material and/or epoxy may be added to fill the aperture of the floor panel, thereby substantially preventing the infiltration of fluids and further strengthening the interconnection. Furthermore, the granular material has been found to provide increased stability during a seismic disturbance or high winds since rigidity between the floor panel and wall panel is reduced.

[0012] Alternatively, a hole may be field drilled into the wall panel prior to or after the floor panel is placed thereon. The field drilled hole provides a location for the insertion of a threaded or non-threaded rod, wherein epoxy is added therearound to ensure that the rod remains fixed. Thus, a threaded rod is provided that is fixed in the wall panel, and which resides in the floor panel that allows the wall panel to be substantially secured to the floor panel with a nut. This method of interconnecting the wall panel to the floor panel is slightly more labor intensive, since the hole must e drilled in the field because the odds of cracking or otherwise changing the floor panel are somewhat increased.

[0013] It is yet another aspect of the present invention to provide an interconnecting mechanism that is simplistic and cost effective to install. More specifically, the adjustable connector of one embodiment of the present invention is placed in the wall panel mold prior to the placing of concrete, wherein the connector is embedded adjacent to the upper edge of the finished wall panel. In addition, the lifting tube as previously described above, would be also set in the precast mold of the floor prior to the placement of concrete thus providing a finished product with the steel sheath in its predetermined location.

[0014] Thus, it is one aspect of the present invention to provide a method of interconnecting prefabricated wall and floor panels comprising:

[0015] providing a wall panel having an upper end, a lower end and an adjustable connection device embedded proximate to said upper end;

[0016] providing a floor panel having an aperture positioned proximate to at least one of a first end and a second end and including a metal sheath positioned therein that is adapted for selective interconnection with a lifting mechanism;

[0017] placing said floor panel atop said upper end of said wall panel wherein said aperture is generally aligned with said adjustable connection device;

[0018] inserting a threaded rod into said aperture after removal of said lifting mechanism; and

[0019] interconnecting said threaded rod to said adjustable connection device, wherein said floor panel and said wall panel are operably interconnected.

[0020] It is a further aspect of the present invention to provide a lift anchor adapted for lifting and securing a prefabricated wall panel to a prefabricated floor/roof panel, comprising:

[0021] a substantially hollow tube having a distinct internal profile which is adapted for selective interconnection with a lift pin, the hollow tube adapted for placement in said at least one prefabricated concrete floor panel and said prefabricated wall panel; and

[0022] a securement pin operably sized for positioning through said substantially hollow tube and for penetration into at least part of said at least one prefabricated concrete wall panel and said prefabricated floor panel.

[0023] The Summary of the Invention is neither intended nor should it be construed as being representative of the full extent and scope of the present invention. The present invention is set forth in various levels of detail in the Summary of the Invention as well as in the attached drawings and the Detailed Description of the Invention and no limitation as to the scope of the present invention is intended by either the inclusion or non-inclusion of elements, components, etc. in this Summary of the Invention. Additional aspects of the present invention will become more readily apparent from the Detail Description, particularly when taken together with the drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0024] The accompanying drawings, which are incorporated in and constitute a part of the specification, illustrate embodiments of the invention and together with the general description of the invention given above and the detailed description of the drawings given below, serve to explain the principles of these inventions.

[0025] **FIG. 1** is a front elevation view showing a precast floor panel interconnected to a precast wall panel using an adjustable connector;

[0026] **FIG. 2** is a front sectional view of the adjustable connector of one embodiment of the invention which is designed for positioning in an upper or lower portion of a wall panel;

[0027] **FIG. 3** is a perspective view of the adjustable connector shown in **FIG. 2**;

[0028] **FIG. 4** is a front sectional view of a wall panel and a floor panel interconnected to a foundation panel and utilizing sand, epoxy and depicting threaded and non-threaded interconnections;

[0029] **FIG. 5** is a front sectional view of interconnected wall panels and floor panels and utilizing two threaded rods and adjustable connectors;

[0030] **FIG. 6** is a cross-sectional front elevation view of interconnected wall panels and floor panels similar to that shown in **FIG. 5**;

