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(54) **SLAB EDGE CASING AND METHOD THEREFOR**

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(57) **ABSTRACT**

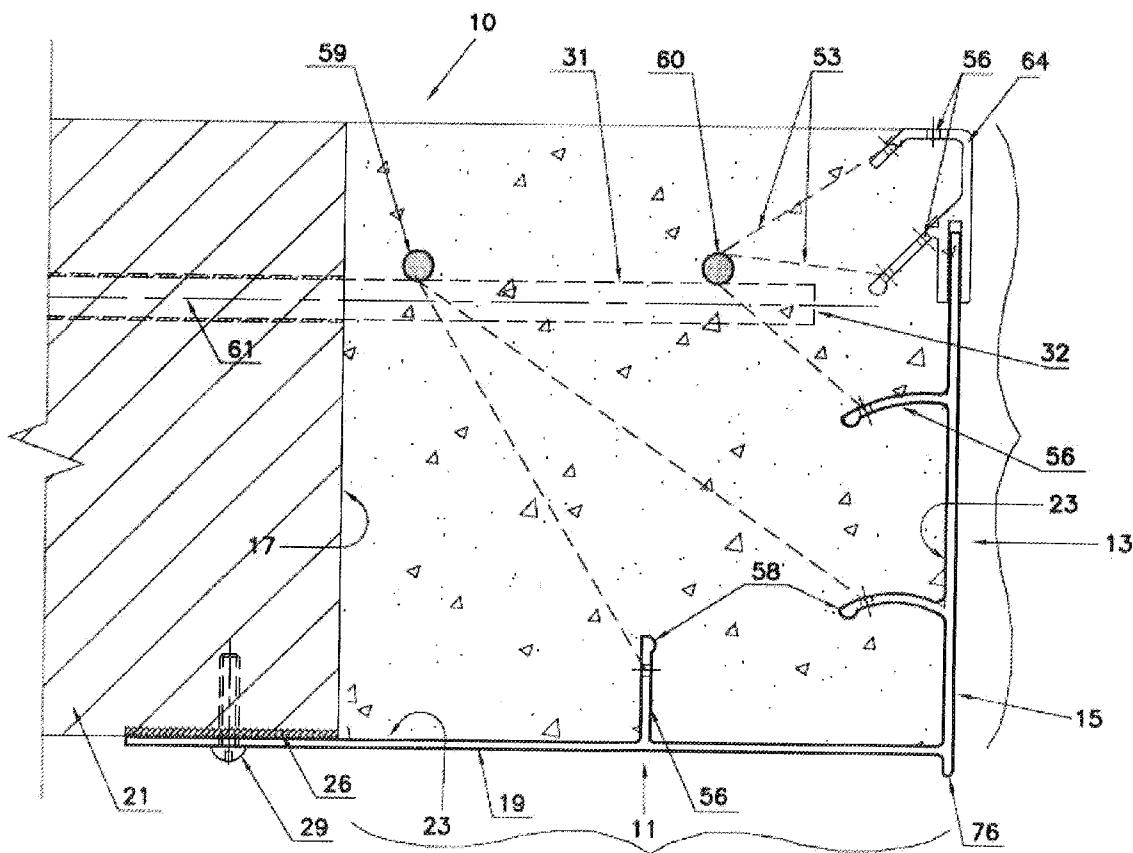
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A slab edge casing for finishing a slab edge is provided. The casing comprises a face which defines a finished slab edge for an unfinished slab edge; and, a base which extends from the face. The base is connectable to one of a slab face that is adjacent the unfinished slab edge or is registerable with the unfinished slab edge. The face and base have respective inside surfaces that define a form into which concrete is poured and allowed to cure. One of the face and base also comprise a reinforcing element mount for receiving a reinforcing element that extends from the unfinished slab edge. A method for installing the casing is also provided.

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Related U.S. Application Data

(63) Continuation-in-part of application No. 11/750,788, filed on May 18, 2007, now abandoned.



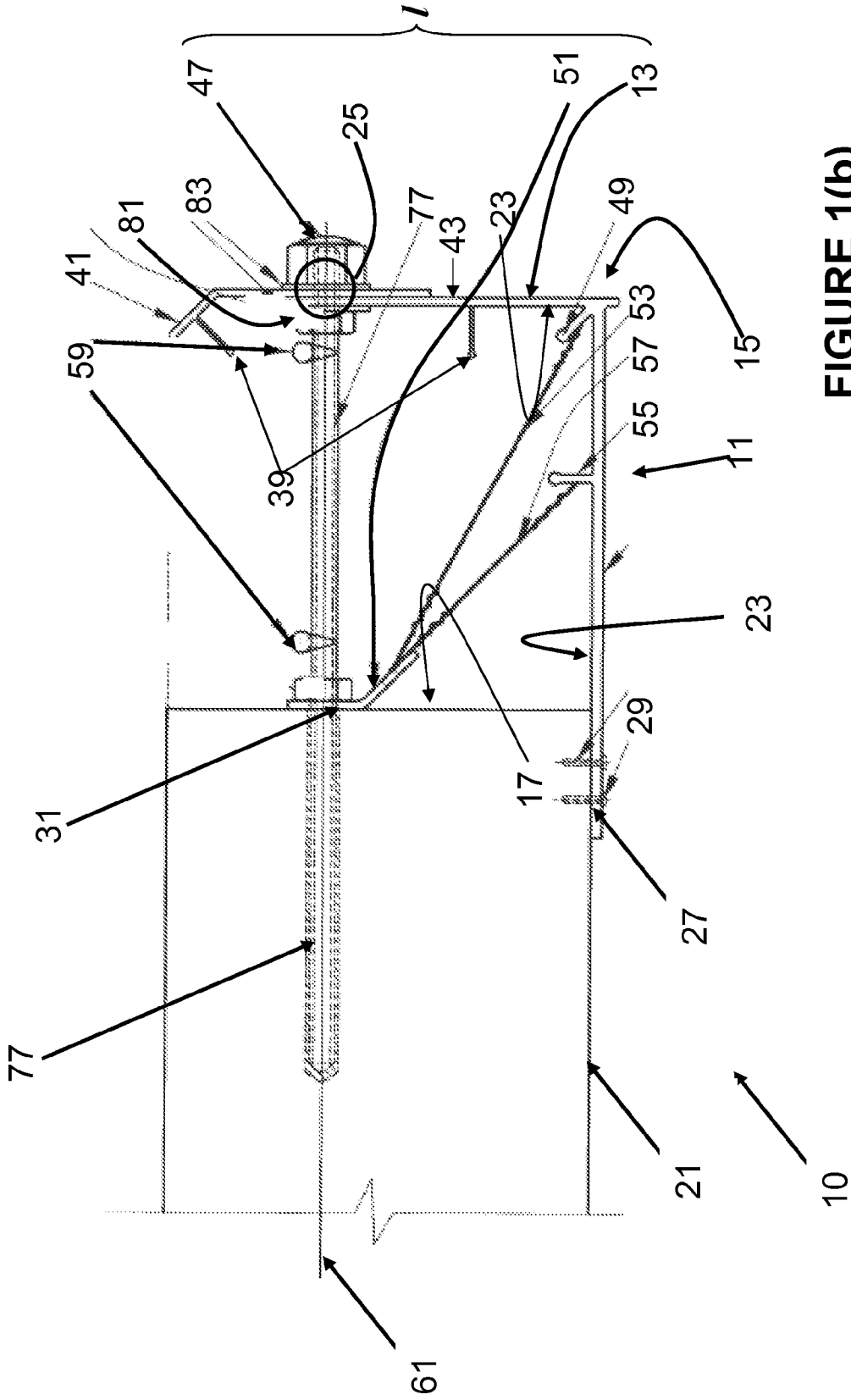


FIGURE 1(b)

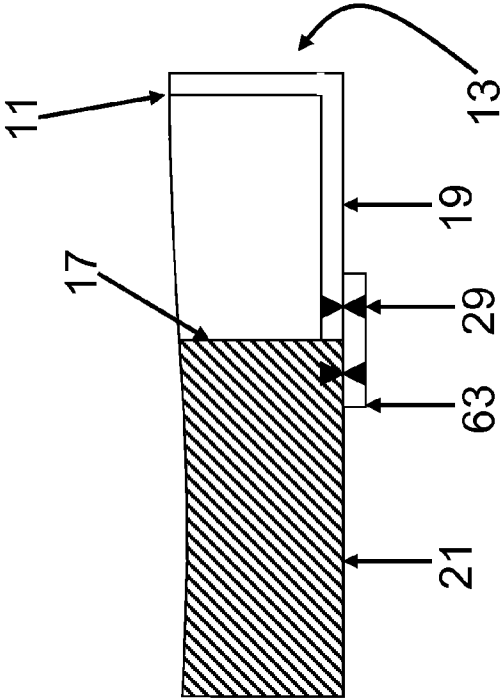


FIGURE 2(A)

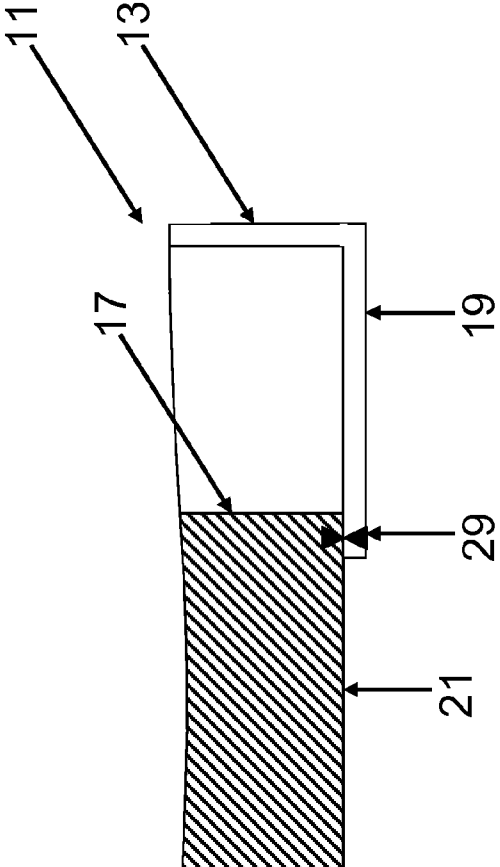


FIGURE 2(B)

