Oct. 15, 1963 S. LERNER 3,107,085

PAINTER'S MIXING PADDLE

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Fig. 1.

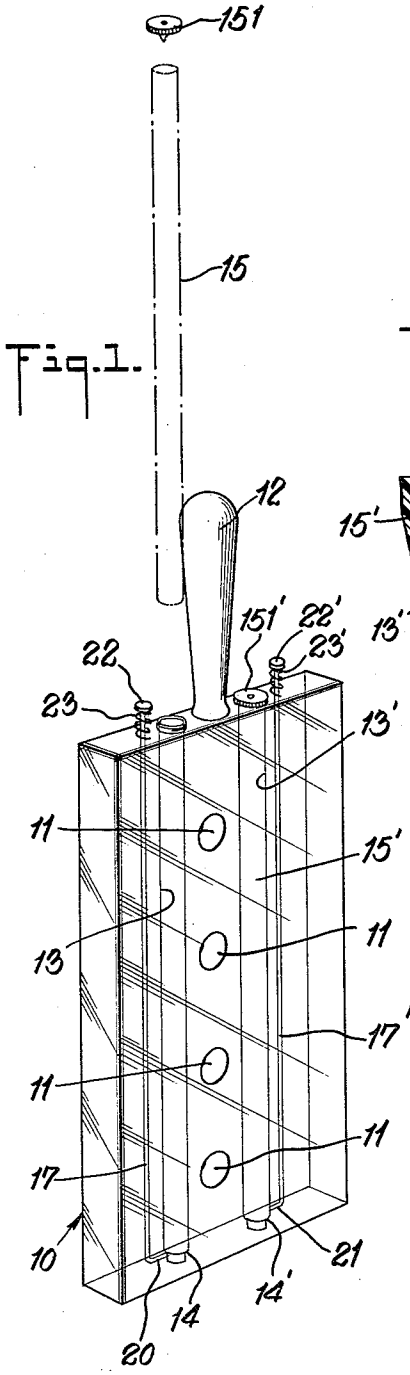


Fig. 2.

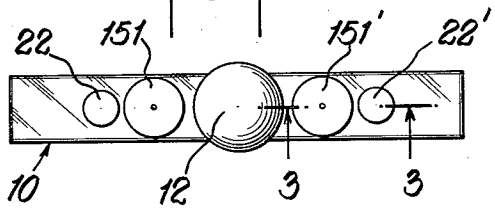
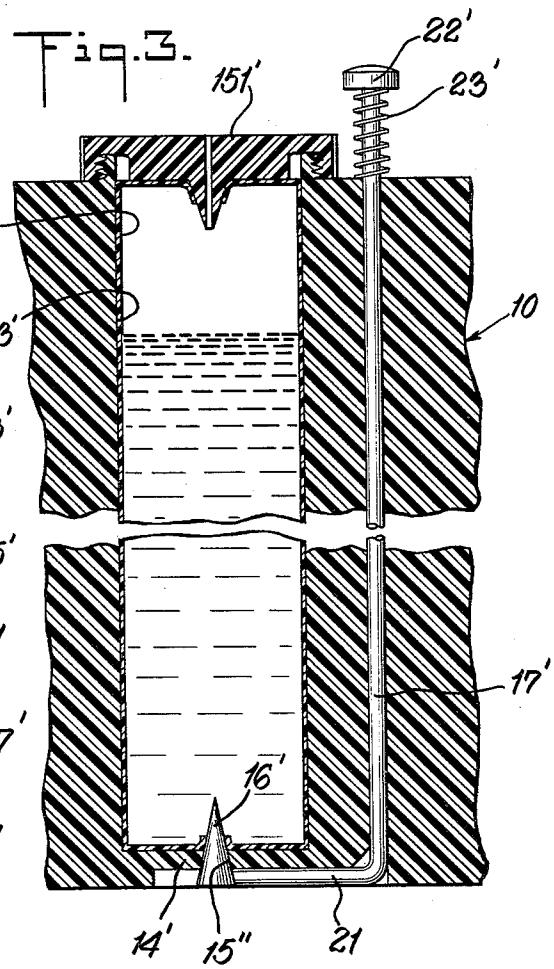


Fig. 3.



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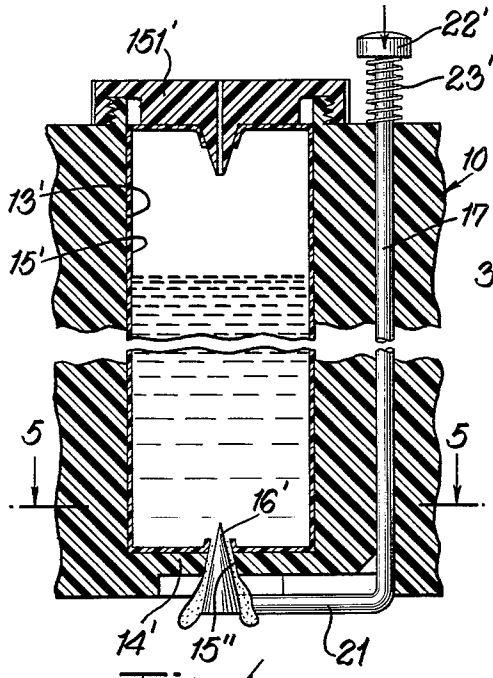


Fig. 4.

