A brick laying fixture tool having an operatively linearly actuated elevator car for parallel, vertical displacement on a linear gear of a vertical shaft. The fixture tool has a horizontal fixture guide wherein a brick laying guide such as a square tube may be located in use and a drive mechanism in the form of a ratchet whereby the elevator car is advanced upwardly from a lower discrete height interval to a next higher discrete height interval such that the brick laying guide attached to the fixture tool is raised parallel to its prior position at a lower discrete height interval.
Brick Laying Jig

THIS INVENTION relates to a brick laying jig. More particularly, the invention relates to a brick laying fixture tool and a brick laying jig tool that includes the brick laying fixture tool. The invention also relates to a mortar box for use in conjunction with the brick laying jig tool.

The invention is expected to be particularly advantageously applicable to the laying of sections of a brick facade, for example that of a brick wall. Accordingly, such applications should particularly, but not exclusively, be borne in mind when considering this specification.

Background of the Invention

Brick laying jigs are known to the inventor in the form of vertically displaceable jigs. The vertically displaceable jigs generally have a plurality of vertical members, the vertical members secured to a base at their bottom and braced at their top to a section of brick facade of a wall, and one or more guide frames that horizontally extend from the vertical members such that inner edges of the guide frames outline at least a portion of the facade top under construction.

The guide frames typically include horizontal angle iron guides whose upper horizontally disposed flanges face inward thereby allowing a course of bricks to be laid inside the frame against the angle iron guides to facilitate the building of regular and irregularly shaped projecting column portions of a building. The vertical members of such jigs may include an array of holes, the horizontally extending guide frames having complimentary pins by which the frames are engaged with the holes of the vertical members such that a guide frame may be manually disengaged, shifted upward and engaged at an interval of holes at which a subsequent course of bricks is laid.

Brick laying jigs of the kind may assist masons in the accurate constructing of columns, but have several shortcomings. For one, the intervals at which the guide frames may be vertically shifted are fixed according to the spacing of the holes in the vertical members limiting the flexibility of their use to a particular jig. Furthermore, the jigs do not dispose of the need to stretch a masons line from one section of a course to another in order to construct a
connected flat-faced portion of a facade. The present invention provides a tool that aims to overcome such shortcomings of existing brick laying jigs.

**Summary of the Invention**

According to a first aspect of the invention there is provided a brick laying fixture tool which includes:

- an operatively linearly actuated elevator car having at least one fixture whereto at least one brick laying guide may be attached, the elevator car installed on
- an operatively vertical shaft for vertical displacement of the elevator car thereon.

The brick laying fixture tool may include a geared linear actuator operable to displace the elevator car in at least one discreet interval relative to the shaft, the at least one discrete interval in use corresponding to a multiple of brick layer courses. For the purposes of this specification, the multiple of brick layer courses may be interpreted as including a multiple of desired mortar joint thickness.

The at least one fixture whereto the brick laying guide may be attached may include a brick laying guide seat wherein the brick laying guide may be located. The guide seat may be of generally open rectangular shape for locating a generally rectangular elongate brick laying guide in the seat. The guide seat may extend, at least in part, substantially horizontally from the elevator car for seating the brick laying guide substantially horizontal and transverse to the operatively vertical shaft of the brick laying fixture tool. In a preferred embodiment of the invention, the guide seat projects substantially horizontally from the elevator car transverse to the operatively vertical shaft.

The geared linear actuator may be operable to vertically displace the elevator car of the fixture tool from a lower discrete height interval to a desired course height interval such that a level of the at least one fixture in a position corresponding with that of the lower height interval is parallel to a level of the at least one fixture in a position corresponding to the desired course height interval.

The linearly actuated elevator car may include at least one stopper, the stopper operatively vertically adjustable relative to the elevator car for defining a height of the at least one discrete interval.
The at least one stopper may include an interlock for locking the stopper at one of the at least one discrete intervals.

The geared linear actuator may include a pinion attached to the linearly actuated elevator car and a linear gear in the form of a rack, the rack being mounted on the operatively vertical shaft of the fixture tool, the rack and pinion being operatively engaged for the vertical displacement of the elevator car on the rack of the shaft.

