

June 16, 1942.

L. W. CARR

2,286,669

BRICKLAYING INSTRUMENT

Filed Oct. 15, 1940

2 Sheets-Sheet 1

FIG. 1.

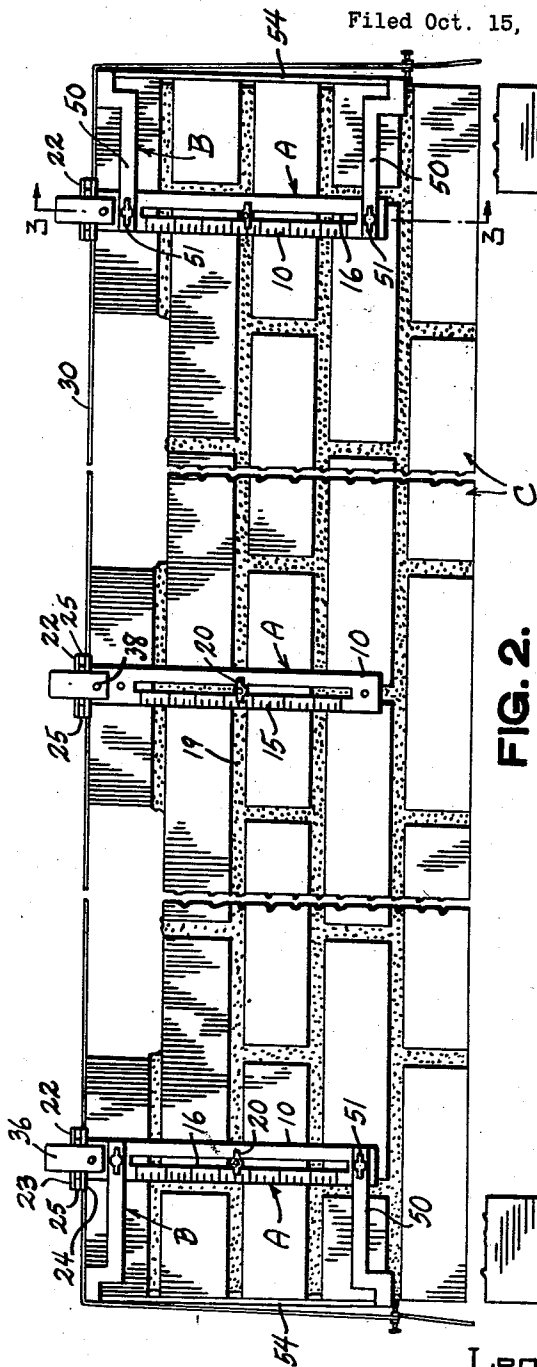
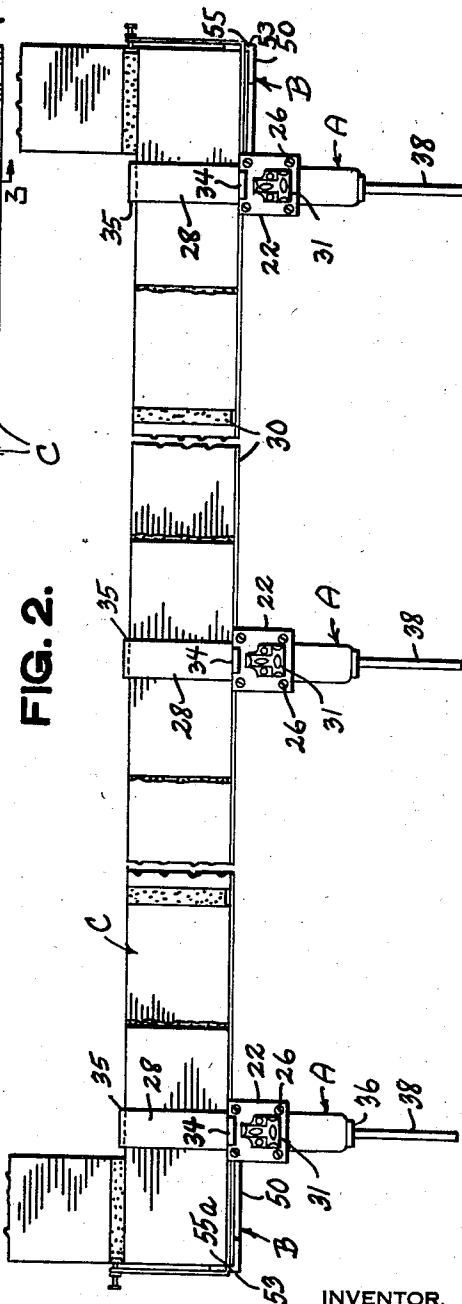


FIG. 2.



