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L. J. MUZA

2,703,918

PAINT ROLLERS

Filed Jan. 3, 1952

Fig. 1.

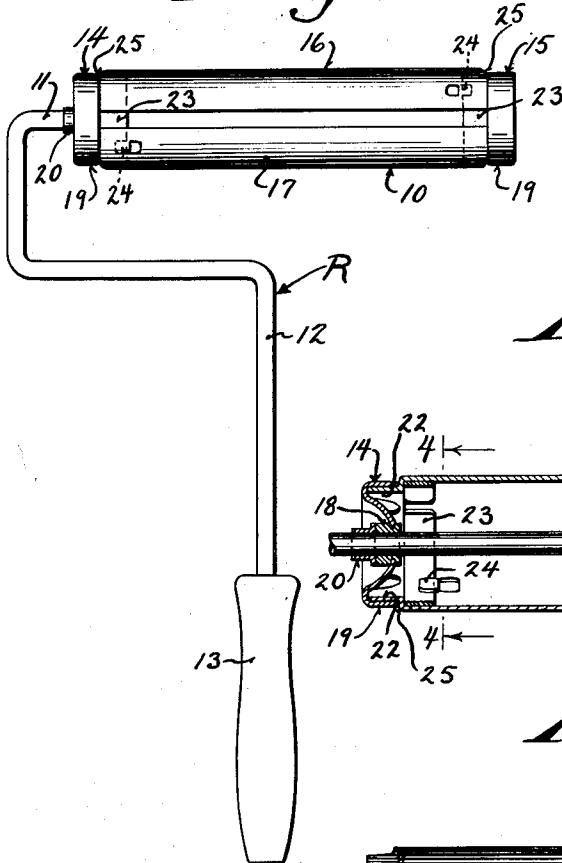


Fig. 2.

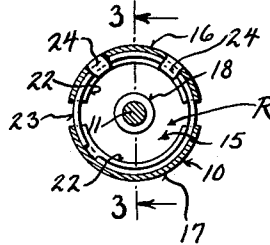


Fig. 3.

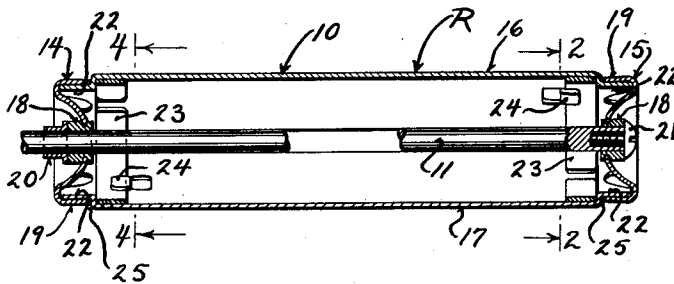


Fig. 5.

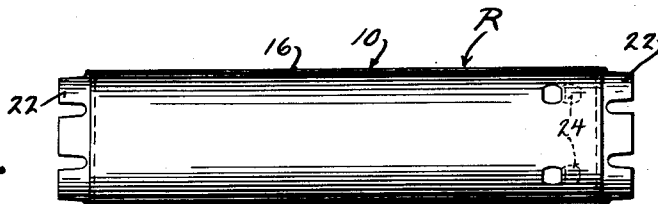


Fig. 4.

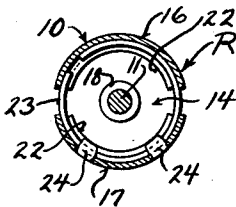
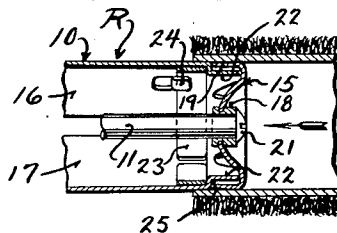


Fig. 6.



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PAINT ROLLERS

Leo J. Muza, Oshkosh, Wis.; John J. Muza and Helen L. Schuster, coexecutors of said Leo J. Muza, deceased, assignors to The Bestt Rollr, Inc., Fond du Lac, Wis., a corporation of Wisconsin

Application January 3, 1952, Serial No. 264,812

1 Claim. (Cl. 29—116)

This invention appertains to paint applicators and more particularly to a paint roller construction.

One of the primary objects of my invention is to provide a paint roller embodying a novel expansible mandrel or body, rotatably mounted on a handle carried shaft for detachably receiving and supporting the sheepskin cylinder, the mandrel construction being such that the same can be readily contracted to facilitate the sliding of the cylinder thereon.

Another salient object of my invention is the provision of an expansible mandrel embodying companion half sections, each carrying at its opposite end an inwardly directed open spring of an annular shape for engaging the other section, whereby to normally urge the sections outwardly with an even tension.

