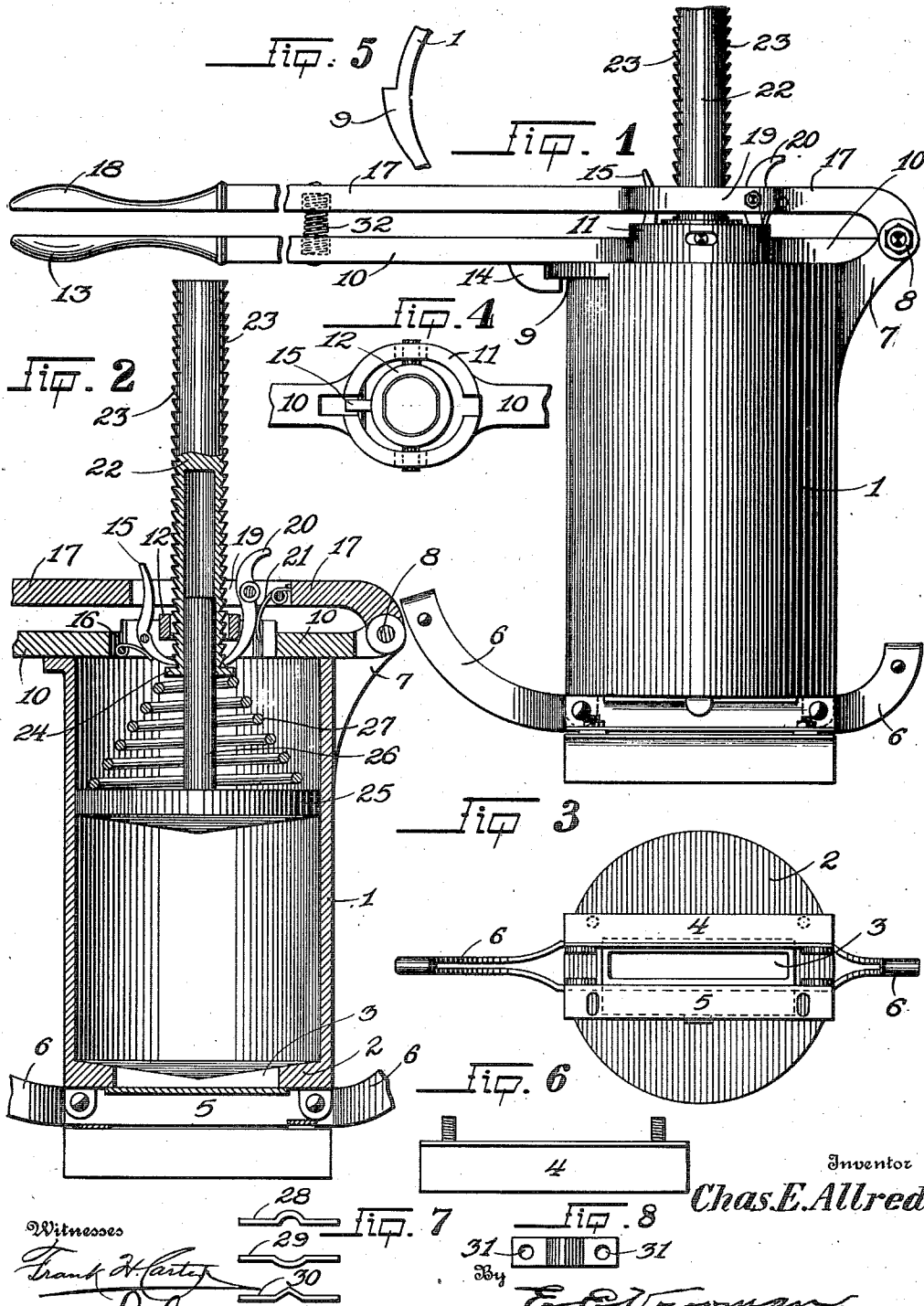


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MORTAR FEEDING DEVICE.
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972,793.

