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PAINT REJUVENATING DEVICE

1,908,561

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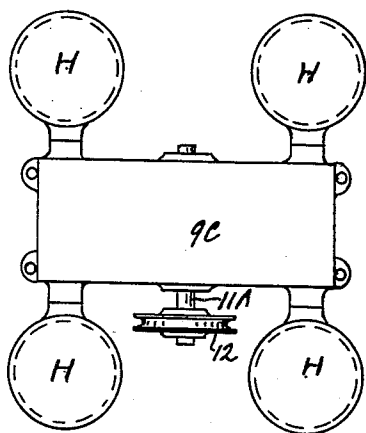


FIG. 1.

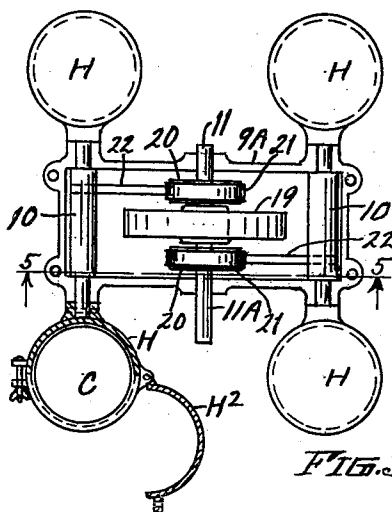


FIG. 3.

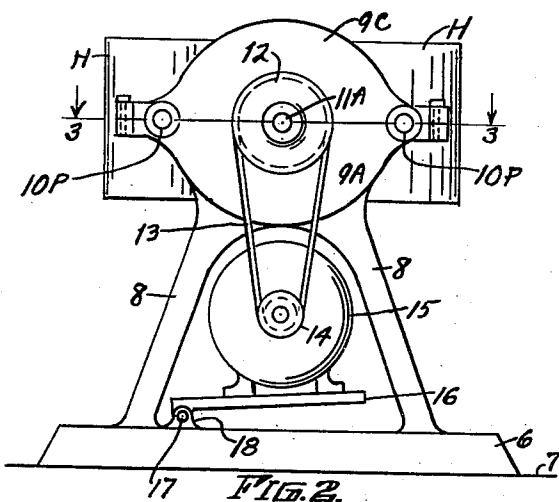


FIG. 2.

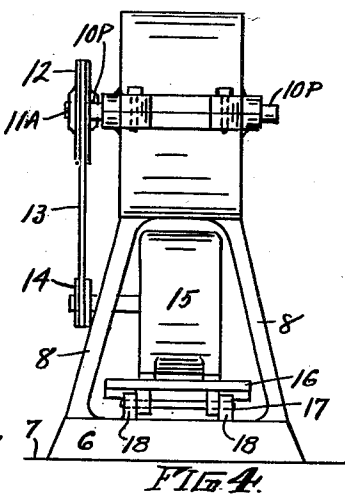


FIG. 4.

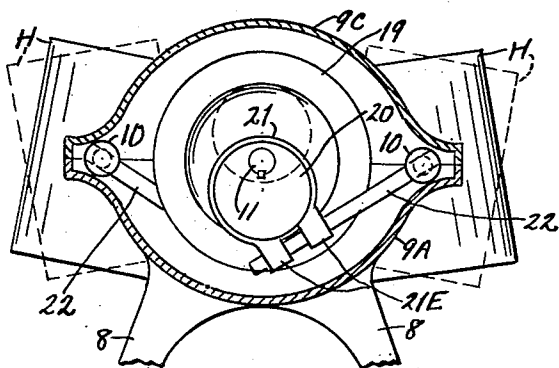


FIG. 5.

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PAINT REJUVENATING DEVICE

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Our invention relates to a device for rejuvenating paint and analogous products usually put up in air-tight containers and stored on dealers' shelves for retailing purposes.

The main object is to provide a simple, highly efficient and inexpensive device to be used by paint merchants for the purpose of readily and rapidly putting a quantity of paint through an agitating action, at desired intervals. This action is most aptly termed a paint rejuvenating action and the sole purpose thereof is to subject the cans of paint to agitation such that such ingredients of paint as have a tendency to settle, are thoroughly mixed with the oils and lighter materials and thus keeping the paint in a very desirable condition for immediate use at any time.

The apparatus involved is hereinafter fully described and illustrated in the accompanying drawing, in which,—

Fig. 1 is a top view of our paint rejuvenating apparatus in a preferred form.

Fig. 2 is a side elevation of Fig. 1, showing additionally motor driven means, and in this view the near side pair of paint can holders is omitted.

Fig. 3 is a top view corresponding to Fig. 1 but with the cover of our device removed to reveal the main operating mechanism.

Fig. 4 is a right hand end view of Fig. 2.

Fig. 5 is an enlarged longitudinal section through the mechanism housing as on line 5—5 in Fig. 3.

