Aug. 23, 1960 M. E. BELCHER 2,949,673

MASON'S CORNER-GUIDE AND COURSE-GAUGE

Filed Oct. 27, 1958 3 Sheets-Sheet 1

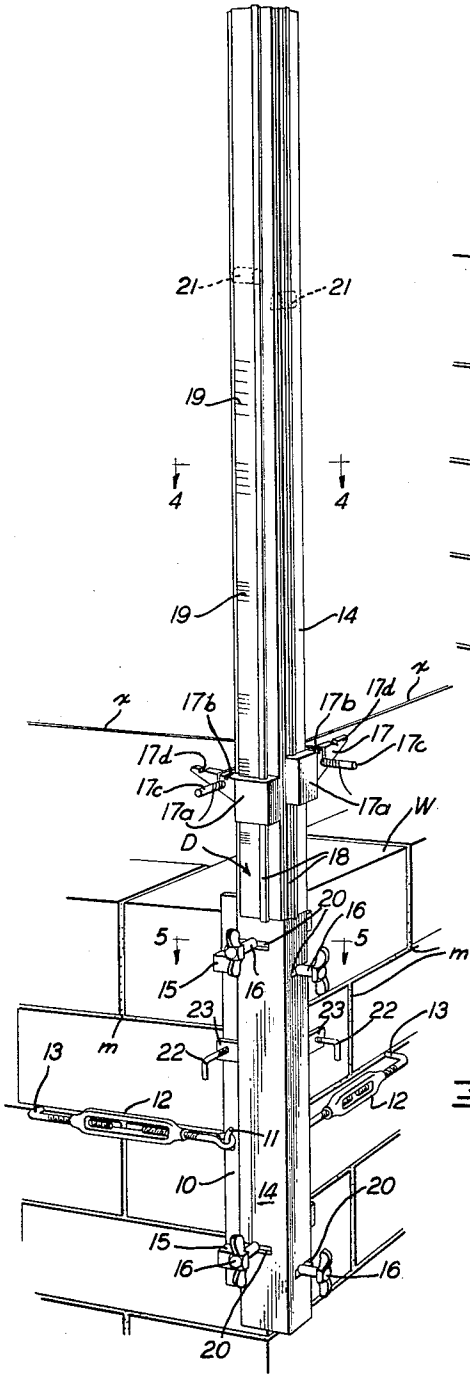


Fig. 1.

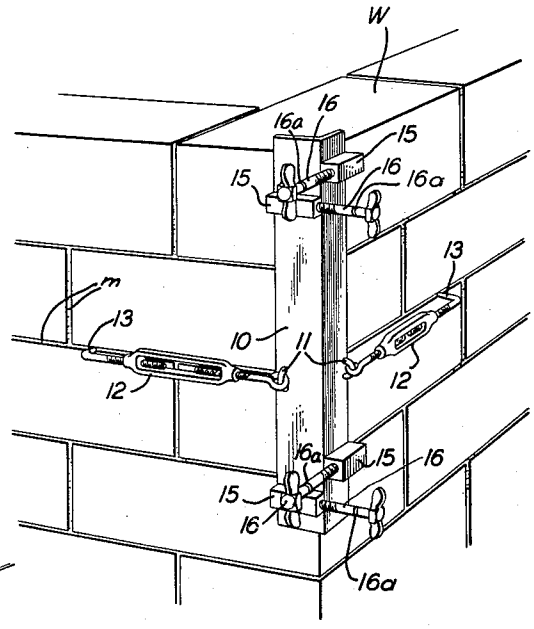


Fig. 2.

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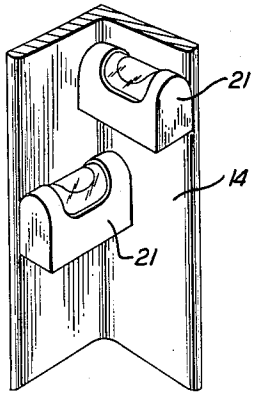
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FIG. 3.



