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J. P. GRESLEN

MORTAR LAYING DEVICE

Filed April 18, 1925

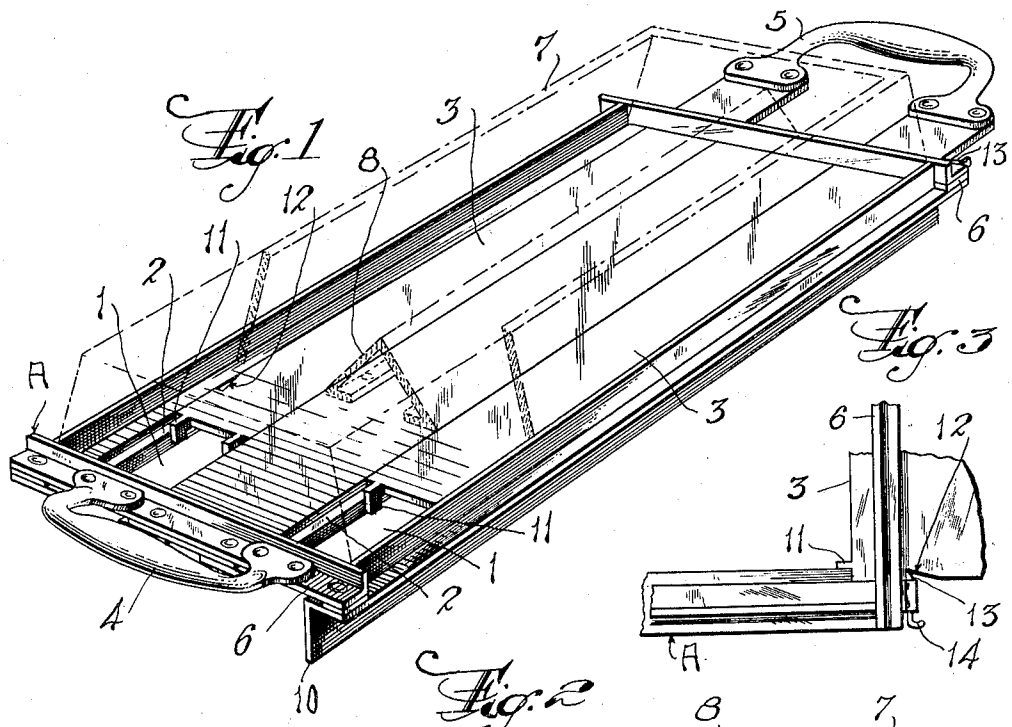


Fig. 1

Fig. 3

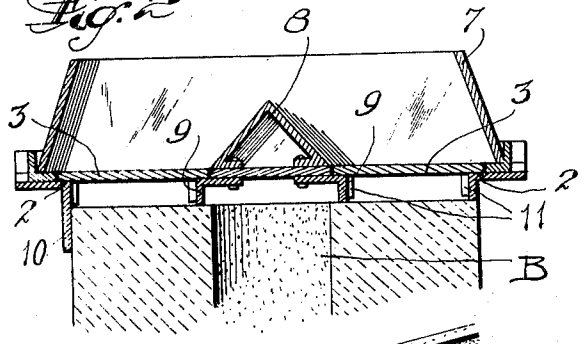


Fig. 2

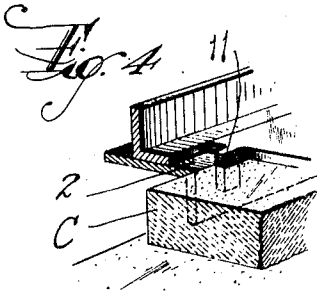


Fig. 4

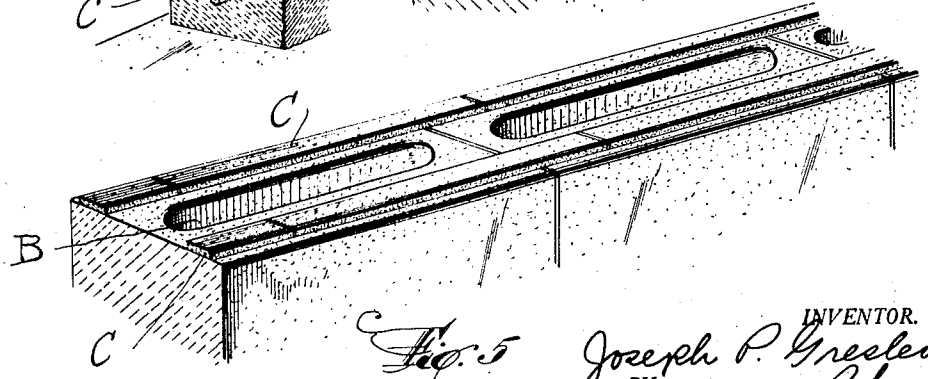


Fig. 5

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MORTAR-LAYING DEVICE.

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This invention relates to a device for spreading or laying mortar, particularly in the erection of building walls of concrete blocks.

One object of the invention is to provide a device of this character embodying novel and improved features of construction whereby a predetermined amount of mortar may be easily, quickly and evenly laid upon a concrete block wall in proper relation to the air holes therein without the use of a trowel so that a saving of both time and mortar is obtained.

Another object is to provide a mortar spreading device in the form of a portable hopper to receive a quantity of mortar and be movably set upon a wall and having valved outlets so arranged as to discharge a predetermined amount of mortar upon the wall by action of gravity in proper relation to the air holes in layers of uniform thickness.

Further objects are to provide such a device in which the outlets are elongated and flow of mortar therethrough is controlled by cut-off slides which also serves to smooth off the top and sides of the layer of the mortar so that the mortar is laid in the form of a ribbon of uniform thickness; to provide a device of this character in which said slides are longitudinally slidable by means of a handle which also serves as a hand-hold for carrying the device; to so form the device as to enable it to be quickly positioned upon a wall in proper lateral relation and to form a layer of mortar of predetermined thickness, and to obtain other results and advantages as may be brought out by the following description.