The geared linear actuator may include a drive mechanism for advancing the elevator car, and hence the pinion, along the rack of the vertical shaft to the at least one discrete interval.

The geared linear actuator may include a release mechanism for coupling and decoupling of the linearly actuated car to the vertical shaft.

In use, the elevator car is located at the lower discrete height interval on the vertical shaft of the fixture tool, the brick laying guide seat of the elevator car having the brick laying guide located therein such that a flange of the brick laying guide is positioned at a first desired course height in view of laying a first course of bricks of, for example, the facade of a wall under construction. The first course is laid against the flange of the brick laying guide, the guide providing a horizontal reference against which the bricks are laid, thereby rendering a level first course of bricks.

Upon completing the first course of bricks, the stopper of the elevator car is height adjusted by vertically sliding the stopper along the operatively vertical shaft, so defining a subsequent next higher discrete height interval on the vertical shaft of the fixture tool.

To this end, the stopper may take the form of a slider and the interlock of the stopper the form of a sliding latch.

Thus, in use, the stopper is locked onto the rack of the geared linear actuator thus setting a limit to the height to which the elevator car may be advanced. The driving mechanism of the geared linear actuator is positively operated and the elevator car (including the brick laying guide seat and hence the brick laying guide located in the seat) advanced to the next higher discrete height interval on the vertical shaft of the fixture tool, the stopper
limiting possibly advancing the elevator car beyond the next higher discrete height interval. As
previously mentioned, it should be appreciated that the next higher discrete height interval
may be set to that of a single brick layer course and desired mortar thickness joint.

Advancing of the elevator car and associated brick laying guide thus raises the brick
laying guide located in the guide seat of the fixture tool to a higher, subsequent course of
bricks to be laid (corresponding to the next higher discrete height interval). The guide is raised
to the next discrete height interval parallel to the lower discrete height interval of its previous
location, the flange of the brick laying guide thus providing a mason's line against which the
course of bricks (and accompanying mortar joint) is laid.

The linearly actuated elevator car may be a journaled elevator car. To this end, the
journaled elevator car may include at least one bearing engaged with the operatively vertical
shaft of the brick laying fixture tool for smoothly guiding the car along the shaft during
advancing of the car to a next desired height interval.

The drive mechanism of the geared linear actuator may include a ratchet, the ratchet
having a spring-loaded member, such as a pawl, engaged with the pinion of the geared
actuator, the ratchet operably enabling advancing of the pinion in an operatively upper
direction of the rack whilst at the same time preventing movement of the pinion in the opposite
direction.

The drive mechanism may include a hand-operated lever for operating the ratchet.

The release mechanism of the actuator may include a release lever that is mounted
against the pawl of the ratchet such that the release lever is biased toward a rested position
by the pawl engaged with the pinion. Thus, in use and with the release lever in its rested
position, the elevator car is engaged with the operatively vertical shaft of the fixture tool via its
rack and vertically displaceable in the upper direction only by way of turning the ratchet.
Conversely, if the release lever is positively operated, the release lever urges the pawl
against its spring load, causing the pawl to disengage from the pinion resulting in
disengagement of the elevator car from the rack of the shaft and so allowing the elevator car
to be lowered and repositioned on the shaft.
The brick laying fixture tool may include at least one fastener for fastening the brick laying guide in its located position in the guide seat of the elevator car. The at least one fastener may include a screw fastener. The screw fastener conveniently provided by the elevator car and operable to tightly secure the brick laying guide within the guide seat.

The brick laying fixture tool may ideally be manufactured of mild steel. In a preferred embodiment of the invention, the tool may be of a moulded plastic material.

In one embodiment of the invention, the operatively vertical shaft may include a base member for supporting the on a building platform, such as the ground. In another embodiment, shaft may include a bracket for attaching the shaft to a section of building. Such a bracket would enable the re-use of operatively vertical shaft of the tool at different heights so that the shaft is not required to run the full extent of the proposed height of the facade to be built. Naturally, the re-using of the same section of shaft provides a cost advantage in terms of materials cost of the brick laying fixture tool.