A further important object of my invention is the provision of a mandrel embodying flanged end discs rotatably mounted on the handle carried shaft and companion half sections having flanged outer ends received in the flanges of the end discs with the springs normally urging the half sections outwardly with their flanges engaging the flanges of the end discs.

A still further object of my invention is the provision of means whereby the mandrel of a paint roller can be formed from companion half sections, so as to facilitate the fabrication of the mandrel from sheet steel or similar material.

A still further important object of my invention is the provision of a paint roller of the above character, which will be durable and efficient in use, one that will be simple and easy to manufacture and one which can be placed upon the market at a reasonable cost.

With these and other objects in view, the invention consists in the novel construction, arrangement and formation of parts as will be hereinafter more specifically described and claimed and illustrated in the accompanying drawing, in which drawing,

Figure 1 is a side elevational view illustrating my improved paint roller.

Figure 2 is a transverse sectional view through the mandrel of the roller taken on the line 2—2 of Figure 3, looking in the direction of the arrows.

Figure 3 is a longitudinal sectional view through the mandrel, taken on the line 3—3 of Figure 2, looking in the direction of the arrows.

Figure 4 is a view similar to Figure 2, but taken on the line 4—4 of Figure 3, looking in the direction of the arrows.

Figure 5 is a detail side elevational view of one section of the body portion of the mandrel.

Figure 6 is a fragmentary longitudinal sectional view showing the cylinder carrying the sheepskin being slipped on the mandrel.

Referring to the drawing in detail, wherein similar reference characters designate corresponding parts throughout the several views, the letter R generally indicates my improved paint roller and the same embodies the novel mandrel 10 rotatably mounted on a shaft 11. The shaft 11 extends laterally from a shank 12 to which is secured any preferred type of hand grip 13. The hand grip, shank and shaft 12 are of a similar construction to paint rollers now found on the market.

My improved mandrel 10 embodies end discs 14 and

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15 and companion half body sections 16 and 17. The end discs 14 and 15 are rotatably mounted on the shaft 11 and each disc includes a hub 18 for receiving the shaft and an inwardly directed peripheral flange 19. Adjacent to the shank 12, the shaft 11 has secured thereto a stop collar 20 against which the hub 18 of the disc 14 abuts. A headed screw 21 is threaded into the outer end of the shaft 11 and holds the disc 15 on the shaft against outward movement.

The sections 16 and 17 of the mandrel 10 have their outer ends provided with offset outwardly extending flanges or fingers 22 which are received within the flanges 19 of the end discs 14 and 15.

The opposite end of each body section 16 and 17 carries an open annular spring 23 and each spring can be held in place on its body section by struck-in, bent-back tongues 24 formed on the mandrel sections. Thus, the opposite end of each mandrel section carries an outwardly projecting spring and the spring of one section engages the end of the other section. Hence, these springs normally tend to urge the sections 16 and 17 outward in opposite directions and when the sections are assembled with the end discs 14 and 15, the springs urge the flanges or fingers 22 of the mandrel sections into engagement with the flanges of the end discs 14 and 15. As the flanges or fingers 22 are offset from the body portions of the sections stop shoulders 25 are provided on the mandrel which engage against the inner edges of the flanges 19 of the end discs 14 and 15. These stop shoulders 25 also form seats for the springs 23 so as to prevent shifting of these springs laterally in one direction. The tongues 24 prevent shifting of the springs 23 in the opposite direction. While I have shown the springs formed from flat resilient strips of sheet metal, it is to be understood that these springs can be formed from resilient wire.

With the mandrel constructed, as shown and described, the sections 16 and 17 can be moved toward one another to collapse the mandrel so that a cylinder 26 carrying the paint applying sheepskin 27 can be readily slipped onto the mandrel. As the mandrel is released, the same will expand to firmly grip the cylinder 26.

With my construction of mandrel, not only is an even pressure obtained at the opposite ends of the mandrel, but the mandrel can be easily formed in an economical manner and by having the body of the mandrel formed from the half sections, the half sections can be readily stamped out of sheet steel or the like.

Changes in details may be made without departing from the spirit or the scope of this invention, but what I claim as new is:

A paint roller comprising a shaft, a mandrel including end discs and companion half body sections, each disc having a hub rotatably mounted on the shaft on an inwardly directed annular flange, said companion half body sections having offset flanges at their terminals received within the flanges of the end discs, said offset flanges defining stop shoulders, tongues struck out from the half body sections facing toward the stop shoulders, and an open spring of an annular shape carried by the opposite end of each half section housed within the half sections and normally urging the half sections outwardly in opposite directions with their flanges engaging the flanges of the end discs, said springs being fitted between the tongues and adjacent portions of the half body sections and against said shoulders, said shoulders engaging the inner edges of the flanges of the end discs and defining stops.

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