

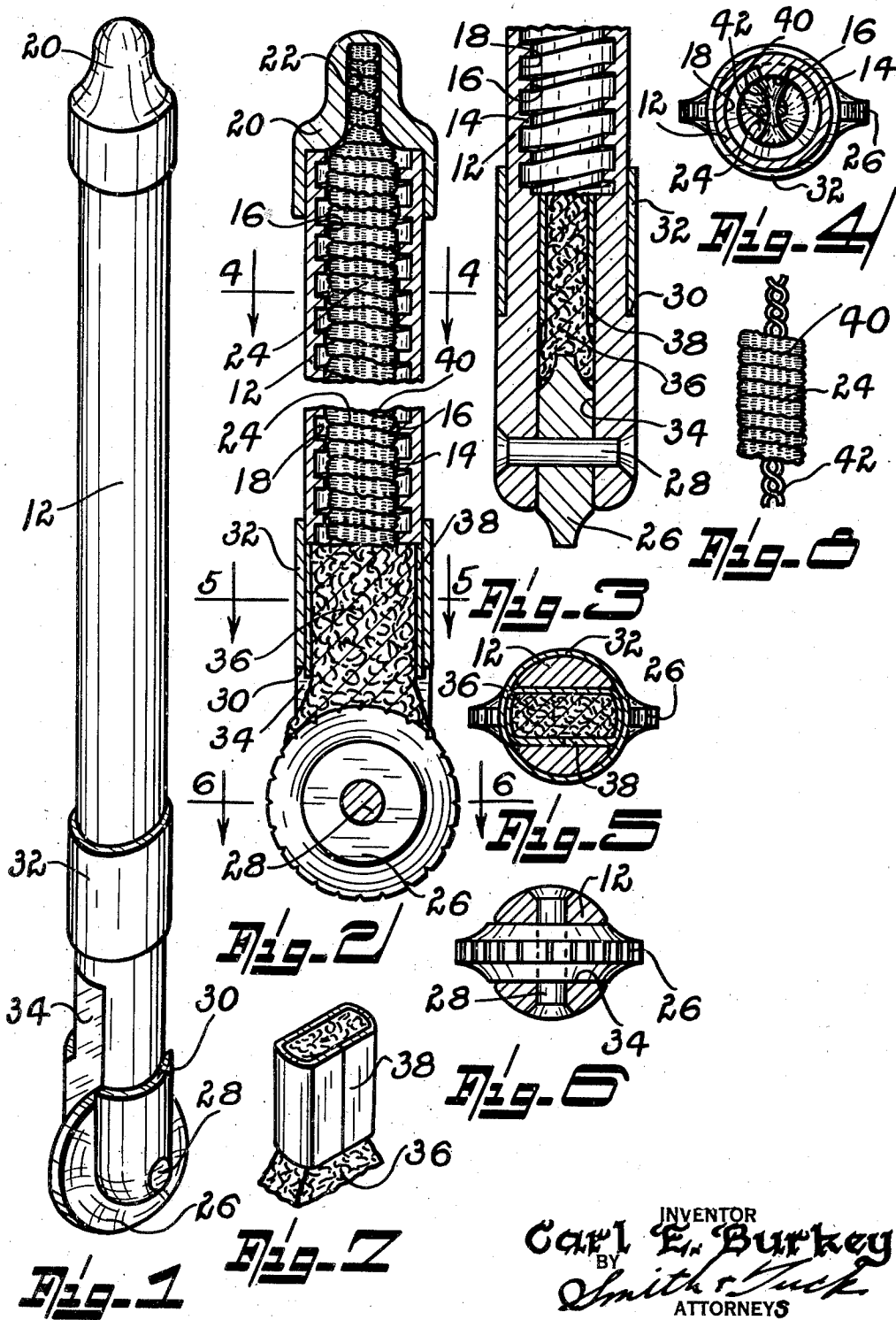
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FOUNTAIN STRIPING DEVICE

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FOUNTAIN STRIPING DEVICE

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4 Claims. (Cl. 91—62.6)

My present invention relates to the art of liquid feeding devices and more particularly to a fountain striping device.

This invention has, in common with many such devices, a wheel that is intended to roll over the surface where the stripe is desired; my device, however, is so constructed that the liquid, such as lacquer, paint, ink, or the like, is wiped from a compressible, fibrous pad, which is saturated with the liquid, and then rolls across the surface carrying the striping fluid with it, thus transferring the liquid from the container to the surface to be treated.

The principal object of my present invention is to provide means for controlling the amount of liquid carried by the transferring roller, or wheel, and to provide means whereby the liquid will be distributed equally over the surface.

A further object of my present invention is to provide that the body of liquid adjacent the transfer roller will be substantially uniform for an appreciable period so that a stripe of uniform weight, or intensity, can be imprinted as, for instance, around an automobile body.

Another object of my invention is to provide means whereby a controlled but substantially uniform flow of fluid may be maintained.

Still another object of my invention is the provision of means whereby the continuous supply of fluid may be easily obtained.

Other and more specific objects will be apparent from the following description taken in connection with the accompanying drawing, wherein

Figure 1 is a perspective view showing my striper with the transfer pad removed.

Figure 2 is a vertical, sectional view through my striper, the same being shown as broken in its mid-section so as to provide a large scale view of the essential parts.

Figure 3 is a vertical, sectional view through the lower end of my striper, as viewed, the cutting plane being revolved ninety degrees from that in Figure 2.