According to another aspect of the invention there is provided a brick laying jig tool which includes:

- a brick laying fixture tool as hereinbefore described; and
- at least one brick laying guide rigidly attached to the fixture of the brick laying fixture tool.

The at least one brick laying guide may be an elongate, generally rectangular guide attached to the fixture of the brick laying fixture tool.

The at least one brick laying guide may be located within the guide seat of the at least one fixture of the brick laying fixture tool.

The at least one brick laying guide may be horizontally seated in the guide seat of the fixture.

The at least one brick laying guide may be secured in the seat by one or more fasteners, such as screw fasteners.
The brick laying jig tool may include one or more clamps for extending the at least one brick laying guide on to other planes, for example to provide an angle.

It should be appreciated that the brick laying jig tool may be used in conjunction with a plurality of jig tools of the like to provide a complete mason's line reference of one or more sections of a facade to be built.

According to yet another aspect of the invention there is provided a mortar box for use with the brick laying jig tool which includes:

- a generally rectangular open-top container; and
- a mortar dispenser base defined by at least one concave arch within the base.

The at least one concave arch may be formed integrally longitudinally along the base of the mortar box.

The dispenser base may include dispenser openings located generally the at least one concave arch, and preferably toward the apex of the at least one concave arch. It should be appreciated that, for the purposes of this specification and in accordance with one particular embodiment of this aspect of the invention, the arch may be angularly shaped in such a manner that, in cross-sectional end view, the arch comprises of a series of joined plates. Advantageously, the angular joining of plates to create the at least one concave arch eases manufacturing of the mortar dispenser base and is aimed at minimizing manufacturing costs.

When building brickwork, a mortar joint requires an even distribution of mortar between courses of bricks. The even distribution is traditionally achieved by a mason by applying an excess amount of mortar to the course, whereafter bricks of the subsequent course are compacted onto the mortar and the excess mortar scraped away to waste. The mortar box as hereinbefore described provides a mechanism whereby the mortar box is continuously pre-formed with mortar and the mortar dispensed onto the course unevenly, i.e. at a higher concentration along the centre-line of the course. Once spread, the uneven mortar joint is compacted by bricks of the subsequent course to ensure a resultant evenly distributed mortar joint that disposes of the traditional practice of scraping away excess mortar.

It should be appreciated that a number of side-by-side concave arches defining the dispenser base of the mortar box may correspond to the number of wythes being laid. The
mortar box may thus be suitably dimensioned and tailor-made depending on the width of a section of facade to be built.

The invention is now described, by way of non-limiting example, with reference to the accompanying diagrammatic drawings.

Drawings

In the drawings:

- Figure 1 shows a three dimensional view taken from one side of a brick laying fixture tool in accordance with one aspect of the invention.
- Figure 2 shows a three dimensional view taken from another side of a brick laying fixture tool in accordance with one aspect of the invention.
- Figure 3 shows, schematically, a sectional side view of a brick laying fixture tool in accordance with one aspect of the invention.
- Figure 4 shows an enlarged portion of a driving mechanism of the brick laying fixture tool of figure 3.
- Figure 5 shows a three dimensional view from above of a mortar box according to another aspect of the invention.
- Figure 6 shows a side sectional view of the mortar box of figure 5 in accordance with the other embodiment of the invention.
- Figure 7 illustrates, schematically, a brick laying jig tool in use and according to yet another aspect of the invention. Figure 7 also shows the mortar box of figures 5 and 6 in use with the brick laying jig tool in accordance with the yet another aspect of the invention.

In the drawings, like reference numerals denote like parts of the invention unless otherwise indicated.

Detailed Description of the Invention

With reference to figure 1 of the drawings, reference numeral 10 generally indicates a brick laying fixture tool according to one embodiment of a first aspect of the invention. The brick laying fixture tool includes an operatively linearly actuated elevator car 12 having a fixture 14 where to a brick laying guide (not shown in figure 1) is attached in use, the
elevator car 12 being installed on an operatively vertical shaft - in this embodiment a cylindrical shaft - for vertical displacement of the elevator car 12 on the shaft 16.

