

Filed Nov. 28, 1966

PAINT SHAKING DEVICE

2 Sheets-Sheet 1

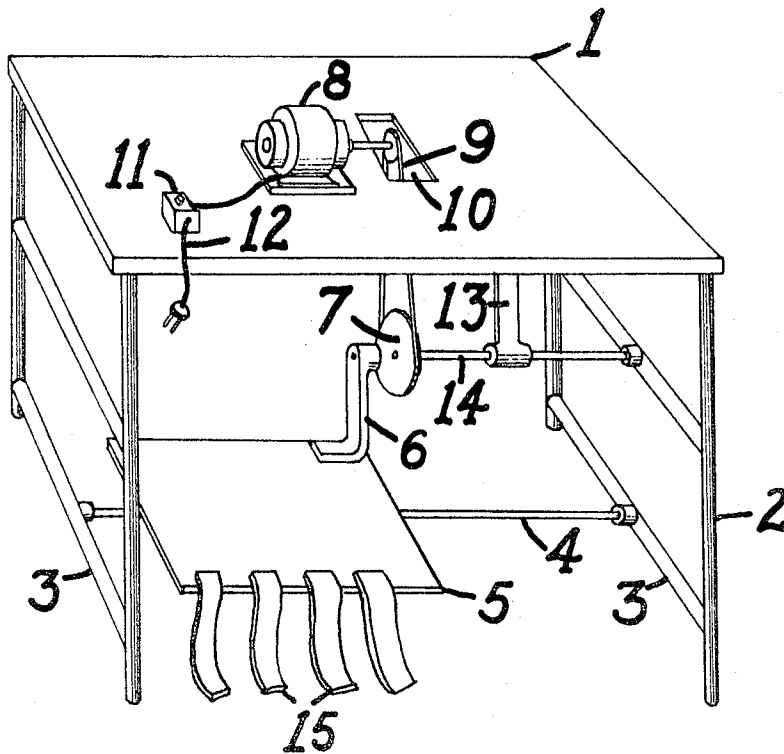


FIG. 1

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2 Sheets-Sheet 2

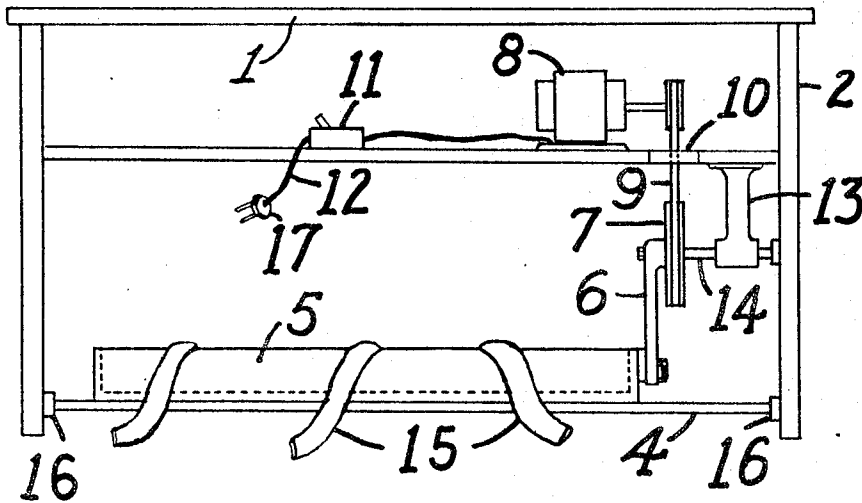


FIG. 2

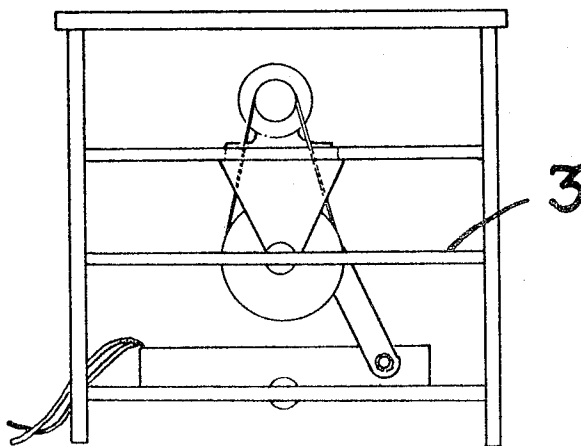


FIG. 3

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PAINT SHAKING DEVICE

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1 Claim

ABSTRACT OF THE DISCLOSURE

A paint shaker having a platform upon which the paint, to be shaken, is secured, said platform being mounted on a rocker shaft located inwardly from the sides of said platform, and having a driving means for imparting up and down motion to said platform, including a connecting rod, connected eccentrically to a driving wheel.

The present invention relates to paint mixing machines. More particularly, it relates to machines that mix paint by shaking a can of paint violently and rapidly.

Mixing devices, presently in use, are heavy machines, usually employing a vibrating action on several planes of shaking. However, the vibrating devices are not completely effective, leaving a sediment of pigment on the bottom of the can, thus requiring subsequent hand stirring to complete the mixing operation.

