A recess former and anchor positioning apparatus for creating recessed lift-points within concrete structures during casting, is comprised of a solid urethane semi-sphere, with two imbedded nuts on the flat side for bolting to a form wall, and a receiving slot passing through the center of the convex side for receipt of an anchor. The slot is sized dimensionally smaller than the received end of the anchor creating a secure compression-friction engagement. The apparatus is bolted to a form wall. The lifting end of an anchor is inserted into the receiving slot of the apparatus, which holds the anchor perpendicular to the form wall during casting and curing of the concrete structure. The anchor is automatically released from the apparatus upon stripping of the form, without need to remove the apparatus from the form. The lifting end of the anchor is exposed in the formed recess of the cast structure.
RECESS FORMING AND ANCHOR POSITIONING APPARATUS

BACKGROUND OF THE INVENTION

[0001] The invention relates to a recess forming and anchor positioning apparatus and method of use, and specifically to a recess forming and automatically releasable anchor positioning apparatus and method of use, for the creation of recessed lift-points within concrete structures during the casting of the same.

[0002] To easily handle the lifting of large concrete structures requires that such structures be embedded with lifting anchors to which a cable can be easily attached. Such anchors can interfere with the use of such concrete structures unless they are recessed below the planar surface of the structure.

[0003] Large (2,400-lb.) concrete blocks, for example, are created in steel forms that are poured with the face of the block on the ground. After stripping the form the block is tipped into an upright position and lifted and placed into position on the wall that is being created. This task requires that a point from which the block can be lifted (a lift-point) be created. On a concrete block this lift-point is aligned with the block’s center of gravity and recessed into the top surface of the block so as not to interfere with the stacking of other blocks on the wall.

[0004] It is much more efficient to create a recessed lift-point during the casting of a concrete structure, than to retrofit such a structure by drilling out a recess and then drilling out an anchor hole within the recess in which to insert a lifting anchor. Creating a recessed lift-point at the time of casting is not only more efficient, but it also creates a stronger bond between the structure and the embedded lifting anchor, with the end result being a stronger unified structure.

[0005] It is well known in the art to provide devices for forming recesses and to position lifting anchors within concrete structures during the casting of the same. However, the design of such devices at present require numerous steps for their use, and often additional tools are required for their operation. Present devices that are designed for use with casting forms generally require that the lifting anchor be locked into the device before the device can be attached to the form. Such devices generally require that following casting and curing of the concrete structure, that the device be unattached from the form before the form can be stripped from the cast structure. Such devices then generally require that following stripping of the form, the lifting anchor be manually unlocked or released from the device, and that the device then be opened or levered free from the cast structure, usually a time consuming and difficult task which often causes damage to the device.

[0006] The following patents are considered relevant to the disclosure:

[0007] U.S. Pat. No. 6,769,663 issued Aug. 3, 2004 to Kelly, et al., is a void forming and anchor positioning apparatus and method for concrete structures, which is a hinged, flexible, hollow, split body design which opens up to accept what will be the exposed lifting end of a lifting anchor and then closes back together with a catch portion of the device locking through the lifting anchor hole, to hold the anchor in the desired position until manually released.

[0008] U.S. Pat. No. 6,755,385 issued Jun. 25, 2004 to Lancelot, III, et al., is a concrete void former and cooperating cover, which is a split body design with two hollow portions connected by a hinged web surrounding the anchor receiving channel, and includes securing lugs which extend through the lifting anchor hole, to secure the anchor in the desired position until manually released.

[0009] U.S. Pat. No. 6,550,834 issued Apr. 22, 2003 to Fromelius, is a removable insert for creating a void space, as in precast concrete panels, which is a hollow non-hinged split body design with a removable top cover for access to the interior and a rod which extends between each body half through the lifting anchor hole to secure it in place until manually released.

[0010] U.S. Pat. No. 5,535,979 issued Jul. 16, 1996 to Elliscallow, is an apparatus for use in forming recesses in cast bodies, which is a hollow non-hinged body design with a centrally located slot for insertion of a lifting anchor, and a separate connector portion with a securing lug which extends through the lifting anchor hole when the connector portion (with the lifting anchor) is inserted into the device and secured through it to a form wall, until manually released.

