

Nov. 10, 1959

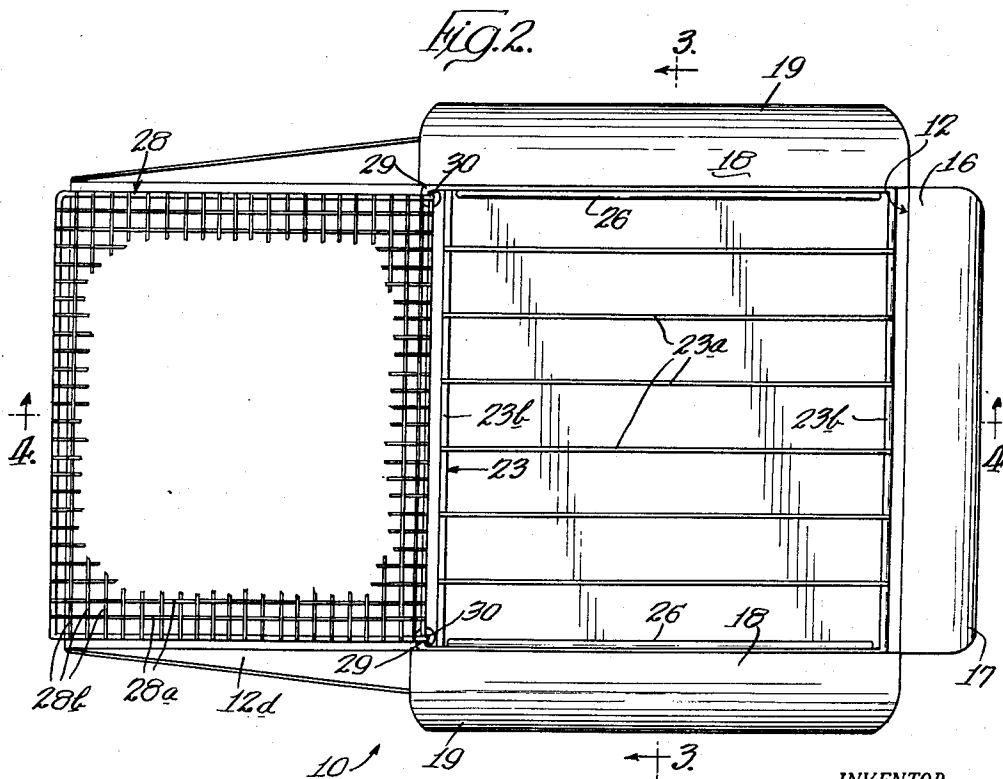
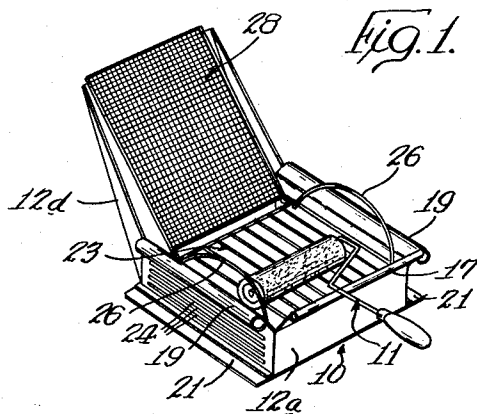
M. GEARY