Referring to the accompanying drawings in which corresponding and like parts are designated throughout the several views by the same reference characters,

Figure 1 is a perspective of a mortar laying device embodying the invention, the hopper walls being illustrated in dot and dash lines for clearness in illustration.

Figure 2 is a transverse vertical section view of the device showing it in operative position upon a building wall.

Figure 3 is a fragmentary plan view of one corner of the device showing the stop for limiting outward movement of the cut-off slides.

Figure 4 is a fragmentary perspective view of one of the slides showing the scraping finger for detaching the mortar from the sides of the discharge opening and

Figure 5 is a perspective view of a concrete block wall showing mortar laid thereon by the device embodying invention.

Specifically describing the present embodiment of the invention, the reference character A designates the body of the device which is substantially rectangular in plan and is formed with two spaced and parallel elongated openings 1 the longitudinal edges of which are rabbeted at 2 to form guideways for cut-off slides 3. One end of the body A has fixedly secured thereto a handle 4, and the ends of the slides 3 opposite said handle are connected by another handle 5. The slides 3 are held against displacement from the guideways 2 by transverse bars 6 at the ends of the body which overlie the slides.

With this construction, it will be observed that by gripping the handle 4 in one hand and the handle 5 in the other hand an operator may move the slides 3 longitudinally of the guideways 2 to open or close the respective openings 1.

A hopper wall 7 is provided to fit upon the top of the body to receive a quantity of mortar, and inverted V-shaped division wall 8 is secured to the body between the openings 1 to direct the mortar toward the respective openings. Preferably the hopper walls 7 are removable from the body and are inclined inwardly for the purpose hereinafter described.

