Feb. 23, 1954 S. T. COUGHLAN 2,669,742

PAINT ROLLER

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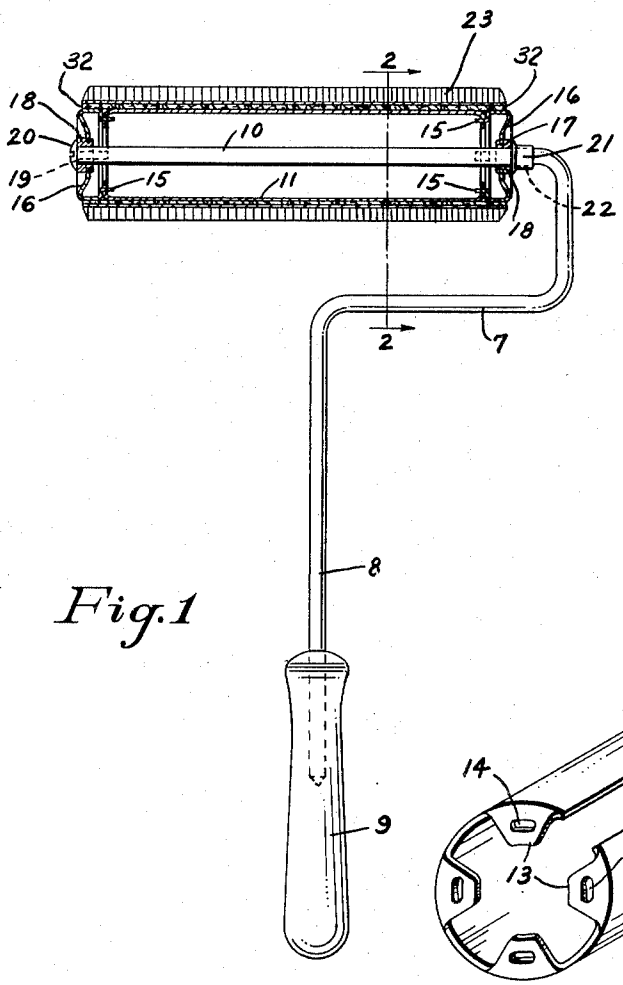


Fig. 1

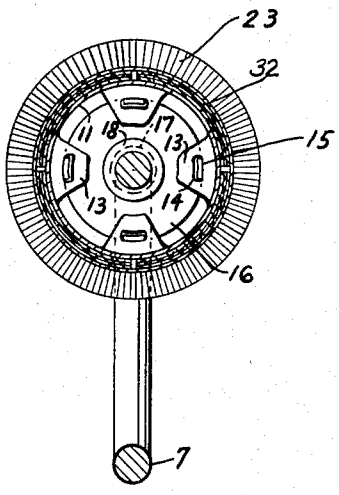


Fig. 2

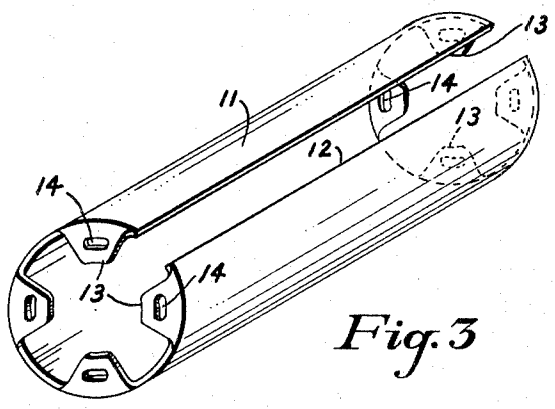


Fig. 3

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PAINT ROLLER

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2 Claims. (Cl. 15—230)

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This invention relates to paint and decorating tools and has particular reference to a device for rolling paint onto a wall or other flat surface.

An object of the invention is to generally improve devices of this character and to provide a paint roller which is simple in construction, economical to manufacture, and efficient in operation.

Another object of the invention is the provision of a device of the character indicated which is fabricated of a minimum number of parts, which makes for ease in assembling the device.

Another object of the invention is the provision of a device of the character indicated which is constructed and arranged so that the paint-carrying surfaces of the roller are firmly held in proper alignment, and any tendency of the roller to wobble is obviated.