Figure 4 is a cross-sectional view taken along the line 4—4 of Figure 2.

Figure 5 is a cross-sectional view taken along the line 5—5 of Figure 2.

Figure 6 is a cross-sectional view taken along the line 6—6 of Figure 2.

Figure 7 is a perspective view showing the fluid transfer pad that is used in the lower portion of my striper the same being viewed in the same sense as Figure 1.

Figure 8 is a fragmentary view showing the construction of my fibrous filling core.

Referring to the drawing, throughout which like reference characters indicate like parts, 12 designates the tubular body of my device. This may be of any convenient size, although I find a tube substantially the size of an automatic pencil very satisfactory for stripers of small size. On the inner surface of tube 12 I provide, preferably, a continuous thread. This thread might have any desired form; however, as a retardant to provide a slow, uniform feed, a square thread appears to be most desirable. When this form of thread shown in the drawing at 14 is used the land portion 16 can be relatively narrow, with the groove portion 18 of substantial width.

Frictionally secured to the upper end of tube 12 is a cap 20. This cap is provided with a reduced diameter bore 22 of such a size as to compress the fibres of core 24 and thus provide a reasonably secure engagement of the core within cap 20. In the extreme lower end of tube 20 I provide the transfer wheel 26 which is free to revolve upon pin 28. Wheel 26 may be formed of any suitable material and be constructed along the proven form of striper wheels. The one shown in Figure 1 is a plain rubber, or composition, wheel. In Figure 2 I have indicated a notched wheel which has been found very desirable where hard compositions or metal is used. It will follow it is believed that any number of striping surfaces might be provided as the use and the particular construction of the striper might indicate, as desirable.

I have provided that the extreme lower end of tube 12 be of a slightly increased diameter so as to form the abutting ledge or stop 30 for the slidable collar 32. The threaded bore of tube 12 does not extend all the way to the lower end of the tube but stops somewhat short thereof as illustrated in Figures 2 and 3. The slot 34 which must be formed to accommodate wheel 26 is extended upwardly so as to form a seat, or holder, for the renewable transfer pad 36. This pad may be of any suitable, fibrous material. For most fluids felt will serve best although it is to be understood that certain types of striping fluid might require different material at this point. The fibrous pad, however, is bound together by a metal cover, or collar, 38 which is curved on its short sides on the same radius as tube 12 so that when the unit is slipped into slot 34 collar 32 can then be slipped downwardly and adequately secure the member in its operating position.

The interior core 24 is preferably formed after

the manner of the ordinary twisted wire pipe cleaner in which tufts of fibrous material 40 are placed between wires 42 and the same twisted to give the round core common to pipe cleaners.

5 This core, being in effect spirally laid, assists in producing a uniform flow to the fluid. It will be observed that the outside diameter of core 24 is substantially equal to, or just slightly greater than, the diameter of the inside of the thread

10 lands 16. In this manner a spiral pathway entirely encircling core 24 is provided down the full length of the core. This provides a channel and because of its great length, due to the large number of turns involved, the striping fluid is fed

15 downwardly at a fairly uniform rate thus providing an even saturation of pad 36 and a corresponding evenness to the striped line. It will be understood that this action takes place only when the striping device is held in a vertical position

20 with the wheel downwardly. However, if the striping requires working overhead, or horizontally, it is found best to withdraw core 24 about two-thirds of its length, turn it by means of cap 20 so as to use the spiral arrangement of the core

25 to screw the liquid down into pad 36 and thus build up sufficient liquid pressure to assure uniform feed to roller 26.

To charge my device with fluid, cap 20 is removed from tube 12 carrying with it core 24.

30 This core is immersed in the fluid to be used, and then inserted back into tube 12. The fluid will then drain out of the fibrous material and be carried down the spiral groove 18.

For certain uses a supply of liquid might be

35 held in a reservoir after the manner of a fountain pen, for instance, or a slender rubber tubing might lead from a central supply, attached to the belt of the user, to the cap 20 of the striper so that recharging may be more easily accomplished

40 where a quantity of striping is to be done.

The foregoing description and the accompanying drawing are believed to clearly disclose a pre-

ferred embodiment of my invention but it will be understood that this disclosure is merely illustrative and that such changes in the invention may be made as are fairly within the scope and spirit of the following claims:

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

1. A fountain striping device comprising a casing having a helical passage on its inner face, liquid retaining means within said casing and forming a wall for said passage, a striping wheel supported from said casing, and means for transferring liquid from the end of said passage to said wheel when the said wheel is rotated.

2. A fountain paint striper comprising a casing having an enlarged end and having an interior helical groove, a wheel fork seated in said enlarged end, a striping wheel journaled in said fork, compressible means in said casing for retaining the paint supply, and for discharging the paint under pressure into said groove, and paint transfer means between the lower end of said groove and said striping wheel.

3. A fountain striping device comprising a casing having a helical passage on its inner face, liquid retaining means within said casing and forming a wall for said passage, a notched striping wheel supported from said casing, and means for continually transferring liquid from the end of said passage to said wheel when the said wheel is rotated.

4. A fountain paint striper comprising a casing having an enlarged end and having an interior helical groove, a wheel fork seated in said enlarged end, a striping wheel journaled in said fork, compressible means in said casing for retaining the paint supply, and for discharging the paint under pressure into said groove, and a fibrous paint transfer pad between the lower end of said groove and said striping wheel.

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