July 27, 1965 D. CASTELLI 3,196,581

GAGE ELEMENT FOR MASONRY CONSTRUCTION

Filed March 23, 1962

Fig. 1.

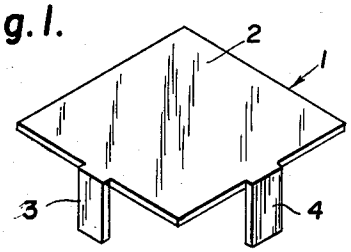


Fig. 3.

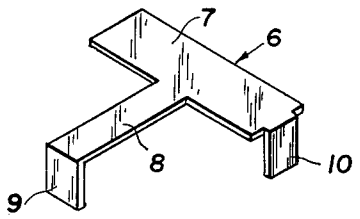


Fig. 2.

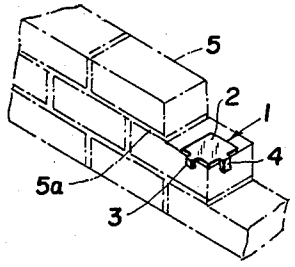


Fig. 4.

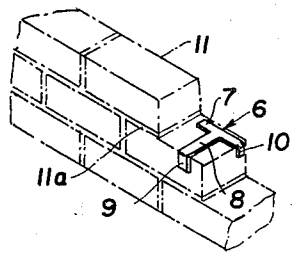


Fig. 5.

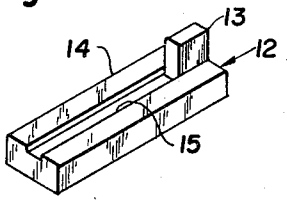


Fig. 7.

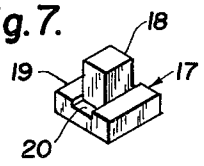


Fig. 6.

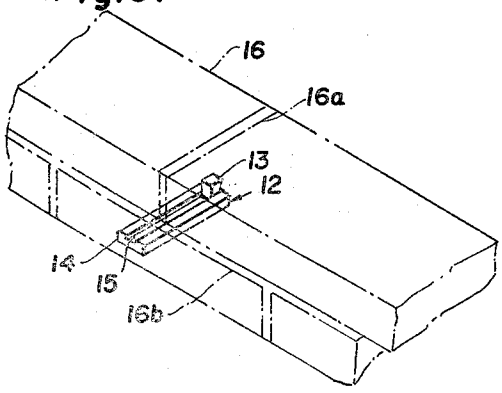
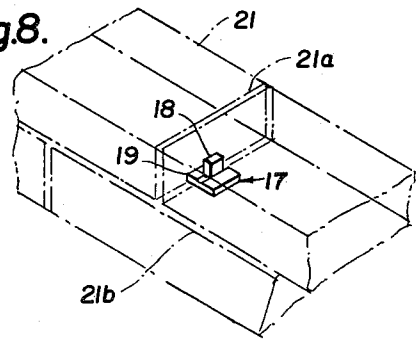


Fig. 8.



INVENTOR.
DENO CASTELLI
BY
William J. Ruano
his ATTORNEY

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GAGE ELEMENT FOR MASONRY CONSTRUCTION

Deno Castelli, Western and Clark Aves., Jeannette, Pa.

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4 Claims. (Cl. 50—82)

This invention relates to masonry construction and, more particularly, it relates to an element for providing uniform spacing between bricks of a brick wall so as to provide uniformly thick mortar between courses extending horizontally as well as uniformly thick spacing between the ends of bricks.

In conventional methods for erecting brick and concrete block walls, considerable skill must be exercised in measuring and plumbing the walls and particularly in aligning bricks of a given course and in applying mortar in a sufficient amount so as to provide a uniform thickness or spacing between courses and between ends of bricks, particularly since bricks are not uniform in thickness or length. This has required the use of skilled brick layers and stone masons and has made it almost impossible for an ordinary person to accomplish satisfactory results, particularly in providing uniform mortar thickness, both horizontally and vertically between the bricks.

An object of the present invention is to provide a simple gage means for insuring uniform thickness of mortar, both horizontally between courses and vertically between the ends of the bricks, so as to enable unskilled persons to erect brick and stone walls and obtain results comparable to those obtained by skilled bricklayers.

A more specific object of the invention is to provide an insert having a horizontal thickness corresponding to the desired thickness between courses, and a portion at right angles thereto, having a thickness corresponding to the desired spacing between the adjoining ends of bricks, which element is so positioned in a wall so that it can even be embedded in the mortar to provide a permanent part of the wall or, in the alternative, may be reused after serving its purposes without embedding it in the mortar.

Other objects and advantages will become more apparent from a study of the following description taken with the accompanying drawings wherein:

FIG. 1 is a perspective view of an insert or gage element for brick walls to provide uniform mortar thickness both horizontal and vertically between bricks and embodying the principles of the present invention;

FIG. 2 is a perspective view showing a brick wall and the manner the element shown in FIG. 1 is applied thereto;

FIG. 3 is a modification of the insert shown in FIG. 1;

FIG. 4 is a perspective view of a brick wall showing how the element of FIG. 3 is applied thereto;

FIG. 5 is an enlarged, perspective view of a further modification of the elements shown in FIGS. 1 and 3;

FIG. 6 is a perspective view of a brick wall showing how the element of FIG. 5 is applied between bricks;

FIG. 7 is a perspective view of a still further modification; and

FIG. 8 is a perspective view of a brick wall having permanently embedded therein an extending between brick joints, elements such as shown in FIG. 7.

