April 23, 1940. I. W. McCALLUM 2,198,271

PLASTERING MACHINE

Filed June 30, 1938

Fig. 1.

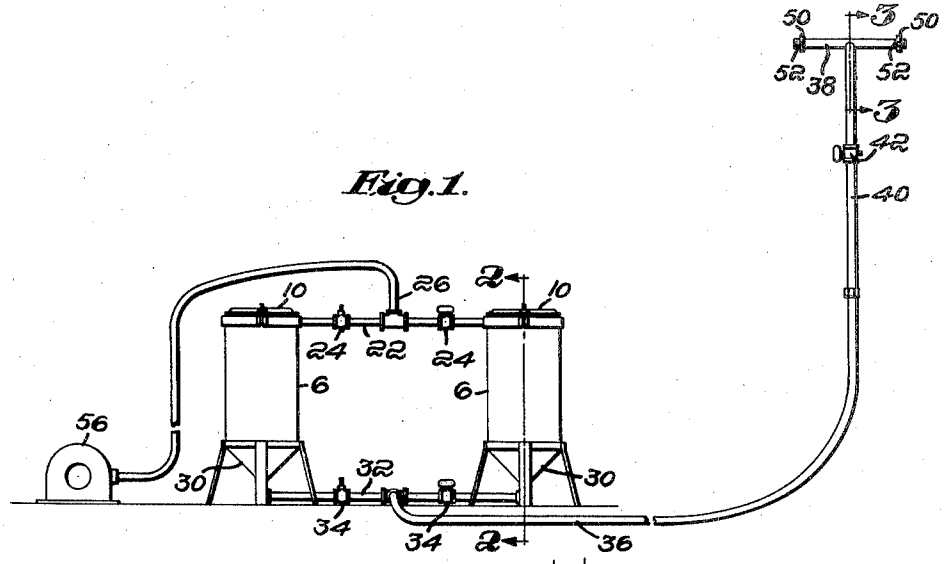


Fig. 2.

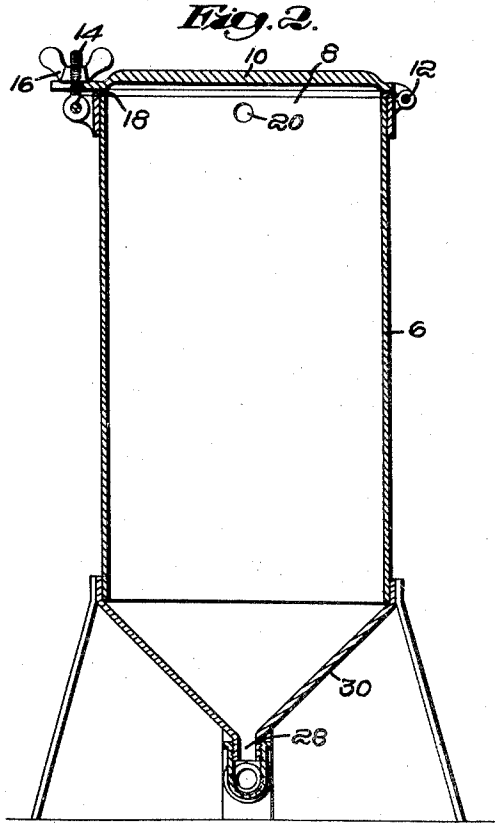


Fig. 3.

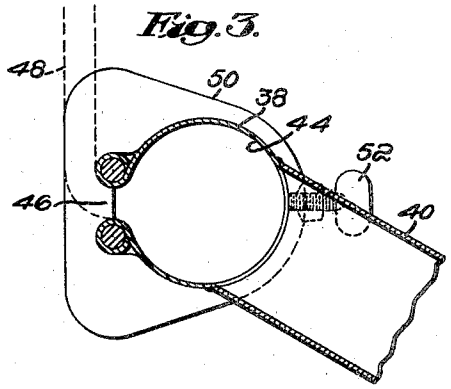
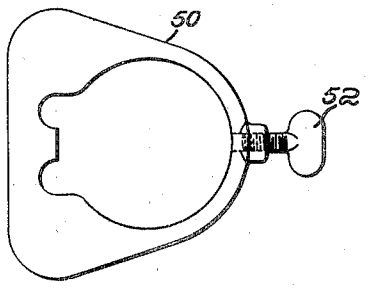


Fig. 4.



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Patented Apr. 23, 1940 2,198,271

UNITED STATES PATENT OFFICE

2,198,271

PLASTERING MACHINE

Ingersoll W. McCallum, Boston, Mass.

Application June 30, 1938, Serial No. 216,725

3 Claims. (Cl. 72—130)

This invention relates to the plastering of walls and ceilings and is concerned with a plastering machine arranged to be charged with a supply of plaster which is subjected to air pressure and is fed thereby to an applicator whence it issues in the form of a continuous sheet which is applied to the laths or other foundation. The machine, in its preferred form, has a dual arrangement of receptacles, either of which may be availed of at will to supply plaster to the applicator while the other receptacle is being charged with plaster. The applicator is arranged to discharge the plaster as a sheet, and is provided with gages which gage, not only the thickness of the plaster applied to the wall or ceiling, but also the width of the band or ribbon of plaster which issues from the applicator.