[0011] U.S. Pat. No. 4,821,994 issued Apr. 18, 1989 to Fricker, is a molding for the retention of a tie in the concreting of a precast concrete part, which is a hinged, flexible, split body design, with a high density insert contained within each side, and which opens up to accept what will be the expose lifting end of a lifting anchor and then closes back together with a lug portion of the device locking through the lifting anchor hole, to hold the anchor in the desired position until manually released.

[0012] As seen above, a variety of inventions have been developed which assist in forming a recess (or void) and in positioning a lifting anchor within a concrete structure during casting, so that the anchor is accessible in the recess after the concrete has set and the form has been stripped from the structure. All of the above listed patents refer to such devices, for which the method of use to form a recess and to position an anchor within a concrete structure during casting require at least the following steps:

[0013] 1. providing a device and a form to which the device will attach;

[0014] 2. inserting a lifting anchor into the device;

[0015] 3. securing the device latching mechanism to the lifting anchor;

[0016] 4. attaching the device to the form;

[0017] 5. pouring concrete into the form;

[0018] 6. waiting for the concrete to cure;

[0019] 7. un-attaching the device from the form;

[0020] 8. stripping the form from the concrete structure;

[0021] 9. releasing the device latching mechanism from the lifting anchor;

[0022] 10. prying the device loose from the concrete structure.

[0023] The above method may also include the following step on a frequent basis:

[0024] 11. replacing the device if it was damaged while prying it loose from the concrete structure.

[0025] Much time and effort would be saved if the number of steps were reduced, and particularly if the step of prying the device loose from the concrete structure could be eliminated. This would be accomplished by a device which remains attached to the form wall during the entire process, so that on stripping of the form the device is also automatically removed from the cast structure, without requiring the prying of the two halves of a flexible split body design apart to disengage it from the anchor, or without hammering loose a solid body or hammering out a locking wedge (or disengaging some other
type of locking device) in a solid body design. This would also require that the securing of a lifting anchor into the device be able to occur while the device remains attached to the form wall. In addition, this would require the automatic release of the lifting anchor from the device on stripping of the form. It would be even more efficient if securing the anchor into the device required simply pushing the anchor into the receiving hole of the device while the device remains attached to the form wall.

None of the above listed patents allow for insertion and securement of the lifting anchor into the device while the device is attached to the form wall. None of the above listed patents provide for the automatic release of the lifting anchor from the device on stripping of the form from the cast concrete structure. None of the above listed patents provide for the automatic removal of the device from the cast wall upon stripping of the form. None of the above listed patents allow for immediate access to the lifting anchor for lifting the cast structure following stripping of the form, because they all first require manual removal of the device from the cast structure after the form has been stripped away. None of the above listed patents allow for the device to remain attached to the form wall during the entire process, or to remain attached to the form wall throughout multiple castings. None of the above listed patents presents a simple solid piece design.

OBJECTS OF THE INVENTION

Accordingly, several objects and advantages of the invention are as follows:

1. An object of this invention to provide a recess forming and anchor positioning apparatus and method of use which is simple and efficient, saving time and effort when used.
2. An object of this invention to provide an apparatus which will attach as an integral component to a form for the casting of concrete structures, which is not unattached for stripping of the form, but can remain attached to the form wall during the entire process.
3. A further object of this invention to provide an apparatus which allows for insertion and securement of a lifting anchor into the apparatus while the apparatus remains attached to a form wall.
4. An object of this invention to provide an apparatus which will automatically release the lifting anchor from the device on stripping of the form from the cast structure.
5. A further object of this invention to provide an apparatus which is automatically removed from the cast structure when the form is stripped away from the cast structure.
6. A further object of this invention to provide an apparatus which will allow for immediate access to the lifting anchor for lifting the cast structure following stripping of the form.
7. A further object of this invention to provide an apparatus which is a simple one piece solid design.
8. Further objects and advantages will become apparent from a consideration of the following description and drawings.