Another object of the invention is the provision of a paint roller which is constructed and arranged so that there is a positive driving action throughout all of the parts of the roller, which obviates any tendency of the paint-carrying elements to twist or spiral about the longitudinal axis of the roller when being used.

Other objects and advantages of the invention will become apparent as the description proceeds, reference being made to the accompanying drawings, in which drawings:

Fig. 1 is a plan view, with parts in section, of a paint roller embodying the invention.

Fig. 2 is an enlarged section taken substantially on the line 2—2 of Fig. 1.

Fig. 3 is an enlarged perspective view of the split cylinder comprising one of the principal parts of the device.

Referring now more particularly to the drawings, it will be understood that in the embodiment herein disclosed, the reference character 7 indicates a rod which is bent and rebent to form a handle portion 8, at the end of which is mounted a hand grip 9 and an axle portion 10, on which is mounted the roller as hereinafter described.

The roller consists generally of a cylindrical member 11 (Fig. 3) which is split longitudinally as at 12. The member 11 is preferably rolled from a stamping having a plurality of ears 13, formed at each end. The ears 13 are slotted, as at 14, to accommodate tongues 15 (Fig. 2) which are formed integrally on the edges of the end closure members 16. The end closure members 16 are also stampings, each formed with a cross section as shown in Fig. 1, and having a central opening 17, in which is secured a bearing member

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18, through which the axle 10 extends. The protruding end 19 of the axle 10 is drilled and tapped to accommodate a set screw 20, which serves to prevent the roller from end-wise movement in one direction. The roller is held against longitudinal movement in the opposite direction by means of a stop 21, which is held on the axle 10 by crimps 22 formed on the axle 10.

The wall of the split cylinder 11 has spring tension which tends to expand it in a radial direction, the cylinder being circumferentially resilient. This serves the duel purpose of frictionally holding the outer cylinder 32 on the split cylinder 11 and assists in holding the tongues 15 in locking engagement with the slots 14 provided in the ears 13.

The outer cylinder 32 is preferably formed of spirally-wound layers of cardboard and is covered with sheepskin or other suitable material as at 23, Figs. 1 and 2.

A roller constructed and arranged as hereinabove described is comparatively rigid insofar as torsional twists are concerned, and any tendency of the cardboard cylinder to slip on the split cylinder 11 is obviated because of the extensive frictional engagement between the cardboard cylinder and the split cylinder 11.

Further than that the ears 13 and the tongues 15 cooperate together to provide a positive drive for the roller and insures the proper rotation of the roller even though paint should get between the bearing 18 and the axle 10.

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

1. In a rotary paint applicator, the combination of a handle provided with an axle portion, a cylindrical longitudinally split tube provided at each end with a plurality of apertured circumfertially spaced radially projecting ears, a pair of complementary cylindrical cup-shaped closures one for each end of the tube journaled upon the axle adjacent to an end of the tube, each end closure provided with a plurality of radially inwardly offset axially projecting tongues circumferentially spaced to correspond with the ears of the tube and received within the apertures of said ears securing the tube to the end closures to rotate therewith and limiting the expansion and contraction of the tube, a cylindrical tubular member having a paint carrying outer surface, said member being sleeved upon the tube and snugly embracing the tube and the end closures.

2. In a rotary paint applicator, the combination of a handle provided with an axle portion, a cylindrical longitudinally split tube provided at

each end with a plurality of apertured circumferentially spaced radially projecting ears, a pair of complementary cylindrical cup-shaped closures one for each end of the tube journaled upon the axle adjacent to an end of the tube, each end closure provided with a plurality of radially inwardly offset axially projecting tongues circumferentially spaced to correspond with the ears of the tube and received within the apertures of said ears securing the tube to the end closures to rotate therewith and limiting the expansion and contraction of the tube, a cylindrical tubular member having a paint carrying outer surface, said member being sleeved upon the tube and snugly embracing the tube and the end closures, said tube being formed of resilient material and having such a normal expanded diameter that it is held resistingly under compression when the tongues of the end closures are

received within the apertures of the ears of the tube, said tubular member having such an internal diameter that the split tube expandingly engages the same when the tubular member is received thereover and over the end closures, the apertures of the ears of the tube being radially oversize with respect to the radial dimensions of the tongues received therein.

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