

12 **EUROPEAN PATENT APPLICATION**

21 Application number: 84830145.3

22 Date of filing: 10.05.84

51 Int. Cl.³: **B 44 D 3/00**
B 44 D 3/06, B 44 D 3/08
B 01 F 7/00

30 Priority: 27.05.83 IT 2198183 U

43 Date of publication of application:
05.12.84 Bulletin 84/49

84 Designated Contracting States:
AT BE CH DE FR GB LI NL SE

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54 A stirring apparatus structure for continuously stirring paint in can packages.

57 The apparatus comprises a cabinet (1) including a parallelepipedal box-like body extending mainly in the vertical direction and being open on one side and sized to slidably accommodate in side-by-side positions two or more equipped shelves (2) of conventional design for continuously stirring can packaged paint, the cabinet (1) being provided, at the bottom and upper wall thereof, with internal guides or runways adapted to slidably accommodate a given number of shelves (2) having corresponding slides or wheels.

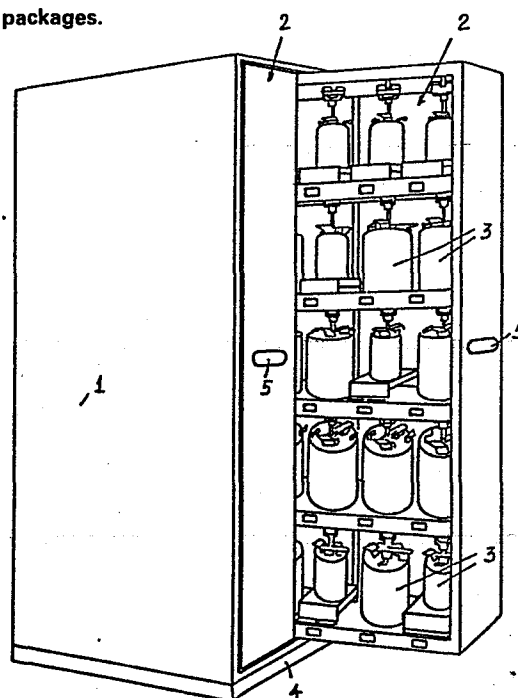


Fig. 1

This invention relates to a stirring apparatus structure for continuously stirring paint in can packages.

As is known, some special apparata have been provided and still made available which are effective to keep under constant agitation paints of different basic colors which are packaged in a plurality of separate cans suitably equipped to provide deep stirring of the paints in conformity with preset formulations.

Such prior apparata substantially comprise a multidecked shelf having sets of rotating shafts about vertical axes which are orderly arrayed across the upper horizontal wall of spaces defined by the shelf decks.

The bottom ends of said shafts carry an articulated tab adapted for engagement between the two arms of a small yoke and to rotatively drive a generic stirring member located inside the paint can.

Such equipped shelves are traditionally laid against a wall, both in their width and height directions, and are adequately secured thereto to ensure their stability.

Where plural shelves are required, these are generally set up one beside the next to even cover a whole wall, or several walls, the surfaces whereof are consequently made inaccessible for other uses.

Such shelves, when so set up, are only accessible from one side and may require frequent moving back and

forth by the operator in order to pick up individual paint cans to be mixed in conformity with preset formulations for the achievement of a desired color shade.

It is an object of this invention to obviate such prior drawbacks by providing a stirring apparatus structure which, for a given number of paint cans held under agitation, has drastically reduced overall dimensions over similar apparata of conventional design.

A further object of the invention is to provide a stirring apparatus structure which allows picking up of individual cans from either sides of an installed shelf.

It should be noted that this device is provided with suitable safety switches which permit operation of the stirring devices only with the individual shelves in the closed condition.

This device has the additional feature that it can be enclosed, thus preventing release of emissions to the environment. To that aim, a special suction fan is provided which is connected to a duct leading to the outside of the working area.

The various vessels placed within the cabinet are also protected against dust and other contaminants which always appear at a working area.

Another object of this invention is to provide a stirring apparatus which enables the operator to have practically within his/her reach all of the cans

to be picked up.

These and other objects, such as will be apparent hereinafter, are achieved by a stirring apparatus structure according to the invention, characterized in that it comprises in essence a cabinet including a parallelepipedal box-like body extending mainly in the vertical direction and being open on one side and sized to slidably accommodate in side-by-side positions two or more equipped shelves of conventional design for continuously stirring can packaged paint.

Further features and advantages of the stirring apparatus structure according to this invention will be more clearly understood from the following description of a preferred embodiment thereof, as illustrated by way of example only in the accompanying drawing, where:

Figure 1 shows a perspective view of this stirring apparatus structure with one of the equipped shelves partly withdrawn from the cabinet.

Making reference to the drawing view, the present stirring apparatus structure results from the combination of a cabinet 1 having two or more equipped shelves 2, of a substantially known type which are effective to subject paint, as packaged in cans 3, to continuous agitation, said cans being orderly arrayed on the shelf decks.

The cabinet includes a parallelepipedal box-like body mounted on a base 4 and has correlated dimensions

with those of the shelves.

That cabinet, which would be obviously open on one side, is provided at the bottom and upper wall thereof with internal guides or runways which are adapted to slidably accommodate a given number of side-by-side shelves 2 having corresponding slides or wheels.

Such shelves are, in turn, provided with handgrips 5, or knobs, or the like, for pulling them out of the cabinet, and with suitable stops preventing their complete withdrawal.

In particular, the movements of the individual shelves into and out of the cabinet may be controlled automatically, through electro-mechanical systems (rack and pinion), or hydraulic or pneumatic systems, or any other functionally equivalent devices.

From the foregoing description and an observation of the accompanying drawing, apparent are the improved functionality and practicality of the stirring apparatus structure according to this invention.

CLAIMS

1. A stirring apparatus structure for continuously stirring paint in can packages, characterized in that it comprises in essence a cabinet including a parallelepipedal box-like body extending mainly in the vertical direction and being open on one side and sized to slidably accommodate in side-by-side positions two or more equipped shelves of conventional design for continuously stirring can packaged paint.

2. A stirring apparatus structure according to Claim 1, characterized in that said cabinet is provided, at the bottom and upper wall thereof, with internal guides or runways adapted to slidably accommodate a given number of shelves having corresponding slides or wheels.

3. A stirring apparatus structure according to the preceding claims, characterized in that said equipped shelves are provided, at the outer wall thereof, with handgrips, or knobs, or the like, adapted to permit withdrawal from the cabinet and suitable stops effective to prevent complete withdrawal thereof.

4. A stirring apparatus structure according to the preceding claims, characterized in that the outward and inward movements of said shelves may be automated by means of either electro-mechanical, or hydraulic, or pneumatic systems, or by means of other functionally equivalent devices.

5. A stirring apparatus structure according to one or more of the preceding claims, characterized in that it is provided with appropriate safety switches

for operating the stirring devices only with the individual shelves in the closed condition.

6. A stirring apparatus structure according to one or more of the preceding claims, characterized in that it is provided with shelves adapted to be selectively closed to prevent emissions to the environment therefrom.

7. A stirring apparatus structure according to Claim 6, characterized in that it may be provided with an appropriate suction fan connected to a duct leading outside of the working area.

8. A stirring apparatus structure according to one or more of the preceding claims, characterized in that the various vessels placed inside said cabinet are protected against dust and contaminants present in the working area.

9. A stirring apparatus structure according to the preceding claims, all essentially as more comprehensively described in the above specification and illustrated in the accompanying drawing which is an integral part of this patent application.

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