SUMMARY OF THE INVENTION

A recess former and anchor positioning apparatus for creating recessed lift-points within concrete structures during casting, is comprised of a solid urethane semi-sphere, with two imbedded nuts on the flat side for bolting to a form wall, and a receiving slot passing through the center of the convex side for receipt of an anchor. The slot is sized dimensionally smaller than the received end of the anchor creating a secure compression-friction engagement. The apparatus is bolted to a form wall. The lifting end of an anchor is inserted into the receiving slot of the apparatus, which holds the anchor perpendicular to the form wall during casting and curing of the concrete structure. The anchor is automatically released from the apparatus upon stripping of the form, without need to remove the apparatus from the form. The lifting end of the anchor is exposed in the formed recess of the cast structure.

By making use of a semi-flexible polymer (such as a harder rubber or urethane), and a receiving slot which is sized slightly smaller than the lifting anchor to be received, the compression-friction fit of the anchor within the receiving slot provides for an anchor which is engaged by simply pushing it into the receiving slot of the apparatus to create a secure engagement. Further, by remaining attached to the form and using an anchoring device such as a spread anchor (or other anchoring device compatible with the apparatus) which is automatically released from the apparatus on stripping of the form (without damage to the apparatus), the method of use of the recess forming and anchor positioning apparatus reduces the number of steps in casting a concrete structure with a recessed lift-point dramatically, to the following:

1. Providing an apparatus and a casting form to which it remains attached;
2. Inserting a lifting anchor into the apparatus;
3. Pouring concrete into the form;
4. Waiting for the concrete to cure;
5. Stripping the form (with the apparatus attached) from the concrete structure;

It is clear that by use of the above method, time and labor are considerably reduced.

BRIEF DESCRIPTION OF THE DRAWINGS

The present invention may be understood from the description of the preferred embodiment which follows and from the accompanying drawings. The drawings are hereby expressly made a part of the specification.

FIG. 1 is a rear perspective view of the recess forming and anchor positioning apparatus as it would appear prior to mounting to a form wall;
FIG. 2 is a front perspective view of the apparatus depicted in FIG. 1, with a hidden view of: the receiving slot which penetrates the apparatus, and of a portion of the rear rim;
FIG. 3 is a side planar view of the apparatus depicted in FIG. 2, with a view of the lifting end of an anchor prior to insertion into the receiving slot in the apparatus, with a hidden view of the receiving slot in the apparatus and of the embedded threaded fasteners also contained therein;
FIG. 4 is a front perspective view of the apparatus depicted in FIG. 2, and including a view of a spread anchor prior to insertion of the lifting end of the anchor into the receiving slot in the apparatus;
FIG. 5 is a front perspective view of the apparatus depicted in FIG. 4 following insertion of the lifting end of a spread anchor into the receiving slot in the apparatus, with a
hidden view of that portion of the lifting end of the anchor inserted into and received by the receiving slot in the apparatus;

[0049] FIG. 6 is a top perspective view of the recess formed in a concrete structure surrounding the lifting end of an anchor following casting of the structure and stripping of the form and the attached apparatus;

DETAILED DESCRIPTION OF THE INVENTION

[0050] Reference is made herein to the attached drawings. Like reference numerals are used throughout the various drawings to depict like or similar elements of the claimed recess forming and anchor positioning apparatus. For the purpose of presenting a brief and clear discussion of the apparatus, the preferred embodiment will be discussed primarily as used in the casting of large concrete blocks. This is for representative purposes only and should not be construed as limiting the adaptation and use of this device in the casting of other types of concrete structures.

[0051] The preferred embodiment of the recess forming and anchor positioning apparatus 10 is a solid one-piece, urethane semi-sphere, having a flat circular side for mounting on the interior surface of a form for the casting of large concrete blocks, and a hemisphere shaped convex side for forming a recess in the top of a large concrete block during casting, with two imbedded nuts exposed on the flat mounting side by which the apparatus is bolted to the interior surface of a form wall, and a rectangular slot opening at the vertex of the convex side which passes centrally through the apparatus along its axis, for receiving and holding an anchor to be positioned and embedded within a block being cast, where the lifting end of the anchor which is inserted into the receiving slot will (after stripping of the form) extend into and be exposed within the recess which was formed about the apparatus (during casting) within the top surface of the block.