2,911,663

PAN FOR ROLLER TYPE PAINT APPLICATOR

Filed April 4, 1955

3 Sheets-Sheet 1



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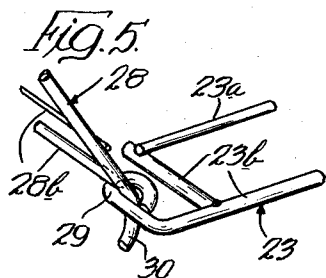
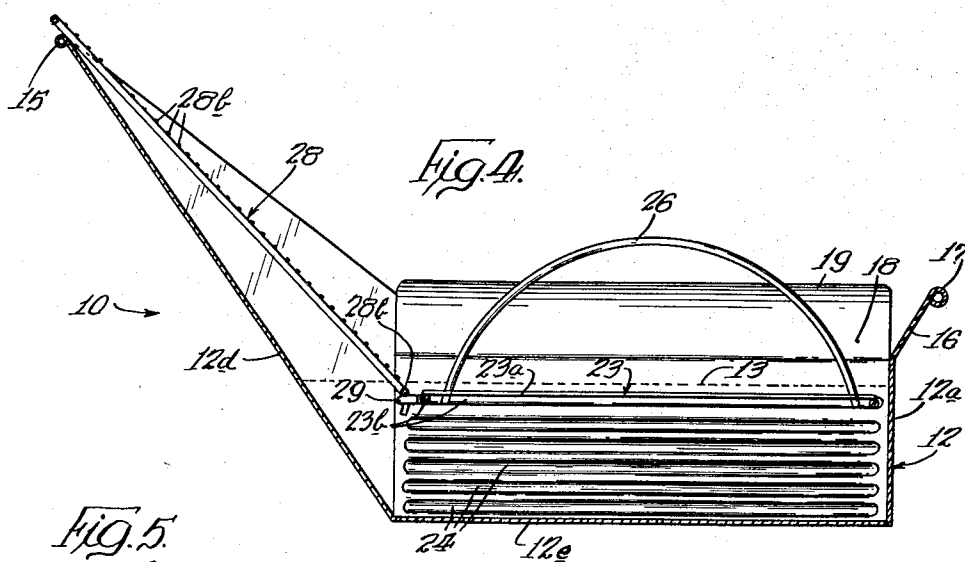
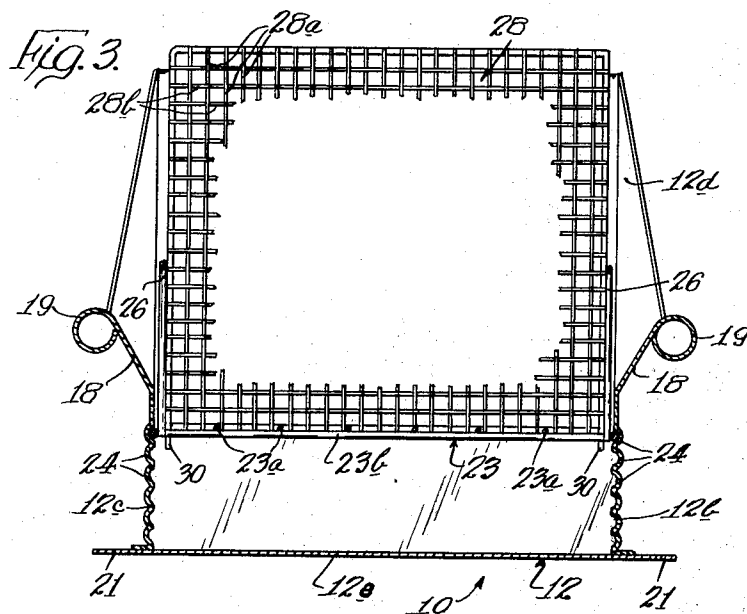
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PAN FOR ROLLER TYPE PAINT APPLICATOR

