Dec. 25, 1923. 1,478,776

J. WALKER

MORTAR GAUGE

Filed July 5, 1922

Fig. 1.

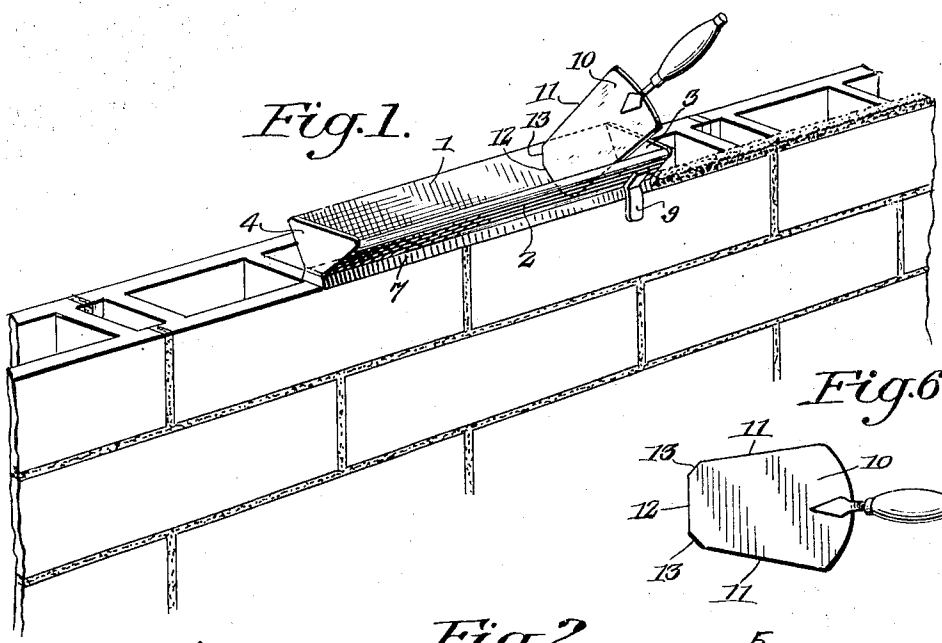


Fig. 6.

Fig. 2.

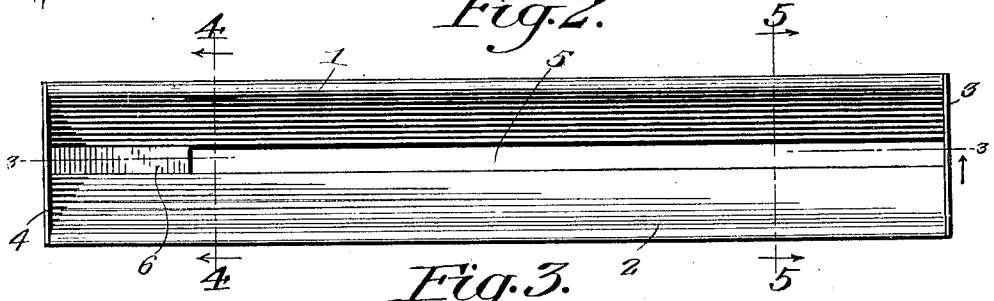


Fig. 3.

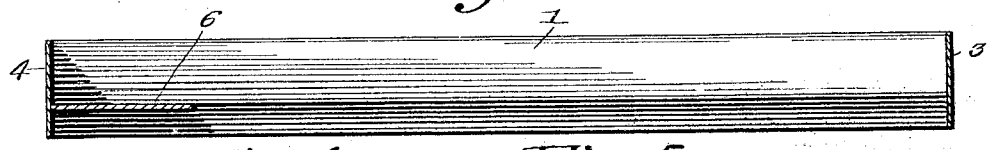


Fig. 4.