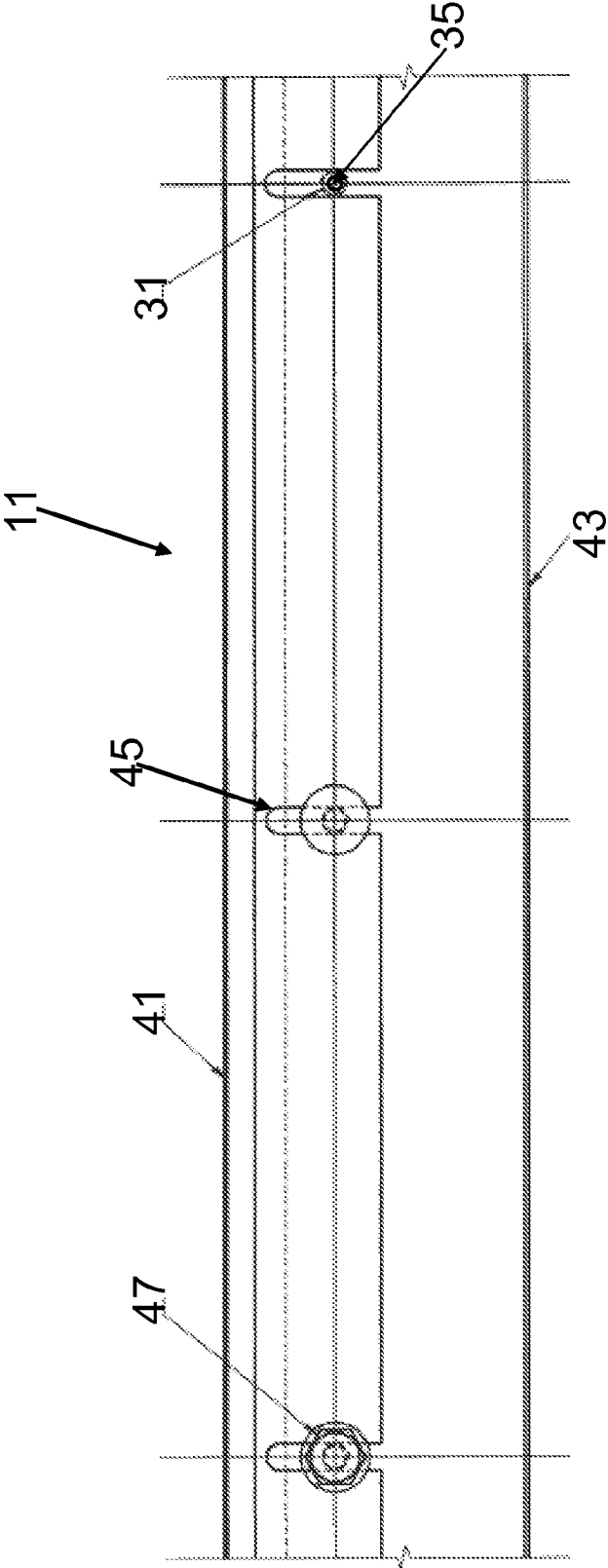


FIGURE 3

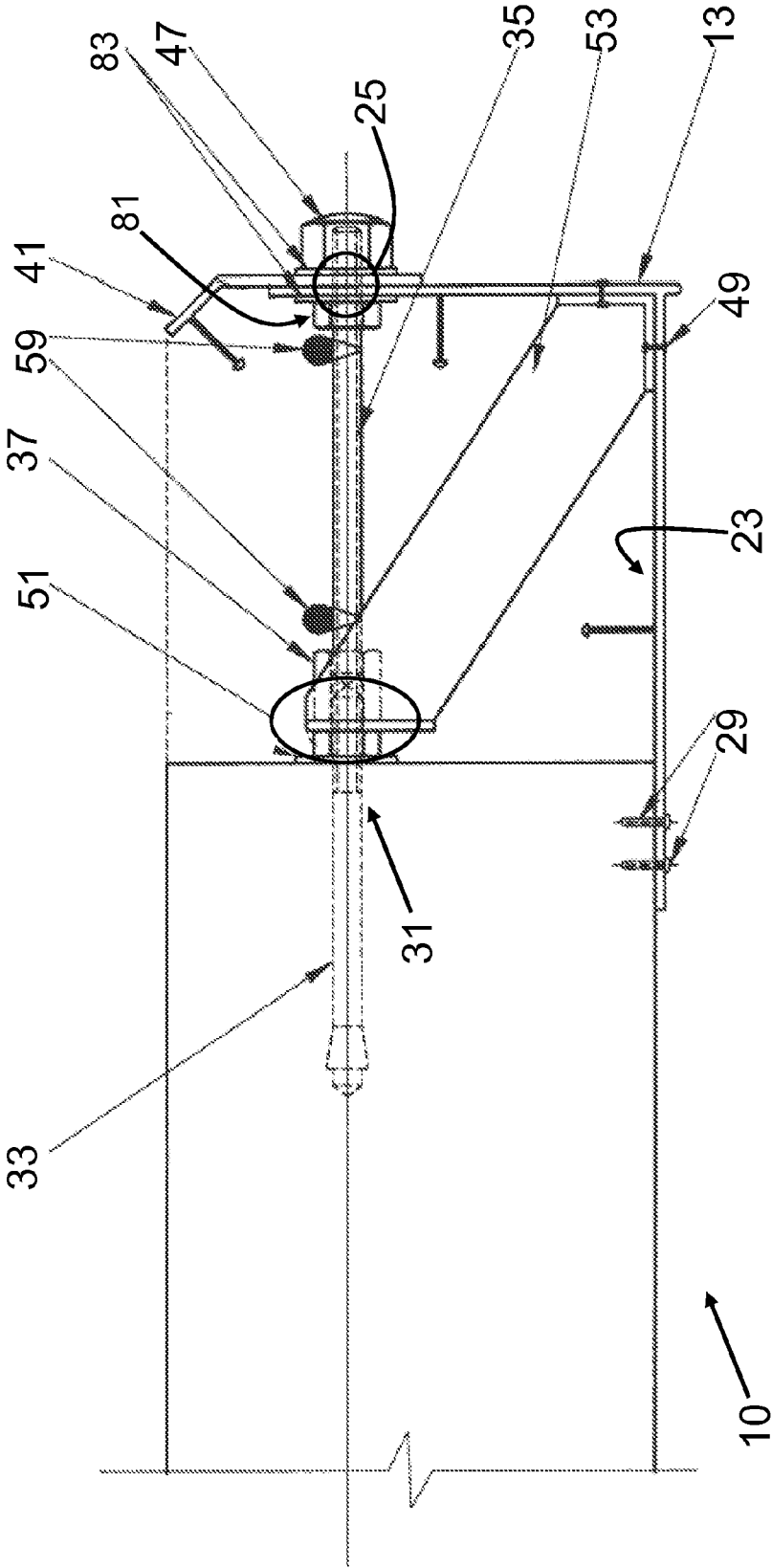


FIGURE 4

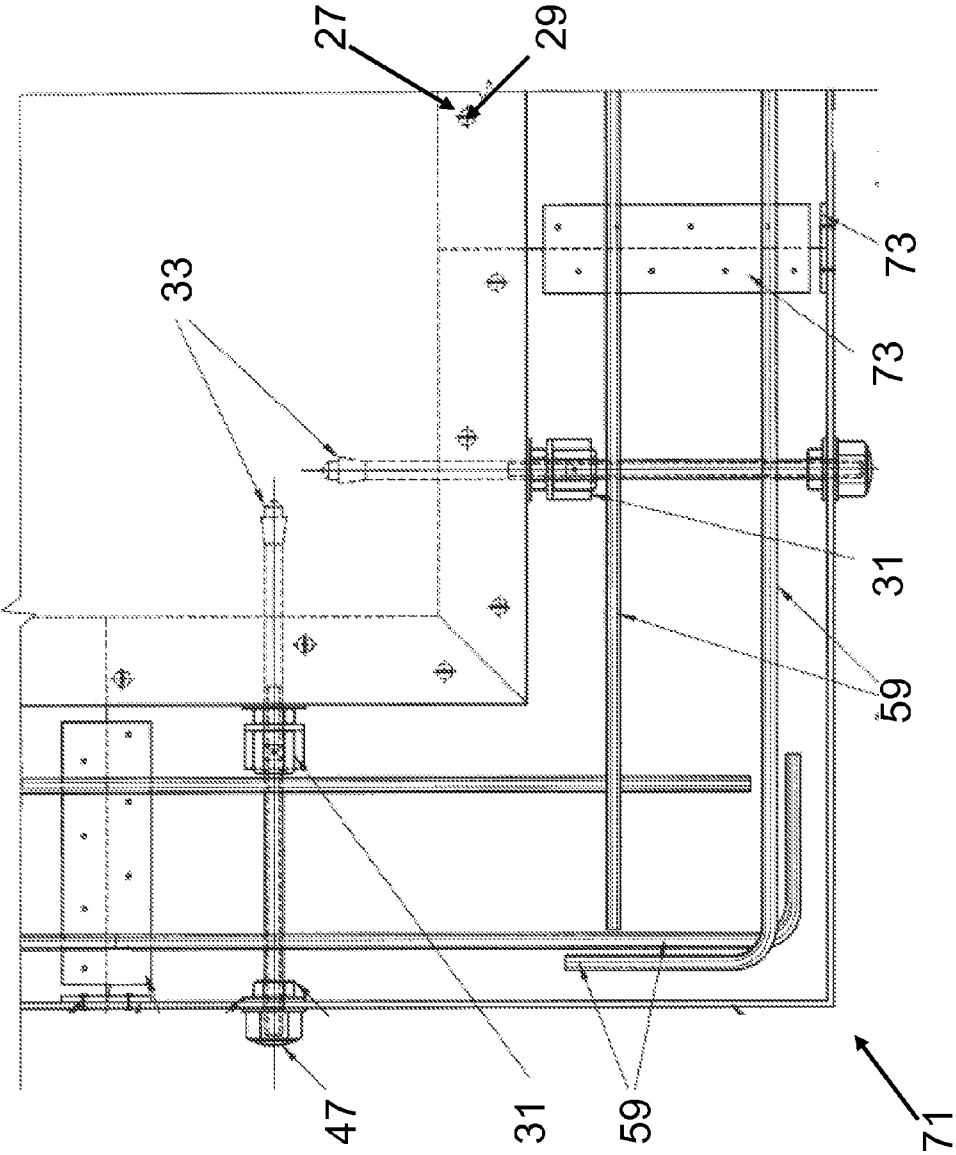


FIGURE 5(a)