Clearly shown in figure 1, the fixture whereto the brick laying guide (not shown here) is attached in use has a brick laying guide seat 18 wherein the brick laying guide (not shown) is located in use as will become more apparent hereunder and particularly from figure 7. The guide seat 18 is of general elongate, rectangular shape for seating a generally elongate, rectangular brick laying guide (not shown). The guide seat 18 extends horizontally across the elevator car 12 for seating the brick laying guide (not shown) horizontal and transverse to the operatively vertical shaft 16 of the fixture tool 10. In this particular embodiment, the brick laying guide seat 18 not only extends across the car 12, but projects horizontally from the car 12 to give greater support to the brick laying guide (not shown) that is located in the seat in use. Fasteners in the form of screw fasteners 20.1 and 20.2 are provided integrally with the fixture tool 14 for fastening the brick laying guide (not shown) in its located position in use in the guide seat 18, the screw fasteners 20.1 and 20.2 being operable to tightly rigidly secure the brick laying guide (not shown here) within the seat transverse to the operatively vertical shaft 16. In this embodiment 10 of the fixture tool, the tool 10 is manufactured of mild steel. In use, the brick laying fixture tool 10 is operable to displace the elevator car 12 in discrete upward intervals relative to the shaft and hence displace the brick laying guide (not shown here) accordingly in the discrete upward intervals, the intervals being defined and representing one or more brick layer courses, which may be interpreted to include a desired mortar joint thickness whereon a subsequent course is laid. The linearly actuated elevator car 12 of the tool 10 is journaled by roller guides 22.1 and 22.2 that guide operatively facilitate guidance of the car 12 on the vertical shaft 16.

In figure 2, the same brick laying fixture tool 10 is shown viewed from another side in accordance with the one aspect of the invention. Again, it should be noted that the brick laying guide hereinbefore referred to is not shown in the figure and its location and use in the guide seat 18 of the fixture 14 will be shown and become more apparent in figure 7. Returning to the fixture tool 10, the tool 10 includes a geared linear actuator has a rack and pinion formation which includes a pinion 24 rotationally attached to the elevator car 12 and a rack 26 mounted on the vertical shaft 16 and defining a linear gear whereon the pinion 24 runs, the rack 26 and pinion 24 being operatively engaged for the vertical displacement of the elevator car 12 on the rack 26 of the shaft 16.
The geared linear actuator, i.e. the rack 26 and pinion 24 formation, has a drive mechanism in the form of a ratchet 28, the ratchet 28 comprising a spring-loaded pawl 30 engaged with the pinion 24 of the geared actuator, the ratchet 28 operable to advance the pinion 24 and hence the elevator car 12 and associated brick laying guide seated in the guide seat 18 upwardly along the rack 26 whilst preventing downward slipping of the elevator car 12 in a direction opposite to the desired upward direction of advance. The ratchet 28 is attached to a hand operated lever 32 whereby the ratchet and hence the pinion 24 is positively operated. The elevator car 12 of the fixture tool 10 is also provided with a stopper in the form of a slider stopper 34 having a sliding interlock latch 40 and a release mechanism 36 and accompanying release lever 38, the working of both the slider stopper 34 and release mechanism 36 more clearly described with reference to figure 3 and 4 hereunder.

Figure 3 shows a sectional side view of the brick laying fixture tool 10 of figures 1 and 2 according to the embodiment of the invention as hereinbefore described. Again, the fixture tool is shown to include the linearly actuated elevator car 12, operatively vertical shaft 16, rack 26 and pinion 24. In figure 3, however, the fixture 14 having the guide seat 18 is shown to include the brick laying guide 40 for illustrative purposes, the brick laying guide 40 being in the form of a square tubing having a flange 42 at its operative side against which a mason would lay a course of bricks instead of using a mason’s line. The screw fastener 20.1 and the roller guides 22.1 and 22.2 can be seen in the sectioned view, as well as a side roller guide 22.3 for additional guidance of the elevator car 12 on the shaft 16 laterally. The drive mechanism V is shown enlarged in the following figure 4. It may be noted that the fixture tool 10 advantageously includes adjustment fasteners 44 and 46, the fastener 44 being a screw fastener and operable to hold the elevator car 12 in position on the shaft 16 upon releasing the drive mechanism, i.e. the ratchet 28, such that the pinion 24 is disengaged from the rack 26. The fastener 46 is a clamp that operatively attaches the rack 26 to the vertical shaft 16.

