

Jan. 23, 1962

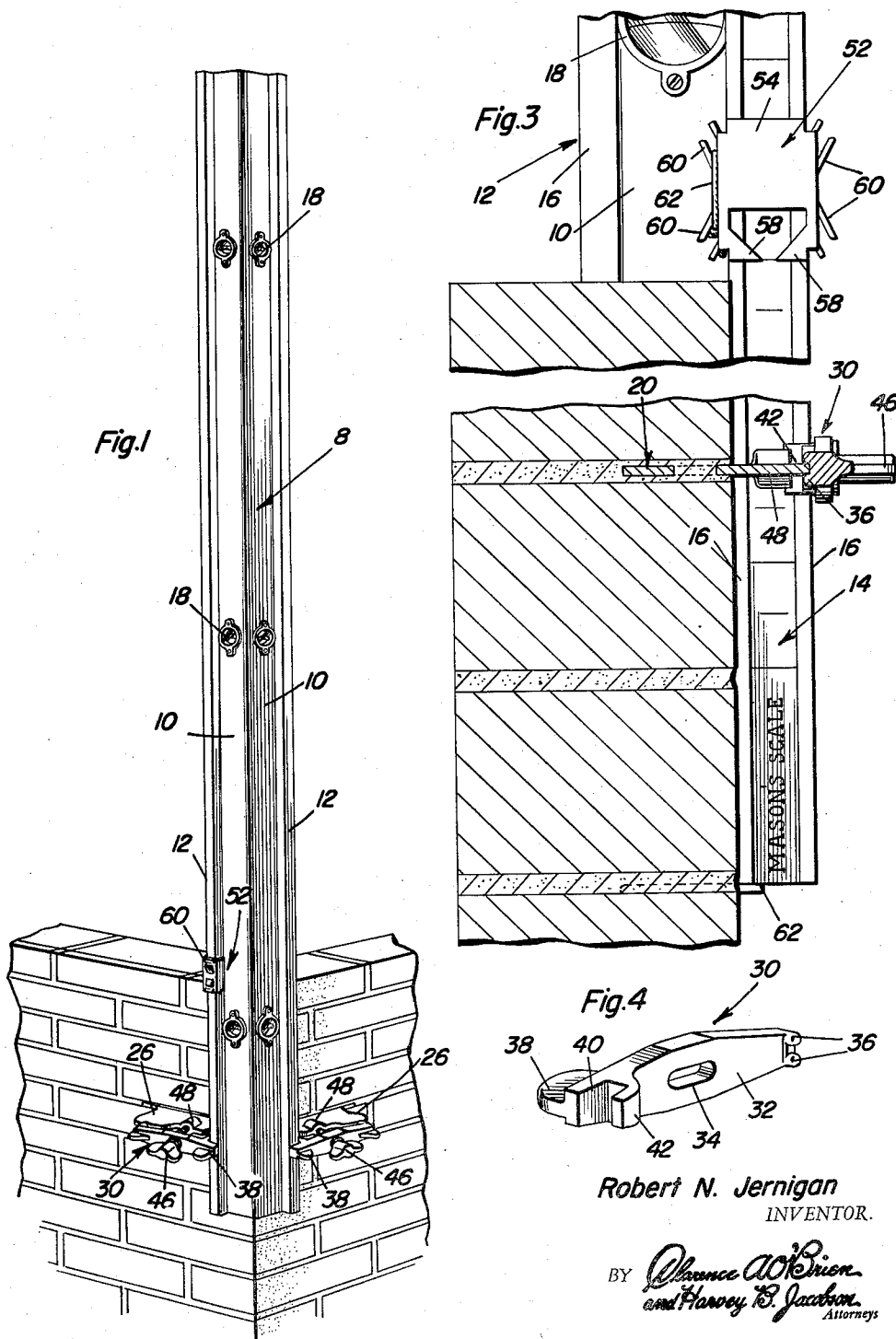
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MASON'S MULTIPURPOSE IMPLEMENT AND ANCHORING MEANS