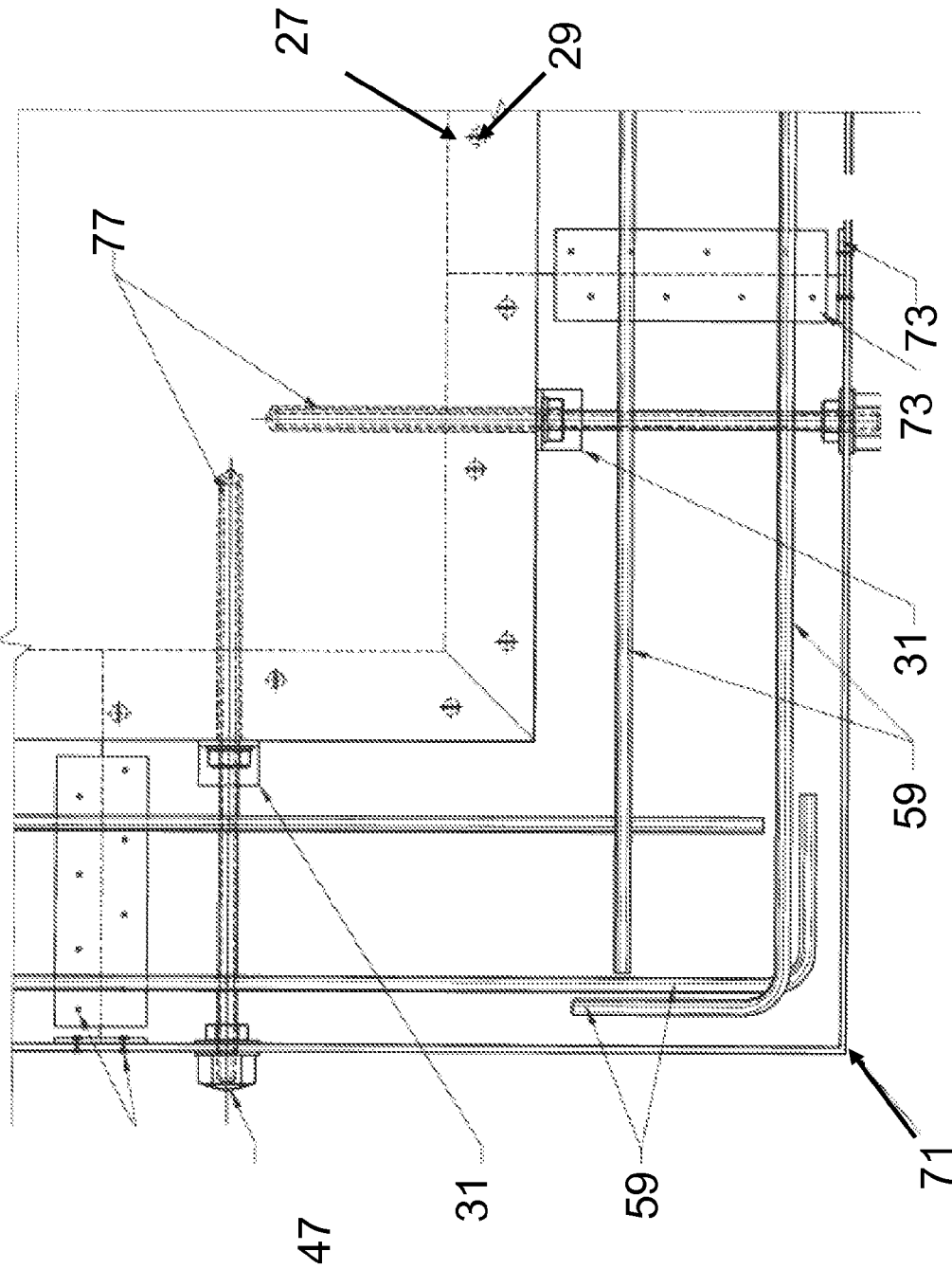


FIGURE 5(b)

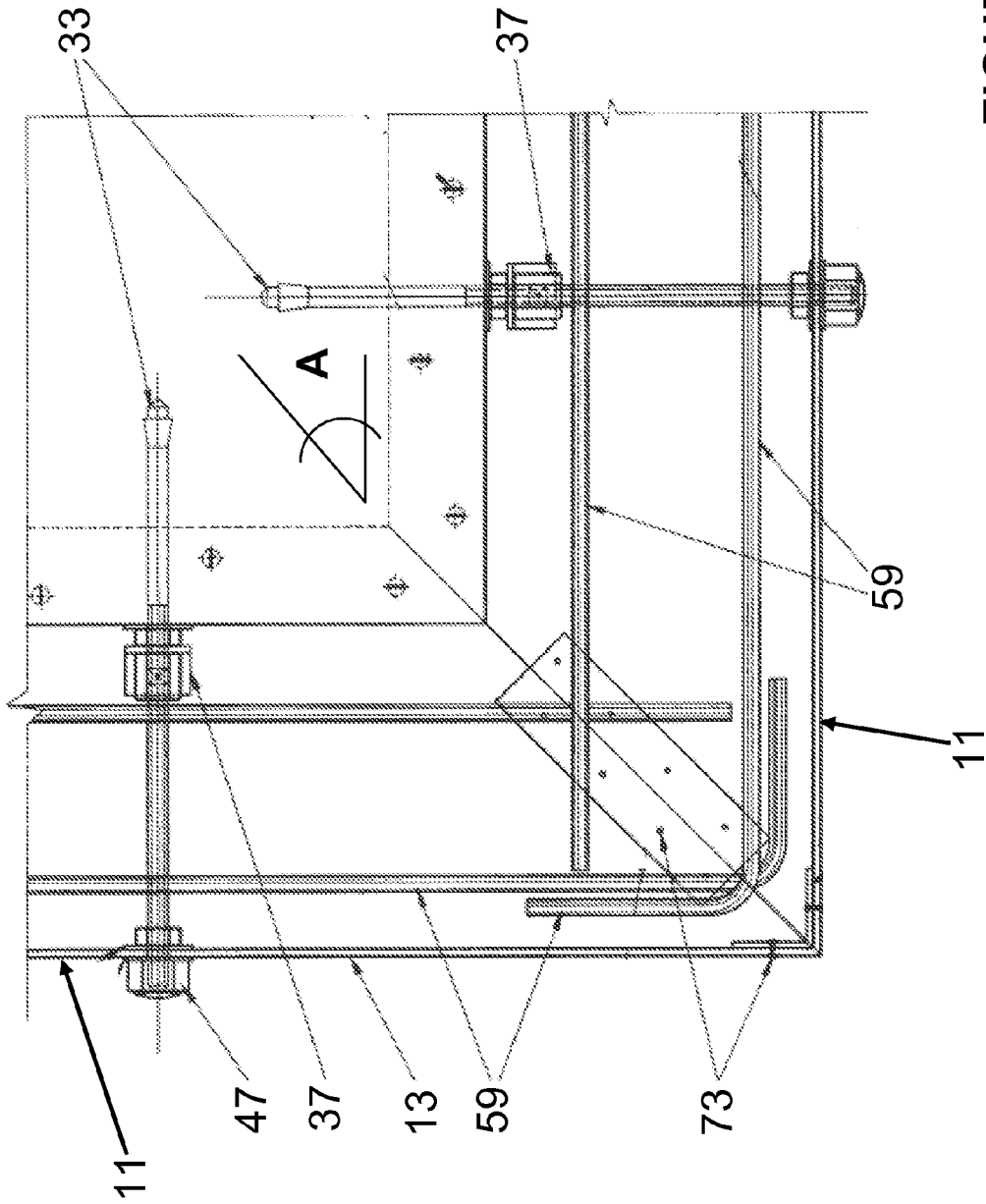


FIGURE 6(a)

