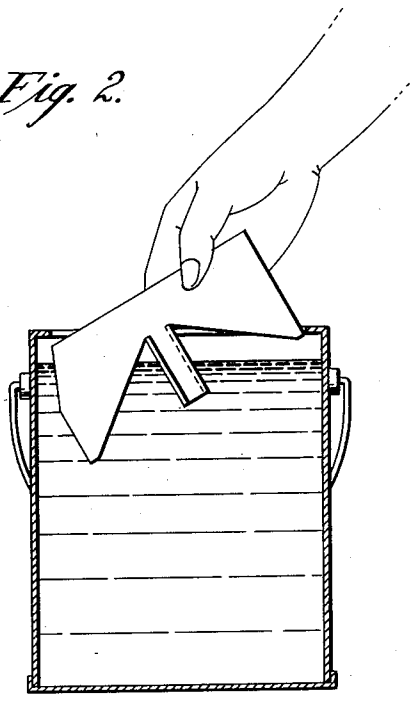
Dec. 18, 1956 S. J. O'BRIEN ET AL 2,774,580

PAINT MIXING DEVICE

Filed May 18, 1954

Fig. 2.



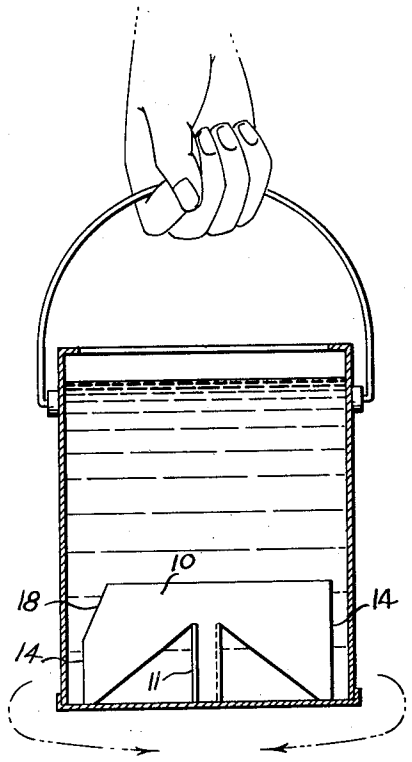


Fig. 3.

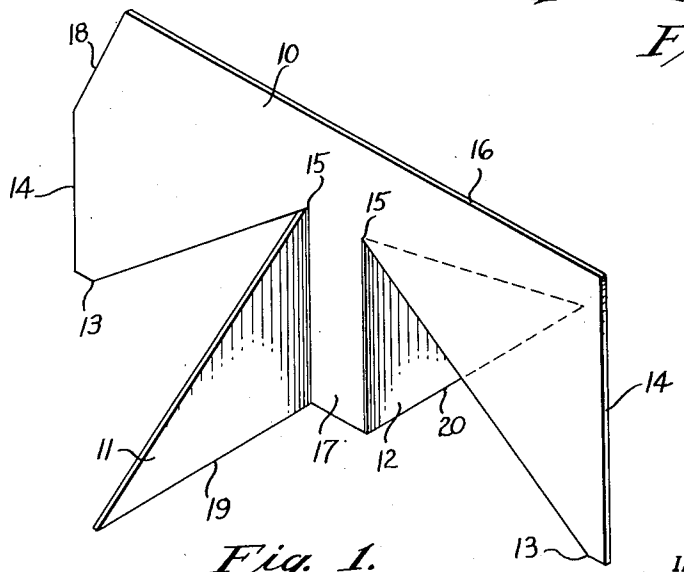


Fig. 1.

INVENTORS.
STANLEY J. O'BRIEN
ALFRED S. KARCEWSKI
BY Joshua R. H. Potts
THEIR ATTORNEY.

United States Patent Office 2,774,580 Patented Dec. 18, 1956

2,774,580

PAINT MIXING DEVICE

Stanley J. O'Brien and Alfred S. Karcewski, Lansdale, Pa.

Application May 18, 1954, Serial No. 430,538

2 Claims. (Cl. 259—144)

This invention relates to a paint mixing device, and particularly to a paint mixing device in the form of a winged vane adapted to be positioned on the bottom of a paint can so as to cause thorough mixing of the paint when the can is rotated in an oscillatory manner.

It has been customary in the past to mix paints by inserting a stick or other mixing rod into the paint can in contact with the bottom thereof, and moving the stick in a circular motion so as to cause the precipitated pigment on the bottom to become mixed with the liquid in the upper portion of the can, producing a homogeneous mixture. This method has been objectionable due to the fact that the entire bottom surface of the can is not affected by the moving stick, with the result that much of the pigment remains unmixed. In addition, such a mixing technique is laborious and time-consuming.

It is an object of this invention, therefore, to provide a novel paint mixing device which dispenses with the use of the conventional mixing stick.

It is another object of this invention to provide a paint mixing device which insures complete mixing of the settled pigment on the bottom of the can.

It is a further object of this invention to provide a paint mixing device for rapid mixing of paints with a minimum of physical exertion on the part of the user.

A still further object of the invention is to provide a paint mixing device in the form of a winged vane member adapted to freely rest on the paint can bottom and cause a thorough mixing of the paint by oscillatory rotation of the can.

These objects, together with other and additional objects and advantages to be derived from the present invention, will more readily become apparent by reference to the following description and accompanying drawings wherein similar numerals refer to similar parts throughout the several views.

Figure 1 is a perspective view of the winged vane paint mixing device of the present invention.