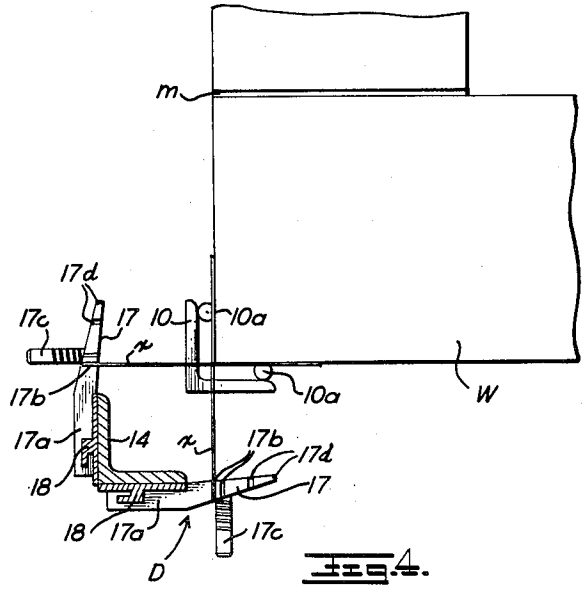


FIG. 4.

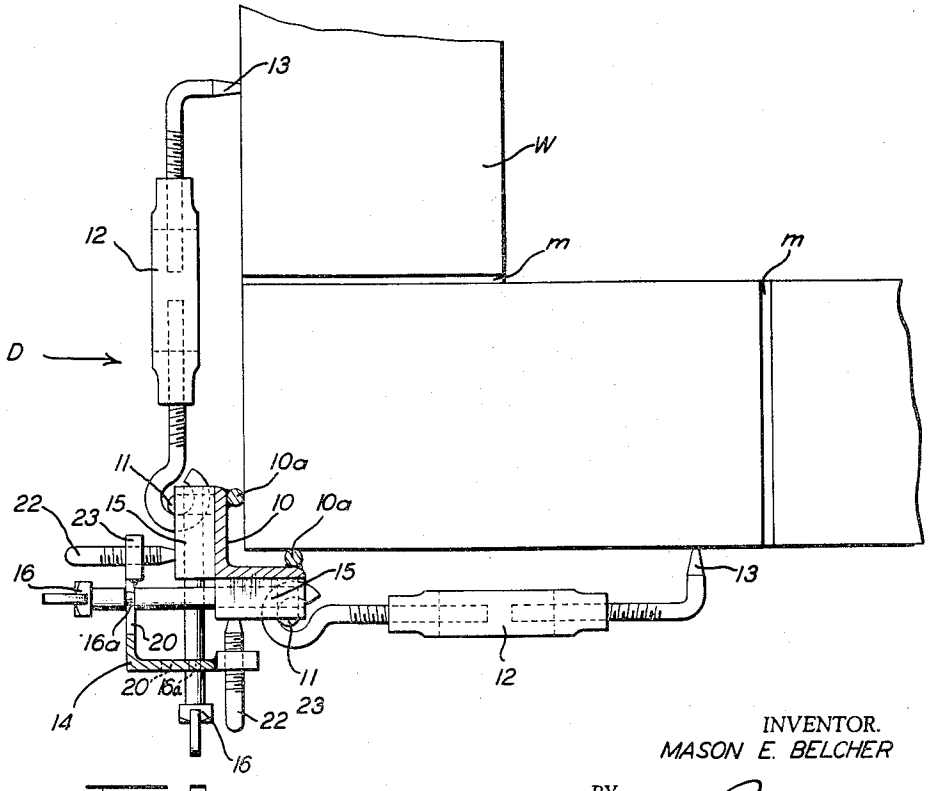


FIG. 5.

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MASON'S CORNER-GUIDE AND COURSE-GAUGE