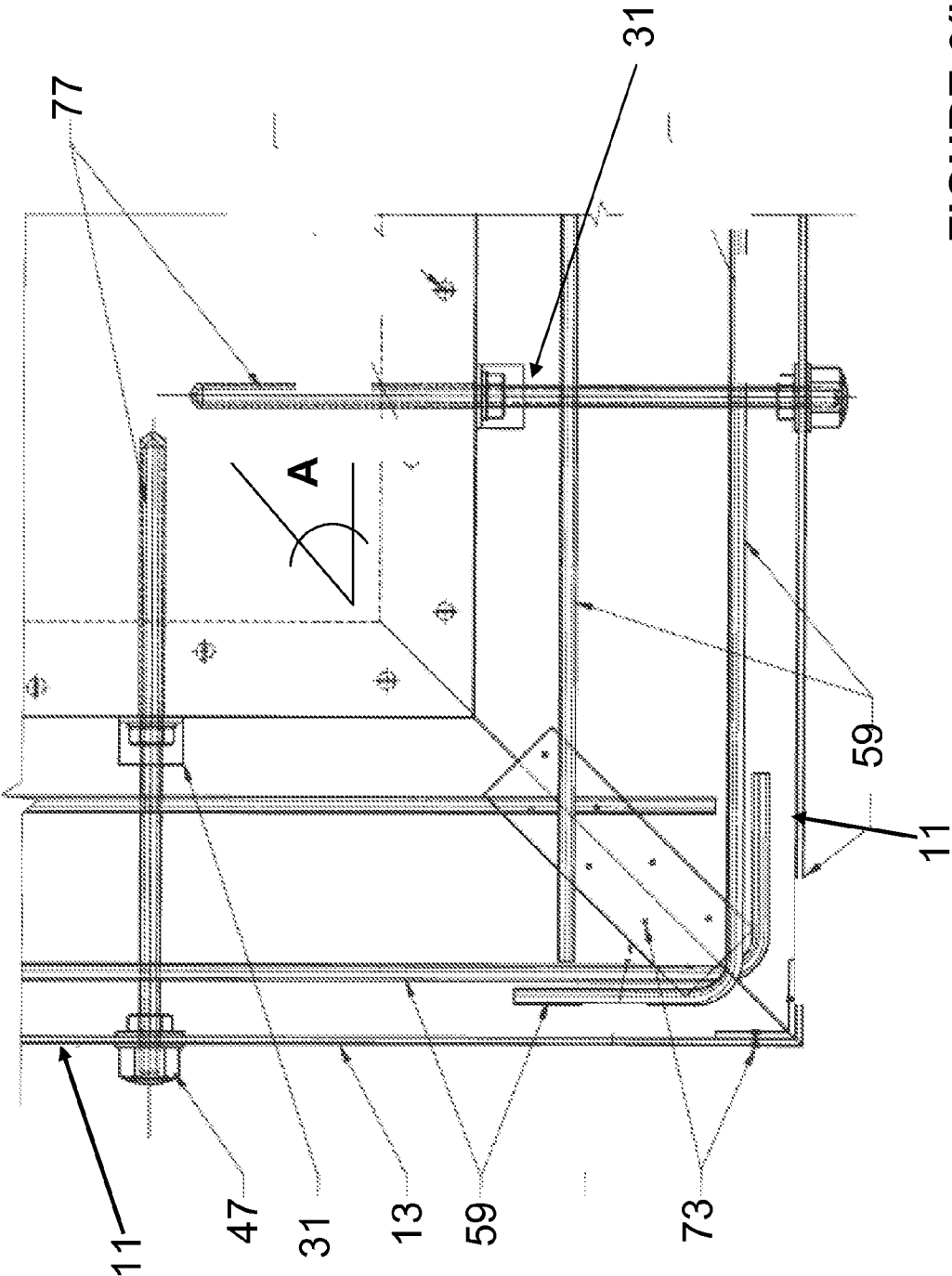


FIGURE 6(b)

| | |
|-----------------|---|
| Step 100 | Securing a reinforcing element into the unfinished slab edge. |
| Step 200 | Connecting a casing to the reinforcing element at the terminal end. |
| Step 300 | Pouring the concrete into the form and allowing the concrete to cure. |

FIGURE 7

| | |
|--------------------|---|
| Step 100(a) | Cutting the slab to remove an original slab edge and expose the unfinished slab edge. |
| Step 100(b) | Drilling a plurality of holes into an unfinished slab edge. |
| Step 100(c) | Securing a reinforcing element into each of the holes. |

FIGURE 8

| | |
|--------------------|---|
| Step 200(a) | Securing a lock to a portion of the terminal end that extends beyond the finished edge 15. |
| Step 200(b) | Connecting the casing to a face adjacent the unfinished slab edge. |
| Step 200(c) | Positioning reinforcing bars between the finished and unfinished slab edges in an orientation orthogonal to a longitudinal axis of the reinforcing element. |
| Step 200(d) | Connecting a brace to a casing brace mount and a reinforcing element brace mount. |
| Step 200(e) | Connecting a second brace to the reinforcing element brace mount and a second casing brace mount. |

