Dec. 9, 1930. H. F. W. BROCKMANN 1,784,416

AGITATOR

Filed Nov. 15, 1926

Fig. 1.

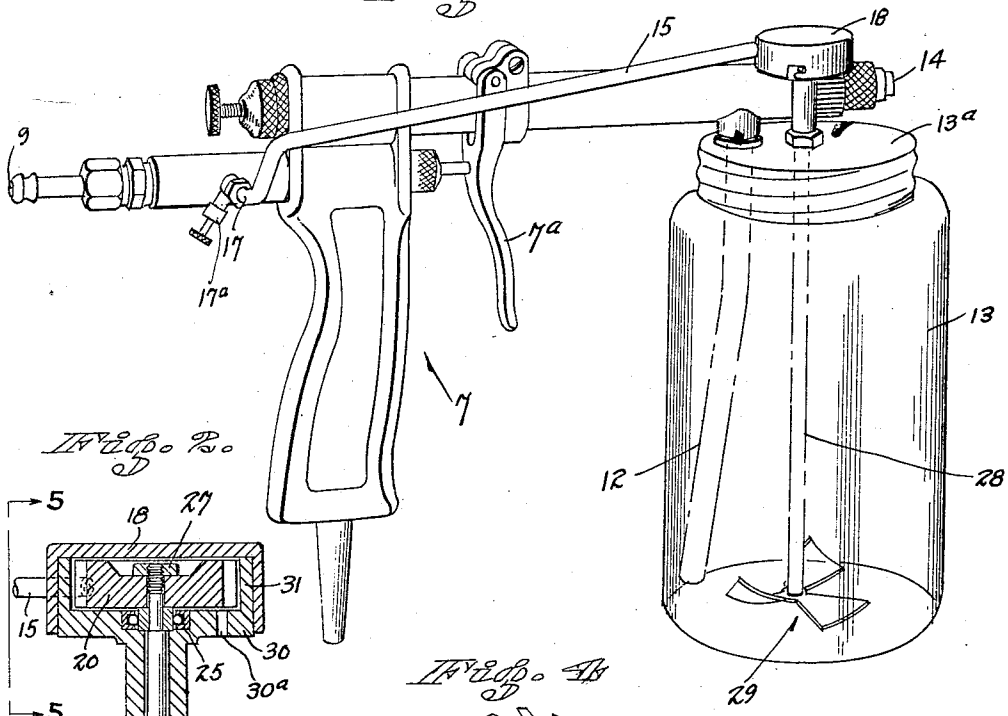


Fig. 2.

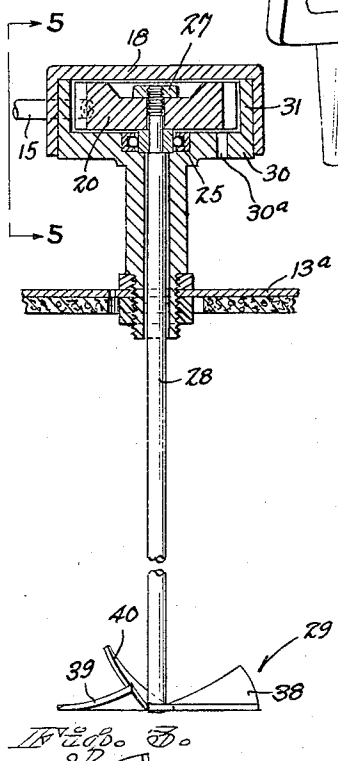


Fig. 4.

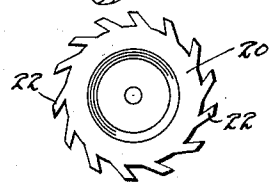


Fig. 5.