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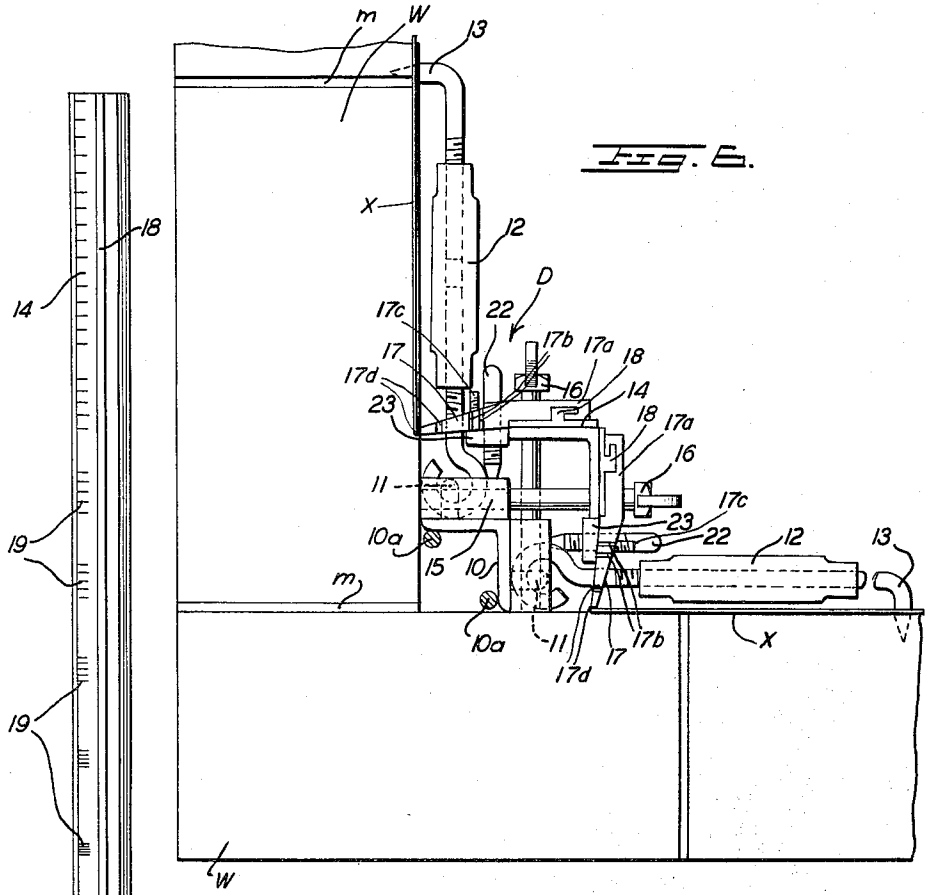


Fig. 6.

Fig. 8.

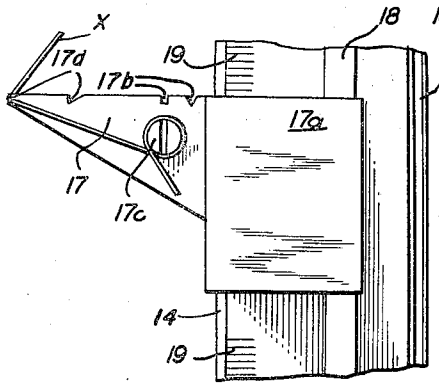


Fig. 7.

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United States Patent Office

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MASON'S CORNER-GUIDE AND COURSE-GAUGE

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5 Claims. (Cl. 33—85)

The present invention relates to a corner-guide and course-gauge useful in the construction of masonry walls, and like, of brick, blocks or stone.

Heretofore various devices have been proposed for the same purpose as this invention but, so far as is known, they lack a construction which permits the device to be anchored directly either to an inside corner or to an outside corner of a wall, and which permits the guide post to be plumbed in two lateral right-angular directions independently of and relative to its anchor means, thus without disturbing the anchored position of said anchor means.

The object of the invention, therefore, is to provide a very inexpensive and simply constructed and efficient combined corner-guide and course-gauge device having the features of construction and manipulation by which the device may be anchored securely in position onto and at the corner of a masonry wall and the guide post may be adjusted to plumb position independently of its anchor means whereby any inaccuracy as to plumb and level in previously laid portions of the wall may be progressively corrected in several successive courses irrespective of the position of the anchor.

Another object of the invention is to provide an improved mason's combined corner-guide and course-gauge device which includes an angular corner abutment anchor attachable to a wall, a vertical guide post or standard projecting upwardly from the anchor means and equipped with plumbing levels and course gauge-line supports adjustable along the standard or post, and means removably supporting said post on said anchor and operable to adjust said post relative to the anchor means to a plumb position independently of said anchor.

A further object of the invention is to provide such a corner-guide that the corner abutment anchor and the guide post are spaced horizontally from each other and the corner abutment anchor, when attached to the corner of a wall, is spaced from the corner faces of the wall so that the corner may be viewed vertically downward below the anchor from above the wall.

Other objects will be apparent from the following detailed description of the invention.