It is, therefore, an object of this invention to provide a mixing machine which will shake a can of paint in such a manner that the contents of the can will be thoroughly mixed, thus eliminating the need for hand stirring.

It is also an object of this invention to provide a simple and inexpensive mixing machine that can be made by adapting an old-fashioned treadle sewing machine into a paint mixing device.

Further objects and advantages will appear from the following specification, taken with the accompanying drawings in which like characters of reference designate similar parts in the views, and in which:

FIG. 1 is a perspective view of the device.

FIG. 2 is a perspective view of another embodiment of the device.

FIG. 3 is a side elevation showing the relative positions of parts vertically.

As will be seen from FIG. 1, top 1 is supported by legs 2, legs 2 having additional reinforcement in the form of cross-members 3. This frame, which may be in a suitable form, and made of any suitable materials, generally would be the top and legs of an old-fashioned treadle sewing machine. FIG. 1, however, shows a simple table arrangement for the purposes of this description. A rocker shaft 4 connects the two lower cross-members 3, with a platform 5 mounted thereon, by means of cleats or bolt (not shown). A connecting rod 6 is attached to one corner of platform 5, and connects to drive 7, on the outer edge. Bolted to the top 1, is a variable speed motor. A drive belt is attached to the gear motor 8, and passes through hole 10, cut into top 1, and connects the drive 7. Drive 7 is connected to the frame by means of a shaft 14 and reinforcing bearing support 13. Riveted, or attached to platform 5, in any convenient manner, are straps 15, which are used to hold the cans of paint securely to the platform. The straps 15 may be of any suitable material, but are

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generally elastic and fasten together by means of clips or buckles. Gear motor 8 derives its power via electric cord 12, and operates by means of an on-off switch 11.

FIG. 1 is suitable for shaking up to two gallons of paint at a time. The paint cans are strapped into place on platform 5 by buckling straps 15 around the cans, so that the cans will not jiggle off the platform while the mixing device is in operation. The motor 8 is then turned on by means of on-off switch 11, which causes the belt 9 to move, causing drive 7 to rotate about the shaft 14. Connecting rod 6 is mounted off-center on drive 7 and describes a circular path. A connecting rod 6 is also attached to one corner of platform 5, the platform 5 will begin to move up and down, causing the contents of the cans to tilt back and forth. As connecting rod 6 reaches the uppermost part of the circle described by the movement of drive 7, the part of the platform that connects with connecting rod 6, will also go into its uppermost position, with the half of the platform not connected directly to connecting rod 6 in its lower-most position. Thus, it can be seen how the platform 5 rocks back and forth, causing the paint in the cans to slosh from top to bottom, in a violent mixing action. Even paint that was almost completely "settled out" would be rapidly and thoroughly mixed. Upon completion of mixing, the motor 8 is turned off by means of on-off switch 11, and the mixed cans of paint are unstrapped from platform 5.

FIG. 2 shows a variation of the basic device shown in FIG. 1. The variation is suitable for handling much larger quantities of paint, for example, 55 gallon drums of paint, which heretofore, have been stirred by hand or hand-held stirrers, causing additional work because the "beater" type stirrers are inserted into an open drum of paint, thus breaking the seal on the drum, and in order to reuse the beater, it must be thoroughly cleaned, a difficult task particularly if the paint is an oil-base paint. To accommodate the additional weight of a 55 gallon drum, obviously the entire structure must be made of sturdier material than must be employed in the first embodiment described, motor 8 must be more powerful, and certain structural variations are necessary. FIG. 2 shows motor 8 mounted on bearing 16, which is necessary to provide extra bracing for the structure, and the shelf also helps distribute weight on the mixing machine so that it will not become top heavy. Drive 7 is attached directly to motor 8, and has a motor support 17.

As can be seen from the foregoing description, the objects of the invention have been accomplished. In addition, the machines are relatively quiet, and are simple in construction. The motor may be removed entirely, and the shaker platform may be operated by hand if necessary, in the same manner that an old-fashioned treadle sewing machine is operated. When large amounts of paint are to be mixed (for instance, 5 gallon pails and 55 gallon drums), there is no need to open the container thus breaking the seal, since the larger quantities of paint can be rocked, or shaken in the same manner as single gallon cans or even pints of paint. The action of the platform is violent enough to mix even the most stubborn of sediments, and the action of the platform can easily be controlled by the size of the motor.

Having described my invention, what I claim is:

1. A paint mixing device, comprising a frame, a platform adapted to receive a container of paint material suit-

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able to be mixed, means to hold the said container fixedly in place on said platform being mounted on a rocker shaft located inwardly from the sides of said platform, and means for imparting an up and down motion to said platform, comprising a connecting rod having one end attached to one side of said platform, at a point remote from said rocker shaft, and the other end connected to a drive wheel eccentrically of a shaft upon which said drive wheel is mounted, said drive wheel being driven by a motor.

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References Cited

UNITED STATES PATENTS

2,597,536	5/1952	Shields	259—75
2,717,700	9/1955	Gruzensky et al.	259—75 X
2,834,585	5/1958	Oharenko	259—75

FOREIGN PATENTS

64,386 3/1946 Denmark.

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