April 6, 1954 A. E. ERP 2,674,116

MORTAR SPREADER

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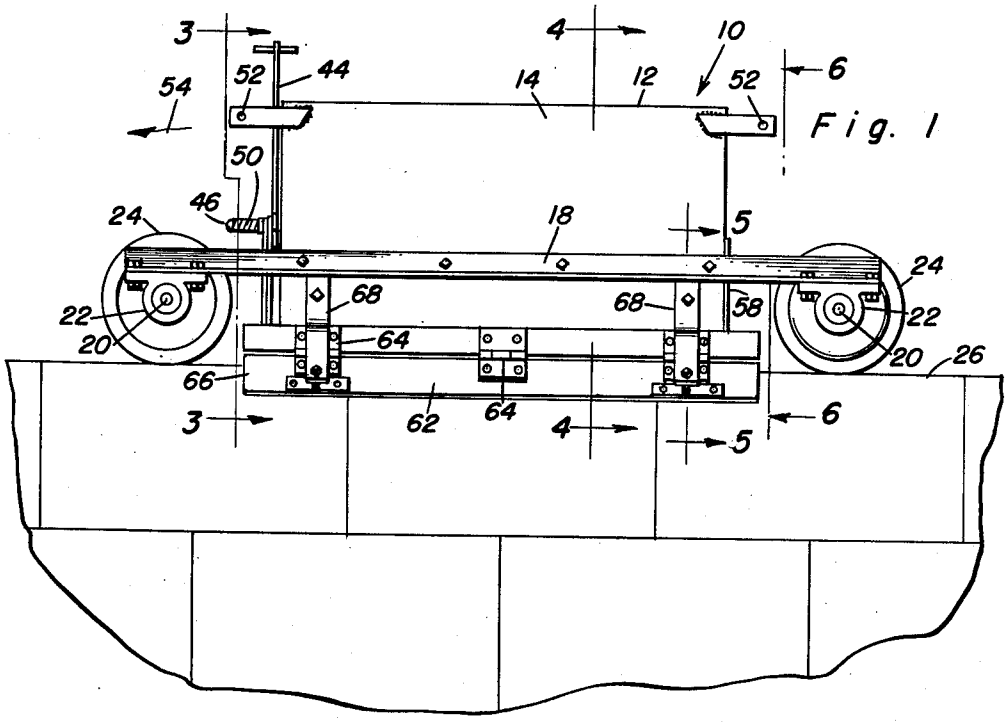



Fig. 1

Fig. 4

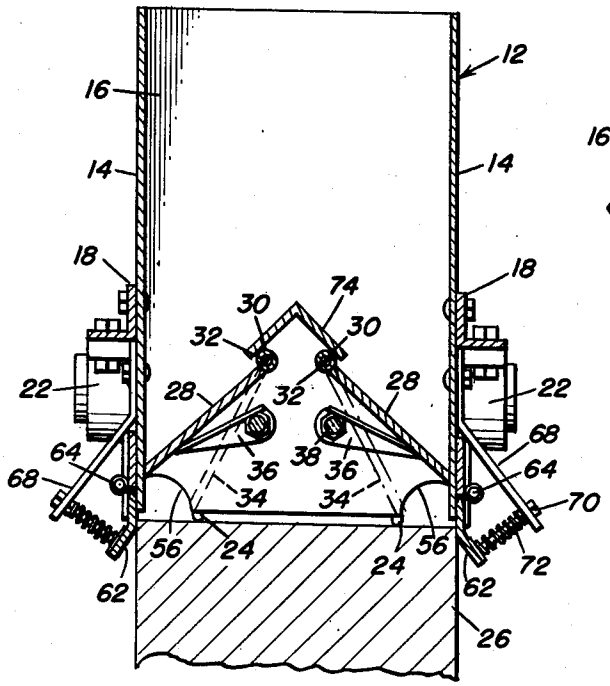
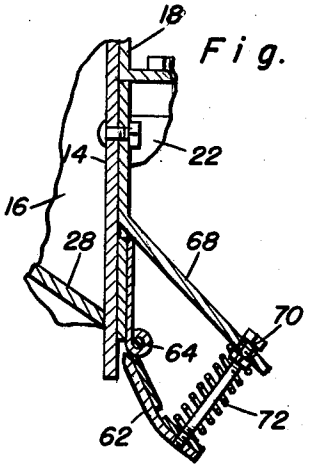