[0052] Referring now to FIG. 1, the apparatus 10 is seen in a perspective view of primarily the flat mounting side 14 of the apparatus, as it would appear prior to mounting to a form wall. The flat mounting side 14 is generally an equatorially planar section of a sphere which forms the base of the hemisphere shaped convex side 16. The flat mounting side 14 intersects the convex side 16 at the rim edge 12, which is circular in shape and contained within and bounds each surface. The convex side 16 begins at the rim edge 12 and extends in a primarily perpendicular manner away from the flat mounting side 14 (also seen in FIG. 3), then curving inward from all sides, to a crowned vertex, being substantially a hemisphere shaped surface which will protrude from the interior surface of a form wall to which the apparatus 10 is mounted, into the top surface of a concrete block during casting, and within which a recess will thereby be formed.

[0053] Referring now to FIG. 3, two imbedded threaded fasteners 18, are provided on the flat mounting side 14 of the Apparatus 10 (also see FIG. 1), which are used to mount the Apparatus 10 onto a form. The threaded fasteners 18 are embedded in alignment with each other on opposite sides of the center of the flat mounting side 14, with the anchor receiving slot 20 opening transversely between them. The threaded fasteners 18 are spaced appropriately to provide a secure and stubble attachment when bolted to a form wall. The flat mounting side 14 is designed to mount flush to a flat form wall, where the rim edge 12, which provides a continuous outer edge to the flat mounting side 14, will prevent the intrusion of concrete during casting.

[0054] Referring now to FIGS. 4 and 5, the anchor receiving slot 20 passes through the center of the apparatus along its axis of symmetry, whereby an anchor inserted therein is securely held in place for embedding within a concrete block during casting. The anchor receiving slot 20 is sized dimensionally smaller than the lifting end 34 of an anchor 30, for receiving and frictionally engaging the lifting end 34 of an anchor 30 and thereby holding the anchor perpendicular to the form wall to which the apparatus 10 is attached, for positioning of the embedding end 36 of the anchor 30 within the concrete block being cast. The engagement of the lifting end 34 of the anchor 30 by the receiving slot 20 of the apparatus 10 also provides for the positioning of the lifting end 34 of the anchor 30 within the recess 60 (as can be seen in FIG. 6) formed by the apparatus 10 in the concrete block during casting.

[0055] The receiving slot 20 dimensions are smaller than the standard cross section dimensions of the lifting end 34 of an anchor 30 (such as the spread anchor 30 shown in FIGS. 4 and 5) by an amount appropriate to create a secure compression-friction engagement of the anchor 30 on all sides, when the lifting end 34 of the anchor 30 is received into the slot 20. The ideal receiving slot 20 dimensions, which allow an anchor 30 to be securely engaged by simply pushing the anchor 30 into the receiving slot 20, will depend on the elasticity of the material used for construction of the apparatus 10. The apparatus 10 is preferably made from a semi-flexible polymer, such as a harder rubber or urethane, with low compressibility, allowing the receiving slot 20 to be sized only slightly smaller than the cross sectional dimensions of the anchor 30, to achieve a secure engagement of the anchor 30 to the apparatus 10.

[0056] This simple but unique form of engagement makes it unnecessary for the provision of a catch, lug, rod or other type of locking means for separate engagement through the lifting hole 32 in the lifting end 34 of the anchor 30. The compression-friction fit also prevents the infiltration of concrete during casting so that the addition of a sealing strip is unnecessary. Because there is no separate engaging or locking mechanism other than the compression-friction fit, removal is much simpler than prior art devices. The apparatus 10 simply remains attached to the form during the entire process, and releases and pulls off of the anchor when the apparatus 10 is pulled out of the recess formed in the cast block when the form to which it is attached is stripped from the block.