FIGURE 9

FIGURE 10

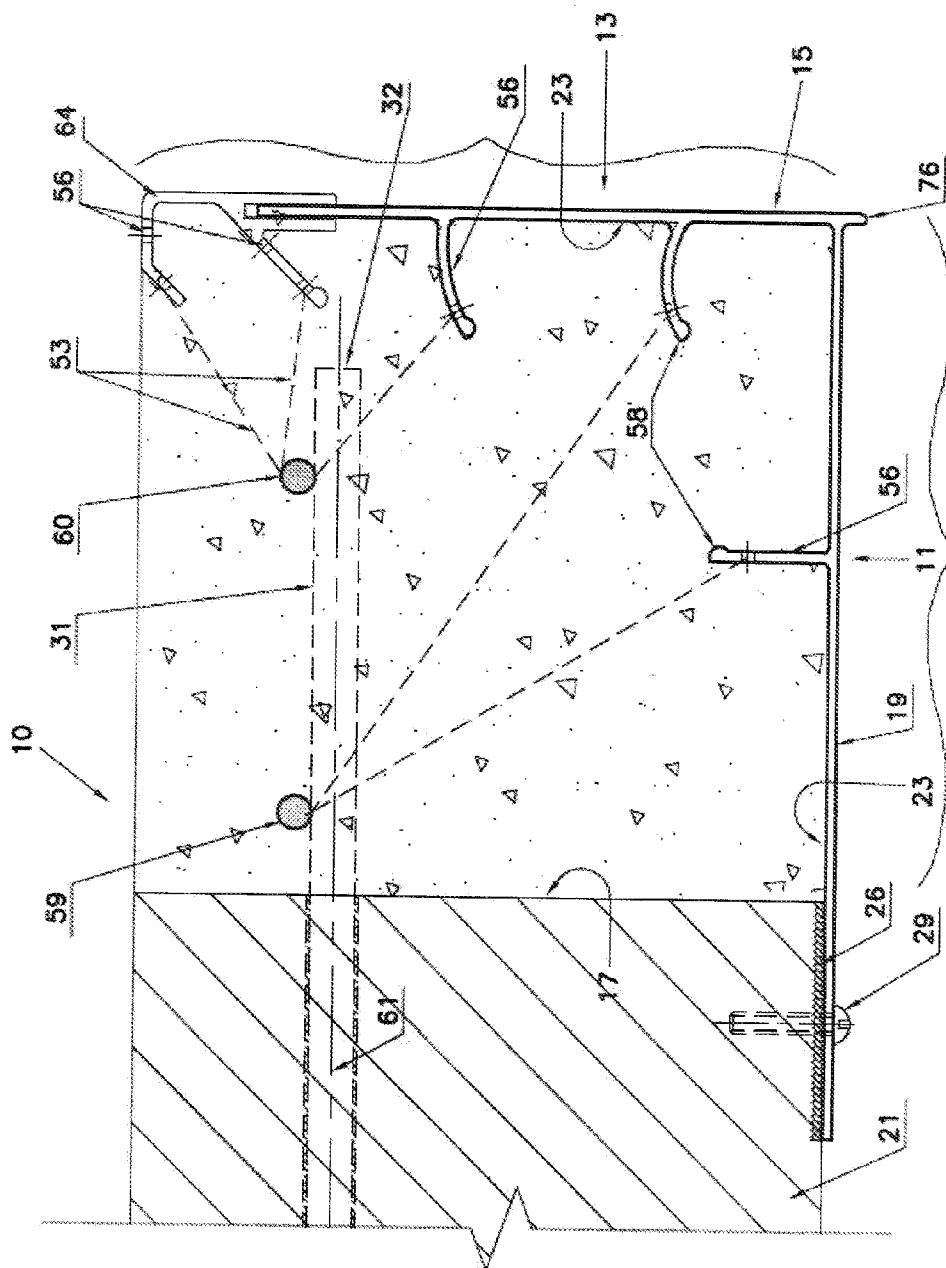


FIGURE 11a

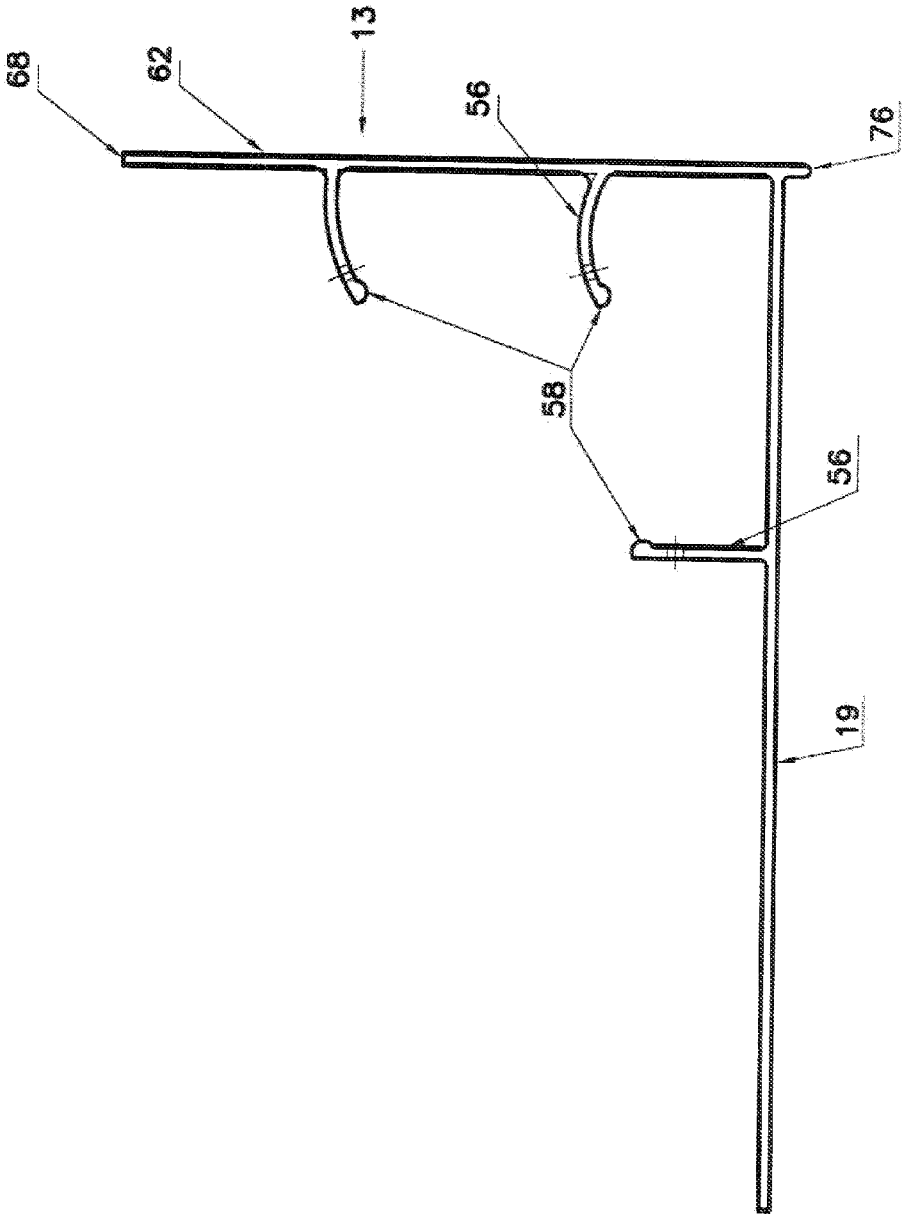
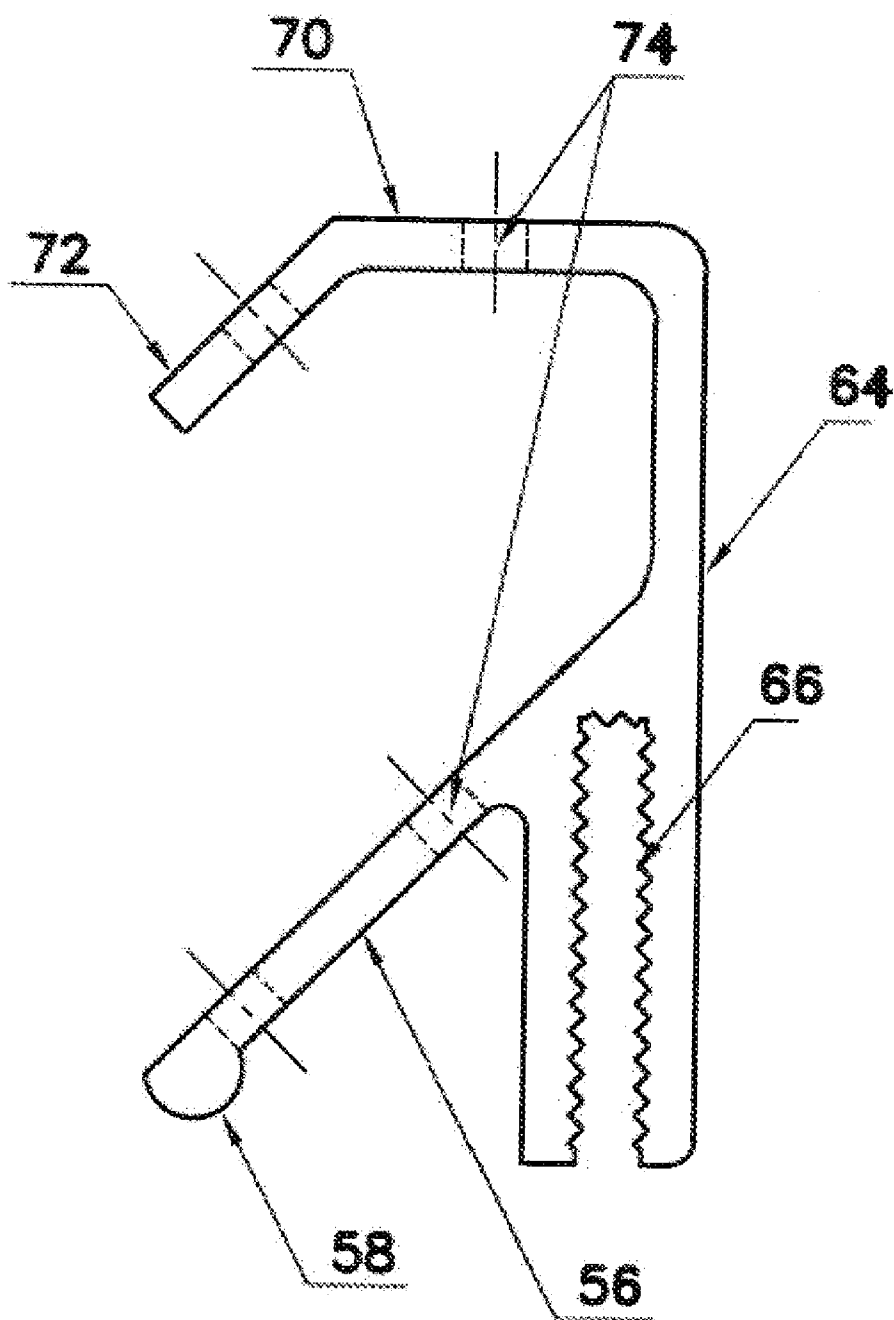


FIGURE 11b



SLAB EDGE CASING AND METHOD THEREFOR

FIELD OF THE INVENTION

[0001] The present invention relates to slab edges. In particular, the present invention relates to balcony edges.

BACKGROUND OF THE INVENTION

[0002] Concrete slabs, such as those found on balconies, have limited lifespans. They are built according to specifications which should provide a decades long life span. Unfortunately, often as a result of environmental conditions, the balconies must be replaced within 8-12 years. The process of re-finishing is labour, resource and time intensive for those re-furnishing the balconies. The re-furnishers must:

- [0003] set up scaffolding in order to access the balconies;
- [0004] employ impact tools (e.g. jack hammers) to remove the damaged balcony portions while at the same time preserving any existing reinforcing bars within the slab structure; and
- [0005] set up form work to pour re-finishing concrete.

[0006] Also this process often times significantly inconveniences the individuals who use the balconies. The noise and dust created is often intolerable. The dust generated can sometimes permanently damage personal possessions.

[0007] The remains a need for a system and method for finishing a slab edge which mitigates or obviates at least some of the above-presented problems.

SUMMARY

[0008] A slab edge casing for finishing a slab edge is provided. The casing comprises a face which defines a finished slab edge for an unfinished slab edge; and, a base which extends from the face. The base is connectable to one of a slab face that is adjacent the unfinished slab edge or is registerable with the unfinished slab edge. The face and base have respective inside surfaces that define a form into which concrete is poured and allowed to cure. In one embodiment, one of the face and base also comprise a reinforcing element mount for receiving a reinforcing element that extends from the unfinished slab edge.

[0009] The slab edge may be a balcony edge.

[0010] A kit for finishing a slab edge is provided. The kit comprises a casing, which in turn comprises a face which defines a finished slab edge for an unfinished slab edge and a base that extends from the face. The base may be connectable to a slab face adjacent the unfinished slab edge or registerable with the unfinished slab edge. The face and base having respective inside surfaces that define a form into which concrete is poured and allowed to cure. The casing also comprises a brace mount positioned on one of the inside surfaces. In one embodiment, one of the face and base comprises a reinforcing element mount for receiving a reinforcing element extending from the unfinished slab edge.

[0011] The kit also comprises a reinforcing element that is securable to the unfinished slab edge. The reinforcing element also comprises a brace mount. The kit also comprises a brace, extendable between the reinforcing element brace mount and the casing brace mount, and connectable to the respective mounts.

[0012] In one embodiment, the reinforcing element, when secured to the unfinished slab edge, extends from the unfin-

ished slab edge to at least a terminal anchor point that corresponds to the finished slab edge.

[0013] The kit also comprises a brace, which is extendable between the reinforcing element brace mount and the casing brace mount, and connectable to the respective mounts.

[0014] A method for installing a slab edge is also provided. The method comprises the steps of:

[0015] securing a reinforcing element into the unfinished slab edge

[0016] connecting a casing to the reinforcing element. The casing defines the finished slab edge and defines a form into which concrete is poured and allowed to cure.

[0017] and, pouring the concrete into the form and allowing the concrete to cure. The casing remaining in position after the concrete has cured.

LIST OF FIGURES

[0018] FIG. 1(a) is a cross-sectional view of a finished slab edge in accordance with a first embodiment of the present invention;

[0019] FIG. 1(b) is a cross-sectional view of a finished slab edge in accordance with a second embodiment of the present invention;

[0020] FIGS. 2(a) and 2(b) are cross-sectional views of alternate embodiments of a component of the finished slab edge of FIG. 1(a);

[0021] FIG. 3 is a front view of a component of a component of the finished slab edge of FIG. 1(a);

[0022] FIG. 4 is a cross-sectional view of a finished slab edge in accordance with an alternate embodiment of the present invention;

[0023] FIG. 5(a) is a plan view of a first corner portion of a finished slab edge in accordance with an embodiment of the present invention;

[0024] FIG. 5(b) is a plan view of a first corner portion of a finished slab edge in accordance with an alternate embodiment of the present invention;

[0025] FIG. 6(a) is a plan view of a second corner portion of a finished slab edge in accordance with an embodiment of the present invention;

[0026] FIG. 6(b) is a plan view of a second corner portion of a finished slab edge in accordance with an alternate embodiment of the present invention;

[0027] FIG. 7 is a flowchart illustrating the steps in a method according to an embodiment of the present invention;

[0028] FIG. 8 is a flowchart illustrating additional steps in the method of FIG. 7; and,

[0029] FIG. 9 is a flowchart illustrating additional steps in the method of FIG. 7; and

[0030] FIG. 10 is a cross-sectional view of a finished slab edge in accordance with an alternate embodiment of the present invention;

[0031] FIG. 11(a) is a cross-sectional view of a one embodiment of a portion of the slab edge casing of the present invention; and

[0032] FIG. 11(b) is a cross-sectional view of a first face portion of the slab edge casing of the present invention.