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3 Sheets-Sheet 2



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3 Sheets-Sheet 3

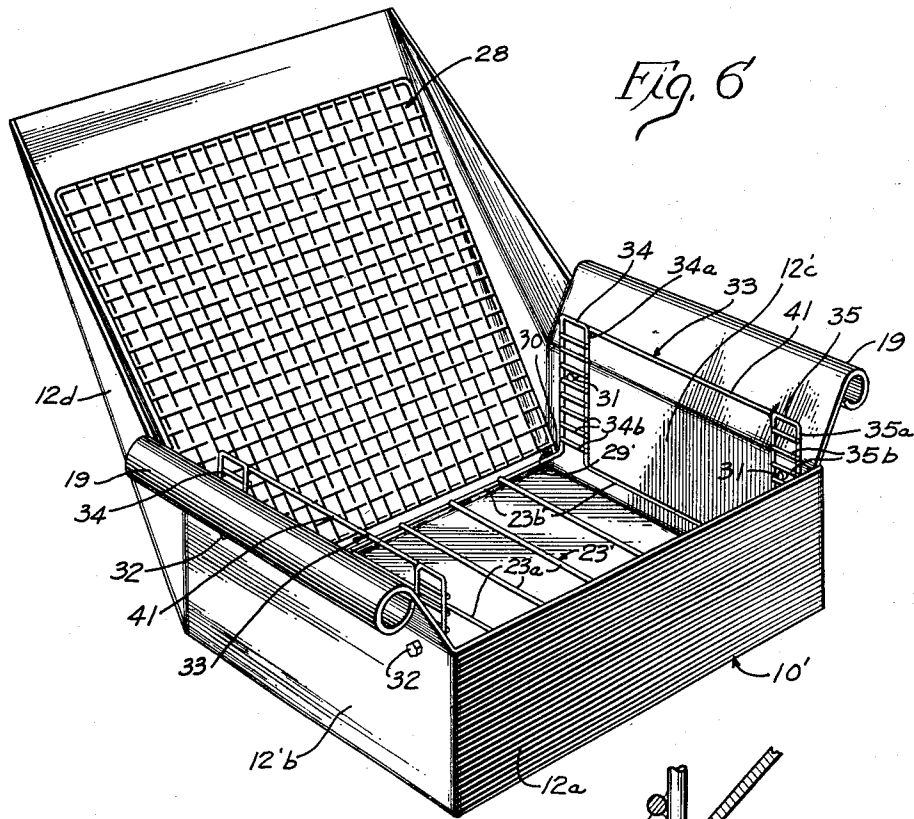
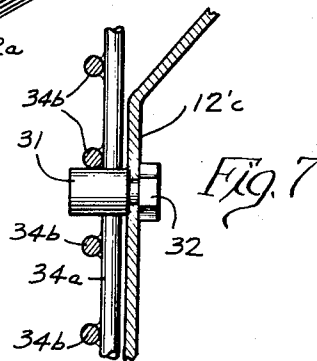
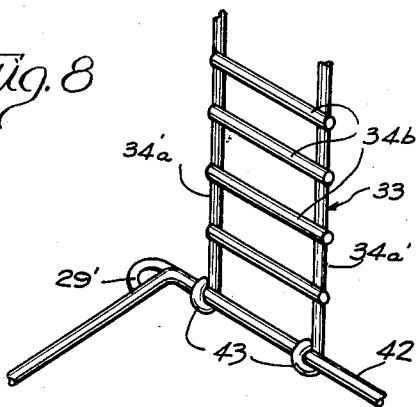


Fig. 8



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2,911,663

PAN FOR ROLLER TYPE PAINT APPLICATOR

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Application April 4, 1955, Serial No. 498,890

6 Claims. (Cl. 15—121.2)

The present invention relates to a painter's pan, and, more specifically, to a pan particularly adapted for use by professional painters using the now well-known roller type applicator instead of a brush. Specifically, the present application is a continuation-in-part of Geary application Serial No. 438,497, filed June 22, 1954, now abandoned.

In recent years following the development of the roller type paint applicator, there has been extensive use, particularly by amateur painters, of such rollers in painting walls, ceilings and the like, particularly where a relatively smooth surface is involved. Numerous pans have been provided whereby the painter could apply the necessary paint to his roller. These pans had to be of a shape quite different from the conventional paint container, and the general configuration was a flat pan of sufficient width to accommodate the length of roller used. Although such pans might be satisfactory for amateur painters who normally only paint relatively small areas, and then at periodic intervals, they are entirely unsatisfactory for the professional painter who may paint eight hours a day, day in and day out. It has been discovered that the painting roller, although not universally applicable, has a place in the painting field for professionals as well as amateurs, and a large number of professional painters now use a painting roller for certain applications. The equipment available for the professional painter up to now has not been satisfactory, and this is particularly true with respect to a container for properly subjecting the painting roller to the paint to be applied.

Accordingly, it is an object of the present invention to provide a new and improved tool for the professional painter permitting him to use a roller type applicator.

It is another object of the present invention to provide an improved pan for use by the professional painter when painting with a roller.

It is another object of the present invention to provide a pan having depth control means whereby the proper amount of paint may be applied to the painting roller used with the pan.