[0057] Referring now to FIG. 6, a recess 60 is depicted as formed by the apparatus described herein, which is as can be seen, provides proper positioning of an anchor 30 embedded by use of the apparatus during the casting of a concrete block, which positions the lifting end 34 of the anchor 30 and the hole therethrough 62 to be accessible for lifting the concrete block without the anchor 30 protruding above the rim edge 62 of the recess 60 formed in the top planar surface of the concrete block in which it is embedded.

[0058] In use the apparatus is first mounted to the interior surface of a form wall where it is designed to remain attached without need of removal during the casting of multiple numbers of large concrete blocks. Bolts are inserted through mounting holes in a form wall into the threaded fasteners 16 embedded in the flat mounting surface 14, of the apparatus 10, and tightened by application of a torque thereto, to securely attach the apparatus to the form. With the apparatus securely attached to a form wall, the lifting end 34 of an anchor 30 is inserted into the receiving slot 20 of the apparatus 10. The
receiving slot 20, which is sized dimensionally smaller than the lifting end 34 of the anchor 30, creates a compression of the interior surfaces of the receiving slot 20 as the lifting anchor 30 is introduced.

[0059] The walls of the receiving slot 20, securely hold the lifting anchor substantially perpendicular to the form wall during the casting process, with the embedding end of the anchor protruding out of the apparatus to be embedded within the cast structure. Following casting and curing of the concrete structure the form is stripped from the cast structure. The compression-friction engagement of the lifting anchor within the receiving slot of the apparatus, although strong enough to securely hold the anchor in the desired position during casting, automatically releases the anchor when the form is stripped following curing of the concrete, which now creates a permanent engagement of the embedded end of the lifting anchor which then overpowers the compression-friction engagement of the receiving slot in the apparatus.

[0060] Upon stripping of the form to which the apparatus is attached, the apparatus is pulled away from the concrete block while at the same time releasing the lifting anchor from the receiving slot. As the form is pulled away from the block, the apparatus attached thereto is thereby pulled out of the recess which was formed about it, leaving the exposed lifting end of the anchor extending into the recess which was formed in the cast block.

[0061] Referring now to FIGS. 4 and 5, the preferred method for forming a recess and positioning an anchor within a large concrete block during the casting thereof, includes:

[0062] providing the preferred embodiment of the recess forming and anchor positioning apparatus 10, and a form for the casting of large concrete blocks to which it is securely mounted;

[0063] inserting a lifting anchor securely into the anchor receiving slot in the apparatus;

[0064] pouring concrete into the form about the apparatus and body of the lifting anchor;

[0065] waiting for the concrete to cure (embedding the body of the lifting anchor within the concrete structure); and

[0066] stripping the form from the concrete structure (the attached apparatus pulls off of the concrete structure and out of the recess formed, automatically releasing and pulling off of the lifting end of the anchor when the form is stripped, leaving the anchor exposed in the recess which was formed).

[0067] The above method of use is only possible when using the recess forming and anchor positioning apparatus herein disclosed. Use of prior art devices require that they first be removed from or initially be free from the form to which they attach so that an anchor can be locked into the device by use of a catch, lug, rod or other locking mechanism, which is activated by opening or flexing the device, neither of which can be accomplished while the device is attached to a form. Prior art devices further require that they be unattached from the form prior to stripping of the form because they cannot be unlocked from the anchor while attached to the form. If the user forgets to unattach a prior art device from the form before stripping the form, the locking mechanism will be torn apart when the form is stripped, and the device will require replacing. Once a prior art device is unattached from the form and the form is then stripped from the block, prior art devices can then be properly unlocked from the anchor, following which they must be pried or hammered loose from the block surface in which they have been cast. When using the recess forming and anchor positioning apparatus herein disclosed, all of these additional steps are unnecessary.

[0068] As seen above, by being permanently bolted to the form (without the need to unattach the apparatus from the form between castings), and using an anchoring device such as a spread anchor (or other anchoring device compatible with the apparatus), the method of use of the recess forming and anchor positioning apparatus reduces the number of steps in casting large concrete blocks dramatically, with an accompanying savings in time, labor and the expense of replacing damaged devices.