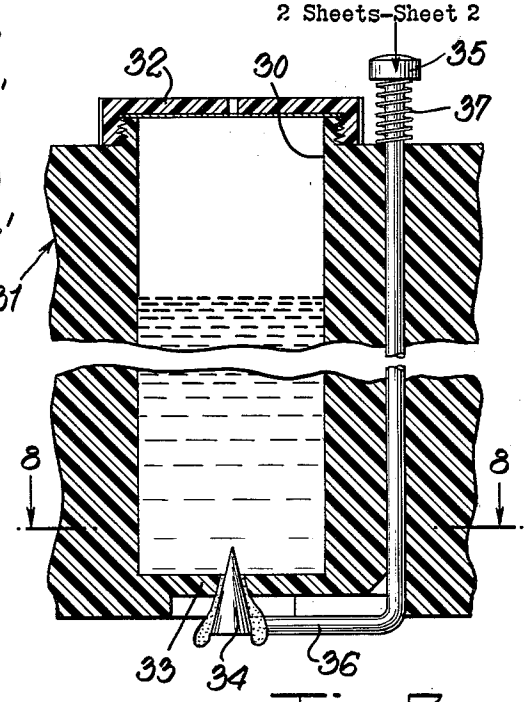


Fig. 7.

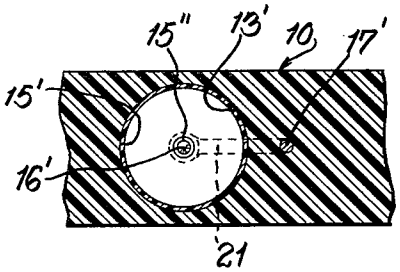


Fig. 5.

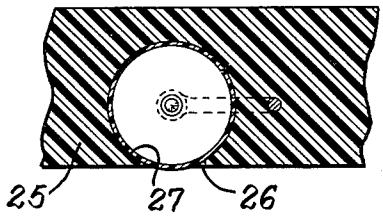


Fig. 6.

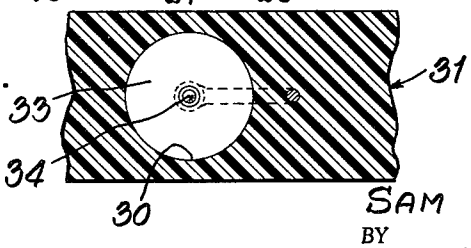


Fig. 8.

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United States Patent Office 3,107,085 Patented Oct. 15, 1963

3,107,085

PAINTER'S MIXING PADDLE

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Filed June 28, 1962, Ser. No. 206,059
6 Claims. (Cl. 259—144)

The invention relates to a mixing paddle or stirrer for a paint base, lacquer, etc.; and it is directed to a novel paddle member for use in connection with the supply therefrom, also, of a desired pigment or pigments. More especially, it has reference to a construction whereby stirring and thorough mixing, by means of the said paddle, may be effected simultaneously with the introduction of the pigment therefrom.

Heretofore, it has been the practice to introduce variously, from a source independent of the paddle, the desired pigment or the like directly into the paint base to be altered; and then stir the mixture with the said paddle.

It is an object of the present invention, however, to associate with such paddle unit one or more container means affording a supply of a modifying ingredient or ingredients such as pigments, etc. Also, it has for an object to provide means whereby the ingredients may be discharged—in the required amounts, and under manual control—directly from the said paddle into paint, lacquer, etc. for integration therewith, as by manual stirring of the mixture with said novel paddle.

Thus, in carrying out the invention, the paddle is arranged to afford control means for the supply therefrom of a desired pigment or the like, such pigment being provided, for example, in a puncturable tube or tubes fitting lateral bores provided in the paddle; or, a pigment may be retained directly within the bore or bores.

In the case of the support of a plurality of pigments, these may all be of the same nature; or may be of different characteristics. After delivery of the desired pigment, the paddle is then utilized in the conventional manner.

The nature of the invention, however, will best be understood when described in connection with the accompanying drawings, in which:

FIG. 1 is a perspective view of the novel paddle or stirrer with one of its associated pigment-container elements indicated as withdrawn and in exploded position.

FIG. 2 is a plan view of the novel paddle, and shown on an enlarged scale.

FIG. 3 is a fragmentary, vertical, sectional view of said paddle, on an enlarged scale; and taken on the line 3—3, FIG. 2 of the drawings—the associated discharge-valve being shown in its closed or sealing position.

FIG. 4 is a fragmentary view—similar to FIG. 3—but showing the lower or discharge valve in open or operative position—pressure being applied to the control valve, as is indicated by the arrow.

FIG. 5 is a fragmentary, horizontal section, on a reduced scale, taken on the line 5—5, FIG. 4 of the drawings, and looking in the direction of the arrows.