Filed Nov. 18, 1958

2 Sheets-Sheet 1



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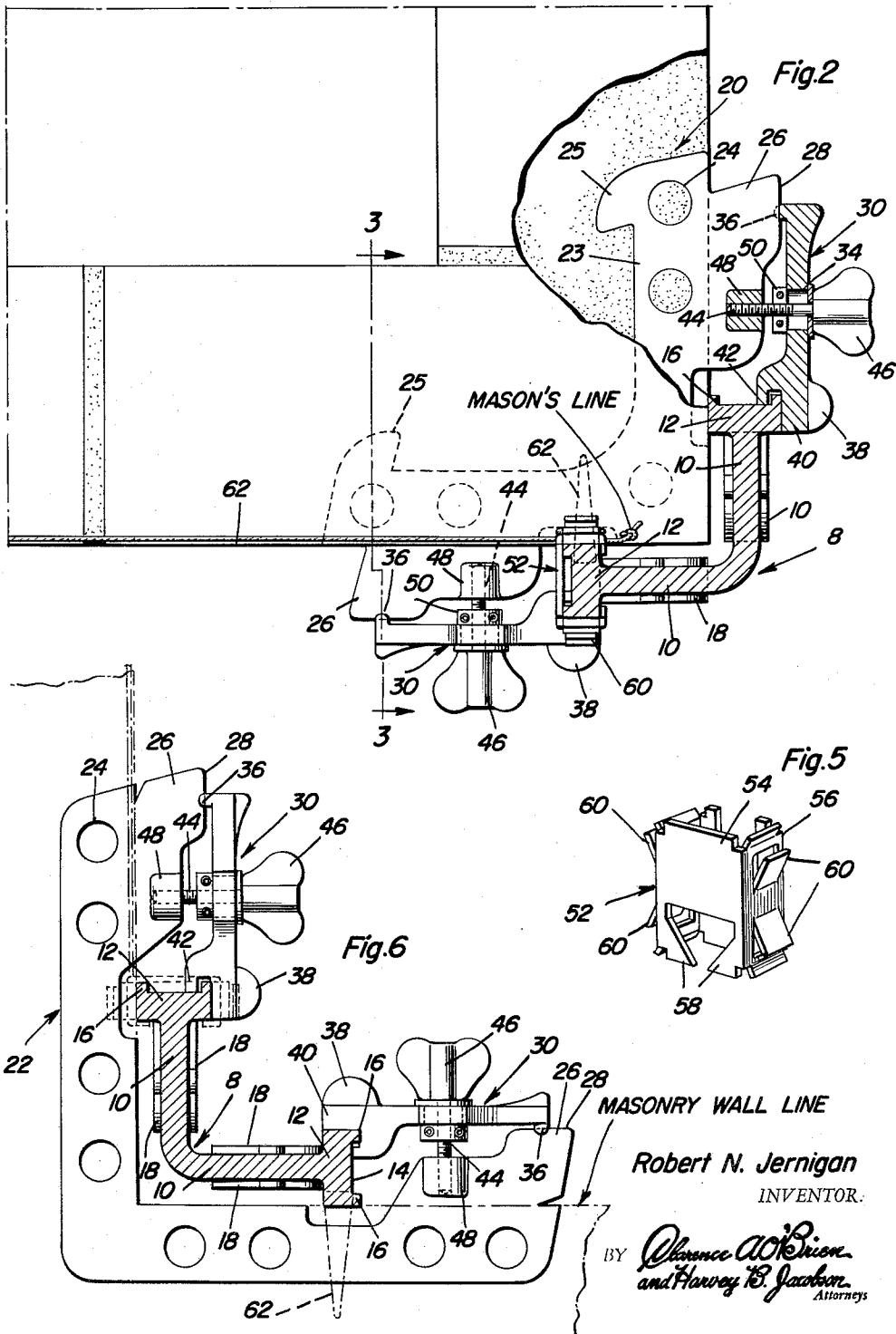
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1

3,017,701

MASON'S MULTIPURPOSE IMPLEMENT AND ANCHORING MEANS

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Filed Nov. 18, 1953, Ser. No. 774,693

4 Claims. (Cl. 33-85)

The present invention relates to certain new and useful improvements in a multipurpose implement or tool and anchoring means therefor which is expressly constructed and effectually usable by masons, and the purpose of the same is to provide a novel and practical structural entity which in and of itself enables users thereof to expeditiously and satisfactorily accomplish three primary steps of masonry work; namely, plumbing of corners, either inside or outside, running of lines, and uniform coursing of units.

