No. 647,388. Patented Apr. 10, 1900.

W. I. EVANS.

PHOTOGRAPHIC WASHING TRAY.

(Application filed Oct. 25, 1899.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

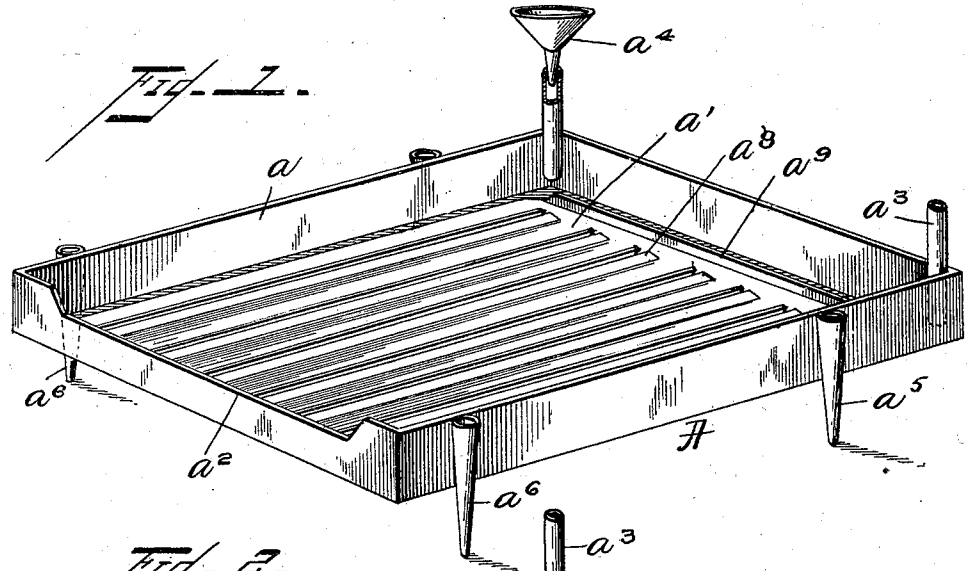


Fig. 2.

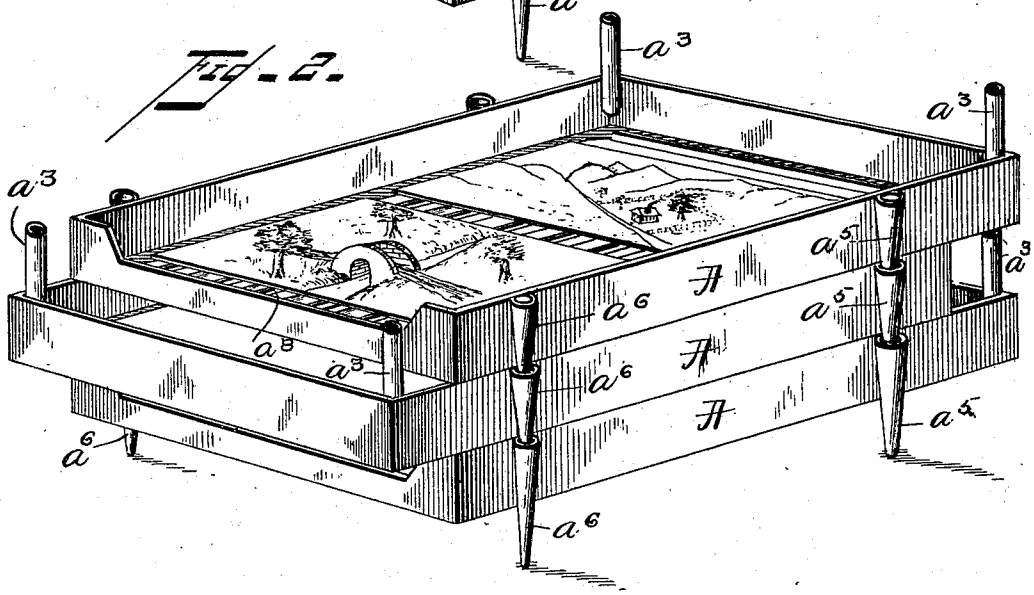
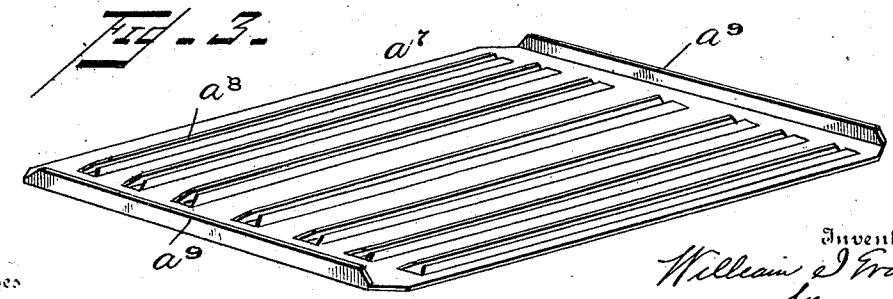
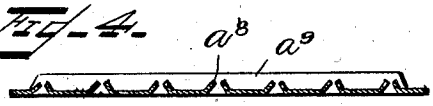


