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R. G. HORNİK ET AL

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DOUBLE PROPELLER FOR STIRRING PAINTS

Filed March 8, 1948

Fig. 1.

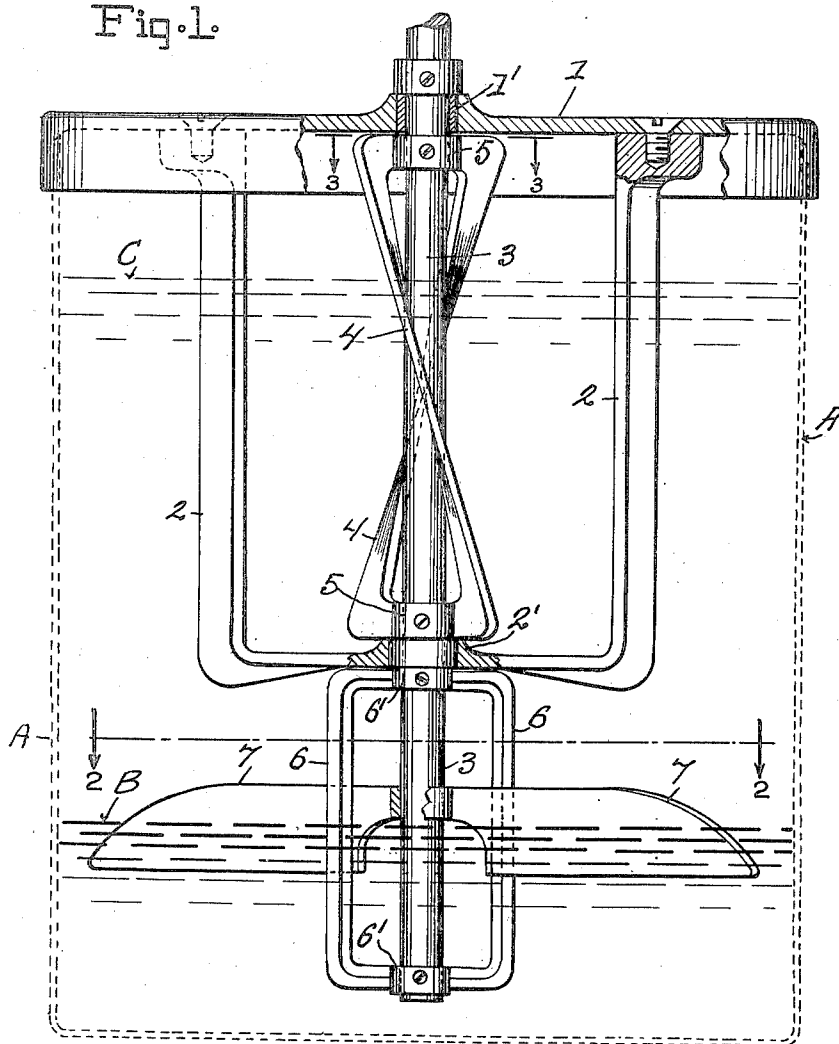


Fig. 2.

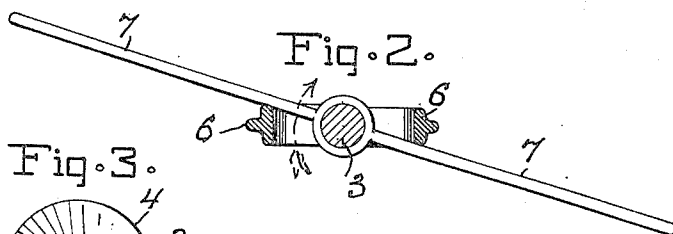
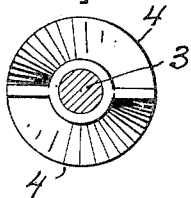


Fig. 3.



Inventors
Roland G. Hornik
Stanley E. Wood

By

Young & Wright
Attorneys

UNITED STATES PATENT OFFICE

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DOUBLE PROPELLER FOR STIRRING PAINTS

Roland G. Hornik, Cedarburg, and Stanley E.
Wood, Thiensville, Wis.

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1 Claim. (Cl. 259—116)

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Our invention refers to agitator mixers for paint or like liquids, which liquids have a tendency to settle in a container, resulting in a separation of the heavy or dense body at the bottom and a light or thin top portion.