DETAILED DESCRIPTION

[0033] Referring to FIG. 1(a), a cross-sectional view of a finished slab edge 10 is illustrated in accordance with an embodiment of the present invention. In a preferred embodiment, the slab edge 10 is a balcony edge. However, as will be

apparent to those skilled in the art, the slab edge 10 may be any known concrete slab, such as a parking garage pad.

[0034] The finished slab edge 10 comprises a slab edge casing 11, which in turn comprises a face 13, the outside surface of which defines a finished slab edge 15 for an unfinished slab edge 17. The casing 11 also comprises a base 19, which extends from the casing face 13. The base 19 may be connectable to a slab face 21 adjacent the unfinished slab edge 17, as is illustrated in cross-section in FIG. 2(a). Alternately, the base 19 may register with the unfinished slab edge 17, as is illustrated in cross-section in FIG. 2(b). A registration plate 63 may be employed to aid in registering the base 19 with the unfinished slab edge 17. The plate 63 is preferably composed of the polymer, such as a glass fibre reinforced polymer or a GFRP as is known in the art. The plate 63 may be connected to the base 19 and unfinished slab edge 17 by any suitable means known in the art.

[0035] Referring again to FIG. 1(a), the face 13 and base 19 have respective inside surfaces 23, which define a form into which concrete is poured and allowed to cure.

[0036] The casing 11 also preferably comprises a plurality of ribs 39, which extend from the inside surfaces 23. The ribs 39, which are preferably formed along with the casing 11 as a unitary structure, aid in securing the concrete in position within the form.

[0037] The finished slab edge 10 also comprises a reinforcing element 31, which is securable to the unfinished slab edge 17. The reinforcing element 31, when secured to the unfinished slab edge 17, extends from the unfinished slab edge 17 to a terminal end, which ends at a point that corresponds to at least the finished slab edge 15. Preferably, the reinforcing element 31 is securable within a hole (not shown) that has been drilled into the unfinished slab edge 17 or by other mechanical anchors known in the art.

[0038] In a first embodiment, the reinforcing element 31 comprises an anchor bolt 33 that is securable within the hole; a rod 35, which extends from the anchor bolt 33 to the terminal anchor point; and, a coupler 37, which connects the anchor bolt 33 to the rod 35. Preferably, the rod 35 is a threaded rod, a portion of which extends beyond the casing 11. The rod 35 is preferably composed of a steel, such as stainless steel. Alternately, the rod 35 is composed of a plastic. As will be apparent, the rod 35 may comprise any suitable material that is substantially inert to the environmental conditions of the installation.

[0039] Referring now to FIG. 1(b), a cross-sectional view of the finished slab edge 10 in accordance with a second embodiment is illustrated. The reinforcing element 31 may alternately comprise an extended rod 77, which extends from the hole to the terminal anchor point. The extended rod 77 is a one-piece threaded rod, a portion of which extends beyond the casing 11. The rod 77 is preferably composed of a steel, such as stainless steel. Alternately, the rod 77 is composed of a plastic. As will be apparent, the rod may comprise any suitable material that is substantially inert to the environmental conditions of the installation. The extended rod 77 is preferably held in place within the hole with the use of a suitable adhesive, such as an epoxy glue or cement or by switchable mechanical anchors known in the art.

[0040] Referring to FIGS. 1(a) and 1(b), the extending portions of the respective rods 35, 77 are configured to receive the lock 47. Preferably, the lock 47 is a lock nut or knob.

[0041] In a preferred embodiment, the lock 47 is also composed of a polymer that is resistant to the deteriorating effects

of the environmental conditions of the slab installation. For example, the lock 47 may be composed to a suitable plastic.

[0042] Referring again to FIG. 1(a), the casing 11 is preferably composed of a polymer, such as a glass-fibre reinforced polymer (GFRP) or a polyvinyl chloride (PVC), as is known in the art.

[0043] The face 13 of the casing 11 preferably has a length (l) corresponding to the height of the slab edge 10. In order to accommodate varying slab heights, the face 13 may be cut to the required height at any point during the installation process. Alternately, and preferably, the casing face 13 comprises a first face portion 41 and a second face portion 43. The first and second portions (41, 43) are positionable with respect to each other and securable to each other at a position having a face length (l) corresponding to the slab height. Preferably, the first and second portions (41, 43) are slidably moveable with respect to each other. For example, referring to FIG. 3, a front view of the first and second portions (41, 43) is illustrated. The first portion 41 comprises at least one, and preferably a plurality, of guide channels 45, the positioning of which corresponds to the point at which the portion of the rod 35 (or rod 77 as is illustrated in FIG. 1(b)) of the reinforcing element 31 extends beyond the casing face 13. The extending portion of the rod 35 is then engaged by a lock 47, thereby securing the first and second casing portions (41, 43) to each other. The lock 47 preferably works in combination with a pair of washers 83 and nut 81. The guide channels 45 may be formed at any point during the manufacture and installation process. For example, channel 45 may be pre-positioned during the manufacturing process. Alternately and preferably, the channel 45 is positioned and formed on-site during the installation process.

[0044] The face 13 also preferably comprises a reinforcing element mount 25. Alternately, the base 19 comprises the reinforcing element mount 25, not shown.

[0045] The reinforcing element mount 25 may comprise a passage extending through the face 13, the rod 35 (or rod 77 as is illustrated in FIG. 1(b)) passing through the passage. The reinforcing element mount 25 may further comprise related mounting accessories, such as the nut 81, washers 83 and lock 47. The reinforcing element mount 25 may be formed at any point during the manufacture and installation process. For example, the mount 25 may be pre-positioned during the manufacturing process. Alternately and preferably, the mount is positioned and applied on-site during the installation process.

[0046] The slab edge casing 11 further comprises a base mount 27, which is configured to receive securing means for securing the base 19 to the adjacent slab face 21. In a preferred embodiment, the base mount 27 is a passage extending through the base 19 and the securing means is a screw 29 (preferably a self tapping screw), which passes through the base mount 27 and into the slab face 21, thereby securing the base 19 to the slab face 21. In installation, the adjacent slab face 21 is pre-treated prior to the base 19 being secured. For example, the slab face 21 may be sandblasted or otherwise abraded. The base 19 is then secured with screws 29. Preferably, the base 19 is also glued to the adjacent slab face 21.

[0047] Still referring to FIG. 1(a), the slab edge casing 11 further comprises a brace mount 49, which is positioned on one of the inside surfaces 23 of the casing 11. The reinforcing element 31 also further comprises an anchor brace mount 51, such as a suspender. With the casing 11 and reinforcing element 31 being configured with respective brace mounts (49,

51), the finished slab edge 10 additionally comprises a brace 53. The brace 53 extends between the reinforcing element brace mount 51 and the casing brace mount 49, and is connectable to the respective mounts 49, 51.

[0048] Preferably, the slab edge casing 11 comprises a second brace mount 55, also positioned on one of the inside surfaces 23, but, separate and apart from the first brace mount 49. The second brace mount 55 is connectable to a second brace 57, which extends from the reinforcing element 31. As will be apparent, the casing brace mounts 49, 55 may alternately be configured to function as additional casing ribs 39.

[0049] Still referring to FIG. 1(a), the braces 53, 57 may be wire elements, as is illustrated. As such, the respective brace mounts 49, 51 and 55 are configured to receive the wire elements, which are then secured to the mounts 49, 51 and 55. The wire elements may be secured to the mounts 49, 51 and 55 by any known means.

[0050] Referring to FIG. 4, an alternate embodiment of the brace 53 is illustrated. In this alternate embodiment, the brace 53 is a bar element, which may be composed of light gauge steel or a glass fibre reinforced polymer. As will be apparent, the brace 53 may be comprised of any material that suits the slab edge's particular installation environment.

[0051] In this alternate embodiment, the mounts 49, 51 are configured to receive the bar element. For example, as is illustrated in FIG. 4, the brace 53 may be shaped to engage the inside surface 23, thereby permitting the brace 53 to be secured directly to the inside surface 23. In this particular embodiment, the casing brace mount 49 is may be a rivet (or similar securing means) which secures the brace 53 to the casing 11. The opposite end of the brace 53 may be secured directly to the reinforcing element 31. In the embodiment illustrated, the brace 53 is secured in place between the anchor bolt 33 and the coupler 37. The brace 53 may be secured to the reinforcing element 31 and the casing 11 by any suitable means known to those skilled in the art.

[0052] The casing 11, as has been described above, is preferably composed of a FRP (Fiber Reinforced Polymer). In an alternate embodiment, the casing 11 may be composed of a PVC (polyvinyl chloride). The thickness of the PVC composed casing 11 compared to that of the FRP composed casing 11 will preferably be adjusted (increased) to compensate to PVC's relatively lower modulus of elasticity. In either case, respective thicknesses of the FRP and PVC casings 11 will be selected, taking in to account the materials' respective modulus of elasticity, to minimise any deflection of the casing 11 caused by the concrete. Deflection is kept at a minimum in order to maintain the visual presentation of the finished slab edge 15.