The invention resides in the sundry novel features of construction and organization of parts now to be described in connection with the accompanying drawings which illustrate the embodiment of the invention as now constructed and used and in which—

Figure 1 is a perspective view of the improved corner-guide and course-gauge device of this invention as applied to an outside corner of a brick wall;

Figure 2 is a similar perspective view, as in Figure 1, with the guide post removed and illustrating only the anchor means;

Figure 3 is a fragmentary perspective view of an upper end portion of the guide post to illustrate the position of the plumbing levels carried thereby and which plumbing levels are indicated in Figure 1 by dotted lines;

Figure 4 is a horizontal sectional view taken substantially on line 4—4 of Figure 1 but, for clarity, omitting the connection between the anchor abutment and the guide post;

Figure 5 is a horizontal sectional view taken substantially on line 5—5 of Figure 1 and illustrating in plan the connection between the anchor abutment and the guide post;

Figure 6 is a horizontal sectional view similar to Figure 4 but illustrating the corner-guide and course-gauge device applied to an inside corner of a masonry wall and illustrating the connection between the anchor abutment and the guide post;

Figure 7 is an enlarged frontal elevational view of a course-line support or finger slidably mounted on the guide post as shown also in Figures 1 and 4; and

Figure 8 is an elevation of one outer side face of the right-angular bar forming the guide post and having a mason's scale thereon above its lower end, the other outer side face being a substantial duplicate of the face shown.

Referring in detail to the drawings, in which like characters of reference refer to similar and like parts throughout the several views, D denotes my combined corner-guide and course-gauge device which may be applied to and held in place on and at either an outside, as shown in Figs. 1, 2, 4 and 5, or on and at an inside corner, as shown in Fig. 6 of a masonry wall W.

The device D of this invention comprises a wall anchor means which includes a relatively short right-angle bar (about 12 inches more or less in length) to provide a wall corner abutment **10**, the inner faces of the legs of which embrace or lie opposite the surfaces of said corner (as shown in Figs. 1 to 5 in one instance and as shown in Fig. 6 in the other instance). An eye-loop **11** is rigidly secured to and projects outwardly from the outer face of each leg of the abutment **10**, respectively, at a medial point of the length of said abutment. Each eye-loop **11** has one end of a turn-buckle **12** loosely connected therewith, the other end of the turn-buckle being provided with a pointed hook **13** shaped to extend into the mortar or bonding material *m* at a joint between two adjacent bricks *b*, or other building member forming the wall W, as shown in Figures 1, 2 and 6 but preferably in a vertical joint, the turn-buckle being dimensioned for this purpose.

The longitudinal free edges of the angle abutment **10** are provided with short flanges **10***a* extending laterally inward to form spacing ribs along the length of the abutment (i.e. being about 5/8 of an inch in width) to engage against the brick *b* at the corner of the wall W, but at points remote from the edge of said corner, so as to space the inner surfaces of the angle-bar abutment **10** from the surfaces adjacent the corner of the wall to provide a relatively wide viewing passage downwardly from above the wall and along the entire corner of the wall and below the abutment **10**. These flanges **10***a* may be provided by bending the free longitudinal edges of the angle-bar abutment at right-angles to respective leg of the abutment **10** or by welding a strip or rod along said edges as shown in the drawings.

The corner abutment **10** supports a corner guide post **14** which extends vertically upward from the abutment **10** and is adjustable on and laterally of the corner abutment **10** in two right-angular directions to a plumb position. To this end, the right angle abutment **10** is provided, on the outer faces of its legs and adjacent the ends thereof, with internally threaded bosses **15** which threadedly receive the threaded ends of elongated bolt **16**, the threaded bores in said bosses extending parallel with and transversely of the outer face of the angle-bar abutment **10**. The shank of each bolt **16** is formed with a circumferential groove **16***a* near, but spaced from, the head of said bolt.

The guide post **14** may be, and preferably is, a length of right-angle bar approximately three or four feet in length for the purpose of supporting guide-line supports or fingers **17**, to which guide lines *x* are attached so as to parallel the surfaces of a wall at right-angles to each other. For this purpose, each outer face, respectively, of the angular guide post **14** has a slide **17***a* slidably mounted thereon which has a finger **17** projecting laterally therefrom to be, in effect, an extension of the angular flange or leg of the angular guide post **14**. The slides **17***a* may be slidably mounted in any acceptable manner, but are shown here as having a bayonet slot in the inner surface thereof which embraces a complemental rib or projection **18** on the outer surfaces of the angular flanges of the post **14** with a tight sliding fit so as to maintain their adjusted positions. The upper edge and the extremity of each finger **17** is provided with one or more spaced and transverse kerfs or notches **17***b* remote from the extremity of the finger and in which the guide lines *x* may be selectively received when the device is used on the outside corner of a wall as shown in Figs. 1 to 4 and each finger **17** has a lateral projection **17***c* extending therefrom and about which the guide line *x*, resting in one of the kerfs **17***b*, may be quickly wrapped for maintaining it in a taut position in the manner and for a purpose well understood in the art.