INVENTOR.
Leonard Waldo Carr

BY *Sanmaster, Allmar and Rommel*
ATTORNEYS.

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FIG. 3.

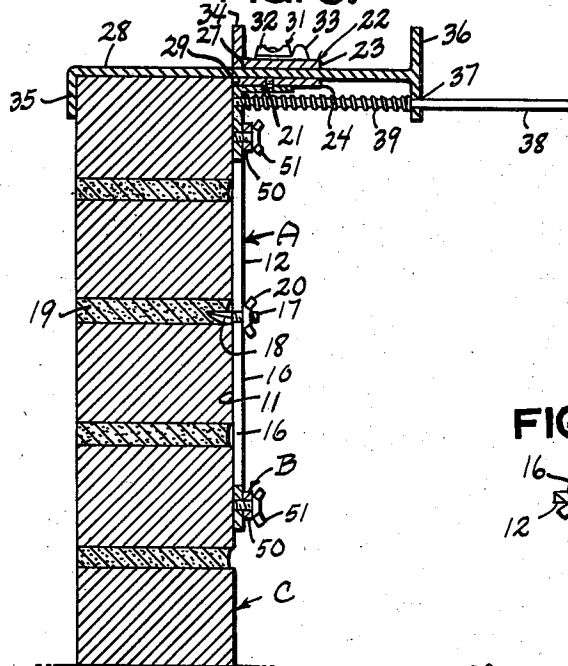


FIG. 5.

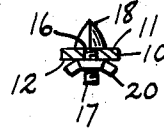
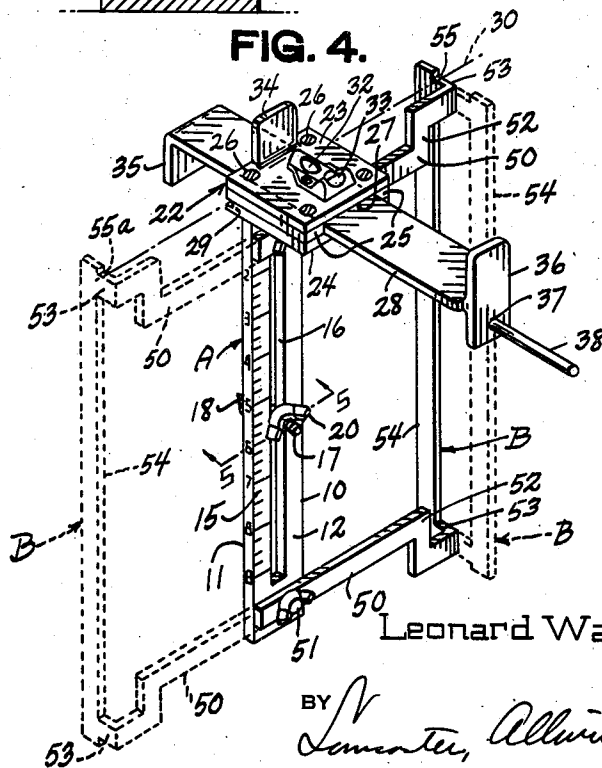


FIG. 4.



INVENTOR.

Leonard Waldo Carr

BY

Lawrence, Allison & Rosenthal
ATTORNEYS.

UNITED STATES PATENT OFFICE

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BRICKLAYING INSTRUMENT

Leonard Waldo Carr, Norfolk, Va.

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11 Claims. (Cl. 33—86)

The invention relates to improvements in instruments and more specifically to improvements in wall guides particularly well adapted for use by bricklayers or masons.