Fig. 3.



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Fig. 4.



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No. 647,388. Patented Apr. 10, 1900.

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PHOTOGRAPHIC WASHING TRAY.

(No Model.) (Application filed Oct. 25, 1899.) 2 Sheets—Sheet 2.

Fig. 5.

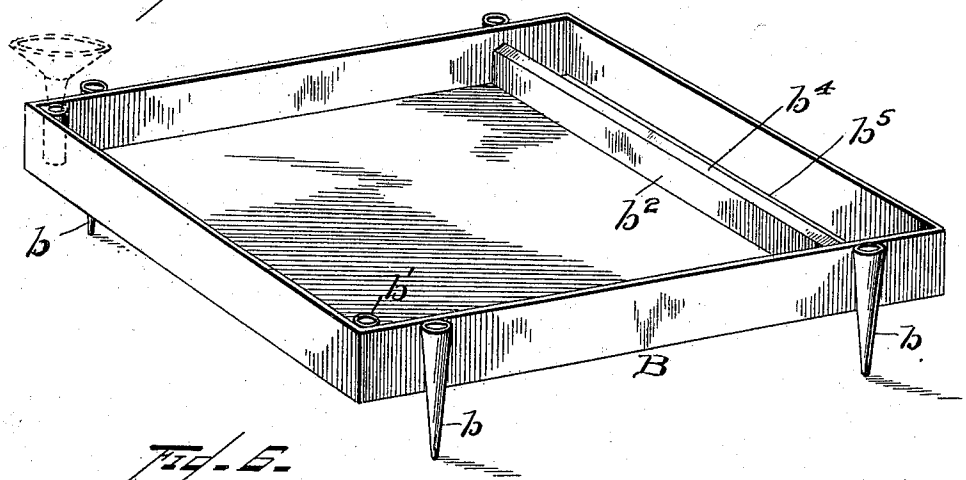


Fig. 6.