[0031] **FIG. 7** is a cross-sectional front elevation view of an alternative embodiment of interconnecting wall panels and a floor panel;

[0032] **FIG. 8** is a cross-sectional front elevation view of interconnected wall panels and a floor panel which are interconnected with a non-threaded interconnection rod and a grout or epoxy;

[0033] **FIG. 9** is a cross-sectional front elevation view of interconnected wall panel and a floor truss;

[0034] **FIG. 10** is a cross-sectional front elevation view of a floor panel interconnected to structural framework for stairs; and

[0035] **FIGS. 11A-11C** depict cross-sectional front elevation views of alternative embodiments of the interconnection of a plurality of precast concrete wall and floor panels.

[0036] It should be understood that the drawings are not necessarily to scale. In certain instances, details that are not necessary for an understanding of the invention or that render other details difficult to perceive may have been omitted. It should be understood, of course, that the invention is not necessarily limited to the particular embodiments illustrated herein.

DETAILED DESCRIPTION

[0037] Referring now to **FIGS. 1-11**, a combination lift and anchor connector for fabricated wall and floor panels is provided herein. More specifically, an apparatus and method for interconnecting a floor panel **4** to a wall panel **2** or two wall panels **2** constructed of precast concrete and other materials is provided. One embodiment of the present invention includes an adjustable interconnection device **6** that includes a slidable captive nut **10** or other mechanism. The adjustable interconnection device **6** is integrated into the concrete wall panel **2** during construction such that it will be located adjacent to an aperture **26** integrated into the floor panel **4** after assembly. Prior to the placement of the floor panel **4** over the wall panel **2**, minute changes to the location of the captive nut **10** may be made such that a threaded rod **8** may be placed through the aperture **26** integrated into the floor panel **4** to interconnect with the captive nut **10**. Once the threaded rod **8** is secured to the captive nut **10**, a second nut and associated washers are generally threaded on to the rod and tightened, thus securing the floor panel **4** to the wall panel **2** or securing a wall panel **2** to another wall panel **2**. Grout, sand, epoxy, or other materials may further be added to fill the aperture to thus seal it from the elements and provide improved structural performance.

[0038] Referring now to **FIG. 1**, interconnected wall panels **2** and floor panels **4** are shown. More specifically, the floor panel **4** with the integrated adjustable connector **6** is shown placed adjacent to the floor panel **4**. The term "floor panel" or "wall panel" as used herein refers to precast concrete panels that generally include low density insulation material such as styrofoam, polyethylene, or other materials that decrease the density thereof without substantially affecting their strength and stiffness. Carbon fiber, wire mesh, and steel strands such as rebar or other materials may also be included for increased structural performance. Here, a precast concrete floor panel **4**, which includes an aperture **26** running therethrough adjacent to an edge, is placed on the wall panel **2**, wherein the aperture **26** and the adjustable interconnection device **6** are generally aligned. Once the floor panel **6** is in place, a threaded rod **8** is interconnected to the captive nut **10** within the adjustable connector **6** and a nut with associated washers is threaded onto the rod and tightened, thus securing the floor panel **4** to the wall panel **2**. Then, in one embodiment grout may be added to the aperture **26** to seal the system from the environment. In one embodiment of the present invention, the floor panel **4** is about one inch thick, the wall panel **6** is about 6 inches thick and the portion of the floor width that meets the wall is about 3½ inches thick.

[0039] Referring now to **FIGS. 2 and 3**, one embodiment of an adjustable connector **6** is shown. Here, the captive nut **10** is secured within a channel **14** of the adjustable connector **6**. The captive nut **10** is biased against a top surface of the channel with a spring **12** in one embodiment of the present invention, thus ensuring that the nut is located adjacent to the top surface of the adjustable connector **6**. The captive nut **10** is adapted to slide within the channel and is prevented from substantial rotation by grooves machined into the nut that interface with the upper surface of the channel. This selective movement allows minor movement and adjustment during the interconnection of wall panels **2** and floor panels **4**. In addition, at least one leg may be included that engages the concrete of the floor panel or wall panel to sufficiently secure the adjustable connector **6** in the wall panel **2**. In operation, the adjustable connectors **6** are positioned at predetermined locations in the wall panel **2** wherein after placement of the concrete floor panel **4**, the captive nut **10** is easily located in alignment with the aperture **26** of the floor panel **4** prior to floor placement.