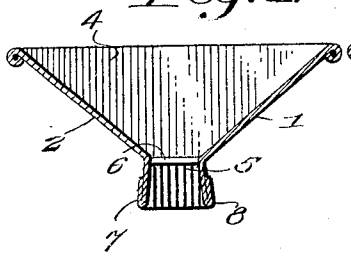
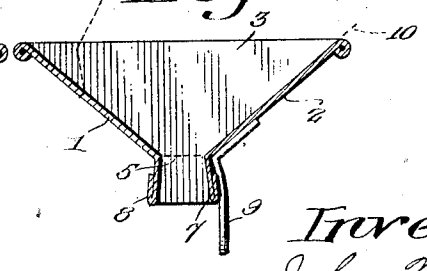


Fig. 5.



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UNITED STATES PATENT OFFICE.

JOHN WALKER, OF HONOLULU, TERRITORY OF HAWAII.

MORTAR GAUGE.

Application filed July 5, 1922. Serial No. 572,836.

To all whom it may concern:

Be it known that I, JOHN WALKER, a citizen of the United States, residing at Honolulu, Territory of Hawaii, have invented certain new and useful Improvements in Mortar Gauges; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention relates to means for applying mortar in a layer of uniform width and depth to the successive courses of a wall built of brick, tile or the like, and is more particularly adapted to the application of the mortar to the edges of hollow tiles so as to not only apply a uniform quantity of mortar necessary to make the joint, but also to avoid the waste of mortar as when the latter is applied by the ordinary trowel to the relatively narrow surfaces of the tile edges. To this end the invention comprises a trough-like receptacle, preferably V-shaped in cross section, having an open slot in its bottom flanked on either side by pendant flanges or rims which define the depth or thickness of the mortar layer to constitute the joint, and a spreading tool, preferably in the form of a modified trowel, having edges which engage the inner walls of the trough and an intermediate edge which overlies the slot at the bottom of the trough and serves to "strike" the mortar along the top edge of the slot, so that, when the trough-like element is lifted, a layer of mortar of uniform width and depth is left along the edge of the tile and none of the mortar is wasted, the surplus mortar within the trough being forced by the spreading tool onto a shelf or partition located in the trough at one end of the slot.

The invention is illustrated in the accompanying drawings in which—

Fig. 1 is a perspective view of the apparatus adjusted for the application of a course of mortar to one edge of a hollow tile wall.

Fig. 2 is a plan view of the trough or receptacle.

Fig. 3 is a longitudinal section on line 3—3 of Fig. 2.

Fig. 4 is a transverse section on line 4—4 of Fig. 2 looking in the direction of the arrows.

Fig. 5 is a similar section on line 5—5 of Fig. 2.

Fig. 6 is a plan view of the trowel for use in connection with the trough.

Referring to the drawings 1 and 2 indicate the converging sides of a long trough-like receptacle having end closures 3 and 4, the cross-section of the trough being substantially V-shaped, and the sides 1 and 2 being extended to form pendant rims or flanges 7 and 8, spaced apart to form a slot-like opening 5 running longitudinally of the bottom of the trough, said flanges constituting a gauge, both as to width and thickness, for the layer of mortar to be applied to the top surface of a course of bricks or tiles. Preferably the opening formed between the rims 7 and 8, of which the slot 5 in the bottom of the trough-like member constitutes the entrance, is flared outwardly to a slight degree in order to readily free the strip of mortar which has been forced into the space when the trough-like distributor is raised, as will be more particularly indicated hereinafter.

Secured to the outside of one of said members, and preferably near one end of the trough is a pendant lug 9 which serves as a guide to align the trough with the course of the brick or tile wall. As it is necessary to supply a little more mortar than is required for a single operation of the gauge, means is provided for taking care of the surplus mortar in the form of a shelf or partition 6 at one end of the trough in the plane of the slot 5, upon which the surplus mortar is forced by the operation of the spreading tool or trowel.