The openings 1 in the body A are spaced apart a distance greater than the width of the air holes B commonly formed in concrete blocks and are of a width substantially equal to the distance between the sides of said air holes and the corresponding sides of the concrete block. The bottom of the body A is provided with a plurality of ribs 9 which are of a width substantially equal to the desired thickness of the layer of mortar to be placed upon the wall, said ribs being arranged to rest upon the top of the wall between air holes and the outer sides of the concrete block, as clearly shown in Figure 2. At one longitudinal edge, the body A is provided with a longitudinal flange 10 to abut the front face of the building wall when the device is set upon the top of the wall, said flange thus serving to enable easy and quick positioning of the device upon the wall.

In operation, a quantity of mortar is placed on the body within the hopper walls 7, the cut-off slides 3 having first been slid into position to close the openings 1. The device is then set upon the top of the building wall with the flange 10 abutting the face of the wall and the ribs 9 resting upon the top of the wall, whereupon the slides 3 are pulled outwardly by the handle 5 so that the mortar falls by action of gravity through the openings 1 onto the wall. The slides 3 are then pushed into their closed positions and during this action serve in effect as cutters and smoothers, whereby two ribbons C of mortar of uniform thickness are laid upon the top of the wall (see Figure 3). The inwardly inclined walls of the hopper prevent entanglement thereof with the line used by the mason in laying the concrete blocks, the top edges of the hopper wall being within the building line.

It is desirable to provide means for preventing sticking of the mortar to the device, and accordingly the ends of the slides 3 may be formed with scraping fingers 11 which slide along the sides of the openings 1 to scrape the mortar therefrom.

It is necessary to prevent the slides 3 from being accidentally pulled completely out from the guides 2, and it is desirable that the slides be removable for the purpose of cleaning the device. Accordingly, I may form notches 12 in the edges of the slides 3 to be engaged by spring latches 13 secured to one end of the body so that said latches will enter said notches 12 when the slides are pulled outwardly to their limits and prevent the slides from being completely removed. For removing the slides, the latches 13 may be manually released from the notches 12 by means of the finger holds 14.

While I have shown and described the device as embodying certain details of construction, it will be understood that this is mainly for the purpose of illustrating the principles of the invention and that many modifications and changes can be made in the details of the construction without departing from the spirit or scope of the invention. Therefore, I do not desire to be understood as limiting myself except as required by the following claims as construed in the light of the prior art.

Having thus described the invention, what I claim is:

1. A mortar laying device comprising a hopper to receive mortar and having a plurality of spaced and parallel elongated discharge openings, cut-off slides movable longitudinally of said openings to open and close the same and means for simultaneously operating said cut-off slides.

2. A mortar laying device comprising a hopper to receive mortar and having a handle fixed thereon, said hopper being formed with an elongated discharge opening, a cut-off slide movable longitudinally of said opening to open and close the same, and a handle connected to said slide at the end thereof opposite the first-mentioned handle for operating the same and cooperating with the first-mentioned handle for handling said hopper.

3. A mortar laying device comprising a hopper to receive mortar and having a handle fixed at one end thereof, said hopper being formed with a plurality of spaced and parallel longitudinal discharge openings, cut-off slides movable longitudinally of said openings to open and close said openings, and a handle connected to all of said slides at the ends thereof opposite the first-mentioned handle for simultaneously operating the slides and cooperating with the first mentioned handle for handling the hopper.

4. A mortar laying device comprising a hopper to receive mortar and having an elongated discharge opening to extend longitudinally of the top of a building wall, and a cut-off slide to open and close said opening, said slide having means to slidably engage the side walls of said opening to detach the mortar therefrom.

5. A mortar laying device comprising a hopper to receive mortar and having an elongated discharge opening, the bottom of said hopper being provided with means for spacing the hopper from the top of a building wall, and a cut-off slide to open and close said opening, said cut-off slide having means to slidably engage the side walls of said opening to detach the mortar therefrom, whereby a ribbon of mortar of uniform thickness can be deposited upon said wall.

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