Nov. 10, 1931. A. W. SCOLES 1,830,860

STRIPER

Filed June 20, 1928

Fig. 1.

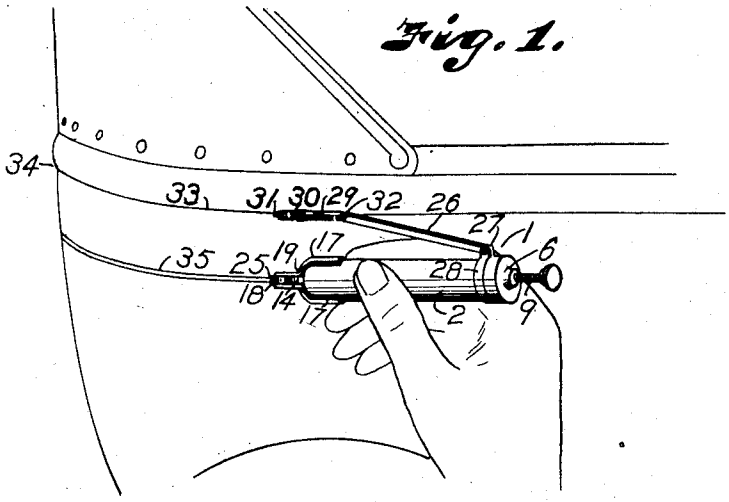


Fig. 2.

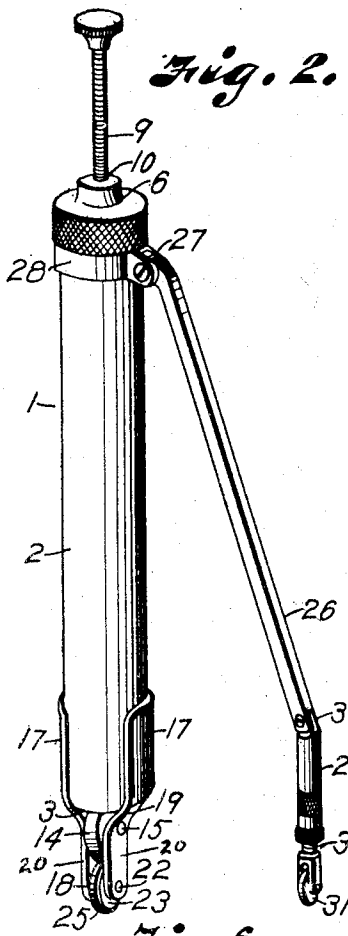


Fig. 4.

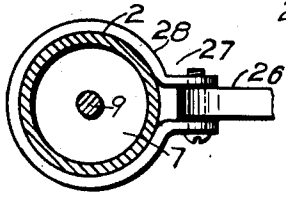


Fig. 5.

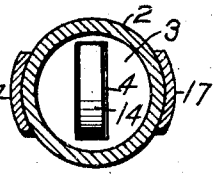


Fig. 6.

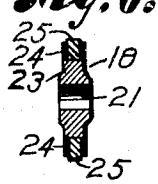
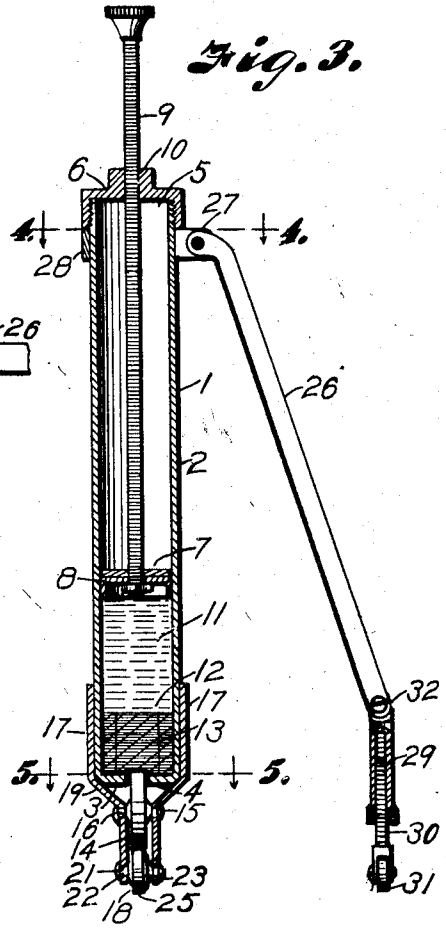


Fig. 3.



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Patented Nov. 10, 1931 1,830,860

UNITED STATES PATENT OFFICE

ARTHUR W. SCOLES, OF KANSAS CITY, MISSOURI

STRIPER

Application filed June 20, 1928. Serial No. 286,954.

My invention relates to liquid-feeding devices and more particularly to mechanical striping devices whereby small portions of liquid such as lacquer may be transferred from a container to the surface to be treated, the principal objects of the invention being to control the amount of liquid carried by the transferring members, to actuate the transferring members by frictional contact with the surface to be treated, to distribute the liquid equally and symmetrically over the surface and to maintain a relatively constant body of liquid adjacent the outlet of the container.

Further objects are to retain a liquid from flowing through a constantly open port, and to support from the container a distributing element to withdraw liquid from the retaining means.

