Jan. 4, 1955 S. WONSO 2,698,451

PAINTING ROLLER

Filed Aug. 4, 1949

Fig. 1

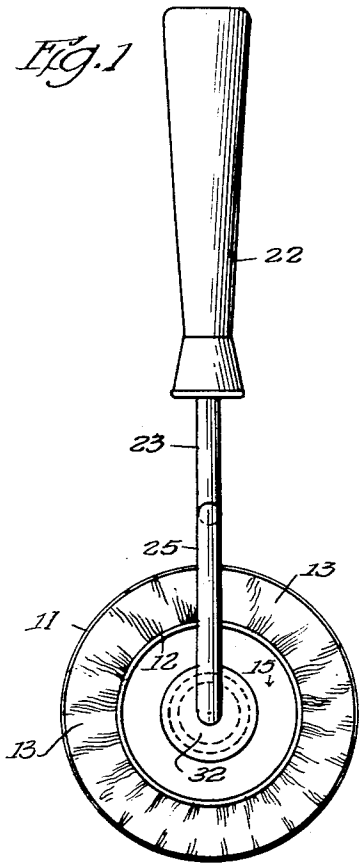


Fig. 2

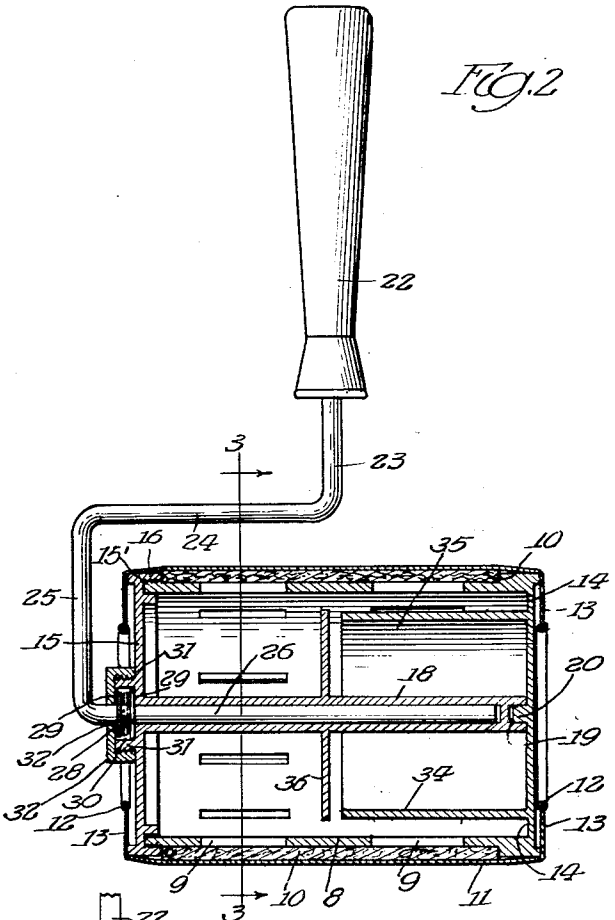


Fig. 4

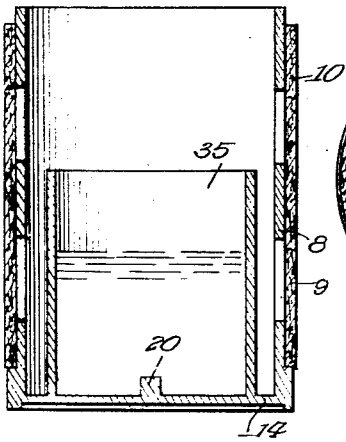
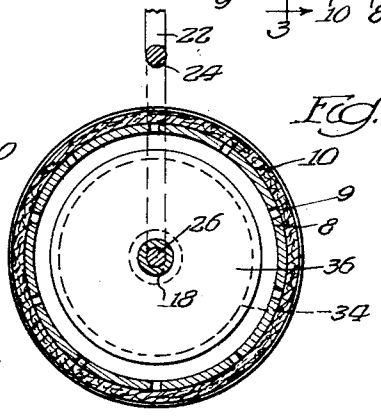


Fig. 3



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PAINTING ROLLER

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1 Claim. (Cl. 15—132.5)

The invention relates to painting devices and more particularly to the type which includes a roller having its periphery provided with distributing means and a cylinder containing a supply of paint which flows to the distributing means.

One object of the invention is to provide a painting roller of this type which is adapted to be charged with a volume of paint in such manner that the paint will be retained in the cylinder and away from the perforations therein until the roller is to be used on work.

Another object of the invention is to provide a painting roller which is simple in construction and which is adapted to be formed, so far as possible, of plastic material.

Another object of the invention is to provide a roller of this type which can be readily assembled or disassembled, and can be readily cleaned.

Other objects of the invention will appear from the detailed description.

In the drawing:

Fig. 1 is a side elevation of a painting roller embodying the invention;

Fig. 2 is a longitudinal section, the handle being shown in elevation;

Fig. 3 is a section taken on line 3—3 of Fig. 2;

Fig. 4 is a section of the cylinder in its upright position and a column of paint in the retaining well.