FIG. 6 is a horizontal sectional view, similar to FIG. 5; and illustrates a modification, more especially in the provision of a window.

FIG. 7 is a fragmentary, vertical, sectional view, similar to FIG. 4; and illustrates a further modification in the paddle construction.

FIG. 8 is a horizontal section taken on the line 8—8, FIG. 7 of the drawing; and looking in the direction of the arrows.

Referring to the drawings, more particularly to FIGS. 1 to 4 thereof, the paddle 10 may be of the conventional, more or less rectangular pattern; and it is constructed of a rigid and, preferably, transparent material in order that the amount of charge of pigment retained may remain visible. The novel paddle is provided, also, with a

series of transverse perforations 11 therethrough to facilitate stirring therewith in the mixing operation; and a handle 12 projects outwardly from the upper edge thereof for manipulation of the novel structure.

In accordance with the invention, the body portion is provided, also, with one or more longitudinal parallel pigment-retaining chambers, as the cylindrical pair of bores 13, 13' shown. These then extend longitudinally substantially through the paddle member, as along the respective side portions thereof. Axially perforated seating portions 14, 14' are provided at the respective bottoms of a bore for support of an introduced pigment tube, as the tubes 15, 15'—this being effected from the top of the paddle. Corresponding venting caps 151, 151'—when a pigment tube has been inserted—are to be screwed over and pierce the top of such positioned tube, as well as to retain said tube against, and to seat it on, a corresponding seating portion 14, 14' at the bottom.

Moreover, and in accordance with the invention, a seating portion is provided with a valved outlet 15'', which, in turn, is engaged by the pointed inner end 16' of a reciprocable valve-actuating member 17, 17' provided with intermediate stop portions 20, 21 respectively.

Accordingly, the said puncturing members serve simultaneously also as a valve means; and control thereof may be effected manually as by means of the rods 17, 17' and the portions 20, 21 which extend laterally along the bottom of the paddle—the former being directed upwardly through the top of said paddle. Operating knobs 22, 22' are provided therefor, as well as springs 23, 23' coiled about the respective outer ends immediately below said knobs and bearing against the top of said paddle. This will, normally, retain a valve member 16' in a sealing position.

Discharge of the pigment and the like may then be effected in accordance with the degree of pressure manually applied (as is indicated by the arrow, FIGS. 4 and 7), to a said knob against the pressure exerted by the corresponding spring.

In the event that the paddle 25, reference being had to FIG. 6 of the drawings, be not constructed of transparent material, such as conventional plastics, a transparent window strip 26 may be disposed vertically along its front face, as is indicated in FIG. 6, to expose the pigment tube 27 positioned as aforesaid in the paddle member.

While it is generally more convenient and satisfactory to supply a pigment, etc. to be added for mixture—as from independent, puncturable containers, as aforesaid—it is possible, also, if the body material be of a nature such as not to be attacked by the pigment or other material, to utilize the paddle bores or ducts directly as receptacles for such pigments and the like.

Thus, reference being had to FIGS. 7 and 8 of the drawings, there is provided at the top of a bore 30 of the paddle member 31 a removable venting cap 32; and at the bottom a perforated wall portion 33 seats a valve 34, for example, in a manner similar to that described in connection with the valves shown in FIGS. 1 to 4 inclusive. Thus, the valve 34, similarly, is manually actuable from an external knob 35 connected through a rod 36 therewith.

Upward pressure, as applied against said knob by the action of a spring 37, will normally maintain the said valve in its sealing location; but, similarly as in the case of the previously-described embodiment, the contents of bore 30 may be discharged by applying pressure (manually) to the said knob 35.

I claim:

1. A paddle-type implement for introducing pigments to and mixing the same with paint and the like, which comprises: a flat, elongated plate member having a ma-

nipulating handle projecting outwardly from its top edge, said plate member being provided with a duct extending longitudinally through the plate member substantially parallel to its sides and adapted to retain flowable modifying ingredients designed for mixture with paint when the latter is stirred with said paddle device; together with means associated with the plate member for selective release manually of the contents of a said duct.

2. A paddle-type implement according to claim 1, wherein the plate member is transversely perforated.

3. A paddle-type implement according to claim 1, wherein a puncturable, tubular, pigment-retaining member is seated in the longitudinal duct; and means associated with the plate member are provided for effecting release, manually, of the contents of the tubular container for discharge of the same through the lower edge of the said paddle member.

4. A paddle-type implement according to claim 1, wherein a puncturable pigment-retaining container is

seated in the duct; and valve means are movably associated with the bottom of a said container, together with means at the top of the container engaging the latter thereat to retain it in the holder and to vent it at the top.

5. A paddle-type mixing device according to claim 4, wherein manually-operable means extending beyond the top of the plate member are mounted reciprocably therein and include a puncturing element adapted to pierce the bottom of a positioned container for effecting release of the contents and for controlling such release.

6. A paddle-type mixing device according to claim 1, wherein the operating end of the release control means is located at the top of the plate member in proximity to its handle portion.

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