The present invention relates to protectors for paint cans when opened for use.

In marketing paint in relatively small quantities of a quart or less, the paint is packaged in a tin can having a plug seal metal top. In most instances, because such closure for cans has been found to produce a good hermetic seal for such products. Cans equipped with a so-called "plug seal" top have the upper or open end provided with an internal annular flange, formed with a pressed annular groove therein. The top is disk-like and at its peripheral edge is provided with an annular groove which forms a downward extending rib complementary to the groove in the flange to leave a tight seal with the contiguous portions of the groove in the flange thus clamping the top on the can body.

The use of paint directly from such cans, (such as where the brush is dipped directly into the paint in the can) some of the paint becomes lodged in the groove in the flange so that when the top is replaced, should all of the paint not be used at one time, it is difficult, and many times impossible, to tightly replace the top to hermetically seal the remaining contents of the can.

Furthermore, after the can has been stored away for a short time and the paint in the groove becomes dry, the top of the can becomes stuck by reason of the drying of the paint and it is difficult to reopen the can. There are many other disadvantages in addition to the ones that have been above enumerated which occur to most anyone.

The object of the present invention is the provision of a shield or guard which may be sold with a can of paint as part thereof, or which may be otherwise distributed, for protecting the receiving groove of a plug cover, when the cover is removed for using paint directly from the can. The shield is so formed that it may be attached to the can to prevent its loss or displacement without materially increasing the overall dimensions of the can and, therefore, the cans with the shield may be packed or stacked on shelves in the usual manner. After using the shield with an opened can of paint the can cover may be tightly replaced and the shield attached to the can, preferably after cleaning it.

With the above and other objects in view, the invention resides in the sundry details of construction, combination, and arrangement of parts hereinafter more fully described and pointed out in the appended claims.

In the drawings which show the preferred embodiment of the invention as at present devised,
features and comprises, essentially, a substantially flat annulus a having a laterally extending annular flange b projecting from its outer periphery or perimeter, as the case may be and, further, having a laterally extending annular flange c projecting from its outer periphery in a direction opposite to that of the flange b.

The annulus a is designed to be of such area or size as will overlie the groove 12 in the cover flange 11 of the can body and to have the flange b of such dimensions as will have a slight frictional engagement with the edge 11a of the flange 11, when the shield is in operative position as shown in Figs. 3 and 4, so as to hold the shield in operative position on said edge.

The flange c is of such length or depth as will form a convenient upstanding side wall for the cup-like shield 15 and, when in operative inverted position as shown in Figs. 1 and 2, will fit over, with a binding grip, against the seam beam 16 which secures the flange 11 to the can 10, or in the absence of such beam or seam 16 will engage the side walls of the can 10, thereby holding the shield in position on the can. The length or depth of the flange b need be only slight, sufficient to give a contacting surface to the edge 11a and so it may overlap said edge sufficiently to prevent paint from seeping around said edge to the groove 12. It is preferred that the outer edge portion of the annulus a rest upon the beam 16 so as to prevent any paint, which may run along the outside of the flange c, from falling or running into the groove 12.

If desired, the juncture of the annulus a and the flange b may be reinforced by a bead or band of wire d or the like. Since the edge 11a of the flange 11 usually lies a short distance below the seam or bead 16, the bead d will rest upon the top portion of the edge 11a and combine with the flange c to prevent leakage or seepage of paint into the groove 12.

Also if desired, there may be provided a wiping bar 11, which is arranged chordally within the flange b and secured at its ends to said flange b.

In Fig. 5, there is disclosed an adapter 18 for use in connection with the shield shown in Figs. 1 to 4 and with paint cans of larger size or diameter. This adapter 18 is merely a plug-cover, similar to the cover 14, but provided with an opening 19 which will receive or accommodate the flange b of the shield 18. This adapter may be supplied by the paint dealer and distributed to a purchaser who desires to use a small size shield with a large paint can.

From the above it will be obvious that the novel paint can shield of the present invention is very simple and practical, and may be attached to the top of a can for paint, or other materials, to be sold as a unit. When in its attached position, the shield occupies a minimum of space and only increases the cubical packing area, required for an individual can, by the height of the flange b and the thickness of the flange c. Of course, the shield may be sold or distributed separate from the can or other receptacle with which it may be used.

Having thus described the invention and the manner in which it is to be performed it is to be understood that the invention is not to be limited to the exact form and details herein described as it is subject to various variations and modifications which fall within the scope of the appended claims.

That which is claimed is:

1. In combination with a paint can having a continuous groove about its top opening to receive a plug cover for closing the same, of a reversible shield comprising a substantially flat member to overlie said groove portion in and contact the outer edge at the top of the can to protect the same when in any of its several positions on the can, said member having a central opening therein to overlie the top opening in the can, a continuous laterally extending flange projecting from the inner and outer perimetal edges respectively of said member at right angles thereto and extending in opposite directions to each other, the inner surface of the outer flange having substantially the dimensions of the outer surface of the wall of the can and the outer surface of the inner flange having substantially the dimensions of the inner surface of the wall of the opening so that in one position of the shield the inner flange will snugly fit into the wall of the opening in the can, and in the other reverse position of the shield the outer flange will snugly fit over the wall of the can and become attached thereto and carried thereby with the plug cover in closed position.

2. In combination with a paint can having a continuous groove about its top opening to receive a plug cover for closing the same, of a reversible shield comprising an annulus whose inner circumference conforms to the top opening of the can, a laterally extending annular flange projecting from the inner edge of the annulus, and an annular flange projecting from the outer edge of the annulus in a direction opposite to the flange on the inner edge of said annulus, said flanges extending substantially at right angles from said annulus, the diameter of the annulus being substantially that of the can to contact the outer top edge thereof and to cover and protect the usual cover receiving groove in the top wall of the can whereby the annular flange on the outer edge of the annulus will telescope with and frictionally grip the side walls of the can, when the shield is in one position, and the annular flange on the inner circumference of the annulus will telescope with and frictionally grip the edges in the top opening of the can, when the shield is in an inverted position.

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