The painting roller comprises a cylinder **8**, having slots **9** therein and provided with paint transfer means on its outer periphery. The transfer means may include a covering **10** of felt, which extends around the outer periphery of the cylinder and over the elongated slots **9** in the cylinder through which paint can flow to said covering, and a wrapper of textile or cloth **11** which fits around the covering **10** and is removably held on the cylinder by elastic bands **12** which extend through loops on inturned margin **13** of the fabric.

The cylinder **8** is provided with an integral end **14** which forms a closure for one end of the cylinder. The opposite end of the cylinder is formed and closed by a head **15** which is detachably connected to the cylinder by a screw thread **16** the cylinder being seated in a groove **15'** in the inner face of said head. Head **15** is provided with an integral sleeve **18** which extends axially through the cylinder and has a socket **19** at its inner end which fits around a stud **20** which is integral with cylinder-end **14**. A handle **22** for manipulating the roller is secured to an arm **23** which is connected by a laterally extending member **24** and a radially extending member **25** to an axle **26** which is pivotally and removably mounted in sleeve **18**. The axle **26** is held in connected relation to the sleeve **18** by a cotter pin **28** which extends through the axle on the outer side of head **15** and between washers **29** which are confined in a socket **30** formed in a flange **31** which is integral with head **15**, and a screw cap **32** which is screw-threaded to flange **31**, and retains cotter pin **28** and washers **29** against endwise withdrawal from socket **30**. The cap **29** removably retains the axle **26** in connected relation to the roller.

An annular or cylindrical wall **34** integral with the cylinder-end **14** extends inwardly from said end a sufficient distance to form with said wall, a well **35** for retaining a column of paint and preventing it from flowing to openings **9** in the cylinder when the axis of the roller is vertically disposed. The inner end of the well is open so that the paint can be freely poured into it when the head **15** is detached from the cylinder, as illustrated in Fig. 4 when the roller is supported on one end or so that its

axis is vertically disposed. When the head **15** is replaced on the cylinder and the roller is turned so its axis is horizontal and operated over the surface to which paint is to be applied, the paint will flow out of the open inner end of the well and flows onto and distributed longitudinally of the inner periphery of the cylinder from which it will flow through openings **9** to the felt **10**. A baffle-disk **36** is integrally formed with the sleeve **18** and spaced from the inner end of wall **34** so that when the roller is turned from vertical to horizontal position the paint from the well will be distributed transversely in the cylinder.

The operation of the painting roller will be as follows: When the roller is to be filled, the head **15** is unscrewed from cylinder **8** and the sleeve **18** with the axle **26** supported therein is withdrawn from the cylinder. The cylinder may then be set vertically so its integral end **14** rests on a suitable support and a volume of paint can be poured through the open outer end of the cylinder into the well **35** formed by the annular wall **34** and the end **14**. The charge of paint may then be kept away from the perforations **9** in the cylinder until the roller is to be used. For use of the roller, head **15** will be replaced on the cylinder **8** while the latter is vertically positioned and the inner end of sleeve **18** is seated on stud **20**. The wrapper **13** will then be replaced around the cylinder **8** and felt **10**. So long as the cylinder remains vertically positioned the paint will be retained in the well **35**. When paint is applied to a surface, the cylinder will be manipulated with its axis horizontal. The paint from the well **35** will then flow against baffle **36** and into the cylinder **8** from which it will flow through perforations **9** to the felt **10** and the wrapper **13** for application to a surface over which the roller is manipulated.

The invention exemplifies a painting roller in which the cylinder with the openings therein is provided with a well for retaining a charge of paint away from the perforations in the cylinder while the roller remains vertically disposed and the head **15** is removed so that the paint can be poured through the open upper end of the cylinder into the well **35**. As soon as the roller is turned so its axis is horizontally disposed the charge of paint will flow from the well into the cylinder for application of the paint by the roller. The integral formation of the cylinder and one of its ends and the well-forming wall, and the integral formation of the sleeve **18** with detachable head **15** provide a simple construction which can be formed of plastic material. This also provides a construction which can be easily assembled or disassembled. When the head **15** and sleeve **18** are detached from the cylinder **8**, the head **15** and sleeve **18** and the cylinder **8** can be readily cleaned. The felt covering can be easily slipped off one end of the cylinder, and the wrapper can also be slipped off the cylinder and covering **10**.

The invention is not to be understood as restricted to the details set forth since these may be modified within the scope of the appended claim without departing from the spirit and scope of the invention.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

A portable painting roller adapted to be manipulated for the transfer of paint to surfaces, comprising, a hollow cylinder provided with ends, one of which is removable to provide an open end for loading, transfer means for the paint around the periphery of the cylinder, the cylinder being perforated for the flow of paint to the transfer means, an axle on which the cylinder is rotatably mounted, a handle on the axle whereby the roller may be manipulated horizontally over the surfaces to be painted and into a vertical position with the removable end at the top thereof, a sleeve around the axle and on the removable end, an imperforate annular wall on the other end of the cylinder, extending longitudinally of the cylinder and terminating longitudinally inward of the removable end and spaced radially inwardly from, the inner face of the cylinder and forming a well with its upper end open for receiving paint through the open end of the cylinder when the latter is in said vertical position and retaining the column of paint until the open end of the cylinder is closed, the well being adapted to permit the paint to flow to the cylinder and transfer means when the roller next

is manipulated into its horizontal position, and a baffle on the sleeve spaced from the upper end of the well.

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