In constructing a brick wall, the usual practice is to provide leads for the gauge line by building the end corners of the wall ahead of the intermediate wall portion so that the corners will be set sufficiently solid to withstand the pull of the gauge line by which the bricks are laid. In a gauge line of appreciable length having a tendency to sway and sag, it has been found desirable to provide one or more twiggings divided between the corners, by spotting and plumbing a brick, measuring the brick for required height and then securing the gauge line even with the top of the brick. Not only is the building of leads at the corners an expensive procedure because it requires the services of highly skilled workmen, but also it is uneconomical in that these men must work a certain length of time before the rest of the crew can work along the line between leads.

The primary object of my invention is to provide instruments enabling the construction of a brick wall without the use of leads at the corners thereof, that may be utilized on interior or exterior corners, as well as on door or window jambs, piers and pilasters, and will also serve as the twigging, and eliminate to a great extent the use of the usual mason's level or plumb rule.

Another object of the invention is to provide instruments for use by bricklayers or masons that will not only increase production but will also facilitate the construction of a more uniform wall.

A further object is the provision of a bricklayer's wall guide having an attachment for use at interior or exterior corners at either end of a brick wall.

Other objects and advantages of the invention will be apparent from the following detailed description, taken in connection with the accompanying drawings, forming a part of this specification and in which drawings:

Figures 1 and 2 are views respectively in side elevation and top plan showing the instruments as applied to a brick wall under construction.

Figure 3 is a vertical cross sectional view of the wall and one of the instruments, and taken substantially along the line 3—3 of Figure 1.

Figure 4 is a perspective view of the instrument including the attachment for use at a corner.

Figure 5 is a horizontal sectional detail view

taken substantially along the line 5—5 of Figure 4.

In the drawings, which for the purpose of illustration show only a preferred embodiment of the invention, and wherein similar reference characters denote corresponding parts thruout the several views, the letter A generally designates the instrument and B the attachment for use at corners of a wall C.

Each instrument A comprises an elongate plate 10 having an inner face 11 to be disposed against the face side of the wall C, and an outer face 12 provided with a scale 15. Formed longitudinally of the plate is a central slot 16 terminating short of the opposite ends of the plate. Extending thru this slot 16 is the reduced threaded shank 17 of a prong or pointed lug 18 projecting from the inner face 11 of the plate for insertion in the mortar 19 between courses of the wall C. Threaded on the shank 17 adjacent the outer face 12 of the plate is a wing nut 20 releasably securing the lug in any one of a plurality of adjusted positions along the slot 16.

Secured to one end of the plate 10, as by screw threaded means 21, is a support 22 comprising upper and lower sheets 23, 24, interposed strips 25 between opposite side margins of the sheets 23, 24, and screws 26 extending thru the sheets 23, 24 and strips 25. This support 22 provides a passage or way 27 slidably receiving and supporting an elongate slide plate 28 forming a right dihedral angle with the plate 10. Adjacent the edge of this right dihedral angle, the lower sheet is rabbetted to provide a groove 29 for receiving the usual gauge line 30. Fixed on the upper sheet 23 is means 31 for indicating the position of the plates 10, 28, relative to the vertical and the horizontal, respectively and, in the example shown, this means 31 comprises spirit levels 32, 33 at right angles to one another, the level 32 extending longitudinally and the level 33 extending transversely of the slide plate 28. Projecting from the upper sheet 23 of the support 22 is a flange 34 aligning with the plate 10 and constituting a finger or thumb piece.

Turning now to the slide plate 28 which is to be disposed against the top of the wall, this is provided at one end with a downturned portion 35 for engagement with the reverse side of the wall C, and at its opposite end, with a cross member 36 constituting a finger or thumb piece. Extending thru this cross member 36 is an opening 37 accommodating a rod 38 disposed below the plate 28 and fixed at one end portion to the plate 10. Encircling this rod between the plate

10 and the cross member 36 is an expansion coil spring 39 for urging the downturned portion 35 toward the plate 10 and into clamping engagement with the wall C.