At this time, we note that the slider stopper 34 and associated sliding latch 40 are used to define a lower discrete height interval and a subsequent next higher discrete height interval in use, of which the working will be explained hereunder with reference to a brick laying jig tool in accordance with another aspect of the invention as shown in figure 7.

Turning now to the enlarged portion of the geared actuator denoted by numeral V of in figure 4, the geared actuator V is shown to include the drive mechanism in the form of the
rack 26 and pinion 24 whereby the elevator car 12 of figures 1 through 3 is upwardly advanced in discrete intervals in use. The geared linear actuator V further includes a drive mechanism in the form of the ratchet 28, the ratchet comprising the spring loaded pawl 30 for engagement with the pinion 24 of the geared actuator V. The release mechanism 36 of the drive mechanism, i.e. the ratchet 28, is operated by the release lever 38 for operatively coupling and decoupling the linearly actuated elevator car 12 to the vertical shaft 16.

With reference now to figure 7 of the drawings, reference numeral 50 generally denotes the a brick laying jig tool in accordance with another aspect of the invention and according to another embodiment of the invention. Figure 7 also illustrates the brick laying fixture tool of figures 1 through 4 in use. The brick laying jig tool 50 includes three brick laying fixture tools of the kind of fixture tool 10, the fixture tools denoted as 52.1, 52.2 and 52.3 respectively and brick laying guides 54.1 and 54.2, the brick laying guides being operatively located in the guide seats (see numeral 18 of figures 1, 2 and 3) of the fixture tools 52.1 through 52.3 horizontally. The brick laying guides 54.1 and 54.2 are rectangular guides of square tubing such as the guide 40 of figure 3 and having respective flanges 56.1 and 56.2 against which the bricks of a course are laid by a mason. A clamp 58 rigidly attaches and holds and end of the brick laying guide 54.2 squarely against the brick laying guide 54.1 in a plane to which the guides 54.1 and 54.2 are elevated during building a particular section of a facade of a wall, the wall being generally denoted by numeral 60. In this embodiment of the jig tool 50 in use, the wall 60 being built is a wall naturally having several courses, denoted by courses 62.1 through 62.3, and particularly two wythes 64.1 and 64.2. Hereafter, the working of the brick laying jig tool 10 is described with reference to only one brick laying fixture tool 52.3 and it should be appreciated that the remaining fixture tools 52.1 and 52.2 are operated likewise and concurrently with the tool 52.1 in corresponding fashion to maintain the horizontal face against which the bricks are laid and which replaces the traditionally used mason's line.

In use, the 62.1 represents the lower discrete height interval and the course 62.2 represents the next higher discrete interval to which the fixture tool 52.3 (including the elevator car 12 of figures 1 through 3 and seated brick laying guide 54.2) is elevated. In use, the elevator car 12 is located first at the lower discrete height interval 62.1 on the vertical shaft 16 of the fixture tool 52.3, the brick laying guide 54.2 located within the seat 18 of the fixture 14 of the fixture tool 52.3 such that a flange of the brick laying guide 54.2 is positioned at the lower discrete interval 62.1 in view of laying the next course of bricks 62.2. The first course 62.1 is laid against the flange whilst the fixture tool 52.3 is in its previous lower discrete interval
position 62.1, the guide 54.2 providing a horizontal reference against which the bricks are laid to thereby lay the first course of bricks 62.1.