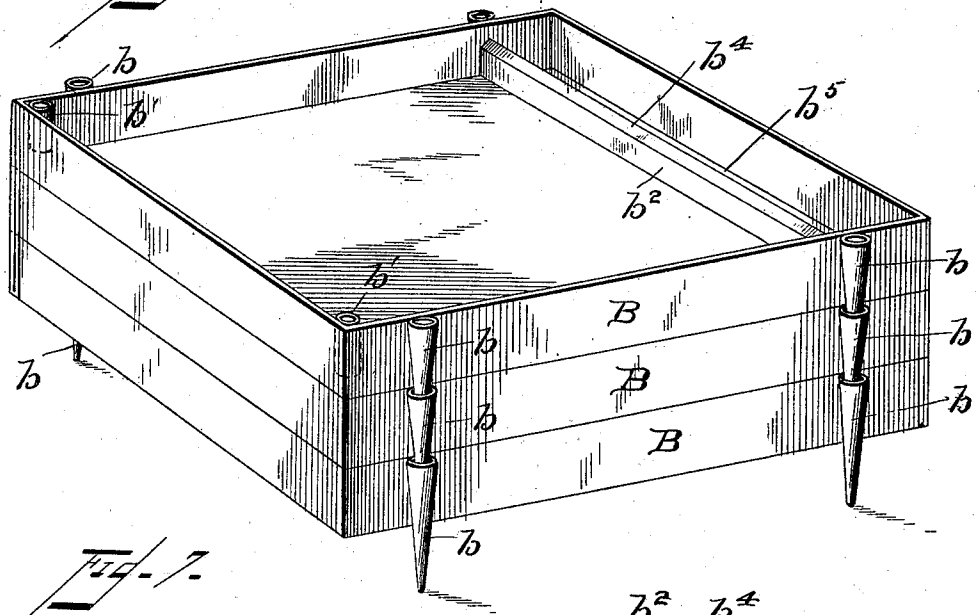
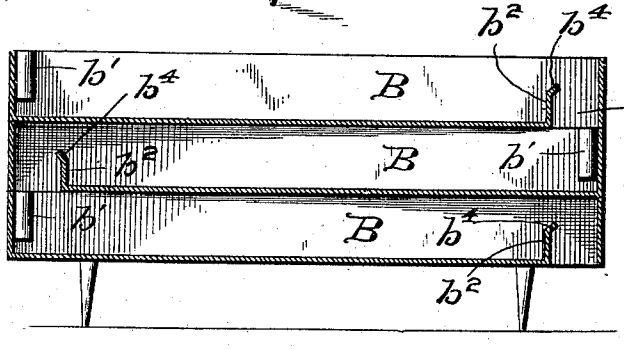


Fig. 7.



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UNITED STATES PATENT OFFICE.

WILLIAM I. EVANS, OF WASHINGTON, DISTRICT OF COLUMBIA.

PHOTOGRAPHIC WASHING-TRAY.

SPECIFICATION forming part of Letters Patent No. 647,388, dated April 10, 1900.

Application filed October 25, 1899. Serial No. 734,766. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM I. EVANS, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Trays for Washing Photographic Negatives and Prints; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to trays for washing photographic prints and negatives; and it consists of certain novel constructions, combinations, and arrangements of parts, as will be hereinafter fully described and claimed.

The object of my invention is to avoid the necessity of employing deep washing trays or boxes, as now in common use, in which the negatives have to be inserted edgewise into the same and in which there is liability of injuring the negatives in removing the same, and to provide comparatively-shallow flat trays into which the negatives can be inserted or removed and which trays can be arranged one above the other to any desired height without liability of the same toppling over or requiring a special rack for supporting the same and in which the overflow from the tray above will be received by a tray below.

In the accompanying drawings, Figure 1 is a perspective view of a single tray constructed in accordance with my invention. Fig. 2 is a perspective view of a nest or series of trays arranged one above the other. Fig. 3 is a perspective view of a removable bottom or rack used in connection with the trays. Fig. 4 is a transverse section through the same. Fig. 5 is a perspective view of a modified form of tray. Fig. 6 is a perspective view showing a nest or series of the modified form of trays arranged one above the other, and Fig. 7 is a vertical longitudinal section through the same.

A in the drawings represents my preferred form of tray, which may be constructed of any suitable material, but preferably of zinc or galvanized iron, and it consists of a rectangular body portion having upright sides a and a flat horizontal bottom a', one of the sides being cut away, as at a^2, to provide for the overflow of water. The tray is provided at a suitable point or points with vertically-arranged tubes a^3, which extend above the upper edge of the tray a suitable distance and down into the tray within a very short distance from the bottom thereof. In the drawings I have shown two of these tubes a^3 arranged in the corners of the tray, but only one may be employed, if desired, and which need not be placed in the corner of the tray, but two are preferable, and to locate them in the corners of the tray is desirable, as will be hereinafter described. By extending the tube down to within a very short distance of the bottom of the tray water can be supplied to the same without any liability of splashing on the negatives, and the water will be evenly distributed to the said negatives. This is very important. An ordinary removable funnel a^4 is employed in supplying water to the trays, which funnel is seated in one of the tubes, as shown in Fig. 1, and receives the supply of water direct from a spigot or other source of supply. If desired, the funnel might be dispensed with and a hose fitted over the upper end of the tube.