Referring more particularly to FIGS. 1 and 2 of the drawing, numeral **1** generally denotes a gage or spacer element made of any suitable material, such as metal, for example, steel or aluminum, or perhaps of plastic material, and comprising a flat portion **2** of a thickness corresponding to the desired mortar thickness extending horizontally, such as at **5***a*, between courses of bricks **5**.

Integrally formed and projecting at right angles from two sides of the flat portion **2** are extensions or lugs **3** and **4** which are also of a thickness corresponding to the desired thickness of the mortar between the ends of the bricks. Portion **3** serves as a rear lug to prevent the element **1** from sliding off from the front of the wall and becoming lost. The element **1** is used by placing it on the corner portion of each brick so that the proper thickness of mortar may be applied at **5***a* between courses and between the confronting ends of adjoining bricks. The element **1** is removed after each use.

FIGS. 3 and 4 show a modification of the element denoted as **6** having leg portions **7** and **8** disposed at right angles and forming a T shaped and terminating in integral lugs **9** and **10** at right angles thereto. Lug **9** prevents the element from sliding off the front of the wall whereas element **10** determines the thickness of the mortar between adjoining ends of bricks of a given course.

FIGS. 5 and 6 show a further modification in the form of an elongated block, denoted generally as **12**, having a handle portion **14**, a groove **15** and a vertically extending portion **13** fitted in the groove and integrally secured to the end of portion **14**. FIG. 6 shows how element **12** is applied between courses and ends of bricks and how it projects from the front surface of the bricks.

FIGS. 7 and 8 show a still further modification wherein the element denoted by numeral **17** is considerably smaller, as will be apparent in FIG. 8, and comprises a base portion **19** having a thickness which determines the thickness of the mortar joint **21***b* between courses, and having an upstanding portion **18** having a thickness which determines the thickness of the mortar joint **21***a* between adjoining ends of bricks **21**. Portion **19** of the insert or spacer element **18** may extend in a groove **20** and may be either integrally made so that the entire insert **17** is molded in one piece, particularly if made of plastic, or which may be made in separate pieces, as shown, which are either welded together or held together by a screw or other suitable fastening means (not shown). Therefore, instead of reusing element **17** from joint to joint while erecting the wall, it is left in the joint and remains embedded in the mortar so as to form a permanent part of the wall. Of course there is one element at each joint.

The above described elements may be of any desired thickness, both horizontally and vertically, depending on the thickness of the mortar desired between courses and between the ends of the bricks. A suitable dimension may be ¼" for the thickness of the mortar horizontally between courses, and perhaps the same thickness for the vertically extending portion which determines the thickness of the mortar between the ends of the bricks. These thicknesses may vary perhaps in 1/16" increments from one set of spacer elements to another to provide different mortar thicknesses for different walls.

The present inserts are useful not only for brick walls but for concrete block walls.

Thus it will be seen that I have provided an efficient element serving as a gage element for determining the thickness of the mortar between courses of a brick wall or the like and between the ends of adjoining bricks so that the brick wall may be erected by the unskilled "do-it-yourself" home owner who may wish to build a fall-out shelter or any other brick or stone wall, but who wishes to be assured of uniform spacing between courses of bricks, as well as between the ends of the bricks; furthermore, I have provided an insert having a dual purpose, namely that of determining the thickness of

the mortar, both horizontally and vertically, at the brick joints, and which may be permanently embedded in a brick wall so as to reinforce the wall as well as serve as a keying element at the joint to provide a stronger construction.

While I have illustrated and described several embodiments of my invention, it will be understood that these are by way of illustration only, and that various changes and modifications may be made within the contemplation of my invention and within the scope of the following claims.

I claim:

1. In a masonry wall comprised of a plurality of courses of adjoining bricks having mortar between the adjoining bricks, a gage element having a flat portion corresponding to the thickness of mortar desired between said courses of bricks, and having an integral flat lug at right angles thereto, which lug has a thickness corresponding to the thickness of mortar desired between confronting ends of said adjoining bricks, and another flat lug at right angles to said flat portion and to said first mentioned lug and which serves as a stop element with the rear surface of the brick to prevent sliding off of the element.

2. In a brick wall comprised of a plurality of courses of adjoining bricks having mortar between the adjoining bricks, an insert in the form of a small block having a base portion of a thickness corresponding to the desired thickness of mortar between said courses of bricks, a groove extending along the top surface of said base portion and an upstanding portion extending into said

groove at right angles to said base portion, having a thickness corresponding to the desired thickness of mortar between confronting ends of said adjoining bricks.

3. A wall construction as recited in claim 2 wherein said small block is permanently embedded in the mortar forming a joint between the ends and courses of adjoining bricks and providing keying and reinforcing, as well as providing a predetermined thicknesses of the mortar, both vertically and horizontally in the brick wall.

4. The construction recited in claim 2 wherein said base portion is elongated sufficiently to provide a handle portion which projects beyond the front surface of the wall during gaging.

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FRANK L. ABBOTT, *Primary Examiner.*

JACOB L. NACKENOFF, *Examiner.*