Still another object of the present invention resides in adjustable depth control means for paint containers for use with a roller type applicator.

It is a further object of the invention to provide a new and improved dip screen.

It is a still further object of the invention to provide a new and improved depth control screen which may be adjustably positioned in a paint container.

It is a yet further object of the present invention to provide an improved paint container usable with a roller type applicator which is designed for high speed use by the professional painter eliminating a plurality of motions heretofore required by painters using heretofore available tools.

Further objects and advantages of the present invention will become apparent as the following description proceeds, and the features of novelty which characterize the invention will be pointed out with particularity in the

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claims annexed to and forming a part of this specification.

For a better understanding of the present invention reference may be had to the accompanying drawings in which:

Fig. 1 is a perspective view of the container of the present invention useable with a roller type applicator, with the applicator shown in a position which it might assume when resting in the container;

Fig. 2 is an enlarged plan view of Fig. 1;

Fig. 3 is a sectional view taken on line 3—3 of Fig. 2;

Fig. 4 is an enlarged sectional view taken on line 4—4 of Fig. 2;

Fig. 5 is an enlarged fragmentary view of a portion of Fig. 2 to illustrate another feature of the present invention;

Fig. 6 is a perspective view of the apparatus of the present invention incorporating an alternative type depth control screen;

Fig. 7 is a fragmentary sectional view of means for attaching a depth control screen to a paint container; and

Fig. 8 is a partial perspective view of a modified embodiment of the depth control screen of Fig. 6.

Referring now to the drawings, there is illustrated the container of the present invention generally designated by the reference numeral 10, which container is especially adapted for use with a roller type paint applicator, one of which is shown by way of example and designated by the reference numeral 11 in Fig. 1 of the drawings. The container or pan 10 of the present invention, as was mentioned above, is primarily designed for use by the professional painter. As illustrated, the pan 10 comprises a main container or body portion 12, which is illustrated as of rectangular configuration. This container 12 is provided with what might be termed a front wall 12a, a pair of side walls 12b and 12c, and a rear angularly disposed wall 12d which defines a sort of drain tail and which extends upwardly to a much higher extent than any of the other walls. The container also has a bottom 12e illustrated as a flat bottom. Preferably, the pan 12 has a substantial volume and should be capable of accommodating a gallon or perhaps two gallons, or more, of paint. In Fig. 4 of the drawings there is indicated by dashed line 13 the depth of the paint which might be disposed within the container 10.

The drain tail section 12d preferably terminates at the upper end in a rolled edge 15. Similarly, the front wall 12a is preferably flared outwardly as indicated at 16, and terminates in a rolled edge 17. The side walls 12c and 12b are each indicated as provided with a flared portion 18 at the upper end thereof which terminates in a handle portion 19, by which the container may readily be carried. As illustrated in the drawings, the bottom 12e of the container may extend beyond the edges of the side walls 12c and 12b to provide a lateral flange 21 on either side of the container. This lateral flange will permit the operator to engage the same with his foot to maintain the pan in proper position while performing certain functions as described more in detail hereinafter.

It will be apparent that some means must be provided to limit immersion of the roller type applicator in the paint contained within the pan 10, and to this end there is provided a suitable dip screen 23. This dip screen is supported within the main body portion of the pan 10, and in accordance with the present invention is supported in adjustable positions to give any selected depth control. Any suitable means for supporting the dip screen 23 at different levels may be provided. As illustrated, the side walls 12b and 12c are provided with a plurality of corrugations 24 which effectively provide ledges for

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supporting the dip screen 23 in the manner indicated in Fig. 3 of the drawings. It will be apparent that the dip screen 23 may be disposed on any of the ledges defined by the corrugations, and the inherent resilience of the dip screen and pan walls will permit sufficient distortion to move the screen to different levels and still be properly supported at any selectively chosen level. As illustrated, the dip screen 23 is provided with a plurality of wire members 23a for engaging the roller type applicator such as 11 when inserted into the pan 10 for taking up a quantity of paint. The rods 23a are preferably supported on a main frame member designated as 23b. The rods 23a run generally parallel to the direction of motion of the roller type applicator when moved along the screen 23 to pick up paint. In order that the dip screen may readily be moved to any adjusted position for depth control, it is preferably provided with suitable handles 26, one on either side thereof, which can readily be manipulated by the operator. While adjusting the dip screen 23, particularly when pulling the dip screen out of the pan 10, the operator may engage the flanges 21 with his feet to hold the pan firmly in position.