[0069] The apparatus 10 may make use of modified forms of it's basic shape without departing from the general scope of the invention. The convex side 16 may make use of other convex surface shapes, such as a truncated hemisphere described by small circle (non-equatorial) planar sections of a sphere, however such truncated hemispherical recesses become less efficient the farther the planar section is taken from the equatorial plane, requiring a greater apparatus volume and a larger rim edge circumference to expose the same length of anchor within the concave recess formed. Additionally, the apparatus 10 may make use of a narrowed flat mounting side 14, being substantially oval in shape, while maintaining it's original dimensions along the axis in which the imbedded threaded fasteners 18 lie and perpendicular to the anchor receiving slot 20, and while being narrowed perpendicular to that axis, and with an appropriate accompanying narrowing of the convex side.

[0070] Likewise, the apparatus 10 may make use of other styles of anchors without departing from the general scope of the invention. This may require a different shaped anchor receiving hole other than the rectangular anchor receiving slot 20, so long as the anchor received may still be secured with a friction/compression engagement, such as using a round anchor receiving hole with a complimentary rod shaped anchor.

[0071] The method and embodiment of the present invention shown and discussed are by way of illustration and not of limitation, and a wide variety of equivalent methods and embodiments may be made without departing from the spirit or scope of the invention as shown above.

What is claimed is:

1. A recess forming and anchor positioning apparatus for the creation of recessed lift-points within the exterior surface of a concrete structure during the casting thereof, comprising:
a recess forming means, whereby a concave recess is formed within the exterior surface of a concrete structure during the casting thereof;
a form attachment means, whereby said recess forming means is securely attached to the interior surface of a form wall for the casting of concrete structures, and which remains attached to said form wall throughout use for multiple castings without need of removal; and
an anchor positioning means, whereby an anchor, having a lifting end and an embedding end, is securely held in place for embedment of said embedding end within a concrete structure during casting, and whereby said lifting end will extend out of said concrete structure and into and be contained within said formed concave recess, without protruding beyond said exterior surface of said concrete structure; and
wherein prior to casting, said lifting end of said anchor is inserted into and securely held within said anchor positioning means while said recess forming means remains attached to said interior surface of said form wall; and wherein following casting and curing of said concrete structure, said lifting end of said anchor is automatically released from said anchor positioning means when said form with said recess forming means attached thereto is stripped from said concrete structure, and said lifting end of said anchor is then immediately exposed and accessible within said formed concave recess in said exterior surface of said concrete structure for attachment to a lifting means to lift said concrete structure.

2. The recess forming and anchor positioning apparatus according to claim 1, wherein said recess forming means is comprised of a semi-flexible, polymeric, solid, having at least two sides, comprising a flat form mounting side and a convex recess forming side having a crowned vertex;

said flat form mounting side comprising a flat face and a continuous outer edge for mounting against the interior surface of a form wall, said continuous outer edge being substantially curved in shape;

said convex recess forming side beginning at and extending in a primarily perpendicular manner away from said continuous outer edge of said flat form mounting side, then curving inward to said crowned vertex, being substantially a single continuous surface which protrudes from the interior surface of a form wall to which said apparatus is attached, into a concrete structure being cast and forming a recess therein.

3. The recess forming and anchor positioning apparatus according to claim 2, wherein said form attachment means is comprised of at least two imbedded threaded fasteners, which will accept a complimentary mated threaded fastener for each, wherein said threaded fasteners are imbedded on said flat form mounting side of said apparatus, for mounting said apparatus onto the interior surface of a form wall provided with matching mounting holes, and wherein said complimentary mated threaded fasteners are tightened to said imbedded threaded fasteners through said mounting holes in said form wall by application a torque thereto;

said threaded fasteners being imbedded primarily on opposing sides of the center of said flat form mounting side, spaced appropriately to provide a secure and stable attachment to said form wall;