[0053] PVC, as a material for casing 11 construction, offers a number of advantages over FRP. One advantage is that PVC can be welded on site (in addition to being glued or cemented, as may also be required). Welding permits on site customization of the casing 11. It also reduces the number of welding plates that are required to connect casing pieces together, as in the corner portion of the finished slab edge, for example. An additional advantage of using PVC is that the face 13 and base 19 may be formed separately and welded on site to form the casing 11.

[0054] An embodiment of the present invention may alternately be characterized as a kit for finishing an unfinished slab edge. The kit comprises the casing 11, the reinforcing element 31 and a brace 53, as defined above, including the alternate embodiments. Preferably, the kit comprises a plurality of

reinforcing elements 31 and a plurality of braces 53. For example, the kit may comprise an equal number of reinforcing elements 31 and braces 53.

[0055] Referring to FIG. 5(a), a corner portion of a finished slab edge 10 is illustrated in plan view. A slab edge corner casing 71 for the corner portion is illustrated. In the illustrated embodiment, the corner portion comprises two adjacent unfinished slab edges 17, which are positioned orthogonally to each other. Any suitable non-orthogonal positioning may be employed, as may be dictated by the slab structure.

[0056] The corner casing 71 comprises adjacent faces 13, which define the finished slab edge 10. From each face 13, a respective base 19 extends. The bases 19 are either connectable to a slab face 21 adjacent the unfinished slab edge 17; or, registerable with the unfinished slab edge 17. The faces 13 and bases 19 have respective inside surfaces which define a form into which concrete is poured and allowed to cure. Each face 13, base 19 pairing also comprises a reinforcing element mount 25 for receiving a respective reinforcing element 31 that extends from the unfinished slab edge 17. As stated previously, the casing 13 may further comprise base mounts 27 (not shown) for receiving securing means, such as self-tapping screws 29.

[0057] Also, as stated previously, the corner casing 71 may further comprise a brace mount 49 positioned on one of the inside surfaces 23 (not shown). The brace mount 49 is connectable to a brace 53 extending from the reinforcing element 31 (not shown). The corner casing 71 may additionally comprise a second brace mount 55 (not shown). As will be apparent, the corner casing 71 is comprised similarly to the casing 11. As such, it may comprise:

[0058] a plurality of ribs 39 extending from the inside surfaces 23 (not shown); and,

[0059] a polymer composition, preferably a glass-fibre reinforced polymer.

[0060] As with the casing 11, the face 13 of the corner casing 71 has a length corresponding to the slab height. Alternatively, the face 13 of the corner casing 71 may comprise the first face portion 41 and second face portion 43, as described above.

[0061] Referring to FIG. 5(b), the corner portion of FIG. 5(a) is illustrated with the reinforcing element 31 comprising the rod 77. This corner portion is identical to that of FIG. 5(a) in all other respects.

[0062] Referring to FIG. 6(a), a corner of a finished slab edge 10 is illustrated according to an alternate embodiment. In this embodiment, the casings 11 are cut at an angle A, which is determined by the particular installation requirements.

[0063] Referring to FIG. 6(b), the corner portion of FIG. 6(a) is illustrated with the reinforcing element 31 comprising the rod 77. This corner portion is identical to that of FIG. 6(a) in all other respects.

[0064] Referring to FIGS. 5 and 6, means for connecting adjacent casings 11 (or 11 and 71) is illustrated. The adjacent casings 11 (or 11 and 71) are placed side by side. A coupling plate 73 is positioned at the common border of the adjacent casings 11 (or 11 and 71). The plate 73 is then secured to the casings 11 (or 11 and 71), as is illustrated. Preferably, the connection comprises a base coupling plate and a face coupling plate. The plates 73 preferably are composed of a glass-fibre reinforced polymer.

[0065] Referring to FIG. 1(a), the finished slab edge 10 may further comprise reinforcing bars 59, which are position-

able between the finished and unfinished slab edges **15,17** in an orientation orthogonal to a longitudinal axis **61** of the reinforcing element **31**. The reinforcing bars may be composed of any suitable corrosion resistant material, such as any one of fibre reinforced polymer and steel (such as stainless steel).

[0066] Referring to FIG. 7, a flow chart illustrating the steps in a method in accordance with a preferred embodiment is provided. The method provided is for finishing an unfinished slab edge. The method comprises the steps of:

[0067] (a) securing a reinforcing element **31** into the unfinished slab edge **17**. (Step **100**) The reinforcing element **31** extends from the unfinished slab edge **17** to a terminal end that extends to a point corresponding to the installed position of the finished slab edge **10**;

[0068] (b) connecting a casing **11** to the reinforcing element **31** at the terminal end. (Step **200**) The casing defines the finished slab edge **10** and defines a form into which concrete is poured and allowed to cure; and,

[0069] (c) pouring the concrete into the form and allowing the concrete to cure. (Step **300**) The casing **11** remains in position after the concrete has cured.

[0070] Step (a) may further comprise any one or a combination of the steps of:

[0071] (a) cutting the slab to remove an original deteriorated slab edge and expose the unfinished slab edge **17**. (Step **100(a)**). [As will be apparent, any suitable cutting tool, such as a circular or chain saw for concrete, may be employed. The use of the cutting tool contrasts with traditional methods, which involve the use of percussion or impact tools (commonly referred to as jack hammers) of varying sizes, which are used to remove the concrete and preserve the underlying reinforcing bars.]

[0072] (b) drilling a plurality of holes into an unfinished slab edge **17** (Step **100(b)**); and,

[0073] (c) securing a reinforcing element **31** into each of the holes. (Step **100(c)**). [The number of holes drilled, and the drilling depth of the holes are determined by the particular installation requirements. The reinforcing element **31** may be secured into its hole by any one or a combination of the action of an anchor bolt portion **33** of the reinforcing element **31** and the use of a suitable adhesive or mechanical anchoring means known in the art.

[0074] Step (b) may further comprise any one or a combination of the steps of:

[0075] (a) securing a lock to a portion of the terminal end that extends beyond the finished edge **15**. (Step **200(a)**);

[0076] (b) connecting the casing **11** to a face **21** adjacent the unfinished slab edge. (Step **200(b)**);

[0077] (c) positioning reinforcing bars **59** between the finished and unfinished slab edges **15,17** in an orientation orthogonal to a longitudinal axis **61** of the reinforcing element **31**. (Step **200(c)**);

[0078] (d) connecting a brace **53** to a casing brace mount **49** and a reinforcing element brace mount **51**. (Step **200(d)**); and,

[0079] (e) connecting a second brace **57** to the reinforcing element brace mount **51** and a second casing brace mount **55**. (Step **200(e)**).

[0080] An alternative embodiment of the slab edge casing is shown in FIGS. **10-11** in which the slab edge casing is shown generally at numeral **11**. FIG. **10** shows a finished slab edge **10** comprising an alternate embodiment of the slab edge casing **11**. The slab edge casing **11** includes a face **13**, the

outside edge of which defines a finished slab edge **15** for an unfinished slab edge **17**. The casing **11** also comprises a base **19**, which extends from the casing face **13** and is connectable to, or registrable with, a slab face **21** adjacent the unfinished slab edge **17**, as described in the alternate embodiments discussed above.

[0081] As described above, each of the face **13** and the base **19** have respective inside surfaces **23**, which define a form into which concrete is poured and allowed to cure.

[0082] The finished slab edge includes a reinforcing element **31**, which is securable to the unfinished slab edge **17**. The reinforcing element **31**, when secured to the unfinished slab edge **17**, extends from the unfinished slab edge **17** to a terminal end **32** located within the finished slab edge **10**. The terminal end **32** is spaced from the inside surface **23** of the face **13**. To secure the reinforcing element **31** to the unfinished slab edge **17**, and within the slab face **21**, the reinforcing element may include an anchor bolt **33**, as shown in FIG. **1(a)** above or an extended rod **77**, as shown in FIG. **1(b)**.

[0083] The reinforcing element **31** includes at least one reinforcing brace mount **60** to which one or more braces **53** are connected. The reinforcing brace mount **60** may be located directly on the reinforcing element **31**, or it may be positioned on a reinforcing bar **59** positioned between the finished and unfinished slab edges **15, 17**. The reinforcing bar **59** and its location is described above.

[0084] The base **19** of the casing **11** may be connected to the adjacent slab face **21** as described above. Alternatively, the base **19** may be adhered to the slab face **21**, using a suitable adhesive product, as shown generally at numeral **26**, and additional securing means, such as a screw **29** may be used.

[0085] Located on the inside surface **23** of each of the base **19** and the face **13** of the casing **11** are a series of brace mounts, or ribs, **56** that extend inwardly from the inside surface(s) **23**. The brace mounts **56** may be straight or curved and include a bulbous end portion **58** which aids in securing the concrete in position within the form. In addition, the end portion **58** of each brace mount **56** is configured to connect to a brace **53** extending between the brace mount **56** and the reinforcing brace mounts **60, 60a**.

[0086] As can be seen in FIG. **10**, the illustrated embodiment includes five braces **53**, each extending between one of the two reinforcing brace mounts **60** and **60a**, located on the reinforcing element **31**, and one of the brace mounts **56**. It will be understood that the casing **11** is not limited to being used with only five braces. The number of braces **53** to be used will depend on the amount of reinforcement required for the final product. The braces **53** may be wire elements, as discussed above, that may be secured to the mounts **56, 60** and **60a** by any known means. The brace **53** may also be a bar element, as discussed above. Depending on the depth of the casing **11**, brace mounts may only be located on the surface **23** of the face **13**.