The attachment B each include spaced parallel arm portions 50 to be secured in laterally extending relation to either side edge of the plate 10, as by wing screws 51. These arm portions 50 include intermediate offset sections 52 extending in opposite directions. Projecting from the distal ends of the arm portions 50 are laterally offset portions 53 bridged at their outer ends by a strip 54 to be disposed against an adjacent side of the wall forming a corner with the face side of the wall C. As illustrated in full lines in Figure 4 of the drawings, the attachment B extends laterally from the instrument A for utilization at a right exterior corner of a wall, and the edge 55 of the uppermost offset portion 53 serves to support the gauge line 30 with its axis in alignment with the groove 29. By reversing the attachment B, the same may be secured to the instrument A for utilization at a left exterior corner of the wall, and then, since the attachment is symmetrical, the edge 55a of the opposite offset portion 53 will support the gauge line in proper relation to the groove 29, as illustrated in broken lines at the left side of Figure 4. In the inverted position of the attachment B as shown in broken lines at the right side of Figure 4, the same may be employed at an interior wall corner.

In the utilization of my invention in brick wall construction, at each corner of the wall C I apply an instrument A with attachment B, and intermediate the corners I utilize one or more of the separate instruments A, depending on the length of the wall. To apply each instrument, the slide plate 28 thereof is advanced as by pressing together the finger pieces 34, 36, in a direction to compress the expansion coil spring 39 sufficiently to permit the plate 10 and the downturned portion 35 to be disposed in straddling relation to the wall and so that the slide plate 28 may be seated on the top thereof, over the desired brick. Upon releasing the finger pieces 34, 36, the spring 39 will tend to retract the slide plate 28 and thereby hold the instrument in clamped relation to the wall. The coursing of brick is governed by the size of openings and the height of the wall or building, as well as by the size of the bricks. In exterior work the joints ordinarily are from three-eighths to five-eighths of an inch but in interior finish work they may be considerably thinner. The pointed lug 18 of each instrument is adjusted along the slot 16 to correspond with the spacing of the joints so that when the instrument is applied to the wall, the lug will penetrate a previously constructed joint one or more courses below the top of the wall and will rest on a brick in a course subjacent the previously constructed joint. If the size of the uppermost joint is more or less than the predetermined thickness desired, the lug 18 will not properly penetrate the mortar of the previously constructed joint whereby to rest firmly on the subjacent brick, or there will be a space between the slide plate 28 and the top of the brick in the top course that is being constructed. This will necessitate the removal or addition of mortar beneath the brick until the correct thickness is secured.

The spirit levels 32, 33 being at right angles to one another indicate not only the position of the slide plate 28 with respect to a horizontal

plane, but also the relationship of the plate 10, and the strip 54 of the attachment B, with respect to the vertical. Thus it will be understood that upon applying the instruments in level and plumb relation to the wall with the assistance of the spirit levels 32, 33, the correct situation of the brick course to be constructed will be indicated by the gauge line 30 extending thru the grooves 29 which, as illustrated in Fig. 3, open against the side of the wall C, whereby the gauge line is retained in the groove by the face of the wall C. While I have shown but one size lug 18 in the drawings, it is obvious that various sizes of lugs may be provided for insertion in joints of different thicknesses. The use of the attachment B in conjunction with the instrument A will enable not only the construction of a wall having a vertical face but also a plumb corner since the combined device dictates the position of the corner bricks in three dimensions.

Various changes may be made in the form of invention herein shown and described, without departing from the spirit of the invention or the scope of the following claims.

I claim:

1. In a bricklayer's wall guide, a first plate having a given face to be disposed against a given side of a wall, a second plate having a face to be disposed against the top of the wall, said plates forming a right dihedral angle, means for indicating the position of said plates relative to the vertical and the horizontal, respectively, and a lug adjustably secured to the first plate for movement toward and away from the edge of said right dihedral angle, said lug projecting from said given face for insertion between courses in the wall.

2. In a bricklayer's wall guide, a first plate having a given face to be disposed against a given side of a wall, a second plate having a face to be disposed against the top of the wall, said plates forming a right dihedral angle, means for indicating the position of said plates relative to the vertical and the horizontal, respectively, said first plate being provided with a slot extending toward and away from the edge of said right dihedral angle, and a lug releasably secured for sliding movement along said slot, said lug projecting from said given face for insertion between courses in the wall.

3. In a bricklayer's wall guide, a first plate having a given face to be disposed against a given side of a wall, a second plate having a face to be disposed against the top of the wall, said plates forming a right dihedral angle, means for indicating the position of said plates relative to the vertical and the horizontal, respectively, said guide adjacent the edge of said right dihedral angle being provided with a groove for receiving a wall gauge line and an arm extending laterally from the first plate, said arm including an offset portion to be disposed against an adjacent side of the wall forming a corner with said given side.

