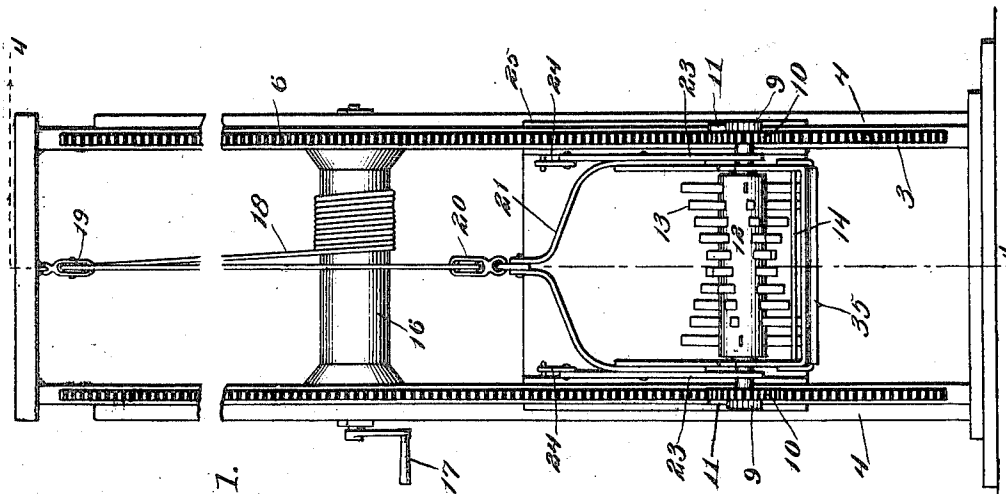
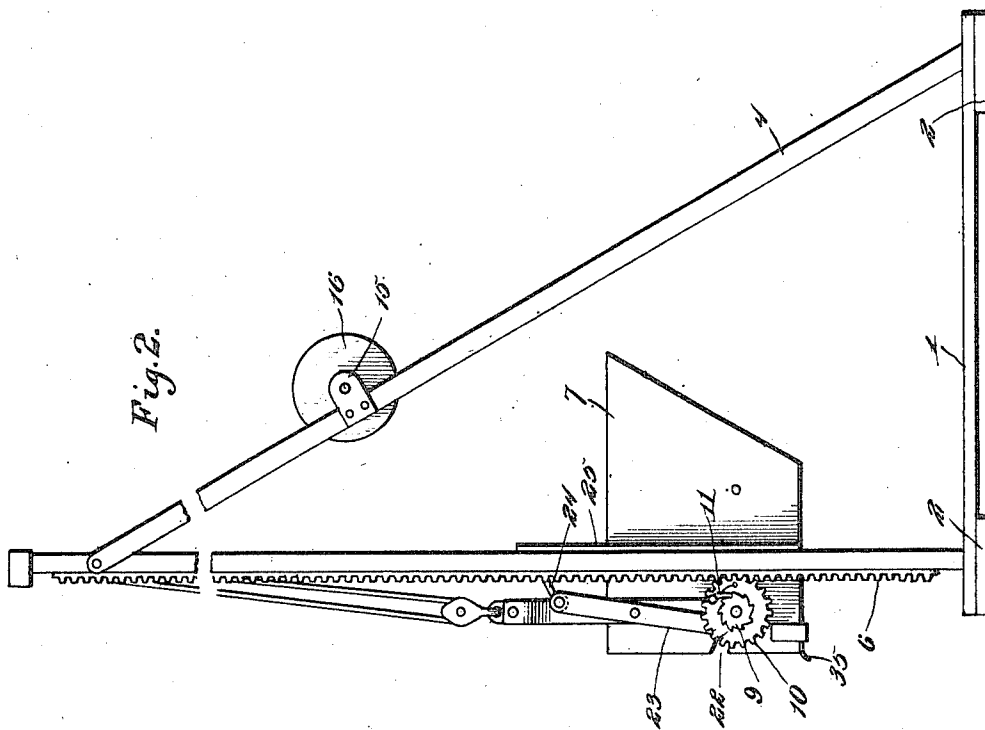


C. SWENSON.
PLASTIC APPLYING DEVICE.
APPLICATION FILED APR. 16, 1911.

1,032,310.

Patented July 9, 1912.

2 SHEETS-SHEET 1.



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1,032,310.

2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

CHARLES SWENSON, OF STAMFORD, CONNECTICUT.

PLASTIC-APPLYING DEVICE.

1,032,310.

Specification of Letters Patent.

Patented July 9, 1912.

Application filed April 15, 1911. Serial No. 621,404.