[0087] As can be seen in FIGS. **10** and **11**, in the illustrated embodiment the casing **11** includes a series of brace mounts **56** located along the inside face **23** of the face **13** and an additional two brace mounts **56** located along the inside surface **23** of the base **19**. The brace mount **56** that is located adjacent the unfinished slab edge **17** is substantially vertical relative to the base **19** so that it may lie substantially flush with the unfinished slab edge **17**. The brace mount **56** adjacent the unfinished slab edge is intended for alignment is rather than support and accordingly is optional. The remaining brace mounts **56** positioned along the insides surface **23** of the face

13 are preferably substantially curved which provides for additional reinforcement when the concrete is poured into the casing **11**.

[0088] Turning to FIGS. **11(a)** and **(b)** the casing **11** is shown in isolation. The casing face **13** includes a first portion **62**, shown in FIG. **11(a)** and a second portion **64**, shown in FIG. **11(b)**. As seen in FIG. **11(b)** the second portion **64** includes a channel **66** that is sized to receive the end **68** of the first portion **62**. The first portion **62** is operable to slidably move within channel **66** and allows for adjustment of the height of the casing face **13** by way of the relative positioning of the end **68** of the first portion **62** within the channel **66**. The connection of the first and second portions **62**, **64** may be by any means known in the art including friction.

[0089] The top part of the first portion **62** includes a top ledge **70** that extends substantially perpendicular to the second portion **64** and includes a curved end portion **72** that is configured to connect to a brace **53**, as shown in FIG. **10**. Included in the top ledge **70** and the adjacent brace mount **56** are apertures **74**. The apertures **74** provide holes for trapped air release during the pouring of the concrete which prevents any air holes from forming in the top concrete layer of the finished slab. While only two apertures are shown in the embodiment illustrated in FIG. **11(b)** it will be understood that the number of apertures may vary depending on the end use of the casing **11** and the size of the concrete form to be made.

[0090] The lower part of the second portion **64** includes a drip edge **76** which extends beyond the base **19** to prevent water from dripping under the casing **11**.

[0091] The method for finishing an unfinished slab edge will now be described with reference to the embodiment shown in FIGS. **10-11**. The method comprises the steps of:

- [0092] (a) securing a reinforcing element **31** into the unfinished slab edge **17**;
 - [0093] (b) connecting a casing **11** to the reinforcing element **31**, the casing defining the finished slab edge **15** and defines a form into which concrete is poured and allowed to cure; and,
 - [0094] (c) pouring the concrete into the form and allowing the concrete to cure, the casing **11** remaining in position after the concrete has cured.
- [0095] Step (a) may further comprise any one or a combination of the steps of:
- [0096] (a) cutting the slab to remove an original deteriorated slab edge and expose the unfinished slab edge **17**.
 - [0097] (b) drilling a plurality of holes into an unfinished slab edge **17**; and,
 - [0098] (c) securing a reinforcing element **31** into each of the holes.
- [0099] Step (b) may further comprise any one or a combination of the steps of:
- [0100] (a) connecting the casing **11** to a face **21** adjacent the unfinished slab edge;
 - [0101] (b) positioning reinforcing bars between the finished and unfinished slab edges **15,17** in an orientation generally orthogonal to a longitudinal axis **61** of the reinforcing element **31**; and
 - [0102] (c) connecting one or more braces **53** to one or more casing brace mounts **56** and one or more reinforcing element brace mounts **60, 60a**.
- [0103] The above description is intended in an illustrative rather than restrictive sense. Variations may be apparent to

those skilled in the art without departing from the spirit and scope of the invention as defined by the claims set out below.

1. A method for finishing an unfinished slab edge comprising the steps of:

- (a) securing a reinforcing element into the unfinished slab edge, the reinforcing element extending from the unfinished slab edge;
- (b) connecting a casing to the reinforcing element, the casing defining the finished slab edge and defining a form into which concrete is poured and allowed to cure; and,
- (c) pouring the concrete into the form so as to surround the reinforcing element and allowing the concrete to cure, the casing remaining in position after the concrete has cured.

2. A method for finishing a slab edge according to claim 1, wherein step (b) further comprises connecting the casing to a face adjacent the unfinished slab edge.

3. A method for finishing a slab edge according to claim 1, wherein step (a) further comprises cutting the slab to remove an original slab edge and expose the unfinished slab edge.

4. A method for finishing a slab edge according to claim 1, wherein step (a) further comprises drilling a plurality of holes into an unfinished slab edge; and, securing a reinforcing element into each of the holes.

5. A method for finishing a slab edge according to claim 1, wherein the reinforcing element comprises a brace mount and the casing comprises a corresponding brace mount, and step (b) further comprises connecting a brace to the respective mounts.

6. A method for finishing a slab edge according to claim 5, wherein the casing further comprises a second brace mount and the reinforcing element is configured to receive a second brace, and step (b) further comprises connecting the second brace to the reinforcing element brace and the second brace.

7. A method for finishing a slab edge according to claim 1, wherein the reinforcing element extends to at least a terminal anchor point corresponding to the installed position of the finished slab edge and step (b) further comprises connecting the casing to the reinforcing element at the terminal anchor point.

8. A method for finishing a slab edge according to claim 7, wherein the terminal anchor point extends beyond the casing, the portion extending beyond being configured to receive a lock, and step (b) further comprises securing the lock to extended anchor portion.

9. A method for finishing a slab edge according to claim 1, wherein step (b) further comprises positioning reinforcing bars between the finished and unfinished slab edges in an orientation orthogonal to a longitudinal axis of the reinforcing element.

10. A method for finishing a slab edge according to claim 1, wherein the slab is a balcony.

11. A slab edge casing for finishing a slab edge, the casing comprising:

- a face defining a finished slab edge for an unfinished slab edge; and,
- a base extending from the face, the base being one of connectable to a slab face adjacent the unfinished slab edge and registerable with the unfinished slab edge, the face and base having respective inside surfaces defining a form into which concrete is poured and allowed to cure, and

- at least one brace mount for receiving securing means for securing at least one of the face and the base to the adjacent slab face.
- 12. A slab edge casing for finishing a slab edge according to claim 11, wherein the casing further comprises a base mount for receiving securing means for securing the base to the adjacent slab face.
- 13. A slab edge casing for finishing a slab edge according to claim 12, wherein the securing means is a self tapping screw.
- 14. A slab edge casing for finishing a slab edge according to claim 11, wherein the at least one brace mount is configured to receive securing means for securing at least one of the face and the base to a reinforcing element extending from the unfinished slab edge.
- 15. A slab edge casing for finishing a slab edge according to claim 14 wherein the at least one brace mount is positioned on one of the inside surfaces, the brace mount being connectable to a brace extending from the reinforcing element.
- 16. A slab edge casing for finishing a slab edge according to claim 15 further comprising a second brace mount positioned on one of the inside surfaces, apart from the first brace mount, the second brace mount being connectable to a second brace extending from the reinforcing element.
- 17. A slab edge casing for finishing a slab edge according to claim 11, wherein the casing further comprises a plurality of ribs extending from the inside surfaces, the ribs aiding in securing the cured concrete in position.
- 18. A slab edge casing for finishing a slab edge according to claim 17, wherein each of the ribs includes a brace mount located thereon.
- 19. A slab edge casing for finishing a slab edge according to claim 11, wherein the casing is composed of a polymer.
- 20. A slab edge casing for finishing a slab edge according to claim 19, wherein the polymer is one of a fibre reinforced polymer and a polyvinyl chloride.
- 21. A slab edge casing for finishing a slab edge according to claim 11, wherein the face has a length corresponding to the slab height.
- 22. A slab edge casing for finishing a slab edge according to claim 11, wherein the face comprises a first face portion, and a second face portion, the first and second face portions being moveable with respect to each other and securable to each other at a position having a length corresponding to the slab height.
- 23. A slab edge casing for finishing a slab edge according to claim 22, wherein one of the first and second face portions includes a channel for slidably receiving the other of the first and second face portions.

- 24. A kit for finishing an unfinished slab edge, the kit comprising:
 - a casing comprising:
 - a face defining a finished slab edge for an unfinished slab edge; and,
 - a base extending from the face, the base being one of connectable to a slab face adjacent the unfinished slab edge and registerable with the unfinished slab edge, the face and base having respective inside surfaces defining a form into which concrete is poured and allowed to cure, and,
 - a brace mount positioned on one of the inside surfaces;
 - a reinforcing element securable to the unfinished slab edge, the reinforcing element, when secured to the unfinished slab edge, extending from the unfinished slab edge, the reinforcing element comprising a brace mount; and,
 - a brace, extendable between the reinforcing element brace mount and the casing brace mount, and connectable to the respective mounts.
- 25. A kit for finishing an unfinished slab edge according to claim 24, wherein the reinforcing element is securable within a hole drilled into the unfinished slab edge.
- 26. A kit for finishing an unfinished slab edge according to claim 25, wherein the reinforcing element further comprises:
 - an anchor bolt securable within the hole;
 - a rod extending from the anchor bolt to a terminal anchor point corresponding to the finished slab edge; and,
 - a coupler connecting the anchor bolt to the rod.
- 27. A kit for finishing an unfinished slab edge according to claim 26, wherein the rod is a threaded rod.
- 28. A kit for finishing an unfinished slab edge according to claim 27, wherein the lock is a lock nut.
- 29. A kit for finishing an unfinished slab edge according to claim 28, wherein the lock nut is composed of a polymer.
- 30. A kit for finishing an unfinished slab edge according to claim 24, wherein the casing is composed of a polymer.
- 31. A kit for finishing an unfinished slab edge according to claim 30, wherein the polymer is one of a fibre reinforced polymer ("FRP") and a polyvinyl chloride ("PVC").
- 32. A kit for finishing an unfinished slab edge according to claim 30, wherein when the polymer is a polyvinyl chloride, the face and base are welded together.
- 33. A kit for finishing an unfinished slab edge according to claim 26, wherein the reinforcing element further comprises a rod extending from the hole to the terminal anchor point.

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