[0040] Referring now to **FIG. 4**, yet another embodiment of the present invention is shown wherein the floor panel **2** and the wall panel **4** are not interconnected with an adjustable connector **6**. Here, a foundation wall **70** is provided that includes an adjustable connector **6** embedded therein. A wall panel is placed on top of the foundation wall panel **70** wherein a threaded rod **8** is utilized along with a threaded nut **10** to secure the wall panel **2** onto the foundation panel **70**. In addition, the foundation wall panel **70** has a width such that sufficient area is provided wherein a floor panel **4**, often referred to as a stem deck is positioned. In order to ensure that the floor panel **2** remains securely located on the foundation panel **70**, a hole is drilled post-placement of the floor panel using the aperture **26** integrated into the floor panel **4** as a guide. Then, a threaded or non-threaded rod is inserted through the hole of the floor panel **2** and into the field drilled hole in the foundation panel **70** and epoxy is used to secure the threaded rod in place. Next, sand or other particulate matter **32** is used to partially fill the aperture **26** of the floor panel **4**. In one embodiment, epoxy **34**, concrete **36** or other adhesives material may be used to cap the sand **32** and seal the aperture **26** from the elements and provide improved structural performance during seismic activity, high winds, etc. since the particulate matter **32** allows slight movement at the interconnection of the wall panels **2** and floor panels **6**, thus reducing the rigidity of the structure and improving structural integrity during seismic activity, etc. Thus, a method of substantially securing the floor panel **4** to the wall panel **2** is provided that is slightly more labor intensive than that described above.

[0041] Referring now to **FIGS. 5 & 6**, other configurations utilizing variations of the present invention are shown. Here, the floor panel **4** and the wall panel **2** are interconnected to a precast foundation wall **70** with adjustable connectors **6**. The method of insulation of these components are similar to that already described above.

[0042] Referring now to **FIG. 7**, yet another arrangement utilizing the present invention is shown. Here, a wall panel **2** that includes a recess or wall access pocket **28** for the receipt of the floor panel **4** is provided. Once the floor panel **4** is put in place, yet another wall panel **2** is placed atop the wall panel **2** and floor panel **4** combination. An aperture **26** that runs from the upper wall panel **2** down through the lower wall panel **2** and into the adjustable connector **6** is also provided wherein an elongated threaded rod **8** is interconnected along with a washer and nut to fasten the three panels together. One skilled in the art will appreciate that as a secondary step, the aperture **26** included in the floor panel **4** may be filled with sand or epoxy prior to the placement of the upper wall panel **2** to ensure that water or other elements do not enter the aperture **26**. Further, in one embodiment additional grouting or sealant materials may be positioned between the floor panel **4** and wall panels **2**.

[0043] Referring now to **FIG. 8**, an arrangement similar to that shown in **FIG. 7** is provided herein. More specifically, in this embodiment of the present invention the lower recessed wall panel **2** is not provided with an adjustable connector. In operation, an aperture is drilled to provide a location for the insertion of a threaded or non threaded reinforcing rod with a diameter generally in the range of 0.25-1.50 inches. Once the reinforcing rod is in place, epoxy, grout, sand or combinations therein are used to fill the hole that was bored into the lower wall panel, thus ensuring that the rod remains in a predetermined orientation. Thereafter, the floor deck **4** is placed over the rod and the aperture **26** included in the floor panel **2** is filled with a combination of sand and epoxy. The other end of the rod penetrates through a wall access pocket **28** provided in a portion of the upper wall panel **2** and secured with a series of washers and a nut or other hardware known in the art. Alternatively, the reinforcing rod can be positioned in the aperture **26** after the floor panel **4** and wall panels **2** are properly oriented.

[0044] Referring now to **FIG. 9**, yet another embodiment of the present invention is provided herein. In this embodiment, the floor panel **4** is not interconnected to adjoined wall panels **2**. This figure illustrates that the floor panels **4** may only be interconnected at two ends, wherein the opposite ends are free to float to compensate for thermal expansions and other slight movement. Further, a lateral edge of the floor panel **4** may be interconnected to the wall panel **2** in predetermined locations with bolts or other attachment hardware (not shown).