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UNITED STATES PATENT OFFICE.

CHARLES E. ALLRED, OF OAKLAND, CALIFORNIA.

MORTAR-FEEDING DEVICE.

972,793.

Specification of Letters Patent.

Patented Oct. 18, 1910.

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To all whom it may concern:

Be it known that I, CHARLES E. ALLRED, a citizen of the United States, residing at Oakland, in the county of Alameda and State of California, have invented certain new and useful Improvements in Mortar-Feeding Devices, of which the following is a specification.

This invention relates to portable mortar feeding machines, and the principal object of the same is to provide a machine of the character stated for use in forcing mortar into cracks and crevices in masonry work.

In carrying out the objects of the invention generally stated above it will be understood, of course, that the essential features of the same are necessarily susceptible of changes in details and structural arrangements, one preferred and practical embodiment of which is shown in the accompanying drawing, wherein:—

Figure 1 is a view in side elevation of the improved mortar feeding machine. Fig. 2 is a central vertical sectional view thereon, shown partly in side elevation. Fig. 3 is a bottom plan view. Fig. 4 is a similar view of a portion of one of the operating levers. Fig. 5 is a detail fragmentary view of a portion of the upper edge of the mortar reservoir, showing a latching lip thereon. Fig. 6 is a side elevation of one of the adjustable guard plates for the discharge outlet of the reservoir. Fig. 7 shows side views of three formers for use in shaping the mortar fed into the cracks or crevices. Fig. 8 is a plan view of one of said formers.

Referring to said drawings by numerals, 1 designates the cylindrical body of the improved mortar feeder which has a concaved bottom 2 provided with an elongated discharge slot 3, to each side of which guard plates 4—5 are fastened, the plate 5 being adjustable so that the width of said discharge outlet may be regulated to vary the amount of material discharged therethrough. Rocker arms 6 project from the bottom of said cylinder, said arms being oppositely disposed and whose function will be explained later.

The cylinder 1 is open at its top and one portion of its upper edge is provided with pivot ears 7 in which a shaft 8 is mounted, and at a substantially opposite portion of said edge an outwardly projecting lateral latching lip 9 is arranged. A hand lever 10 has one end loosely pivotally mounted on

said shaft 8, said lever extending across the open end of the cylinder 1 and provided with a widened hollow upstanding circular portion 11 arranged over the central portion of the cylinder 1 in which a guide collar 12 is horizontally supported. The free end of said lever 10 extends well beyond the cylinder 1 and is equipped with a hand grip 13. Said lever is also provided with a pendent latching lug 14 adapted for latching engagement with the lip 9 of the cylinder 1, as shown in Fig. 1. A holding pawl 15 is pivotally mounted within the upstanding circular portion 11 of the lever 10, the gripping end of said pawl being normally held in the path of movement through the guide collar 12 by means of a spring 16. A second hand lever 17 is arranged directly over the lever 10 one end thereof being pivotally connected to the shaft 8, the other end being equipped with a hand grip 18 complementary to the hand grip 13 of the lever 10. Said lever 17 is provided with an open circular portion 19 which is arranged over the similar portion of the lever 10, and in which a pawl 20 is mounted, the gripping end of which is normally held in the path of movement through the collar 12 by a spring 21, said pawl 20 being preferably disposed opposite the pawl 15 of lever 10.

A sleeve 22 has oppositely disposed toothed surfaces 23, said sleeve projecting through the guide collar 12 and has its lower end equipped with an abutment flange 24. A piston 25 has a tight, but slidable fit within the cylinder 1, the rod 26 thereof being slidably mounted in the sleeve 22. A spring 27 is coiled about said rod 26, one end of said spring bearing against the piston 25, the other end thereof bearing against the abutment flange 24 of the sleeve 22 and constantly exerting a pressure tending to force the piston downwardly to the cylinder.