Upon completion of the course 62.1 at the corresponding lower discrete height interval, the slider stopper 34 of the elevator car 12 (again see figure 3) is height adjusted by sliding the stopper 34 upwards along the vertical shaft 16 thereby defining the next higher discrete interval 62.2 on the vertical shaft 16 of the fixture tool 52.3. Thus, the slider stopper 34 is locked onto the rack 26 of the geared linear actuator V and sets a limit to the height to which the elevator car 12 may be advanced. The driving mechanism, i.e. the ratchet 28 (see figure 4) is positively operated and the elevator car 12 and associated brick laying guide 54.2 are advanced to the next higher discrete height interval 62.2 on the vertical shaft 16 of the fixture tool 53.2, the stopper limiting possible advancement of the elevator car 12 beyond the next higher discrete height interval 62.2. Advancing of the elevator car 12 and accompanying brick laying guide 54.2 thus raises the brick laying guide 54.2 located in the guide seat 18 of the fixture 14 to the next higher discrete interval 62.2 corresponding to the next course of bricks to be laid. The guide 54.2 is raised to the next higher discrete interval 62.2 parallel to the previous lower discrete interval 62.1, the flange of the guide 54.2 providing a horizontal, preset mason's line in the form of the flange of the guide 54.2.

With regard to the release mechanism 36 of the brick laying fixture tool 52.3 and referring back to the embodiment 10 of figure 4, the release mechanism 36 of the actuator V is mounted against the pawl 30 of the ratchet 28, the release lever 38 of the mechanism 36 being biased toward a rested position by the pawl 30, which in turn, is engaged with the pinion 24. Thus, in use and with the release lever 38 in its rested position, the elevator car 12 is engaged with the vertical shaft 16 of the fixture tool 52.3 via its rack 26 and vertically displaceable upwards only by way of turning the ratchet 28. Conversely, if the release lever 38 is positively operated, the lever 38 urges the pawl 30 against its spring load thereby causing the pawl 30 to disengage from the pinion 24 resulting in disengagement of the elevator car 12 from the rack 26 of the shaft 16 and so allowing the elevator car 12 (and brick laying fixture tool 52.3 for that matter) to be lowered and repositioned on the shaft 16. In doing so repeatedly, the brick laying fixture tool 52.3 may be repositioned at a theoretically unlimited number of discrete height intervals dictated by the height of the facade of the wall 60 being built.
Turning to figures 5 and 6 of the drawings, numeral 80 denotes a mortar box in accordance with the yet another aspect of the invention. The mortar box 80 comprises a rectangular open-top container 81 and a mortar dispenser base defined by concave arches 82 and 84 formed integrally with the mortar box 80 and extending longitudinally along the base of the mortar box 80. Dispenser openings (of which only one is shown and denoted by 86) are provided in the arches 82 and 84, the arches 82 and 84 being angularly shaped to resemble a series of joined plates as can be seen in the cross-sectional end view of the mortar box 80 in figure 6.

Returning to figure 7, the mortar box 80 is shown in use in conjunction with the brick laying jig tool. In figure 6, the mortar box 80 is continuously filled with mortar and the mortar dispensed gravitationally dispensed through the dispenser opening 86 unevenly, i.e. more concentrated along a centre-line of the course 62.2. Once spread, the mortar is compacted by the bricks of the subsequent course 62.3 to ensure a resultant evenly distributed mortar joint that disposes of the traditional practice of scraping away excess mortar.

Advantageously, a brick laying fixture tool brick laying jig tool as hereinbefore described provides a mechanism for establishing a reference point from which subsequent courses may be laid horizontally at easily determined intervals, the brick laying guide of the jig tool providing a line against which a course may be laid without requiring re-stringing of a mason's line, as has traditionally been the case.
Claims:

1. A brick laying fixture tool which includes:
   an operatively linearly actuated elevator car having at least one fixture where to at least one brick laying guide may be attached, the elevator car installable on an operatively vertical shaft for vertical displacement of the elevator car on the shaft.

2. A brick laying fixture tool as claimed in claim 1 wherein the at least one fixture includes a fixture guide for operatively locating a brick laying guide in the fixture guide.

3. A brick laying fixture tool as claimed in claim 2 wherein the fixture guide is a fixture guide seat.

4. A brick laying fixture tool as claimed in claim 3 wherein the fixture guide seat is a generally rectangular fixture guide seat for seating a brick laying guide in use.