Stated otherwise, the concept has to do with a single simply utilized practical device sometimes designated as a "story pole," that is, a simplified construction or means which embodies all of the prerequisite companion parts or components capable of performing the aforementioned essential masonry steps.

An object of the invention, somewhat more specifically recited, is to provide at least one elongated linearly straight upright or equivalent structural member of any predetermined practical height. Preferably, the member resembles an angle iron and therefore embodies a pair of complementary flanges at right angles to each other. These flanges are adapted to parallel adjacent vertical surfaces of a masonry wall corner. They are provided with specially designed and constructed heads or abutments which have straight edges to abut and plumb the vertical corner or wall surfaces. This upright, usually the flanges thereof, is provided with a plurality of vertically spaced suitably positioned and constantly visible spirit levels. In addition the abutments or heads have a conspicuously located mason's coursing scale.

In addition to the above the object of the invention is to also provide means which is slidably mounted on the upright and is cooperable with the graduations of the scale and is effectively provided or equipped with suitable means to permit an end of a line to be attached thereto. An anchor which is designed to be embedded in a mortar joint is also provided and means for removably and adjustably bracketing and connecting the upright to said anchor.

In carrying out a preferred embodiment of the invention the aforementioned abutments or heads are channel-shaped in cross-section and are formed integrally with and extend lengthwise along the outer marginal edges of the flanges of the upright. The web portion of each channel is graduated to provide a mason's scale. A clip is constructed so that it may be slidably mounted on the desired abutment and this clip is unique in that it is provided with pointers which cooperate with the graduations on the scale and in addition with struck out tongues or lugs which provide fly nuts for tying and fastening one end of a line to the adjustable clip.

The anchors are in the form of angle plates and they are provided along desired longitudinal edges with projecting wing portions, each wing portion having a nut to accommodate a clamping and an adjusting bolt which is carried by a bracket, said bracket being so made that it has one end portion connectible with the wing or extension and the other end portion operatively cooperable with the channelled head or abutment all as will be set forth in greater particularity later on.

A more general object of the invention is to structurally functionally and otherwise improve upon similiary constructed and performing inventions and, in doing so, to

2

provide a suitable and efficient construction which is such that it will, no doubt, appeal to manufacturers and to retailers, and, what is more important, will comply with and meet the needs of masons and other users thereof.

Other objects, features and advantages will become more readily apparent from the following description and the accompanying drawings.

In the drawings, wherein like numerals are employed to designate like parts throughout the views:

FIG. 1 is a perspective view showing a fragmentary portion of a wall, that is the corner portion, and illustrating, what is more important, the improved mason's implement or device and how it is constructed and used, certain parts being omitted for clearness of illustration.

FIG. 2 is a view on a larger scale with portions broken away and appearing in section and with parts also in elevation and which may be said to be a horizontal section through the lower part of the structure seen in FIG. 1.

FIG. 3 is a section taken on the plane of the line 3-3 of FIG. 2, looking in the direction of the arrows.

FIG. 4 is a perspective view of one of the connecting brackets, that is the bracket which is used between a complementary part of an anchor and a cooperating part of the uprights.

FIG. 5 is a perspective view of the aforementioned sliding line clip.

FIG. 6 is a view similar to FIG. 2 but showing how the invention, by simply changing the anchor, may be used for an inside corner job.

It will be understood that in order to simplify the presentation and save space only a single assemblage is shown. That is to say, it is necessary to use at least two of these devices in order to carry out the steps in a manner which is to be hereinafter set forth. In any event the upright (railing, pole, support member or the like) is denoted by the numeral 8. It is preferably of cross-section seen in FIG. 2 and therefore resembles an angle iron, the flanges of which are identical and denoted by the numeral 10. The outer vertical or longitudinal edge of each flange is joined with the contiguous side of a lengthwise head or abutment 12. This part 12 is channel-shaped in cross-section and as shown in FIG. 3 the visible side of the web or bottom of the channels is graduated to provide a mason's scale, as at 14. The channel walls or flanges 16 have smooth flat surfaces which constitute straight edges are used obviously for plumbing the wall in the manner which is believed to be evident in FIG. 3. The channelled abutment is of a cross-section greater than the cross-section or thickness of the flanges 10 so that the plumbing surfaces extend beyond the flanges so that the flanged surfaces may be provided with suitable spirit levels 18.