The drain tail 12d is illustrated as making an angle of about the order of 60° with the horizontal, which has been found to be very satisfactory. Obviously, other angles could be used, the angle being sufficient to insure rapid return of the excess paint squeezed out of the roller to the main part of the pan or container 10.

For the purpose of permitting excess paint to be removed from the roller type applicator 11, there is provided a drain screen 28 which is supported above the drain tail 12d. Preferably, as illustrated and in accordance with the present invention, the dip screen 23 is provided with a pair of loops 29 at the corners most adjacent the drain tail 12d. These loops 29 are adapted to receive cooperating hook members 30 integrally formed with the drain screen 28, thereby supporting the drain screen 28 in spaced relationship with respect to the drain tail 12d adjacent the dip screen 23. The other end of the drain screen 28 may engage the upper end of the drain tail 12d, as clearly indicated in Fig. 4 of the drawings. Preferably, the drain screen is formed of a plurality of wire members 28a and 28b arranged in the form of a grid, as best shown in Figs. 2 and 3 of the drawings.

In view of the detailed description included above, the operation of the pan of the present invention will readily be understood by those skilled in the art. When the proper amount of paint has been placed within the container 10, the dip screen 23 will be inserted at the proper depth level determined by the quantity of paint contained in the pan 10 to insure that the paint is above the level of the dip screen. The painter then grasps the roller 11 and preferably pulls it along the dip screen 23 toward the drain screen 28. During this motion the roller type applicator is provided with sufficient paint, and the motion is continued along the drain screen 28 to squeeze out the excess amount of paint which drains back along the drain tail 12d. This excess liquid paint returns to the main body of the container. Thus, it will be apparent that a single motion is all that is necessary to pick up the desired amount of paint and to squeeze the excess paint from the roller. This simple motion becomes very important when it is considered that a painter repeats this thousands of times a day, and when many and varied motions are necessary, first to pick up the paint and then to squeeze out the excess paint, a much less efficient operation results. By virtue of the present invention, a more even coating of paint is applied to the roller type applicator. As the level of the paint decreases, the operator can change the level of the dip screen 23 in a simple manner. The inherent resilience of the pan and the dip screen 23 maintains the screen supported at any selected position on the ledges defined by the corrugations 24.

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In a particular application constructed in accordance with the present invention, the container 10 was of the order of twelve inches square, and the main wall portions up to the flared edges 16 and 18 were of the order of four inches in depth. Obviously, any other sizes might equally well be employed, depending, of course, upon the size of the roller type applicator.

It will be apparent that the container 10 can readily be cleaned at the end of the day or probably at the end of the week, as the case may be. By means of a suitable solvent the screens can first be brushed free of paint, after which they are readily removed, and the same solvent can be used to clean out the paint remaining in the pan.

Instead of supporting the dip screen 23 on the corrugations 24 described above, other suitable means for supporting the dip screen may be employed. What is presently believed to be the preferred embodiment of the present invention with regard to supporting the dip screen is illustrated in Fig. 6 of the drawings involving an alternative embodiment of the present invention. The corresponding parts of Fig. 6 are designated by the same reference numerals as in the preceding embodiment. In Fig. 6 the pan or container is designated by the reference numeral 10'. This pan or container 10' is identical with the pan or container 10 described above except that instead of the corrugations 24 the side walls 12'b and 12'c are smooth walls. For the purpose of supporting a dip screen in the container 10', there are provided a plurality of protuberances or pegs 31, two being shown on each side wall, which pins or pegs project a short distance into the container. It will be understood that these pins or pegs may be secured to the walls 12'b and 12'c in any suitable manner. They may be spot welded thereon, riveted thereon, or, as illustrated in the drawings, secured thereto by suitable threaded fastening means best shown in Fig. 7 of the drawings, the pins 31 provided with a threaded recess at one end for receiving a suitable bolt or other fastening means 32 extending through an opening in the side walls 12'b and 12'c. In addition to using the pins 31 as protuberances, the protrusions may be integral portions of the side walls 12'b and 12'c, being conveniently formed by dimpling the sheet metal at the proper locations either before or after the pan 10' is fabricated.