4. The recess forming and anchor positioning apparatus according to claim 3, wherein said anchor positioning means is comprised of an anchor receiving hole passing substantially through the center of the apparatus along its axis of symmetry;

wherein said anchor receiving hole is sized dimensionally smaller than the lifting end of an anchor, for receiving and frictionally engaging the lifting end of an anchor and thereby holding said anchor substantially perpendicular to the form wall to which said apparatus is attached, for positioning of the embedding end of said anchor within the concrete structure being cast, and positioning of the lifting end of said anchor within the recess formed by said apparatus, thereby allowing the lifting end of said anchor to be accessed for lifting the concrete structure without the anchor protruding above the planar surface of the concrete structure in which it is embedded.

5. A recess forming and anchor positioning apparatus for the creation of recessed lift-points within the exterior surface of a concrete structure during the casting thereof, comprising:

a solid semi-flexible, polymeric, semi-sphere, having at least two sides, comprising a flat form mounting side and a convex recess forming side having a crowned vertex, said flat form mounting side comprising a flat face and a continuous outer edge for mounting against the interior surface of a form wall, said continuous outer edge being substantially circular in shape, said convex recess forming side beginning at and extending in a primarily perpendicular manner away from said continuous outer edge of said flat form mounting side, then curving inward to said crowned vertex, being substantially a hemisphere shaped surface which protrudes from the interior surface of a form wall to which said apparatus is attached, into a concrete structure being cast and forming a recess therein;

at least two imbedded threaded fasteners, which will accept a mated bolt for each, wherein said threaded fasteners are imbedded on said flat form mounting side of said apparatus, for mounting onto the interior surface of a form wall provided with matching mounting holes, and wherein said mated bolts are tightened to said imbedded threaded fasteners through said mounting holes in said form wall by applying a torque thereto, and thereby securely bolting said apparatus to the interior surface of said form wall, said threaded fasteners being imbedded primarily on opposing sides of the center of said flat form mounting side of said apparatus, spaced appropriately to provide a secure and stable attachment to said form wall;

an anchor receiving slot passing substantially through the center of said apparatus along its axis of symmetry, whereby an anchor, having a lifting end and an embedding end, is securely held in place for embedment of said embedding end within a concrete structure during casting, wherein said anchor receiving slot is sized dimensionally smaller than the lifting end of an anchor, for receiving and frictionally engaging the lifting end of an anchor and thereby holding said anchor substantially perpendicular to the form wall to which said apparatus is attached, for positioning of the embedding end of said anchor within the concrete structure being cast, and positioning of the lifting end of said anchor within the recess formed by said apparatus, thereby allowing the lifting end of said anchor to be accessed for lifting the concrete structure without the anchor protruding above the planar surface of the concrete structure in which it is embedded;

wherein prior to casting, said lifting end of said anchor is inserted into and securely held within said apparatus while said apparatus remains attached to said interior surface of said form wall; and wherein following casting and curing of said concrete structure, said lifting end of said anchor is automatically released from said anchor receiving slot in said apparatus when said form with said apparatus attached thereto is stripped from said concrete structure, and said lifting end of said anchor is then immediately exposed and accessible within said formed concave recess in said exterior surface of said concrete structure for attachment to a lifting means to lift said concrete structure.
6. A recess forming and anchor positioning apparatus and method for the creation of recessed lift-points within the exterior surface of a concrete structure during the casting thereof, said method comprising:

providing a form for the casting of concrete structures to which said recess forming and anchor positioning apparatus remains attached to the interior surface of a form wall thereof;

inserting the lifting end of a compatible anchor into the receiving hole in said recess forming and anchor positioning apparatus;

pouring concrete into the form;

waiting for the concrete to cure;

stripping the form from the concrete structure (the recess forming and anchor positioning apparatus automatically releases and pulls off of the lifting end of the anchor).

7. The recess forming and anchor positioning apparatus according to claim 5, wherein said polymeric material is urethane.

8. The recess forming and anchor positioning apparatus according to claim 5, wherein said polymeric material is rubber.

9. The recess forming and anchor positioning apparatus according to claim 5, wherein said polymeric material is a urethane rubber.