In accomplishing these objects I have provided improved details of structure, the preferred forms of which are illustrated in the accompanying drawings, wherein:

Fig. 1 is a perspective view of my device, illustrating its use in applying a stripe to an automobile.

Fig. 2 is an enlarged perspective view of the device.

Fig. 3 is a vertical central sectional view of the device.

Fig. 4 is a transverse section on the line 4—4, in Fig. 3, showing a guide member fragmentarily.

Fig. 5 is a transverse section on the line 5—5, Fig. 3.

Fig. 6 is a sectional view of the delivery wheel.

Referring in detail to the drawings:

1 designates a container comprising a preferably cylindrical barrel 2 having a closed end wall 3 provided with a liquid-delivery opening 4 and having an opposite filling end 5 on which a filler cap 6 is screw threadedly mounted.

A piston 7 including a packing disk 8 frictionally engaged with the walls of the chamber, is movable longitudinally therein, by a stem 9 screw threaded throughout substantially its entire length and engaged in a screw threaded opening 10 in the cap for maintaining a body of liquid 11 adjacent the delivery opening 4.

A seepage packer 12 comprising preferably a plurality of fine-mesh flexible disks 13, such as cheesecloth or silk assembled to form a cylinder, having substantially the diameter of the chamber, is forced through the chamber into the closed end to engage and bear against the wall 3 before liquid is introduced to restrain the movement of liquid through the opening, except through contact with a supply or feed wheel 14, as later described.

The supply wheel 14 is rotatably supported on a shaft 15 mounted in bearing openings 16 in sleeve-like arms 17 engaged with the barrel, the wheel being in contact with the saturated packer for causing liquid to pass through the outer layer of disks 13 and pick up liquid from the packer. The wheel preferably extends into the slot 4 sufficiently to contact the packer and is adapted to the size of the slot so that it has relatively free movement therein, the periphery of the wheel being relatively close to the ends of the slot.

A delivery wheel 18 is rotatably supported in peripheral contact with the feed wheel and preferably in contact with the periphery thereof to transmit rotative movement to the feed wheel and receive liquid therefrom for transfer to a surface to be treated.

The sleeve-like bracket arms 17 are preferably inbent as at 19 and provided with arms 20 in which are the bearing openings 16 for the feed wheel shaft and bearing openings 21 for the shaft 22 of the delivery wheel.

The delivery wheel comprises a disk-like body 23 having a peripheral groove 24 to receive a tire 25 formed of a relatively porous, flexible composition similar to the material used in printer's rollers and having resilience and suction qualities, the tire is provided of suitable width and having a band-like face whereby a stripe of desired width may be installed on the surface to be treated and the stripe will have clear cut edges.

A guide member 26 is hingedly connected as at 27 with a strap-like bracket 28 mounted on the barrel adjacent its filler end, the guide having a depending sleeve-like arm 29 in which a stem 30 is adjustably secured, and a

roller 31 is rotatably mounted on the lower end of the stem, for movement over a surface adjacent the area to be striped. The arm is connected with the guide member 26 by a pivot screw 32 and the pivot connections of the arm with the guide and the guide with the barrel are adapted for being fixed in adjusted position, whereby the roller 31 may be moved along a guide mark or member 33 on an object such as the automobile 34 for installing a stripe 35 in desired position.

In using the device a barrel is provided having a slot of dimensions suitable for the service to be performed by the striper and adapted for delivery of a suitable amount of liquid, and a feed wheel and delivery wheel adapted for the particular purpose are installed in the supporting bracket. A suitable packing element, that is one having a preferable number of thicknesses of cloth, having desired porosity is then inserted in the barrel and the liquid having a body suitable for the packer and wheels, is impressed against the packer so that when the barrel is tilted or held in inverted position, the relatively constant body of liquid may be in contact with the entire upper surface of the packer and at no time will the liquid fail to cover the delivery opening.

The preferable means for impressing the liquid against the packer, comprises the piston movable by the cap-engaged screw-threaded stem longitudinally of the barrel to follow the liquid. The device as illustrated provides for the filling of the barrel and the consumption of the quantity of the liquid thus provided, before introducing a further supply of liquid to the barrel.

The device is then positioned for applying the stripe and may be moved over the surface to be treated, the guide member controlling the track of the transferring members, the frictional contact of the delivery wheel with the surface causing it to rotate and the peripheral contact of the delivery wheel with the feed wheel causing the feed wheel to rotate in contact with the saturated packer and transfer liquid from the packer to the delivery wheel for deposit by the delivery wheel on the surface to be treated.

What I claim and desire to secure by Letters Patent is:

1. In a liquid-feeding device including a chamber having a liquid-delivery opening, a packer comprising a plurality of pieces of cloth closing the opening and into which the liquid seeps, and means in contact with the packer for transferring liquid to a surface to be treated.

2. In a liquid feeding device of the character described, a liquid container having an end wall provided with a slot, a packer comprising a plurality of cloth members assembled to form a plug having diameter substantially equal to the diameter of the container for insertion in the container into overlying relation with said wall to cover the slot, and means including a wheel adapted to contact the packer for effecting passage of liquid through said members.

In testimony whereof I affix my signature.

ARTHUR W. SCOLES.