The outside corner anchor is denoted in FIG. 2 by the numeral 20 while the inside anchor in FIG. 6 is denoted by the numeral 22. Actually both of these anchors may be said to be fundamentally the same in that the anchor is of right angular form in plan and has plate or arm portions 23 with suitable holes 24 therein. The anchor 20 is also provided with additional end extensions 25. These extensions while omitted from FIG. 6 are of course optional. It is important to know however that the right angularly disposed arm or plate portions of each anchor have wing-like extensions. The extensions are denoted in all figures by the numeral 26, the edge portion 28 being significant in that it is constructed to accommodate the cooperating bracket 30. The bracket in each instance is of the construction shown in FIG. 4 and comprises a body portion 32 with a slot 34 and with retaining feet or lugs 36 at one end which straddle the edge portion 28. There is a suitable finger-grip 38 at the other end and also this end portion 40 is in conjunction with the offset hook 42 provides an adapter which is connected releas-

ably with the flange 16 in the manner shown in the drawings. The slot serves to accommodate a bolt 44 having an accessible wing nut or grip 46, the shank of the bolt passing through the slot and being screwed into a nut 48 which is provided therefor on the extension 26. The numeral 50 refers to a lock collar provided with suitable fastening means.

The aforementioned clip is denoted by the numeral 52 in FIG. 5 and is of sheet material and appropriately constructed to provide a plate portion 54 and side portions 56. The bottom of the plate portion is constructed to provide a pair of converging pointers 58 which, thus constructed, serve as indicators for cooperation with the graduations on the aforementioned mason's scale 14 (FIG. 3). The side portions have struck-out tongues 60 which treated either as tongues or lugs are so bent that they provide a fly-nut to accommodate an end portion of the guide line 62 in the manner shown in FIG. 3. That is to say the knotted end of the line is wrapped or wound around the fly nut in the well known manner for retention.

The drawings clearly show, considering the views conjointly, that in practice a wedge-like pin or prong 64 which serves as a simple foot is driven into the mortar joint in the manner shown in FIGS. 2 and 6 to provide a rest or foot for the lower end of the upright. The upright itself straddles the vertex of the corner so that the flanges 10 are to the left and right of the corner and parallel with the wall surfaces. As already mentioned the flat side of the abutment or head means 10 provide for plumbing the wall surfaces taken in conjunction with the levels 18.

The usual practice in masonry construction is to lay up what are known as "leads" at exterior and interior corners. These leads serve to support the mason's guide lines which are used for guiding the laying of the courses of masonry between the leads. Then, additional leads are built and the procedure is repeated. These leads must be built only by the most skilled masons, with repeated use of the level, both as a straight edge and for plumbing of corners, and also repeated use of the mason's rule for individual courses, and the "story pole" for equality of coursing at all corners of the building wall. It should easily be understood, that if one tool or implemented device can be provided that can combine all needed tools, and always be in position and not have to be reached for, that it would save the mason considerable and valuable time. The present invention not only serves the above purposes, but also the guide lines needed to lay up brick between the corners are simply fastened to a line clip and as each course is laid the clip is slipped up the instrument to the next course. No tying and untying of line at each course is necessary, or fastening line in mortar joint, as is the usual procedure.

It is a known fact that running of leads is a costly operation, not only because the most skilled mason and the step-by-step use of several separate tools are required, but also because the masonry must be laid at two levels at once. Otherwise, the less skilled mason who fills in between corners must be transferred to another location while the lead is being laid. It can be readily appreciated that the laying of two levels of masonry at once on a single wall, presents a scaffolding problem, also the transferring of masons to other locations is time consuming. With my invention leads are eliminated, therefore, all masonry is laid one course at a time from corner to corner and all masons are permitted to work on the same level. Contrary to running of leads, unskilled or even apprentice masons may lay up corners in less time and more accurately than heretofore.