Any suitable means which will cooperate with the side walls of the trough and force the body of mortar, deposited longitudinally thereof, to distribute the mortar in the space defined by the bottom slot 5 and the pendant flanges 7 and 8 and "strike" or cut off the mortar in the plane of the slot 5, so as to leave a strip of mortar of the same length as the slot 5 and of a depth equal to that of the flanges 7 and 8, may be employed, but the preferred implement to effect this operation and result is an ordinary mason's trowel, such as illustrated in Fig. 6, having the forward end thereof cut off, as at 12, substantially normal to the longitudinal axis of the trowel and the lower corners bevelled

or chamfered to form edges 13, of substantially the same length as the width of slot 5, so that when the trowel is placed in the trough, in the position indicated in Fig. 6, the edge 11 engages one wall of the trough, the bottom edge 12 engages the opposite wall of the trough and the lower edge 13 overlies and is parallel with the slot 5.

In applying the apparatus to its intended use, the trough-like element is mounted on the course of brick or tile to receive the mortar and adjusted by the guide lug 9 at one end and the hand of the operator at the other until the slot 5 lies immediately above the surface of the tile or brick to receive the mortar. A quantity of mortar is then deposited in the trough and the trowel 10 positioned against the end wall 3 and drawn longitudinally of the trough while maintaining its position substantially normal to the axis of the latter, thereby forcing the body of mortar along the trough and causing the same to be forced through the slot and into the space defined by the pendant flanges 7 and 8 until said space is entirely filled for a distance equal to the length of slot 5. The corner 13 of the trowel during this movement "strikes" or removes all of the mortar laying above the plane of the slot and forces the surplus mortar onto the shelf or partition 6 at the opposite end of the trough, the operation leaving a layer of mortar of uniform width and thickness in proper position on the upper surface of the brick or tile course, as indicated in Fig. 7. It will be particularly noted that none of the mortar is wasted in the spreading operation, but that a substantially uniform layer or course of mortar is spread at each operation of the device. After each spreading operation the trough is lifted vertically, or tilted on one end, and moved to the next position where the operation is repeated until the necessary quantity of mortar has been spread to receive the next course of brick or tile.

As indicated, the device is applied to spreading and gauging the mortar along the relatively narrow top edges or faces of hollow tiles and the device is of particular advantage in this relation because it accurately gauges the thickness of the mortar course or layer without permitting any of the mortar to project over the edges or to fall either inside or outside of the tile where it would be lost. Obviously, however, the device is not limited to this particular use, as it is equally effective in applying the mortar course to solid tiles, bricks or masonry elements, and especially in operations which require only a marginal strip or layer of mortar to be laid around the edges of the wall elements. It will also be apparent that by properly proportioning the size of the trough and the width of the slot the device may be adapted to apply a layer of mortar of any desired width and by similarly regulating the depth of the flanges 7 and 8 the thickness of the mortar layer will be accurately gauged.

What I claim is:

1. A mortar gauging and spreading device comprising a V-shaped trough having a longitudinal slot in the bottom thereof and pendant rims bounding said slot, and a spreading tool slidable in said trough and having an edge to strike the mortar parallel with the top of said slot.

2. A mortar gauging and spreading device comprising a V-shaped trough having a longitudinal slot in the bottom thereof and pendant rims on each side of said slot, and a spreading tool slidable in said trough having edges engaging the sides thereof and an intermediate edge overlying and parallel with the plane of said slot adapted to strike the mortar along the top of said slot.

3. A mortar gauging and spreading device comprising a V-shaped trough having a longitudinal slot in the bottom thereof a shelf at one end in the plane of said slot and pendant rims on each side of said slot, and a spreading tool slidable in said trough having edges engaging the sides thereof and an intermediate edge overlying and parallel with the plane of said slot adapted to strike the mortar along the top of said slot.

4. A mortar gauging and spreading device comprising a V-shaped trough having a longitudinal slot in the bottom thereof and pendant rims on each side of said slot, and a trowel having two edges engaging the sides of the trough to force the mortar along the trough through the slot and into the space defined by the pendant rims and a third edge parallel with the plane of the slot to strike the mortar along the top of said slot.

In testimony whereof I affix my signature.

JOHN WALKER.