In Fig. 6 the dip screen designated by the reference numeral 23' is identical with the dip screen 23 described above except that instead of the rectangular frame 23b and the attached rounded handles 26 for supporting the dip screen 23' at the proper depth in the pan 10' there is provided a pair of upright side portions 33 which are formed integral with the frame 23b' and have ladder-like spaced apart portions 34 and 35 which coact with the pins 31 to support the bottom of the dip screen 23' at the desired height above the bottom of the pan 10'.

The portions 34 and 35 are counterparts and consist respectively of a pair of spaced upright members 34a and 35a which are connected by means of a plurality of spaced cross members or rungs 34b and 35b. There is thereby provided at each end of the upright side portions 33, ladder-like members each of which is adapted selectively to coact with one of the protuberances or pins 31 which extend inwardly from the side walls 12b and 12c of the pan 12 and are arranged in a plane parallel to the bottom of the pan 12. In order to facilitate effective pivoting of the sides 33 at the bottom thereof to move respective ones of the rungs 34a and 35a out of engagement with the respective pins 31, the frame 23b' and the integral upright side members 33 are formed of a resilient material. A cross member 41, which serves as a handle for the positioning of the dip screen 33 within the pan 10' and through which the force causing the pivoting of the sides 33 inwardly to move the rungs 34b and 35b

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out of engagement with the respective ones of the protuberances or pins 31 is applied, is attached as by welding between the tops of the upright side portions 34a and 35a. In order to adjustably position the dip screen 23' within the pan 10', the handle portions 41 are moved inwardly, thereby effectively pivoting the upright sides 33 approximately about the point of connection with the bottom of the screen 23' so that the cross members or rungs 34b and 35b are moved out of engagement with the pins 31 and the screen 23' may then be positioned at the desired depth in the pan 10'. When the handles 41 are released, the side portions 33 spring back into place, and the bottom of the dip screen 23' is held in the proper position by coaction of the top of the pins 31 acting on the bottom of particular ones of the cross members 34b and 35b. It will be understood that the ladder-like end portions 34 and 35 are shown merely by way of illustrating the present invention and that other configurations could satisfactorily be employed. For example, the rungs 34b and 35b could be rungs extending the full length of the sides 33 thereby eliminating the central ones of the uprights 34a and 35a.

In order pivotally to attach the drain screen 28 to the dip screen 23', a pair of metallic loops 29' are welded to the frame 23b' at the corners thereof adjacent the drain tail 12d and are adapted to receive the hooks 30 thereof just as in the preceding embodiment.

Referring to Fig. 8 there is illustrated an alternative embodiment of the dip screen 23' shown in Fig. 6. In this embodiment the upright sides 33 are hingedly secured at the bottom thereof to the frame of the dip screen. In detail, a rectangular frame 42, which is only partially visible in the drawings, and which may suitably be identical with the frame 23b illustrated in the embodiment of Fig. 1 through Fig. 4, supports the upright sides 33' which are formed separately therefrom and pivotally attached thereto by means of suitable hinges 43 formed by bending the lower ends of the upright members 34a' loose around the sides of the dip screen bottom frame 42. It will be understood that similar hinges are formed between the ladder-like portions 35b and the frame 42 so that with this configuration, the sides may readily be pivoted inwardly to disengage the rungs 34b from the respective pin 31.