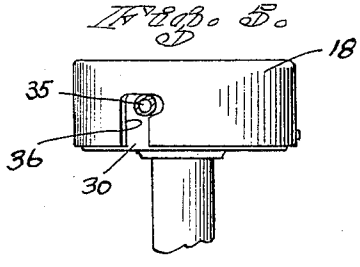
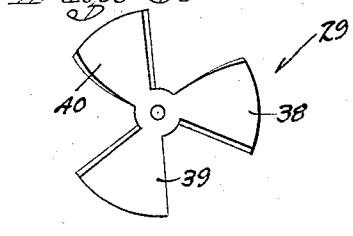


Fig. 3.



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UNITED STATES PATENT OFFICE

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AGITATOR

Application filed November 15, 1926. Serial No. 148,485.

This invention relates to agitators for use in connection with the spraying of paints, bronzes, etc.

An object of my invention is the provision of an agitator operated by air pressure.

With the foregoing object in view, together with such other objects and advantages as may subsequently appear, this invention resides in the construction and arrangement of parts hereinafter described and claimed, and illustrated in the accompanying drawings, in which

Figure 1 is a perspective view of a paint spraying apparatus with which is combined the device of my invention;

Figure 2 is a view, partly in section and partly in elevation, of the device of my invention;

Figure 3 is a bottom plan view of Figure 2;

Figure 4 is a plan view of a vaned-wheel employed in my device as illustrated, and

Figure 5 is an enlarged elevational view of a part of my invention shown on smaller scale in Figure 1.

Referring to the drawings for a more detailed description thereof, the numeral 7 indicates a spraying gun which however is no part of my invention and since the type is well known, no detailed description is necessary.

Briefly, however, compressed air enters the gun at 9 and the resulting effect is to cause paint or other mixture to be drawn up thru the tube 12 within the jar 13 and to be expelled from the nozzle 14 of the gun.

The paint or other mixtures placed within the jar or receptacle 13 settle quickly unless they are constantly stirred. An agitator must therefore be provided to keep the mixture homogeneous in order to secure good results on a surface painted by means of the apparatus illustrated.

According to my invention, a pipe 15 is connected at 17 with the paint gun 7 so that air which is employed to get the paint out of the jar 13 may pass thru the pipe 15. The pipe 15 is connected with a cap or cover 18, so that air coming thru this pipe will enter the inside of the cap and turn a wheel 20 shown in Figure 4 as having vanes 22. The wheel 20 rides on ball bearings 25 shown in Figure 2 and is secured by means of a nut 27, also shown in Figure 2, to the stem 28 of an agitator 29. The ball-bearings 25 are set in the bottom 30 of a member 31, which forms with the cap 18 a casing for the vaned wheel 20.

The member 30 is supported by a cover 13*a* of the jar 13, as clearly shown in Figure 2, while the cap 18, shown in Figure 2, is held to its cooperating member 30 by means of the pin 35 which fits into the bayonet slot 36 of the cap 18.

The agitator 29 comprises blades 38, 39 and 40 which at their centers practically touch the bottom of the receptacle 13 and these blades are formed at different angles whereby any matter tending to settle at the bottom of the receptacle is successively lifted higher by each succeeding blade.

In the operation of the device, air is released thru the gun when the trigger 7*a* is pulled, and thru the pipe 15 when a controlable valve 17*a* is open. The air which passes thru the pipe 15 hits the vanes 22 of the wheel 20 whereby the agitator is rotated and this air then passes to the atmosphere thru an aperture 30*a* formed in the bottom 30 of the member 31.

While I have described one embodiment of my invention, modifications thereof may be readily devised without departing from the spirit of my invention, and it is to be understood that such modifications come within the scope of the appended claims.

I claim:

1. In a device of the type described, a propeller having a plurality of blades, one of said blades being inclined at a slight degree, and each succeeding blade thereafter being inclined at a greater degree, whereby each

blade of the propeller will move the fluid a greater distance than the preceding blade when starting with the blade having the smallest angle.

2. An agitator comprising a rotatable shaft, an impeller mounted on said shaft, means for rotating said impeller, a propeller disposed at the other end of the shaft and having a plurality of blades, each blade being inclined at a different angle for gradually lifting a fluid from the blade with the least angle to the blade with the greatest angle.

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