To all whom it may concern:

Be it known that I, CHARLES SWENSON, a citizen of the United States, residing at Stamford, in the county of Fairfield and State of Connecticut, have invented new and useful Improvements in Plastic-Appling Devices, of which the following is a specification.

This invention relates to plastic applying devices, and more particularly to machines for applying cement to walls, as in stucco work and the like.

The object of the invention is the provision of a cheaply constructed and efficient machine by which cement, plaster or other plastic material may be splattered against a wall or other surface.

A further object of the invention is the provision of a machine of this character having a plastic material hopper which may be moved vertically and which carries means for discharging the plastic material therein with force against a wall or similar surface.

Further objects of the invention will appear as the following specific description is read in connection with the accompanying drawings, which form a part of this application, and in which:—

Figure 1 is a front elevation. Fig. 2 is a side elevation. Fig. 3 is an enlarged detail side elevation, with parts broken away. Fig. 4 is a vertical section on the line 4—4 of Fig. 1.

Referring more particularly to the drawing, 1 represents a base board which is reinforced and supported above the ground by the battens 2 which extend beyond the side edges of the base, so as to prevent lateral wobbling of the device and hold the same upon an even keel. Extending vertically from the front of the base are a pair of separated uprights 3 which are braced in upright position by the diagonal struts 4 which are connected to the upper end of the uprights and to the rear edge of the base 1. The uprights are held in separated position by means of a cross bar 5 arranged at their upper ends, and by their rigid connection with the base 1. These uprights may be made as long as is found to be desirable and, in practice, are preferably about sixty feet, so that they will be capable of extending to the top of comparatively high buildings. They may be also made in sections and the braces and uprights are preferably removably connected together and to the base so

as to permit the device to be packed in relatively small compass for transportation.

Mounted upon each upright is a rack bar 6 and slidably mounted upon the uprights is a plastic material hopper 7 in which is removably journaled the brush shaft 8 having keyed, upon its outer ends, the ratchet pinions 9 and loosely journaled thereon the gears 10 which are adapted to engage and mesh with the teeth of the rack bar. The shaft is connected to the gear by means of a spring pressed pawl 11 carried by the gear and arranged to positively engage the ratchet wheel as the hopper is raised and to loosely engage the same when the hopper is lowered, so as to prevent rotation of the shaft 8. Mounted upon the shaft, between the walls of the hopper at its open end, is a hub 12 having a plurality of spring arms 13 which are arranged in series, each extending diagonally across the hub and having a length sufficient to engage the bottom of the hopper. In order that these springs may be caused to snap out of the hopper, a bridge piece 14 is raised above the bottom of the hopper, approximately a quarter of an inch, so that as the springs pass thereover their ends will be retarded for an appreciable time, and then released so that they will quickly snap out of the hopper and throw the plastic material thereon against the wall with considerable force.

Mounted between the struts 4 and journaled in bearings 15 is a cable drum 16 having the ordinary winding crank 17 secured thereto, and wound around the drum is a cable 18 which has one end connected to the drum and its opposite end connected to the brace 5 and its intermediate portion passed over pulleys 19 and 20 carried respectively upon the cross bar 5 and upon a yoke shaped connector 21 secured to the hopper. When the drum is wound up the hopper will be raised and the rack bar will cause rotation of the gears 10, the pawls thereof positively engaging the ratchet wheels 9 and causing rotation of the shaft 8. After the hopper has traveled its full distance, the drum is unwound and, while the gears 10 rotate in an opposite direction, the pawl 11 will ride idly over the ratchet wheel and the shaft 8 will therefore remain stationary.

In order that the shaft 8 and its associated parts may be removed from the hopper, the hopper is slotted, as shown at 22, and the shaft held in said slots by means of the arms

23 which bear against the shaft at their lower ends, and which are held in operative locking position by means of the hooks 24 which are pivotally connected to the upper ends of the arms and removably connected to the slide guides 25 carried by the hopper.

Mounted in the hopper is a feeding cylinder 26 which is driven through the intermediary of a sprocket chain 27 connected to the shaft 8 of the spattering wheel. This cylinder 26 is provided with four paddles 28 which operate over a movable plate 29 normally retracted by suitable springs 30 and carrying pins 31 which extend into the path of the paddles so that as each paddle engages the pin the plate is moved forward, so as to carry all the cement thereon beneath the springs on the spattering wheel of the brush. I preferably notch certain of the paddles, as shown at 32, so that these paddles do not engage the pins and therefore do not operate the plate. The notches are preferably formed in the paddles so that each alternate paddle will engage the pins and operate the plate. The springs return the plate to normal position beneath the cylinder as soon as the pins are released by the paddles. In the meantime the spattering springs have removed practically all the cement upon the plate.