A mason's scale **19** is stamped, printed or otherwise provided on each outer face of the flanges of the guide post **14**, as indicated in Figure 8, and with which the upper edge portion of the slide (mounted on said face) cooperates in its sliding movement along the length of the guide post and in a manner also well understood in the art.

The lower end portion (approximately the lower ⅓ or ¼ of the guide post), when mounted in position, as shown in Fig. 1, lies outwardly opposite the angular corner abutment **10**, which forms part of the anchoring means and has its inner faces lying opposite the outer faces of said corner abutment **10** to be supported in position from said abutment plate. This lower end of the guide post has each of its angular flanges or legs formed with a pair of widely spaced slots **20** extending inwardly from its longitudinal edge and transversely thereof for a substantial distance as shown, each of these slots **20** being positioned to lie opposite a boss **15**, respectively, on the corner abutment **10**. These slots **20** are dimensioned to fittedly receive in and embrace the circumferential groove **16***a* of a bolt **16**; and each of these bolts is then threaded into the bore of an oppositely aligned boss **15** on the corner abutment **10**. By this arrangement, the bolts **16** support the guide post **14** spaced outwardly from the corner abutment plate **10** (instead of against the wall corner) thus giving about two inches more space in which to pass a trowel over the corner; and, by properly manipulating the bolts **16**, the guide post **14** may be adjusted horizontally in two directions at right angles to each other to bring the guide post into plumb position irrespective of whether the corner abutment **10** of the anchor means is plumb or not. The slots **20** are so dimensioned that, when the bolts **16** are in midposition of the slots, the corner anchor abutment **10** and the post **14** are parallel, thus permitting the adjustment of the post **14** relative to the abutment **10** in opposite directions—that is, about one inch in either direction. Also, this arrangement permits of ready and quick attachment or removal of the guide post **14** to and from the corner abutment **10** as may be desired, without disturbing the position of the corner anchor means.

A pair of levels **21** are positioned on the upper end portion of the guide post **14**, these levels being arranged at right angles to each other and being secured, respectively, to the inner faces of the flange or leg portions of the angular guide post **14** as shown particularly in Fig. 3. When the guide post has been so adjusted to a plumb position, it may be locked in this position by additional set screws **22** carried in threaded openings in lugs **23**, on the lower end of the guide post **14** between the upper and lower sets of bolts **16**, to bear against the opposing angular faces of the corner abutment **10**.

The device shown in Fig. 6 is the same device as that shown in Figs. 1 to 5, inclusive, except that Fig. 6 illustrates the device set at the inside corner of a wall. I have found the guide device of this invention as useful at the inside corner of a wall as at its outside corner and, as most masons know, an inside corner guide is more preferred in certain circumstances than an outside corner guide.

As shown in Figure 6, the longitudinal edges of the right-angle corner abutment **10** are placed in contact with the angular surfaces of the inside corner of the wall; and the anchor means **11**, **12**, and **13** are so located, as above described, they may readily assume a position to be anchored in wall joints, as depicted, thus positioning the guide post **14** further from the inside corner of the wall with the gauge-line supporting fingers **17**, on each leg of the post **14**, extending to the inner edge of the wall, being erected. In this position of the guide device and its gauge-line fingers **17**, the gauge-line *x* is supported in a notch or kerf **17***d* at the extremity of each finger **17**, and then wound around the lateral projecting pin **17***c*. Also, there may be another kerf **17***d* adjacent, but inwardly of, the one at the extremity of each finger **17**. Otherwise, the device is manipulated in the same manner as above described in connection with Figs. 1 to 5, inclusive.

The use of the improved combined corner-guide and course-gauge of this invention will be obvious to those skilled in the art from the above description. While certain dimensions have been indicated, these dimensions may be varied as may be found desirable; however, the dimensions given have been found to be satisfactory in all operations to which the device has been put up to the present time. While one corner-guide has been shown in connection with the above illustration, it is understood that two or more will be used at other corners of a wall or building structure and between which the gauge lines *x* will be stretched taut. After the masonry courses have been "laid-up" according to a particular scale setting of the fingers **17** on the guide post **14**, the fingers of the several devices D will be raised in accordance with the scales **19** on their respective guide posts **14**. After the courses of the wall have been "laid-up" to the limit of the settings of the fingers **17** on the guide posts **14**, the hooks **13** may be withdrawn from the joints *m* and the abutment **10** repositioned and again anchored by the hooks **13** at a higher level for continuation of the masonry operation in the manner previously described; and, the guide posts will be checked for their plumb position and, if need be, be readjusted to a plumb position by manipulation of the thumb bolts **16**.