[0045] Referring now to **FIG. 10**, the versatility of the floor panels **4** are shown. More specifically, structural components may be added to the floor panels in any conceivable manner to create common building structures. Here, a steel "L" plate is interconnected to the floor panel **4** to provide a location for the structural foundation to support a landing and/or a plurality of steps or an attic entry. The "L" plate **56** provides a location for the interconnection of a plurality of 2"×8" floor joists **54** that provide a location for the integration of a plywood landing. A wall stringer **50** and gypsum board **48** or other similar materials may also be interconnected adjacent to the plywood landing **52** to create a location for the stairs.

[0046] Referring now to **FIGS. 11A-11C**, a combination of interconnected wall panels and floor panels is shown that forms a building structure and which depicts the precast wall and floor/roof structure starting from the foundation wall in **FIG. 11C** and moving upward to the roof as depicted in **FIG. 11A**. More specifically, with reference to **FIG. 11C**, a precast foundational wall **70** is provided that is positioned on the ground at a building site. Once secured in place, the precast floor panel **4** is erected on the foundation wall **70** wherein the wall panel **2** is placed adjacent thereto and interconnected as necessary. As shown, both the wall panel **2** and the floor panel **4** include a section of insulative material **24** within predetermined cavities, thus increasing the heat transfer properties of the system and reducing the overall density of the structure. In this embodiment, the wall panel **2** includes double hung windows which are precast as folds in the wall panel **2** during fabrication.

[0047] Referring now to **FIG. 11B**, adjacent to the windows **66**, yet another shorter wall portion is provided that includes a location for the engagement of yet another floor panel **4**. Atop this floor panel **4**, another wall panel **2** is provided. One skilled in the art will appreciate that the inside of the wall panels may include insulation and/or other items, such as gypsum, drywall, wonderboard, and or cementious materials in finishes and to provide locations for the interconnection of wood or other items generally found in the interior of a home.

[0048] Finally, with reference to **FIG. 11A**, yet another portion of a wall panel is provided. As depicted, a final shorter wall member is placed atop the window **66**, which provides a location for the interconnection of a precast floor panel **4** that acts as the roof of the structure. This final floor/roof panel may also be insulated with EPDM rubber and other materials known in the art to provide superior heat transfer and sealing properties between the interior and exterior of the structure and thus improve thermal efficiency. The interconnection of the roof panel **4** onto the wall panel **2** may also provide a lip for the engagement of a cornice **62** or other architectural accessory.

[0049] To assist in the understanding of the invention, the following is a list of the components and numbering depicted in the drawings:

#	Component
2	Wall panel
4	Floor/ceiling panel
6	Adjustable interconnection device
8	Threaded rod
10	Threaded nut
12	Spring
14	Channel
16	Leg
18	Groove
20	Metallic rod
22	Bearing pad
24	Low density foam material
26	Aperture
28	Wall access pocket or recess
30	Washer
32	Particulate or sand
34	Epoxy

-continued

#	Component
36	Concrete
38	Wall panel floor ledge
40	Wall panel bearing pad
42	Floor/ceiling panel utility hole
44	Floor panel leg
46	Shim
48	Gypsum board
50	Wall stringer
52	Plywood landing
54	Floor joists
56	L plate
58	Roof membrane
60	Rigid roof insulation
62	Cornice
64	Window trim
66	Window
68	Finished grade
70	Foundation wall
72	Wall panel upper end
74	Wall panel lower end
76	Floor/ceiling panel first end
78	Floor/ceiling panel second end
80	Utility opening

[0050] While an effort has been made to describe various alternatives to the preferred embodiment, other alternatives will readily come to mind to those skilled in the art. Therefore, it should be understood that the invention may be embodied in other specific forms without departing from the spirit or central characteristics thereof. Present examples and embodiments, therefore, are to be considered in all respects as illustrative and not restrictive, and the invention is not intended to be limited to the details given herein.