5. A brick laying fixture tool as claimed in claim 2 which includes at least one fastener for fastening a brick laying guide to the fixture guide.

6. A brick laying fixture tool as claimed in claim 2 which includes a geared linear actuator operable to displace the elevator car in at least one discreet interval on the shaft.

7. A brick laying fixture tool as claimed in claim 6 of which the geared linear actuator includes a pinion attached to the linearly actuated elevator car and a rack mounted on the operatively vertical shaft, the rack and pinion engaged for operative vertical displacement of the elevator car on the shaft.

8. A brick laying fixture tool as claimed in claim 6 wherein the geared linear actuator includes a drive mechanism for operating the rack and pinion.

9. A brick laying fixture tool as claimed in claim 8 wherein the drive mechanism includes a ratchet.
10. A brick laying fixture tool as claimed in claim 8 of which the drive mechanism includes a release mechanism for operatively coupling and decoupling of the drive mechanism on the shaft.

11. A brick laying fixture tool as claimed in claim 6 wherein the at least one discreet interval corresponds to a multiple of any one or more of a brick layer course, an operatively lower discrete height interval, an operatively next higher discrete height interval and a desired mortar thickness.

12. A brick laying fixture tool as claimed in claim 11 wherein the geared linear actuator is operable to displace the elevator car parallel from the lower discrete height interval to the next higher discrete height interval.

13. A brick laying fixture tool as claimed in claim 11 wherein the linearly actuated elevator car includes at least one vertically adjustable stopper for operatively defining any one or more of the operatively next higher discrete height interval.

14. A brick laying fixture tool as claimed in claim 13 wherein the adjustable stopper includes a sliding stopper.

15. A brick laying fixture tool as claimed in claim 13 wherein the adjustable stopper includes an interlock for locking the elevator car at any one of the lower discrete height interval and next higher discrete height interval.

16. A brick laying fixture tool as claimed in claim 15 wherein the interlock includes a sliding interlock.

17. A brick laying fixture tool as claimed in claim 16 wherein the sliding interlock is a latch.

18. A brick laying fixture tool as claimed in claim 1 wherein the linearly actuated elevator car is a journaled elevator car.

19. A brick laying fixture tool as claimed in claim 18 wherein the journaled elevator car includes at least one roller attached to the journaled elevator car.
20. A brick laying fixture tool as claimed in claim 1 of which the elevator car is manufactured of mild steel.

21. A brick laying jig tool which includes:
   a brick laying fixture tool as claimed in any one of claims 2 to 20;
   at least one brick laying guide rigidly attached to the fixture guide of the brick laying fixture tool.

22. A brick laying jig tool as claimed in claim 21 wherein the at least one brick laying guide is a generally rectangular brick laying guide.

23. A brick laying jig tool as claimed in claim 22 of which the generally rectangular brick laying guide is located in the fixture guide of the brick laying fixture tool.

24. A brick laying jig tool as claimed in claim 23 wherein the generally rectangular brick laying guide is horizontally located in the fixture guide of the brick laying fixture tool.

25. A brick laying jig tool as claimed in claim 21 wherein the at least one brick laying guide is fastened to the fixture guide of the brick laying fixture tool by at least one fastener.

26. A brick laying jig tool as claimed in claim 25 wherein the at least one fastener includes a screw fastener.

27. A mortar box which includes:
   a generally rectangular open-top container; and
   a mortar dispenser base defined by at least one substantially concave arch within the dispenser base.

28. A mortar box as claimed in claim 27 which includes at least one dispenser opening located in the at least one concave arch generally.

29. A mortar box as claimed in claim 27 wherein the at least one concave arch is defined by a plurality of angularly joined plates.

30. A mortar box as claimed in claim 29 which includes two adjoined concave arches.
31. A new brick laying fixture tool, substantially as hereinbefore described.

32. A brick laying jig tool as claimed in claim 21, substantially as hereinbefore described and illustrated.

33. A new brick laying jig tool, substantially as hereinbefore described.

34. A mortar box as claimed in claim 27, substantially as hereinbefore described and illustrated.

35. A new mortar box, substantially as hereinbefore described.