Referring to the drawing by reference numerals, 6 designates an elongated metal base adapted to rest rigidly but portably on a floor 7. 8 is a set of 4 legs preferably cast integral with the base and on the upper ends of which is supported a mechanism housing comprising a hollow lower housing section 9A, integral of the legs, and a cover 9C therefor. Said housing is preferably elongated and directly above the base, and when closed is oil tight and designed to maintain oil therein to a predetermined level to provide for silent motion and proper lubrication of moving parts within the housing.

10 is a pair of like rock-shafts in trans-

verse position and extending through the housing, one near each end, both ends of said shafts protruding from the housing and the protruding ends 10P each adapted to rigidly hold a paint can holder H. Intermediate the rock shaft a drive shaft 11 is rotatably mounted in the housing having an extension 11A on which is keyed a driven pulley 12 engaged by a belt 13 extending downwardly to and engaging a drive pulley 14 of a motor 15 (see Figs. 2 and 4). Said motor is preferably fixed on a platform 16 hinged as at 17 to lugs 18 on the base 6. The weight of platform 16 and the motor 15 provide necessary tension in the belt 13.

Each paint can holder H is of cylindrical form and provided with a suitable hinged door H2 (see lower left part of Fig. 3) to permit insertion of a paint can C which can be further held firmly within the holder by any suitable adjustment means not shown. The pair of holders for each shaft 10 are preferably in corresponding upright positions and it will be understood that such holders are removable to be easily replaced by holders of various sizes for different sizes of paint cans.

The central part of the main drive shaft carries a fly-wheel 19 and on each side thereof an eccentric cam 20 each engaged by a cam strap or ring 21. Each ring 21 is formed with a pair of projecting ears 21E bored for slidable engagement of a radius bar 22, one end of which is suitably fixed in a counter shaft 10. In the drawing the said rings 21 are shown with their ears projecting downwardly and the corresponding bars 22 being of course therefore directed downwardly from their fixed outer ends.

It will now be readily seen that when the drive shaft 11 is rotated the eccentrics 20 cause a powerful oscillating action of arms 22, the countershafts 10 and the holders H mounted on the latter. The eccentrics and arms 22 are so positioned that the can-holders H are oscillated in such a manner that the vibration is largely eliminated.

This is done in such a way that the tops of the holders H for example, on the opposed shafts 10, are moved toward each other and

also away from each other simultaneously. The eccentrics being properly fixed will oscillate their respective radius bars with a rapid motion one way and a relatively slower motion back, this causing a "throw" in the holders such that the contents of the paint cans in the holders are moved forcibly upwardly and outwardly (with relation to the main drive shaft). Opposite movement of the holders (toward each other, above center) is slower and the paint in the cans which is being forced upwardly by the first described motion, will tend to settle or drop, the entire oscillating action setting up a motion of the ingredients which might best be described a movement in the shape of the letter S. The rapid, continued oscillation loosens all sediment or heavier ingredients normally settling in the paint cans and in a short time all the ingredients are mixed thoroughly to a desired usable condition.

With this device therefore a merchant can in a short time and at intervals rejuvenate his entire stock of paint, keeping his stock in the best possible condition for immediate use by the purchasers.

In Fig. 5 a pair of can holders on one side of the device are shown in their respective extreme tilted or oscillated positions. In one oscillating movement the pair of cans move as from the full line to the dotted line positions. It is not compulsory to have the radius bars 22 below center as the device may be equally efficient with them above center, the main reason for having them in lower position being to have them work in a bath of oil maintained in suitable volume in the housing. The fly-wheel of course functions as such (to reduce vibration) and it is of course desirable for the same purpose to make the can-holders and other moving parts at each side of the center of corresponding weight.

We have now fully disclosed the preferred construction of our device, its use having been simultaneously fully disclosed. Modifications may be embodied without departing from the scope and spirit of the invention.

We claim:

1. A portable rejuvenating device for paint and analogous products put up in cylindrical receptacle, said device comprising a mechanism housing, a drive shaft in said housing, and a pair of like rock-shafts parallel to said drive shaft, a receptacle holder on each end of said rock-shaft, means within said mechanism housing for imparting oscillating action to both said rock shafts simultaneously and to oscillate the receptacle holders at each side of the housing in a common plane when the drive shaft is rotated, said receptacle holders on each side arranged to oscillate with an uneven action

to agitate the contents of the receptacles as described.

2. In a portable paint rejuvenating device comprising an elongated mechanism housing, a drive shaft journaled transversely in the central part thereof, drive means for rotating said shaft, a pair of rock shafts also journaled therein parallel to the drive shaft one near each end of the housing, paint can holding means fixed to both ends of each said rock shaft exteriorly of the housing: a radial bar fixed in each rock shaft and extending therefrom toward the drive shaft, eccentric cam means for each said bar mounted on the drive shaft and slidably engaging a radius bar to impart oscillating movement to each said bar and its rock-shaft to oscillate the latter and its can holding means, said oscillating means arranged to impart a rapid oscillating movement to the rock shafts in one direction and a relatively slow movement in the opposite direction.

3. The structure specified in claim 2, and a fly wheel mounted on the drive shaft intermediate the eccentrics.

In testimony whereof we affix our signatures.

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