Although from the above detailed description of the embodiments shown in Figs. 6, 7 and 8 the mode of operation of these paint pans will be clear to those skilled in the art a consideration of the steps required to adjust the dip screen 23' at a desired depth in the pan 10' will clearly show the advantages of the present invention. When using the paint pan of Fig. 6 including either the dip screen 23' shown therein or the alternative embodiment shown in Fig. 8, the handles 41 are grasped and the sides 33 are moved inwardly to move the rungs 34a and 35a away from the pins 31. With the sides in this position the dip screen may be moved to the desired depth. In the case of the dip screen shown in Fig. 6, the handles are then released so that the sides 33 snap back into place holding the dip screen 23' at the new position. In the case of the embodiment of Fig. 8, when the dip screen is positioned at the desired depth the handles 41 are manually moved outwardly so that the rungs 34a' engage the pins 31 to hold the dip screen at the selected position.

It will thus be appreciated that the side flanges 21 provided on the pan 10 of Fig. 1 need not be provided on the pan 10' since the dip screen 23' is readily adjustable therein without exerting any force on the pan 10'. Of course, if desirable, the flanges 21 may be provided on the pan 10'.

While there has been illustrated and described several embodiments of the present invention, numerous changes and modifications thereof will occur to those skilled in the art, and it is aimed in the appended claims to cover all such changes and modifications as fall within the true

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spirit and scope of the present invention.

What is claimed as new and desired to be secured by Letters Patent of the United States is:

1. A painter's pan for use with a roller type paint applicator, comprising a rectangular container portion, a roller engaging dip screen, means for supporting said dip screen at an adjustable depth within said container portion, one of the walls of said container portion being disposed at an angle and extending a substantial distance above said container portion to define a drain tail, and a drain screen, one end of said drain screen being loosely carried by said drain tail and the other end being pivotally engageable with an end of said roller engaging dip screen, said dip screen and drain screen being disposed so that with one continuous motion a roller type applicator may be moved over both screens.

2. A container for use with a roller type paint applicator, comprising a pan, a roller engaging dip screen, means for selectively supporting said dip screen at different levels within said pan to provide depth control for the paint to be applied to a roller type applicator, a drain section connected to said pan, and a drain screen resting on said drain section, said drain screen being pivotally attached to said dip screen.

3. A pan for use in connection with the application of liquid surface coatings, comprising an open top rectangular container, a drain tail extending upwardly and angularly from the bottom of said container at one side thereof, a dip screen having a grid portion substantially conforming to the horizontal cross-section of said pan, upstanding side portions on opposite sides of said screen, said side portions being integral with said grid, a plurality of protrusions at a fixed height on the inner walls of opposite sides of said container which are adjacent to said one side, a plurality of vertically displaced means on said side portions of said dip screen for selectively engaging said protrusions to support said dip screen at an adjustable height in said container, and a drain screen pivotally attached at one end to the side of said grid adjacent said drain tail, said drain screen resting on and supported by said drain tail at a location displaced from said one end.

4. A pan for use in connection with the application of liquid surface coatings comprising, a rectangular container having an open top, a drain tail extending upwardly and angularly from the bottom of said container at one side thereof, a plurality too of upright portions joined to said drain tail and forming therewith a trough which opens into said container and which has a width conforming to the corresponding dimension of said container, a dip screen having a grid substantially conforming to the horizontal cross-section of said pan exclusive of said drain tail, integral upstanding side portions on opposite sides of said screen, said side portions being biased in a fixed position relative to the grid, a plurality of protrusions at a fixed height on the inner walls of opposite sides of said container, said last named sides being adjacent to said one side, a plurality of vertically displaced means on said side portions of said dip screen for selectively engaging said protrusions to support said dip screen at an adjustable height in said container, said means engaging said protrusions when said side portions are in their respective normal positions and being disengaged from said protrusions when said side portions are moved toward one another against the biasing force thereon, and a drain screen pivotally attached at one end to said grid intermediate said upstanding side portions of said dip screen, said drain screen resting on and supported by said drain tail at a location displaced from said one end.

5. A container for use with a roller type paint applicator, comprising a generally rectangular pan having three vertical sides and a fourth side forming a substantially obtuse included angle with the bottom of said pan, a rectangular roller engaging dip screen disposed in said

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pan, means for selectively supporting said dip screen at different levels in said pan, and a drain screen resting along its upper edge on said fourth side and pivotally attached to said dip screen along its lower edge.

6. A container as set forth in claim 5 wherein said dip screen is supported in said pan by at least two of said vertical sides.

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