April 11, 1950

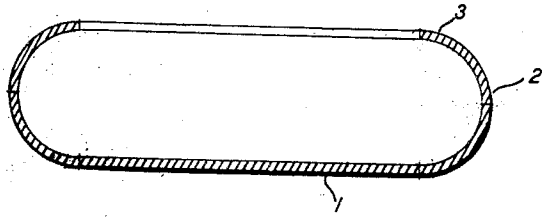
M. WIENER ET AL

2,503,308

PHOTOGRAPHIC TRAY

Filed June 25, 1945

FIG. 2



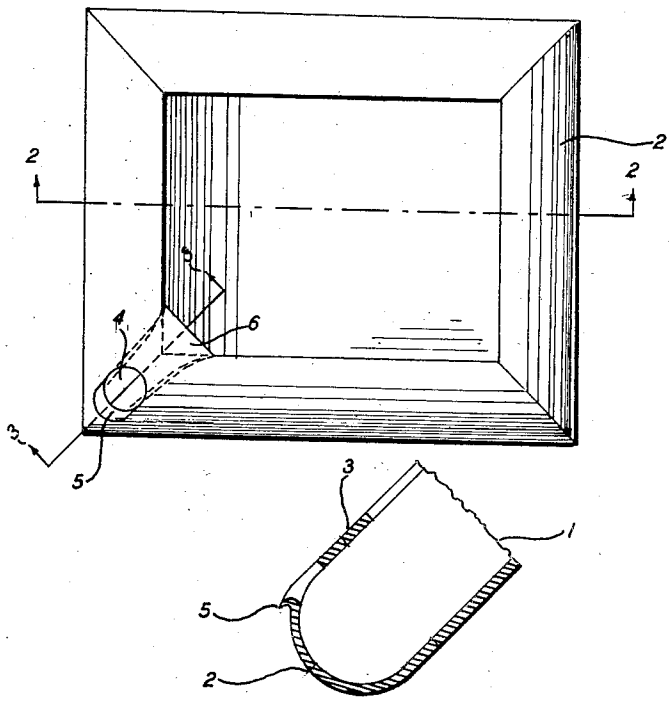




FIG. 1

FIG. 3

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## PHOTOGRAPHIC TRAY

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1 Claim. (Cl. 222—572)

(Granted under the act of March 3, 1883, as amended April 30, 1928; 370 O. G. 757)

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The invention described therein may be manufactured and used by or for the Government for governmental purposes, without the payment to us of any royalty thereon.

This invention relates to improvements in trays used for developing and treating photographic film, plates, and the like.

With the ordinary photographic tray as has heretofore been employed, any movement of the tray while in use, or while being lifted, tends to cause the chemicals or other liquids carried therein to splash or spill over the sides of the tray, resulting in loss of such chemicals, sloppiness and possible spillage and damage to other nearby materials, such as clothing, photographic materials, and photographic equipment.

It is, therefore, an object of this invention to provide a photographic tray constructed so that liquids contained therein cannot splash and spill over the sides thereof.

A further object is the provision of a photographic tray having rounded side walls and provided with a novel arrangement of a decanting spout at the corner junction of two of the walls to enable liquids to be poured therefrom.

These and other objects are attained by the novel construction hereinafter described and illustrated by the accompanying drawings, forming a part hereof, and in which:

Fig. 1 is a plan view of a photographic tray embodying the invention.

Fig. 2 is a sectional view taken on line 2—2 of Fig. 1.

Fig. 3 is a sectional view taken on line 3—3 of Fig. 1.

Referring to the drawings, the photographic tray is shown to comprise a bottom 1, substantially rectangular in plan, and four rounded side walls 2, arcuate in cross section, each side wall being returned and having a free ledge 3 substantially parallel with and partly overlying a line perpendicular to the junction of the side wall and the bottom 1. (See Figs. 2, 3.)

At the junction of two of the side walls the tray is provided with an opening 4, and a lip 5, thus producing a spout through which liquids can be poured from the tray.

While the cross section of the side walls is shown to be that of a substantially full semicircular curve, other curves may be used without departing from the spirit of the invention. But the curve should be continuous in one direction from bottom to top without reentrant and with the upper part returned a distance. The bottom is tangent to the curve at the junction of the

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bottom and side wall, and a tangent from the upper edge extends inward beyond the junction of the bottom and side wall.

As a result of the making of the side walls of the height shown, in proportion to the boundary measurements of the bottom 1, and in the conventional use of developers with plates or the like, the quantity of developing solution will be such that in the rocking of the tray, the surges of the solution across the tray will develop momentum in a part of the solution which will cause it to move outward, upward, and then inward upon the side walls with slight impedance, in such manner as to be projected backward and downward within the boundaries of the bottom and upon the photographic material and/or remainder of solution. This action is of great advantage in accelerating oxidation of the silver, where that is involved, and to remove exhausted material from a work surface. It also safeguards the contents of the tray against spilling or splashing out of the tray in case of accidental extreme tilting of the tray in rocking thereof, as well as preventing spilling when the tray with liquid content is being carried by hand. This is of advantage when processing is being carried on in moving vehicles, and in awkward situations afield where makeshift facilities are used.

From the above description it will be seen that there has been provided a simple and effective photographic tray constructed to prevent splashing and spilling of liquids contained therein. The curved side walls also facilitate lifting of the tray and eliminate the necessity of handles for that purpose. In Fig. 1, the tray is shown provided with a fillet 6 adjacent the opening 4. However, the fillet can be omitted and other forms of openings may be provided to enable pouring of liquids.

The above description is to be considered as illustrative and not limitative of the invention of which modifications can be made without departing from the spirit and scope as set forth in the appended claim.

The invention having been described, what is claimed is:

A photographic tray comprising a rectangular bottom shaped to receive sheets laid thereover, said bottom having side walls continuously curved in one direction upwardly therefrom and inwardly at their upper edges, the terminal edge being close to a line normal to the bottom at the junction of the bottom and side walls, a tangent edge part of the termination of the curved part extending inwardly beyond the line of junction of the bottom and respective adjacent side wall, the bottom

being tangent to the curve at said junction, the side walls being of such height and such curvature that in rocking of the tray with normal liquid content a portion of the liquid will by momentum surge upward and then inward upon said side walls with slight impedance and be returned downward toward said bottom inward of said junction, a decanting aperture being formed in the upper returned part of the said side wall part of the tray adjacent one corner, said aperture being located above and inward of a major part of said curved returned portion, whereby surging liquid moving across the bottom and encountering the apertured side will tend to be returned across said aperture without egress by momentum of the liquid in a direction imparted by the returned side wall portion outwardly of the aperture.

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