Sept. 30, 1924. 1,510,081

L. D. RULAND

PAINT MIXER

Filed March 25, 1924

Fig. 1

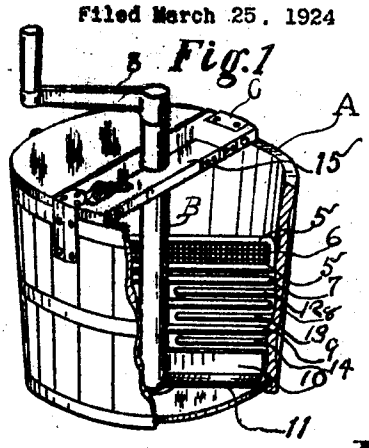


Fig. 2

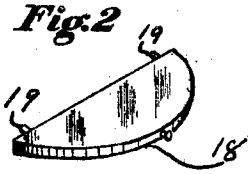


Fig. 3

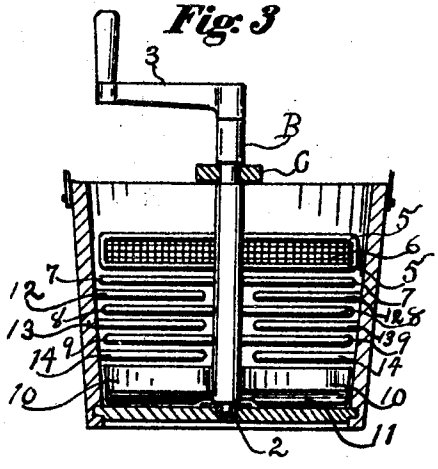


Fig. 6

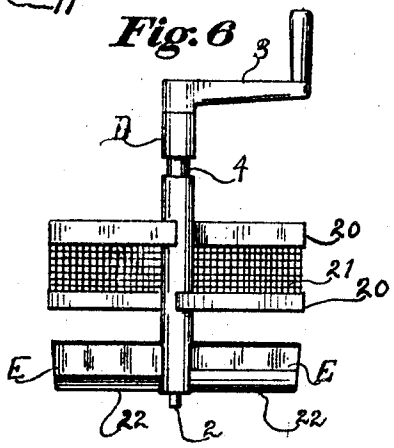


Fig. 5

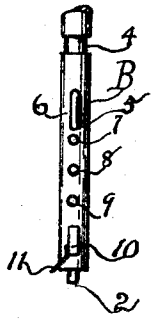


Fig. 7

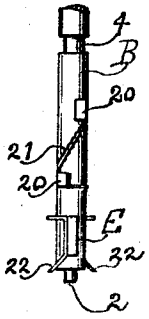
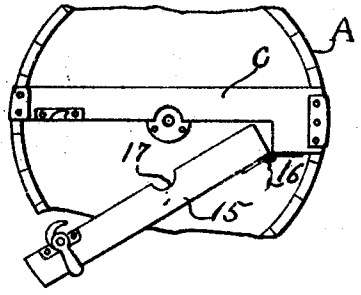


Fig. 4



INVENTOR.
Lorin D. Ruland
BY F. N. Gillett
ATTORNEYS.

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UNITED STATES PATENT OFFICE.

LORIN D. RULAND, OF BINGHAMTON, NEW YORK.

PAINT MIXER.

Application filed March 25, 1924. Serial No. 701,864.

To all whom it may concern:

Be it known that I, LORIN D. RULAND, a citizen of the United States, residing at Binghamton, in the county of Broome and State of New York, have invented certain new and useful Improvements in Paint Mixers, of which the following is a specification.

My invention relates to improvements in paint mixers, and it has for its object to provide a paint mixer which will be simple yet effective in form and operation and cheap to manufacture, and easily mounted in form for operation, and which will provide means for thoroughly mixing the paint, in all parts of the receptacle body, and which will in its operation having a tendency to keep the lead and sediment from collecting or settling on the bottom of the mixing receptacle free, and which will enable the mixer to be easily cleaned.

With these objects in view my invention consists of certain novel features of construction and arrangement of parts as will be hereinafter more fully described and pointed out in the claims, reference being had to the accompanying drawings, in which:

Fig. 1 is a perspective view, partly fragmentary, of a preferred form of my device.

Fig. 2 is a perspective view of a part of my device.

Fig. 3 is a perspective view, partly in cross section, of preferred form of my device.

Fig. 4 is a plan view of my device.

Fig. 5 is an end elevation of part of my device.

Fig. 6 is a side elevation of a modified form of my device.

Fig. 7 is an end elevation of a modified form of part of my device.

The same reference characters denote like parts in each of the several figures of the drawings. In carrying out my invention, I have the usual paint receiving body or mixing receptacle, which may be in form of a tub or pail A, or other circular form of body.