What is claimed is:

1. A method of interconnecting a first prefabricated wall panel to a floor panel, comprising:

providing a wall panel having an upper end, a lower end and an adjustable connection device embedded proximate to said upper end;

providing a floor panel having an aperture positioned proximate to at least one of a first end and a second end and including a metal sheath positioned therein that is adapted for selective interconnection with a lifting mechanism;

placing said floor panel atop said upper end of said wall panel wherein said aperture is generally aligned with said adjustable connection device;

inserting a threaded rod into said aperture after removal of said lifting mechanism; and

interconnecting said threaded rod to said adjustable connection device, wherein said floor panel and said wall panel are operably interconnected.

2. The method of claim 1, further comprising filling said aperture in said floor panel and said metal sheath with a particulate matter.

3. The method of claim 2, wherein said particulate matter is sand.

4. The method of claim 1, further comprising filling said aperture in said floor panel and said metal sheath with at least one of an epoxy or a cement.

5. The method of claim 1, wherein said adjustable connection device comprises a threaded nut slidingly engaged within a channel, wherein said nut may be operably positioned to a plurality of positions.

6. The method of claim 5, wherein said threaded nut is biased within said channel to allow vertical movement therein.

7. The method of claim 1, wherein said lifting mechanism comprises at least one of a threaded rod, bolt, strap or clamp.

8. The method of claim 1, wherein said wall panel is comprised at least partially of a low density insulation material.

9. The method of claim 1, further comprising drilling a further portion of said floor panel in alignment with said metal sheath to create an aperture extending entirely through said floor panel.

10. A lift anchor adapted for lifting and securing at least one of a prefabricated concrete floor panel to a prefabricated concrete wall panel, comprising:

a substantially hollow tube having a distinct internal profile which is adapted for selective interconnection with a lift pin, the hollow tube adapted for placement in said at least one prefabricated concrete floor panel and said prefabricated wall panel; and

a securement pin operably sized for positioning through said substantially hollow tube and for penetration into at least part of said at least one prefabricated concrete wall panel and said prefabricated floor panel.

11. The lift anchor of claim 10, wherein said substantially hollow tube is comprised of a metallic material.

12. The lift anchor of claim 10, wherein said securement pan is comprised of at least one of a metallic material, a fiberglass material and a ceramic material.

13. The lift anchor of claim 10, further comprising an adjustable interconnection device positioned in said prefabricated concrete wall panel proximate to an upper end which is adapted for interconnection to said securement pin.

14. The lift anchor of claim 13, wherein said adjustable interconnection device comprises a biased nut capable of traveling between multiple positions.

15. The lift anchor of claim 10, wherein said at least one of said prefabricated concrete wall panel and said prefabricated concrete floor panel are partially comprised of a low density insulative material.

16. A method for interconnecting a first prefabricated wall panel to a second prefabricated wall panel, comprising:

providing a first prefabricated wall panel with an upper end and a lower end;

providing a connection device positioned proximate to an upper end of said first prefabricated wall panel;

providing a second prefabricated wall panel with an upper end and a lower end, said lower end comprising an access pocket and an aperture extending downwardly

therefrom in a substantially vertical direction which is adapted to receive a rod;

positioning said lower end of said second prefabricated wall panel on said upper end of said first prefabricated wall panel, wherein said aperture is positioned proximate to said connection device;

inserting said interconnection device into said aperture; and

interconnecting said rod to said interconnection device; wherein said first prefabricated wall panel is operably interconnected to said second prefabricated wall panel.

17. The method of claim 16, further comprising utilizing a lift pin engaged to said interconnection device during said positioning of said first wall.

18. The method of claim 16, further comprising positioning a grout material in said aperture after interconnecting the rod to the interconnection device.

19. The method of claim 16, wherein said grout material is at least one of a sand, an epoxy and a cement.

20. The method of claim 16, further comprising interconnecting a prefabricated floor panel to said first prefabricated wall and said second prefabricated wall.

21. The method of claim 16, wherein said connection device comprises a receiver adapted to move between a plurality of positions.

22. The method of claim 21, wherein said receiver comprises a threaded nut which is biased in a substantially vertical direction.

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