The primary object of our invention is to provide a simple and effective agitator wherein a top blade rotates upon a single plane, associated with a bottom floating blade, which blade churns or agitates the thick bottom liquid and said blade gradually sinks as the density of the liquid is lightened, whereby the paint is uniformly mixed, ready for use, it being understood that various liquid beverages may be treated in the same manner.

With the above and other objects in view, which will appear as the description proceeds, the invention resides in the novel construction, combination and arrangement of parts, substantially as hereinafter described, and more particularly defined by the appended claim, it being understood that such changes in the precise embodiment of the herein disclosed invention may be made as come within the scope of the claim.

In the accompanying drawings is illustrated one complete example of the physical embodiment of the present invention constructed according to the best mode so far devised for the practical application of the principles thereof. In the drawings:

Fig. 1 represents a side elevation of an agitator embodying the features of our invention, with parts broken away and in section to more clearly illustrate structural features, the same being shown associated with a container illustrated in dotted lines.

Fig. 2 is a sectional plan view of the same, the section being indicated by line 2—2 of Fig. 1; and

Fig. 3 is another detail plan sectional view, the section being indicated by line 3—3 of Fig. 1.

Referring by characters to the drawings, 1 indicates a flanged cap adapted to be seated upon the mouth of a can A, illustrated in dotted lines of Fig. 1, or other suitable container. The cap has secured thereto a depending yoke 2, the bottom stretch of which yoke is formed with a journal bearing 2'.

The cap 1 is also provided with a central journal bearing 1', and mounted in said bearings is a shaft 3, to the upper end of which shaft may

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be attached either a motor or a manually actuated crank connection (not shown).

Secured to the shaft 3, between the cap and yoke journals, is a double spiral blade 4, the upper and lower ends of which are formed with collars 5—5, which collars are secured to the shaft.

The bottom end of the shaft 3 extends a predetermined distance beyond the bottom stretch of the yoke 2, and secured to this extension is a pair of looped arms 6—6, the upper and lower connected ends of which arms are provided with collars 6'—6', which collars are secured to the shaft.

Slidably mounted upon the shaft extension is a hubbed blade 7 and, as shown in Fig. 2 of the drawing, the wings of the blade are engaged by the looped arms 6—6, whereby, upon rotation of the shaft in the direction of the arrow, the bottom blade is revolved, which blade, as shown in Fig. 1 of the drawing, is floating upon the heavy bottom liquid paint, as indicated upon the line B, it being understood that the upper blade serves to agitate the top layer of liquid, as indicated at the line C, which lighter liquid separates from the heavier portion when the container or can is at rest.

From the foregoing description it is apparent, when power is applied to the shaft, the lighter portion of the paint is thoroughly agitated or stirred by the upper spiral blades 4 and at the same time the lower floating blade 7, which is immersed into the thick bottom liquid, will gradually stir or agitate said bottom liquid to thoroughly mix the same with the upper light liquid, and as said heavy liquid is gradually diffused or thinned out, the blade 7 will slowly slide downwardly to the bottom of a container, whereby the entire heavy portion of the paint is thoroughly mixed with the upper portion thereof, and the paint is ready for use.

We claim:

A mixer for paint or like liquids having a cap adapted to seat upon a container; comprising a yoke extending downwardly from the cap approximately midway of a container, a shaft journaled in the cap and yoke terminating adjacent to the container bottom, a spiral blade carried by the shaft extending between the cap and yoke journals of a comparative small diameter adapted

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to be submerged in the top light liquid, a pair of longitudinally disposed looped arms secured to the lower portion of the shaft below the yoke, and a radially disposed floating blade slidably mounted upon the shaft between the arms, the floating blade being initially adapted to settle upon the top thick surface of the bottom liquid and to gradually sink therein as said bottom liquid is agitated by the floating blade to thus uniformly mix the thin and thick liquids.

ROLAND G. HORNIK.
STANLEY E. WOOD.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
205,859	Hamble	July 9, 1878
419,200	Kahlenberg	Jan. 14, 1890
1,740,709	Parker et al.	Dec. 24, 1926
2,115,809	Goldman	May 3, 1938