Although it is believed that the drawings illustrate the construction and use of the invention it may be added that in actual operation one may vary from the following basic steps because of the length of time that may be required for the initial setting of mortar or perhaps be-

cause of the mason's experience in actual practice. Briefly, however, the steps to be followed would be as follows:

That is to say the user lays the first course of masonry in a given corner. He should then place an anchor on top of a unit in exact corner (outside arrangement in FIGS. 1 to 3 inclusive and inside arrangement in FIG. 6). The next thing to do is to lay two more courses of masonry embedding an anchor in the mortar joint as shown. Now, set the upright in position with the end resting on the aforementioned footing or pin 62 as seen in FIG. 3. The upright is erected to the desired degree of verticality with the aid of the assembling and connecting clamps 30 and wing nuts on the bolts are tightened. It is advisable to check all masonry units at this point. The line clips (one or more) 52 are placed on each wing of the upright and the lines are fastened to them running from corner to corner and the clips are adjusted according to the coursing scale and indicator means for laying of each succeeding course of masonry. It is advisable to lay as many courses as experience proves satisfactory and to then place the second anchor. The parts are placed as previously mentioned in position and the location of the second upright is plumbed in relation to its anchor (not detailed). Obviously by keeping the upright plumb by adjustment from first and second anchors, the masonry may be laid to the top of the upright. The anchors may be placed at will in masonry joints to carry the instrument to the top of any wall. It may be noted here that if the instrument is to be moved up from an original position a third anchor should be placed in the wall near the top of the instrument for fastening the same when it is up. Other anchor means (not shown) might be placed even below that shown in FIG. 1 but for simplification it is believed that FIG. 1 illustrates the principle of construction and operation. At any time, the upright may be removed for "pointing up" mortar joints by loosening the thumb bolts and swinging the clamping brackets 30 out of the way. The wings provided on the anchors may also be used by employing a slight blow from a blunt tool to loosen the same. As the invention is moved up the wall the anchors are removed and the joints are "pointed up."

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. For use in plumbing corners, running lines, and coursing wall units; a masonry device comprising, in combination, at least one elongated linearly straight upright having complementary flanges at right angles to each other and disposed parallel to adjacent vertical surfaces of a masonry wall corner, said flanges being provided with lengthwise abutments having straight edges to abut said vertical surfaces, an anchor designed to be embedded in a mortar joint, and means for removably and adjustably bracketing and interconnecting said upright and said anchor, said upright comprising an angle iron the flanges of which are edged with a lengthwise runner the longitudinal edges of which are flat and function as selectively usable straight-edges, said runners constituting and providing the aforementioned abutments, each runner presenting a channel on one side thereof and being of a cross-sectional dimension greater than the cross-section of said flange, the latter being joined centrally to a side of each runner opposite to said one side thereof, the channel serving to permit said bracketing means to be fittingly mounted and slidingly keyed on said runner.

2. An implement for use in combining the principal steps of plumbing corners, running lines and coursing

5

units comprising an anchor embodying right angularly disposed arms adapted to be embedded in a mortar joint, outer edge portions of said arms being provided with extending wing-like extensions, each extension being provided with a nut, a clamping and assembling bracket for each extension, each bracket having projecting members at one end straddling the edge portion of one of said extensions and having a portion intermediate its ends provided with an adjustable bolt passing therethrough and releasably engaging said nut of said one extension, each bracket being provided at its end opposite said one end with a finger grip and with an adapter keying means, and an elongated upright having abutment means thereon releasably held by said adapter keying means on each of the brackets whereby the upright may be held in an adjusted position. 15

3. Apparatus for guiding erection of a masonry wall comprising, mortar embedded anchor means having projecting edges, clamp means removably and slidably engageable with said anchor means for parallel spacing of the clamp means relative to the wall, elongated vertical corner means abutting against spaced portions of the wall to define a corner therebetween, positionable means mounted on the clamp means for slidably receiving the corner means, lock means operatively connected to the 25

6

anchor means and clamp means for adjustably displacing the clamp means toward the wall to clamp the corner means against the wall, said clamp means including members at one end straddling said projecting edges of said anchor means for slidable engagement therewith and keying means disposed at the other end for slidably receiving the corner means.

4. The combination of claim 3, wherein said lock means includes threaded bolt means threadedly engaged with the anchor means for thrust engagement with the clamp means intermediate the ends thereof.

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