Fig. 5




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Fig. 2

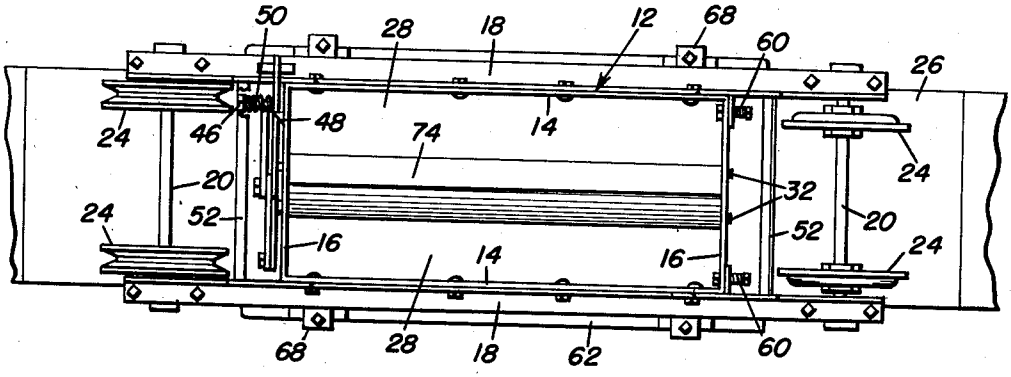



Fig. 3

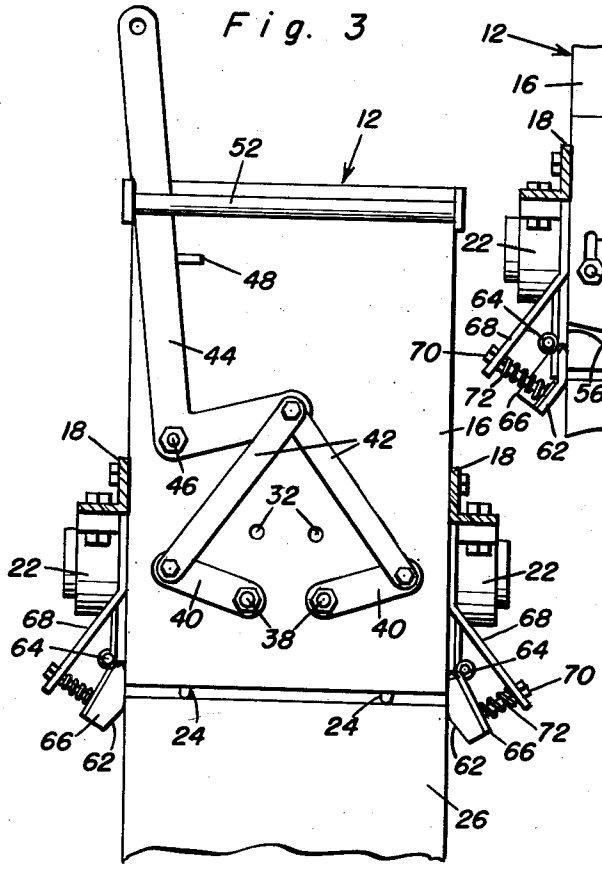
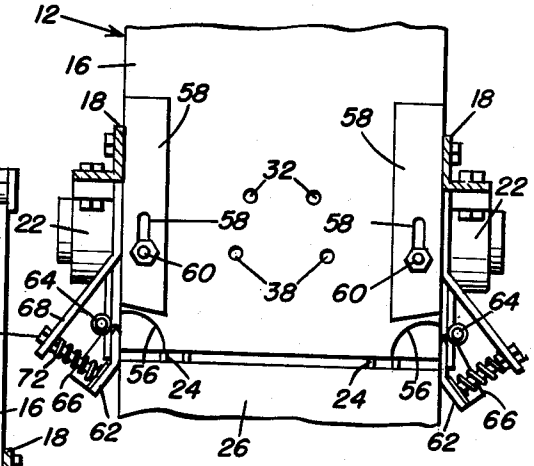



Fig. 6




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2,674,116

# UNITED STATES PATENT OFFICE

2,674,116

## MORTAR SPREADER

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Application December 15, 1952, Serial No. 326,093

3 Claims. (Cl. 72—128)

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This invention relates to new and useful improvements and structural refinements in mortar spreaders, and the principal object of the invention is to provide a device of the character herein described, whereby mortar may be expeditiously and evenly applied to a course of bricks or cinder blocks.

An important feature of the invention resides in the provision of means for effectively controlling the amount of mortar which is being applied to the work, while another feature of the invention resides in the provision of means for safeguarding against spilling of mortar by overflow beyond the side edges of the blocks or bricks.

Some of the advantages of the invention reside in its simplicity of construction, in its efficient and dependable operation and in its adaptability to economical manufacture.

With the above more important objects and features in view and such other objects and features as may become apparent as this specification proceeds, the invention consists essentially of the arrangement and construction of parts as illustrated in the accompanying drawings, in which:

Figure 1 is a side elevational view of the invention in use;

Figure 2 is a top plan view thereof;

Figure 3 is a sectional view, taken substantially in the plane of the line 3—3 in Figure 1;

Figure 4 is a sectional view, taken substantially in the plane of the line 4—4 in Figure 1;

Figure 5 is a sectional detail, taken substantially in the plane of the line 5—5 in Figure 1; and

Figure 6 is a sectional view, taken substantially in the plane of the line 6—6 in Figure 1.

Like characters of reference are employed to designate like parts in the specification and throughout the several views.

Referring now to the accompanying drawings in detail, the invention consists of a mortar spreader which is designated generally by the reference character 10 and embodies in its construction a horizontally elongated, substantially rectangular receptacle 12 including a pair of side walls 14 and a pair of end walls 16.