All of the parts of this device may be made of very light weight metal, such as aluminum or magnesium, thus rendering the device very light in weight for easy installation on the "job."

Having thus described the invention and the manner in which the same is to be performed, it is to be understood that the invention is not limited to the exact form of the device herein described, as the same may be varied or modified within the scope of the appended claims.

That which is claimed, as new and to be secured by Letters Patent, is:

1. A mason's combined corner-guide and course-gauge device comprising an upright member forming a corner-guide post having adjustable gauge-line supports on the upper portion thereof; an anchor means for securing said upright member to a wall being constructed, said anchor means including an elongated rigid right-angle bar of less length than said upright member and forming a wall abutment member to extend lengthwise of a corner of said

wall with the inner faces of its flanges opposing angular portions of said wall and, further, including means to removably secure said abutment means in position on and to said wall; adjustable means interconnecting and supporting the lower end of said upright member upwardly in spaced outwardly lateral relation from said abutment member, said means including elements arranged at substantially right angles to each other and mounted in the flange portions respectively of one of said members against longitudinal movement in said flanges and for transverse movement relative to said flanges, said elements being further mounted in the flanges of said other member for moving said members relative to each other, and an actuatable part on said elements for operating said elements, whereby the guide-post may be plumbed independently of and relatively to the abutment member, when the latter is secured to the wall, without disturbing the position of the abutment member on and/or its anchor connection to said wall.

2. A device, as set forth in claim 1, wherein said elements of the interconnecting means comprise rotatable bolt-like members extending laterally outward from the flange portions respectively of the abutment member and each having a horizontal self-adjusting connection with said upright member to accommodate the movement of said bolt-like members, during said plumbing adjusting movement of said guide-post in any one of two substantially right-angular directions.

3. A device, as set forth in claim 1, wherein an inwardly projecting rib is provided along the length of and at each longitudinal free edge of the flange portions of the abutment member and adapted to engage and bear against the outside surfaces of a wall-corner to space the intermediate portion of said abutment member from said corner surfaces of the wall opposing said abutment member, when the device is used at the outside corner of a wall; and said longitudinal free edges of the flange portions of said abutment member being adapted to engage and bear against the adjacent surfaces of an inside wall corner to space the intermediate portion of said abutment member from said inside corner surfaces, when the device is used at the inside corner of a wall; and wherein the gauge-line supports project laterally from said guide-post in the same direction as and at least for a distance coextensive with the flange portions of said abutment, whereby to support course gauge-lines adjacent to the wall, being erected, in either position of use of the device, in the manner shown and described.

4. A mason's combined corner-guide and course-gauge device comprising an upright right-angle bar forming a guide post, the lower end portion of said post having a pair of elongated slots in each flange portion thereof, the slots of each pair extending inwardly from the longitudinal free edges of their flange portions for a substantial distance and vertically spaced; an anchor means for securing said post to a wall being constructed, said anchor means including an elongated right-angle bar of less length than said post and forming a corner abutment member adapted to contact the corner surfaces of said wall with its inner faces opposing said wall surfaces, each flange portion of said abutment member having a set of two internally threaded bosses thereon, the bosses of each set being vertically spaced from each other and adapted to align with the slots, respectively, in said post, said anchor means further including means to removably secure the abutment member in position on and to said wall; and bolts one extending through each of said slots and adjustably threaded in its aligned boss, respectively, each bolt having a circumferential groove near its head-end into which the edge portions of its respective slot are slidably confined, whereby the lower end of said post is supported from said abutment member in outwardly spaced relation therefrom and whereby the post may be adjusted laterally relative to said abutment member to plumb said post by selective threaded adjustment of said bolts in their bosses.

5. A device as set forth in claim 4 wherein the inner face of the flange portions of the post oppose the outer face of the abutment member and the angular wall surface being erected, a gauge-line supporting finger on each outer face of each flange portion of said post and having a base portion formed with a bayonet-slot in the surface thereof opposing said outer face of said post, a rib on each of said outer faces of said post and extending longitudinally thereof and extending into and shaped to complement said bayonet-slot in the line-support thereon with a sliding fit to be adjustable along the length of the upper portion, at least, of said post, and each of said fingers projecting laterally beyond the free edge of its flange portion of said post.

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