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PAINT STRAINER

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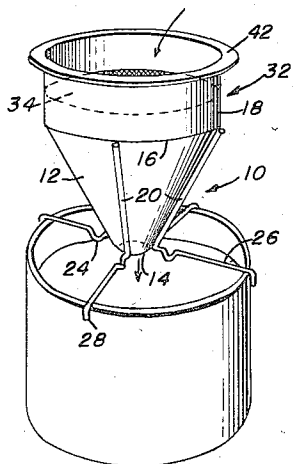


FIG. 1

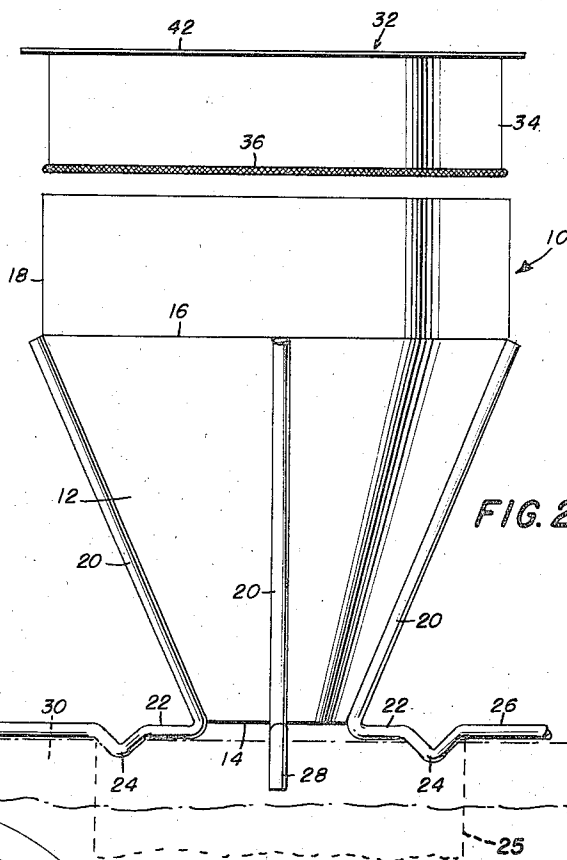


FIG. 2

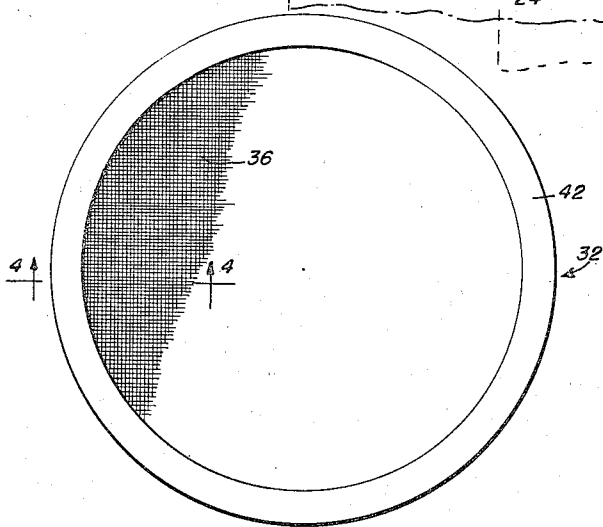


FIG. 3

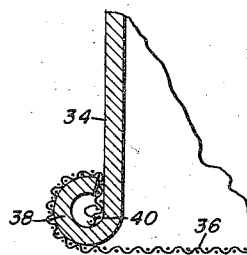


FIG. 4

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PAINT STRAINER

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6 Claims. (Cl. 210-476)

This invention relates to a straining device for paint or the like, and it particularly relates to a straining device which is adapted to fit different size receptacles for receiving the strained paint.

There have, heretofore, been provided various types of paint strainers, generally taking the form of an ordinary mesh screen which sits upon the top of the receiving receptacle. There have also, heretofore, been provided various types of screening funnels. However, the prior paint strainers were too insecure to adequately perform the required function and not only resulted in much waste of paint but also tended to fall off. The prior types of funnels did not provide for adequate adjustability and also were not adapted to use with paint which quickly caused them to clog and become unusable.

It is one object of the present invention to provide a straining device which is capable of overcoming the above as well as other disadvantages of the prior art.

Another object of the present invention is to provide a straining device which is adjustable to different size receiving receptacles while being capable of firm attachment to such receptacles.

Another object of the present invention is to provide a straining device which may be maintained free of clogging material.

Other objects of the present invention are to provide an improved straining device, of the character described, that is easily and economically produced, which is sturdy in construction, and which is highly efficient in operation.

With the above and related objects in view, this invention consists in the details of construction and combination of parts, as will be more fully understood from the following description, when read in conjunction with the accompanying drawing in which:

Fig. 1 is a perspective view of a strainer device embodying the present invention, the device being shown supported on a five-gallon can.

Fig. 2 is a side elevational view, in enlarged detail, of the strainer device of Fig. 1, the device being illustrated in such manner as to show how it may be applied to either a one-gallon or five-gallon can.

Fig. 3 is a top plan view of the strainer element.

Fig. 4 is a fragmentary, sectional view taken on line 4-4 of Fig. 3.