As is shown in Fig. 2 of the accompanying drawings, the toothed surfaces of the sleeve 22 are normally engaged by the pawls of the levers 10 and 17 to hold the same against the upward pressure of the spring 21. To discharge mortar from the cylinder, the lever 17 is raised to cause its pawl to engage higher up the sleeve 22, the sleeve being meanwhile held stationary by the pawl of lever 10, after which a downward movement of said lever 17 will depress the sleeve 22, and, through the compression of the

spring 21, also depress the piston 25, and thereby force the mortar through the discharge outlet 3.

The guard plates for the discharge outlet 3 are preferably angle plates, and facilitate the placing of the feeder in close proximity to the cracks or crevices to be filled, and, as will be obvious, in some cases could be placed within such crevices or cracks, the arms 6 serving as a support for the apparatus so that the discharge outlet may be readily rocked to or away from the place where the mortar is to be deposited.

As is shown in Figs. 7-8, plates or formers 28-29-30 may be employed to impart an ornamental shape to the mortar fed into the cracks or crevices. Said plates have their ends equipped with fastener openings 31 so that they may be fastened between the guard plates 4-5 of the outlet 3.

As the lever 10 has a loose pivotal connection with the shaft 8, it will be readily seen that the same may be moved transversely to the open end of the cylinder 1 so that its latching lug may be released from the latching lip of the cylinder whereupon the two levers 10-17, as well as the piston and sleeve may be raised from the cylinder to permit the same to be supplied with mortar.

Preferably the levers 10-17 are connected by a coiled spring 32 which is constantly exerting a tension tending to prevent relative movement of said levers.

What I claim as my invention is:-

1. A device of the character described comprising a reservoir provided with a discharge outlet, a piston slidable in said reservoir, a holding and guiding lever for said piston, and a second lever for sliding said piston through the first-mentioned lever.

2. A device of the character described comprising a reservoir provided with a discharge outlet, a holding and guiding lever pivoted to said reservoir, a sleeve slidable through said lever, a piston slidably connected to said sleeve, and a second lever for sliding said sleeve through the holding and guiding lever.

3. A device of the character described comprising a reservoir provided with a discharge outlet, a piston in said reservoir for ejecting material therefrom, a piston operating lever pivotally connected to said reser-

voir, and means for holding said piston while said lever is moving to a piston operating position and guiding said piston when actuated by said lever.

4. A device of the character described, comprising a reservoir provided with a discharge outlet, a piston in said reservoir, a rod therefor, a holding and guiding lever pivotally connected to said reservoir, a sleeve carried by said lever, a resilient slidable connection between said sleeve and rod, and means for sliding said sleeve to cause the piston to discharge material from said reservoir.

5. A device of the character described, comprising a reservoir provided with a discharge outlet, a lever pivoted thereto, a guiding collar carried by said lever, a pawl also carried by said lever, a sleeve slidable in said collar and having a toothed surface that is engaged by said pawl, a piston in said reservoir having a rod entering said sleeve, a spring interposed between said sleeve and piston, and a second lever pivoted to said reservoir and provided with a pawl for depressing said sleeve to cause the piston to eject material from said reservoir.

6. A device of the character described comprising a reservoir having a discharge outlet, ejecting mechanism thereon, a lever pivotally connected to said reservoir and having a latching engagement with the upper edge thereof, a holding and guiding connection between said lever and said ejecting mechanism, a second lever also pivotally connected to said reservoir for operating said ejecting mechanism, and a spring connection between said levers.

7. A device of the character described, comprising a reservoir provided with a discharge outlet, ejecting mechanism slidable in said reservoir, a hand lever pivotally connected to said reservoir, for sliding said mechanism, a second hand lever also pivotally connected to said reservoir, and means carried by said second lever for holding and guiding the ejecting mechanism while the actuating lever is being operated.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES E. ALLRED.

Witnesses:

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