Pivotally mounted in the center of the bottom of A, I have the shaft B, having in its lower end a projecting pivot 2 adapted to engage an opening or recess formed in any convenient manner in the center of receptacle bottom, and on its upper end the turn handle 3; around shaft B, I have cut a channel or groove 4; projecting from the opposite sides of shaft A, I have the parallel projecting arms 5, 5, and between which arms and extending flush with the ends thereof, I have mounted a wire mesh 6, forming a sieve; below mesh 6 and projecting from either side of shaft B and mounted therein, I have the parallel metal arms or bars, 7, 7 —8, 8— and 9 9; below the arms 7, 8 and 9 on either side of shaft B, I have the projecting strips 10, 10 and mounted on the lower edge of each strip 10, I have the beveled metal blade 11, the blade on one strip projecting to the left and the blade on the other strip projecting to the right. Projecting from the opposite interior sides, of this receptacle, I have the 3 parallel rods, 12, 12, 13, 13, 14, 14, and as the shaft B revolves, the metal arms, 7, 7, 8, 8 and 9, 9 mounted in shaft B move between the rods 12, 13 and 14 mounted as before mentioned. As a further part of my device, I have mounted on across the top of the paint receptacle A the cross bar C, having as a part of the removable section 15 hinged to C by hinge 16, both section 15 and the support C having let therein a semicircular recess forming together when closed a socket 17 to engage with the groove 4 on shaft B; as a further part of my device I have the lid sections 18, 18 having on their inner edge the lugs 19, 19 adapted to engage openings in the opposite edge of the cross bar B and in this removable position engage with hooks or other means on the outer surface of receptacle A in any convenient manner for holding the lid sections in removable engagement with bar C. As a further modified form of my device I have the shaft D with handle 3 and the channel or groove 4; mounted on this shaft D I have the parallel horizontal supports 20, 20 and between which I have mounted the wire mesh 21; each section of mesh being mounted in opposite inclined position, on each side of shaft D as shown in Fig. 7; below mesh 21, I have mounted on shaft D the blade support E, and on each one half portion of said support, I have the blades 22, 22, each blade positioned on an incline in an opposite direction to the other; mounted on the base of shaft D, I have the projecting pivot pin 2; this modified form of my device is mounted in the paint mixing receptacle, in the same manner as in my preferred form.

In the operation of my device, having placed my mixing shaft B mounted in receptacle A, I place therein the paint to be mixed, and close the sectional lids; I then grasp the handle of the mixing shaft and slowly turn the handle by an oscillating movement backward and forward; the paint thus in the receptacle, the lead body in the paint being at the bottom, will be cut and separated by the lower paddle and gradually commingle with and mix with the oil, in a thorough and complete manner, and with great rapidity and in a resultant uniform manner; when the paint substance has been completely mixed, the sectional lids are removed, and the paint poured out of the receptacle for another batch, and when the mixer is to be cleaned, the locking bar section 37 is unlocked, and the mixer removed.

Having thus described my invention, what I claim as new and for which I desire Letters Patent, is as follows:

1. In a paint mixer, a rotating shaft adapted to be pivotally mounted in a container, the shaft having an upper paddle vertically mounted therein, consisting of two oppositely disposed parallel arms spaced apart, on each side of the shaft, a wire mesh mounted between the arms, a lower paddle spaced apart from the upper paddle comprised of an oppositely disposed projecting arm on each side of the shaft vertically mounted therein, in alinement, each arm having on one side a metal plate having at its upper edge an outward projecting horizontal blade, and at its lower edge an outward projecting downwardly inclined blade, the plate and blades on one arm mounted on the opposite side from the plate and blades of the other arm, a pivot projection on the lower end of shaft, a turn handle mounted on top of shaft for rotating the same.

2. In a paint mixer, a rotating shaft adapted to be pivotally mounted in a container, the shaft having mounted therein, an upper paddle comprised of two rectangular oppositely disposed projecting frames, in alinement, a frame vertically mounted on each side of shaft, and each frame having mounted therein a wire mesh, spaced apart from the upper paddle, a lower paddle vertically mounted on the shaft, comprised of oppositely disposed arms in alinement, one arm having on one side of its lower edge a downwardly inclined blade, and on the opposite side of the other arm at its lower edge a downwardly inclined blade, and mounted in the opposite sides of the shaft between the upper and lower paddles and spaced apart from them and from each other, a plurality of oppositely disposed projecting metal rods, in alinement, adapted to pass between a plurality of projecting rods mounted on the opposite interior surface of the container when the shaft is rotated, a pivot mounted in the lower end of shaft, a handle mounted on the top of shaft for rotating the same.

In testimony whereof I have affixed my signature.

LORIN D. RULAND.