Referring now in greater detail to the drawing wherein similar reference characters refer to similar parts, there is shown a strainer assembly, generally designated 10, comprising a funnel 12 of generally conical shape having an open bottom 14 of relatively narrow diameter and an open top 16 of relatively larger diameter. Extending up from the open top 16 is an integral cylindrical reception portion 18, this cylindrical reception portion 18 being of a diameter substantially equal to the diameter of the open top 16.

Around the outside of the funnel 12 are spaced a plurality of rod-like ribs 20, preferably four in number. The ribs 20 may be constructed of tubular aluminum rods, brass, copper, steel or any other desired material. At the

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lower end of the funnel 12, adjacent the open bottom 14, the ribs 20 are bent out at an angle to form radial legs 22 extending outwardly in a common plane. These legs 22 are provided with generally V-shaped notches 24 which are spaced at a distance determined by the size of the smallest receiving receptacle to which the funnel assembly is to be attached. These notches 24 form ribs on the legs. In the form illustrated, the notches or ribs 24 are spaced to be received within the periphery of a one-gallon can 25. Extending radially out from each of the notches 24 is a leg extension 26. Each extension 26 is provided with a perpendicularly-bent end 28. The extensions 26 may be made of any size desired, the length being determined by the size of the largest receiving receptacle to which the funnel assembly is to be attached. The bent ends 28 are adapted to embrace the outer periphery of such largest receptacle, which is here illustrated as a five-gallon can 30.

Adapted to snugly fit within the cylindrical portion 18 of the funnel is the strainer element 32. This strainer element 32 comprises a cylindrical sleeve 34 of slightly less diameter than cylindrical reception portion 18 so that it can slidably telescope therein. The sleeve 34 is open at both ends and, at its lower end, there is provided a mesh screen 36. This screen 36 is stretched over the lower end of the sleeve 34 and its peripheral edge is wound around a bead 38 on the outer periphery of the lower end of the sleeve 34, as best shown in Fig. 4. The end of the bead 38 is slightly spaced from the sleeve 34 and provides an opening into which is frictionally jammed the edge 40 of the screen, as shown in Fig. 4. When inserting the edge 40 of the screen, the bead 38 is pulled away from the sleeve 34 so as to make an opening sufficiently large to receive the edge 40 of the screen. Then the bead 38 is pushed in to lock the edge 40 in place and to keep the screen 36 itself taut. The bead 38 and the peripheral portion of the screen 36 stretched around it is of a diameter just sufficient to provide a slidable contact with the inner surface of cylindrical portion 18.

At the upper end of the sleeve 34 is provided a peripheral flange 42 which extends radially outward. This flange 42 forms a rim which is adapted to abut against the upper edge of the cylindrical portion 18 when the strainer element 32 is inserted therein so as to limit downward movement of the strainer element 32 and to hold it in firm engagement within the funnel assembly.

By the use of the above strainer assembly, not only is the strainer secured firmly in place by the legs 22 and their associated parts, but the funnel below the strainer screen provides an efficient flow path for the strained paint. Furthermore, if the screen should show a tendency to become clogged, the element 32 can easily be removed merely by lifting up on the flange 42, and the screen can then be rinsed or otherwise cleaned with turpentine or the like, after which it can be again inserted in the assembly. In addition, the entire assembly can be easily used either with larger or smaller receiving receptacles.

Although this invention has been described in considerable detail, such description is intended as being illustrative rather than limiting, since the invention may be variously embodied, and the scope of the invention is to be determined as claimed.

Having thus set forth and disclosed the nature of this invention, what is claimed is:

1. A strainer assembly comprising a conical funnel portion having a relatively large open end and a relatively small open end, a plurality of ribs circumferentially spaced from each other around the outer surface of said funnel portion and extending in the general axial direction of said funnel portion, legs integrally connected to said ribs, each of said legs being bent at an angle to its corresponding rib and extending radially outward from

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the small end of said funnel portion, each of said legs having a notch portion forming a rib extending away from the common plane of the legs and integral with a radial extension, each of said extensions having a substantially perpendicular end portion.

2. The strainer assembly of claim 1 wherein said funnel portion is connected to a cylindrical receptacle portion extending from the large end of said funnel portion, and a cylindrical strainer element telescopically receivable within said reception portion.

3. The strainer assembly of claim 2 wherein said strainer element comprises a cylindrical sleeve having both ends open, one of said open ends being closed by a mesh screen stretched thereacross, and the other of said open ends being defined by a radially outwardly-extending peripheral flange.

4. A strainer assembly comprising a funnel portion of conical shape and having a wide, open, upper end and a narrow, open, lower end, a plurality of radially outwardly-extending legs projecting from said lower end in a com-

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mon plane, a rib on each of said legs, a perpendicularly bent end portion at the end of each leg, said ribs extending in the same direction as said bent end portions, a cylindrical reception portion extending from the wide end of said funnel portion, and a removable strainer element telescopically positioned within said reception portion.

5. The strainer assembly of claim 4 wherein said strainer element comprises a sleeve, a mesh screen stretching across said sleeve, and a radially outwardly-extending flange on said sleeve.

6. The strainer assembly of claim 4 wherein said legs are each integral with a vertical strengthening rib on the outer surface of said funnel portion.

References Cited in the file of this patent

UNITED STATES PATENTS

638,698	Bourie	Dec. 12, 1899
1,293,297	Anderson	Feb. 4, 1919
1,507,522	Simon	Sept. 2, 1924