The springs 13 have their lower ends formed with a cap 33 which is pressed into their bodies in any suitable manner so as to hold a quantity of cement. These springs will hold considerably more cement or plastic material than flat springs and it is believed will make a more uniform surface.

Removably secured to and adjustably mounted upon the bottom of the hopper is a trowel 35 which may be used to produce a smooth wall instead of a stucco one, as will be produced when the trowel is not used.

Having thus described the invention, what I claim as new is:—

1. In a device of the class described, a frame, a hopper movably mounted thereon, means to raise and lower the hopper, a spatter wheel having resilient fingers to throw material from the hopper, means to operate the wheel when the hopper is raised and means to render said wheel inoperative when the hopper is lowered.

2. In a device of the class described, a frame, a hopper vertically movable thereon, means to raise and lower said hopper, a discharging member mounted in the hopper, means for operating said discharge member when the hopper is raised and means to render the discharge member inoperative when the hopper is lowered.

3. In a device of the class described, the combination with a frame, of a hopper slidably mounted thereon, means for raising and lowering said hopper, a spatter wheel journaled in the hopper and having spring

fingers, a rack bar, means to connect said wheel with the rack bar in its rising movement, and means to disconnect the wheel from the rack bar when the hopper is lowered.

4. In a device of the class described, the combination with a frame, of a rack bar mounted thereon, a hopper slidably mounted in the frame, means for raising and lowering the said hopper, a shaft journaled in the hopper, spring discharging members carried thereby, means to operatively connect the shaft with the rack bar in the rising movement of the hopper, and means for flexing the discharging members to forcibly throw the material out of the hopper when the shaft is rotated.

5. In a device of the class described, a frame, a hopper vertically movable thereon, means to raise and lower said hopper, means for discharging the material in the hopper when the same is raised, means carried in the hopper for feeding material to said discharging means, and means to render said discharging and feeding means inoperative when the hopper is lowered.

6. In a device of the class described, a frame, a hopper vertically movable thereon, means to raise and lower said hopper, a rotating spatter wheel mounted in the hopper and operatively connected with the frame for rotation on the rising movement of the hopper, a feeding cylinder mounted to rotate in the hopper, and means for conducting the material from the feeding cylinder to the spatter wheel.

7. In a device of the class described, a frame, a hopper vertically movable thereon, means to raise and lower said hopper, a rotating spatter wheel mounted in the hopper and operatively connected with the frame for rotation on the rising movement of the hopper, a feeding cylinder mounted to rotate in the hopper, and a reciprocating plate operated by the feeding cylinder for conducting the material from said feeding cylinder to the spatter wheel.

8. In a device of the class described, a frame, a hopper vertically movable thereon, means to raise and lower said hopper, a rotating spatter wheel mounted in the hopper and operatively connected with the frame for rotation on the rising movement of the hopper, a feeding cylinder mounted to rotate in the hopper, said feeding cylinder having alternately notched blades, a spring retracted plate mounted in the hopper, means to operatively connect the sprocket wheel and feeding cylinder, and means carried by the plate and adapted to be engaged alternately by the blades of the feeding cylinder, whereby the same will be projected against the tension of the springs for carrying the material from the feeding cylinder to the spatter wheel.

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9. In a device of the class described, the combination with a frame, of a hopper vertically movable thereon, means to raise and lower said hopper, a spatter wheel journaled in the hopper, means to operatively connect the spatter wheel with the frame upon the rising movement of the hopper, a feeding wheel journaled in the hopper and operatively connected to the spatter wheel, 10 a partition dividing the hopper into separate compartments and separating the feeding and spatter wheels, and a feeding blade reciprocately mounted in the hopper and operated by the feeding cylinder, said 15 feeding blade extending beneath the partition.

10. In a device of the class described, a hopper, a shaft rotatably mounted therein, a plurality of resilient discharge members carried by the shaft, and means to retard 20 the free ends of the discharge members for a predetermined time whereby when released they will forcibly throw the material from the hopper.

11. In a plastic applying device, a hopper, a discharge member arranged therein and having flexing members, and means acting on said members to flex the same to forcibly discharge the material from the hopper. 25 30

12. In a plastic applying device, a hopper, a discharge member arranged therein and having flexing members, and means arranged in the path of the members for flexing the same to disperse the material 35 thereon.

13. In a material applying device, a hopper having a discharge aperture, resilient members arranged within the hopper for forcibly throwing the material out of the hopper in individual lots and means for 40 actuating said members.

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

CHARLES SWENSON.

Witnesses:

GEORGE R. CLOSE,
MABEL HAMILTON.