The invention will best be understood by reference to the following description when taken in connection with the accompanying drawing of one embodiment thereof, while its scope will be pointed out more particularly in the appended claims.

In the drawing:

Fig. 1 is an elevation of a plastering machine embodying the invention;

Fig. 2 is a sectional view of one of the receptacles on line 2—2 of Fig. 1;

Fig. 3 is a sectional view of the applicator on line 3—3 of Fig. 1; and

Fig. 4 is a detail elevation of one of the gages of the applicator.

Referring to the drawing and to the embodiment of the invention illustrated therein by way of example, there is shown a pair of duplicate receptacles 6 of appropriate character, each of which is provided with an opening 8 (see Fig. 2) through which the receptacle may be charged with plaster, and a cover 10 for said opening, the one shown being hinged on a pintle 12 and provided with means such as a hinged eye-bolt 14 and a nut 16 to clamp the cover upon a suitable gasket 18 to render the closure air-tight.

Near the top of the receptacle, and above the plaster therein, the receptacle is provided with an air inlet 20, to which air may be supplied to subject the upper surface of the plaster to pressure above that of the atmosphere. Where, as in the present example, there are two receptacles, the air inlets 20 are connected by an air conduit 22 having therein two valves 24, one to control the admission of air to each air inlet, and between these valves an air supply conduit 26 is connected, so that by opening either valve and closing the other, air may be supplied to either receptacle at will.

Likewise, each receptacle 6 has a plaster outlet 28 at the bottom and preferably at the apex of a conical or tapered header 30, the arrangement being such that the air pressure applied to the top of the plaster is most effective to feed the plaster through the outlet. The two plaster outlets are connected to each other by a plaster outlet conduit 32 having therein two valves 34, one to control the discharge of plaster from each outlet, and between these valves a plaster delivery conduit 36, such as a hose, is connected, so that by opening one valve and closing the other, plaster may be delivered from the previously charged receptacle to an appropriate applicator 38 having a rigid pipe handle 40 provided with a shut-off valve 42.

The applicator shown by way of example is provided with an elongated chamber 44 having an outlet slot 46 from which the plaster issues as a sheet 48 shown in dotted lines in Fig. 3. Two gages 50 serve to limit the approach of the outlet slot 46 toward the laths or other support to which the plaster is to be applied, and thus determine the thickness of the plaster. To change the thickness, other gages may be substituted, and the gages to this end may be removably secured about the applicator head as by set-screws 52.

It will be remembered that the plaster is fed from one receptacle or the other by compressed air applied to the upper surface of the body of plaster in the receptacle. To this end, an appropriate air pump 56 (see Fig. 1) which may be operated by hand or by power has its outlet connected to the air supply conduit 26 which may be a flexible hose or a rigid pipe as desired.

Having thus described one embodiment of the invention but without limiting myself thereto, what I claim and desire by Letters Patent to secure is:

1. In a plastering machine, the combination of a receptacle for the plaster, means to subject the plaster in said receptacle to pressure to feed plaster from said receptacle, and an applicator supplied by said receptacle, said applicator being provided with an elongated slot through which the plaster issues as a sheet, and two gages which determine the thickness and the width of the strip of plaster applied to the support, said gages being adjustable lengthwise of said slot.

2. In a plastering machine, the combination of a pair of plaster receptacles each having at the top a plaster inlet, at the bottom a tapered head-

er provided with a lateral plastic outlet, and at one side an air inlet, a horizontal plaster outlet conduit connecting said lateral plaster outlets and having therein two plaster valves, one to control the discharge of plaster from each outlet, a horizontal air inlet conduit connecting said air inlets and having therein two air valves, one to control the admission of air to each air inlet, a plaster delivery conduit connected between said plaster control valves, and having therein a flexible portion and a rigid pipe handle provided with a shut-off valve, an air supply conduit connected between said air valves and comprising a flexible portion, and an air pump having its outlet connected to said air supply conduit.

3. In a plastering machine, the combination of a pair of plaster receptacles each having at the top a plaster inlet, at the bottom a tapered header provided with a lateral plastic outlet, and at one side an air inlet, supports which support said receptacles with said plaster outlets elevated above the bottoms of said supports, said supports being apertured in the region of said plaster outlets, a horizontal plaster outlet conduit connecting said lateral plaster outlets and having therein two plaster valves, one to control the discharge of plaster from each outlet, a horizontal air inlet conduit connecting said air inlets and having therein two air valves, one to control the admission of air to each air inlet, a plaster delivery conduit connected between said plaster control valves, and having therein a flexible portion and a rigid pipe handle provided with a shut-off valve, an air supply conduit connected between said air valves and comprising a flexible portion, and an air pump having its outlet connected to said air supply conduit.

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