Figure 2 is a sectional view of a paint can taken along a vertical plane, and illustrating how the mixing device of Fig. 1 is inserted thereinto.

Figure 3 is a sectional view of a paint can taken along a vertical plane showing the paint mixing device in position for use on the bottom of the can, and illustrating by arrows the oscillatory motion of the can to achieve mixing of the paint therewithin.

Referring to the drawings, and particularly to Fig. 1 thereof, it will be seen that the paint mixing device of the present invention is of a one piece construction being preferably made from hard rolled steel sheet approximately 1/16 inch in thickness. As shown therein, the said device is cut or stamped from a substantially rectangular sheet of metal so as to consist of a main body portion **10**, and a pair of triangular winged portions **11** and **12**. The said triangular winged portions are formed by cutting the metal sheet upwardly and toward the center thereof from a point **13** on the bottom edge of the sheet slightly inboard from the side edges **14** thereof, to a

point **15** below the top edge **16**, as shown. The thus cut triangular portions are bent outwardly and in opposite directions from the plane of the main body portion **10** so as to lie at right angles thereto. It will be noted that the thus bent triangular portions are separated by a segmental wall **17**, which is actually part of the main body portion, so that the said triangular portions are off-set, as depicted in Fig. 1.

For the purpose of facilitating the insertion of the mixing device into the paint can, one of the upper corners of the main body portion **10** is cut off obliquely as indicated at **18**. This feature is of vital importance to the overall efficiency of the device, inasmuch as it permits of the insertion of a larger mixing device into the can than would be possible without the corner being cut off; and thus with a larger and heavier device a more thorough and more rapid mixing is achieved. The mode of insertion of the device which takes advantage of the obliquely cut corner is depicted in Fig. 2.

In using the above-described paint mixing device, the lid or cover of the paint can is removed and the device is grasped on the section of the main body portion **10** remote from the obliquely cut corner **18**. Then while inserting the device into the can, the said device is tilted slightly as shown in Fig. 2 so that as the cut corner **18** passes through the can opening, it lies in an approximately perpendicular plane relative to the bottom of the can. This motion permits the device to clear the rim of the can surrounding the opening. Once the device has cleared the rim of the can, it may be released, whereby it will settle to the bottom of the can by virtue of its own weight, assuming an upright position, as shown in Fig. 3. In this position, the bottom edges **19** and **20** of the triangular winged portions **11** and **12**, together with the remaining bottom edges of the main body portion **10**, dig into the thick sediment on the bottom of the can until they come to rest on the can bottom proper. This is an important feature of the present invention, for upon replacing the lid of the can and grasping the bail thereof and oscillating the can by twisting the wrist, as shown in Fig. 3, the bottom edges **19** and **20** of the triangular portions **11** and **12** scrape the bottom of the can so as to loosen the sediment therefrom. At the same time the side edges **14** of the main body portion **10** scrape the sediment loose from the lower portion of the wall of the can. This is achieved by a movement of the mixing device relative to the can caused by a change in the direction of rotation of the can with a resultant intermittent change in momentum of the mixing device.

Once the sediment has been loosened as just described, the turbulence produced by the liquid contents of the can flowing about the protruding portions of the mixing device will cause the said sediment to be quickly dissolved.

It is to be particularly noted that the scraping action of the triangular portions **11** and **12** insures a complete and rapid mixing of the paint, as almost the entire bottom surface of the paint can is subjected to a scraping action. In addition, the simplicity of the mixing device structure provides no crevices or apertures of any type which might be prone to the collection of undissolved sediment, further contributing to the assurance of complete mixing.

A paint mixing device of the type contemplated by the present invention may be installed in the can at the factory so as to be included in the sale of each can of paint, or it may be marketed separately and inserted into the can as described above.

It is thus seen from the above discussion that a novel paint mixing device is presented by this invention which is extremely simple in construction, and which insures a degree of mixing heretofore unattained. And this degree of mixing can be attained by a mere twist of the wrist in only five minutes.

Although the present discussion of this invention has been limited to the above-described preferred embodiment, variations thereof are possible without departing from the spirit of the invention. It is not intended, therefore, that the invention be limited to the particular embodiment disclosed, but rather only to the inventive concept as defined by the appended claims.

What is claimed is:

1. A paint mixing device for use in a paint can comprising; a flat metallic sheet of rectangular configuration having a top edge, a bottom edge, and side edges; one of the corners of said sheet being obliquely cut from said top edge to one of said side edges; and a pair of triangular wing-like members integrally attached to said sheet on opposite sides thereof, the said members lying in spaced planes perpendicular to the plane of said sheet and each having an edge coplanar with the bottom edge of said sheet; the said sheet having cut-out portions corresponding in size and shape to the said wing-like members.

2. A paint mixing device for use in a paint can comprising; a flat metallic sheet of rectangular configuration having a top edge; a bottom edge, and side edges; one of the corners of said sheet being obliquely cut from said top edge to one of said side edges; and a pair of triangularly wing-like members integrally attached to said sheet on opposite sides thereof and off-set relative to one another, the said members lying below said obliquely cut corner in spaced planes perpendicular to the plane of said sheet and each having an edge coplanar with the bottom edge of said sheet; the said sheet having triangular cut-out portions corresponding in size and shape to the said wing-like members.

References Cited in the file of this patent

UNITED STATES PATENTS

1,281,610	Lundahl	Oct. 15, 1918
1,284,816	Thompson	Nov. 12, 1918
1,989,019	O'Keefe	Jan. 22, 1935
2,551,583	Chavez	May 8, 1951

FOREIGN PATENTS

744,326	Germany	Jan. 13, 1944