4. In a bricklayer's wall guide, a first plate having a given face to be disposed against a given side of a wall, a second plate having a face to be disposed against the top of the wall, said plates forming a right dihedral angle, means for indicating the position of said plates relative to the vertical and the horizontal, respectively, said guide adjacent the edge of said right dihedral angle being provided with a groove for receiving a wall gauge line and an arm extending laterally from the first plate, said arm including an offset

portion to be disposed against an adjacent side of the wall forming a corner with said given side, said offset portion having a surface for supporting the gauge line in alignment with said groove.

5. In a bricklayer's or mason's wall guide, a first plate having a given face to be disposed against a given side of a wall, a second plate having a face to be disposed against the top of the wall, means slidably supporting the second plate for movement transversely of the first plate, said plates forming a right dihedral angle, means for indicating the position of said plates relative to the vertical and the horizontal, respectively, said second plate having an offset portion to be disposed against a side of the wall opposite said given side, and resilient means urging the offset portion toward the first plate whereby to clamp said guide to the wall.

6. In a bricklayer's or mason's wall guide, a first plate having a given face to be disposed against a given side of a wall, a second plate having a face to be disposed against the top of the wall, means slidably supporting the second plate for movement transversely of the first plate, said plates forming a right dihedral angle, means for indicating the position of said plates relative to the vertical and the horizontal, respectively, said second plate having an offset portion to be disposed against a side of the wall opposite said given side, resilient means urging the offset portion toward the first plate whereby to clamp said guide to the wall, and a lug adjustably secured to the first plate for movement toward and away from the edge of said right dihedral angle, said lug projecting from said given face for insertion between courses in the wall.

7. In a bricklayer's or mason's wall guide, a first plate having a given face to be disposed against a given side of a wall, a second plate having a face to be disposed against the top of the wall, means slidably supporting the second plate for movement transversely of the first plate, said plates forming a right dihedral angle, means for indicating the position of said plates relative to the vertical and the horizontal, respectively, said second plate having an offset portion to be disposed against a side of the wall opposite said given side, and resilient means urging the offset portion toward the first plate whereby to clamp said guide to the wall, said guide adjacent the edge of said right dihedral angle being provided with a groove for receiving a wall gauge line.

8. In a bricklayer's or mason's wall guide, a plate to be disposed against a given vertical side of a wall, means for securing the plate to the

wall, a bracket including spaced arm portions and an offset portion rigidly connecting said arm portions at their outer ends and means releasably fixing said arm portions at their inner ends to the plate with the arm portions extending laterally from any one side edge of the plate and with the offset portion disposed at any one side of the plane in which said arm portions are situated, the plane of the offset portion being perpendicular to the plane of the plate upon fixing the arm portions to the plate.

9. In a bricklayer's or mason's wall guide, a plate to be disposed against a given vertical side of a wall, a bracket including a supporting portion and an offset portion rigidly carried by the supporting portion, means releasably fixing the supporting portion to the plate with the supporting portion extending laterally from any one side edge of the plate and with the offset portion disposed at any one side of the plane in which said supporting portion is situated, said offset portion having its plane perpendicular to the plane of the plate upon fixing the arm portions to the plate.

10. In a bricklayer's wall guide, a plate to be disposed against a given vertical side of a wall, means for securing the plate to the wall, and a bracket releasably secured to the plate and including a laterally extending portion for paralleling the given side of the wall, an offset portion projecting from the laterally extending portion and a strip projecting from the outer end of the offset portion, said strip paralleling said guide and to be disposed against an adjacent vertical side of the wall forming a corner with said given side.

11. In a bricklayer's wall guide, a plate to be disposed against a given vertical side of a wall, means for securing the plate to the wall, a bracket including a laterally extending portion for paralleling the given side of the wall, an offset portion projecting from the laterally extending portion and a strip projecting from the outer end of the offset portion, and means releasably securing the bracket to the plate so that said laterally extending portion extends from any one side edge of the plate and so that the offset portion and strip are disposed at any one side of a plane in which said laterally extending portion is situated, whereby said offset portion and strip may be disposed against an adjacent side of the wall forming an interior or exterior corner with said given side and at either end thereof.

LEONARD WALDO CARR.