A pair of angle bars 18 are suitably secured to the outer surfaces of the side walls 14 and project longitudinally beyond the end walls 16 so as to carry transverse shafts 20. These shafts or axles, rotatably journaled in suitable bearings 22 secured to the angle bars 18, are provided with travelling wheels 24 which travel on the work, namely, a course of bricks or cinder blocks 26.

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The receptacle 12 functions in the nature of a hopper, the lower portion of the receptacle being provided with a pair of longitudinally extending closure flaps 28 which are provided at their upper edges with tubular bearings 30, swingably mounted on a pair of spaced parallel shafts 32 which extend longitudinally of the receptacle and are secured in the walls 16. The flaps 28 extend downwardly and outwardly from the shafts 32 toward the side walls 14 of the receptacle and the flaps actually contact the inner surfaces of the side walls when closed, as shown in Figure 4. The flaps may be swung downwardly to an open position as shown by the dotted lines 34.

The flaps 28 open in response to the influence of gravity, but are sustained in a predetermined position by a pair of cams 36 which are disposed under the flaps and are secured to a pair of longitudinally extending shafts 38 journaled in the end walls 16.

The shafts 38 are provided at one end of the receptacle 12 with cranks 40 which are connected by a pair of links 42 to a relatively short arm of a bellcrank 44, the latter being pivoted to the adjacent end wall of the receptacle by a pivot element 46 as shown. The upper end portion of crank 44 affords a convenient handle which may be engaged with a stop lug 48 secured to the adjacent end wall of the receptacle so as to sustain the flaps 28 in their closed position. However, by simply disengaging the bellcrank 44 from the stop lug 48 and swinging the bellcrank about its pivot, the flaps 28 may be opened or closed, as desired.

The pivot element 46 is provided with a spring 50 to engage the bellcrank 44 and sustain the same in an open or closed position.

The end portions of the receptacle 12 are equipped with convenient, transversely extending handle bars 52 whereby the entire device may be pushed or pulled along the work.

It is intended that the device travel in the direction of the arrow 54 in Figure 1, and the end wall at the back of the receptacle is provided at the lower corners thereof with recesses 56, affording passages for the mortar which has been deposited on the work. The size of these recesses may be increased or decreased by means of vertically slidable closure strips 58 which are fastened by spring equipped elements 60 to the receptacle. The strips 58 are slotted as shown at 58a to accommodate the elements 60, and it will be observed that by simply sliding the strips downwardly so as to partly cover the recesses 56,

the thickness of mortar deposited on the work may be effectively governed.

Means are also provided for guiding the entire device in its longitudinal travel along the work and for preventing spilling of mortar laterally beyond the longitudinal edges of the work, these means consisting of a pair of self-adjusting shoes 62 which are connected by hinges 64 to the lower edges of the side walls 14. The shoes 62 have outturned end portions 66 at the front end of the device, and sets of angulated brackets 68 are rigidly secured to the side walls 14 above the shoes. These brackets slidably accommodate studs 70 which are secured to the shoes, while compression springs 72 are positioned on the studs between the shoes and the brackets so as to urge the shoes inwardly.

By virtue of the springs 72, the shoes 62 are urged in a sliding engagement with the longitudinal edges of the work 26 as is best shown in Figure 4, whereby not only effectively guiding the passage of the entire machine along the work, but also preventing the deposited mortar from spilling laterally. It is to be observed that by virtue of the springs 72, the shoes 62 are self-adjusting so as to conform to slight variations such as may be present in the thickness of the work.

In addition, it should be pointed out that a longitudinally extending deflector 74 of an inverted V-shaped cross-section is secured to the end walls 16 above the upper edges of the closure flap 28 so as to prevent possible escape of mortar through the space between the shafts 32.

It is to be noted that the mortar receptacle 12 is slightly narrower at the top than at the bottom so that it will not interfere with chalk lines generally used by block setters.

It is believed that the advantages and use of the invention will be clearly understood from the foregoing disclosure and accordingly, further description thereof at this point is deemed unnecessary.



While in the foregoing there has been shown and described the preferred embodiment of this invention, it is to be understood that minor changes in the details of construction and arrangement of parts may be resorted to without departing from the spirit and scope of the invention as claimed.

Having described the invention, what is claimed as new is:

1. A mortar spreader comprising a horizontally elongated receptacle including a pair of side walls and a pair of end walls, travelling wheels provided on said receptacle beyond the end walls thereof, a pair of closure flaps extending longitudinally in the lower portion of the receptacle and pivoted to said end walls for swinging movement toward and away from said side walls, means for simultaneously swinging said flaps, a pair of elongated mortar spill preventing and guiding shoes pivoted to lower edge portions of the respective side walls and projecting downwardly therefrom, and resilient means for urging said shoes inwardly to engage the work.

2. The device as defined in claim 1 wherein at least one of said end walls is provided at the lower edge thereof with notches constituting mortar passages.

3. The device as defined in claim 2 together with means for varying the size of said passages.

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