The tray is provided with legs a^5 a^6, the legs a^5 being arranged at a greater distance from the end of the tray than the legs a^6 and are preferably made hollow. This is done for the purpose of receiving the legs of a tray placed above the lower tray and so that by turning the upper tray end for end and placing it in this position on the lower tray its overflow end will fall inside of the lower tray, as clearly shown in Fig. 2. By making the legs a^5 a^6 tapering they will fit readily into the legs of a lower tray, so that the edges of two or more trays will come closely together and rest flatly one upon the other, as clearly shown in Fig. 2, which causes an even distribution and uniform flow of water in each tray and from one tray to another. The openings in the legs are made sufficiently large at their upper ends to allow the trays to be readily brought together without liability of binding or the upper tray being slanted, as it is important that both trays be horizontal, so that the water will be evenly distributed throughout the trays and will not allow

any portion of the negatives to be partially exposed or to allow the same to slide under or over one another.

It will be observed that the cut-away portion a^2 does not extend entirely to the sides of the tray, but terminates inside the same, so that the overflow of water will be directly into the lower tray without liability of passing over the sides of the same.

To avoid the negatives adhering to the bottom of the tray by reason of suction, as frequently occurs, I provide a removable rack a^7, which latter is provided with raised portions or corrugations a^8, which raise the negatives sufficiently to allow them to be grasped on the edges between the fingers and lifted without the fingers coming in contact with the face of the negatives. To facilitate the removal of the removable rack, I provide the same with upwardly-extending flanges a^9, as clearly shown in Fig. 3.

As heretofore explained, by my construction and arrangement I am enabled to arrange any number of trays one above the other, so that the overflow from the upper tray will be received by a lower tray without the necessity of the trays being arranged in a stair-step manner, in which latter arrangement the trays are liable to topple over unless supported by an auxiliary rack.

An important feature of my invention is that the trays are exact duplicates one of the others, so that each tray can be used separately and any number of trays can be purchased and that each tray will perform its function independent of the other and when desired can be connected and arranged one above the other, as set forth.

When it is desired to use the tray for washing prints, it is preferable to remove the rack a^7, so that a smooth unobstructed bottom surface is secured for that purpose. While it is preferable to remove the rack a^7, this is not absolutely necessary, as the rack may remain in place, or the rack may form a part of the tray by corrugating the bottom thereof, without departing from the spirit of my invention.

By providing two tubes a^3 a^3 it is not necessary in using a series of trays to turn the whole series of trays around, but only to slide the series of trays backward or forward until the top of the upper tray comes in line with the spigot.

In Fig. 5 I have shown a modified form of tray B, in which the legs b are arranged preferably at equal distances from the ends thereof, but this is not essential, and in which the tubes b' do not extend above the upper edge of the said tray. In this construction also the cut-away portion for the overflow is dispensed with and the overflow is provided in the bottom of the tray, near one end thereof. This overflow is constructed by cutting out a portion of the bottom of the said tray and bending the same upwardly, as at b^3, and then bending the upper edge thereof slightly forward, as at b^4, to form a lip. The portion cut out is of sufficient height when bent up to retain the proper quantity of water in the tray to cover the negatives, this depth of water being uniformly maintained, the excess of water passing over the lip b^4 and running out through the passage b^5, formed in the said tray. When a series of these trays are nested together, as shown in Fig. 6, the overflow will be caught by the tray below. The operation of this form of tray will be precisely the same as the tray shown in Figs. 1 and 2 and needs no further description. The legs b are preferably made hollow, as in Figs. 1 and 2, and telescope one within the other, so that the trays are supported vertically and also prevented from having either a lateral or longitudinal movement.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A tray for washing photographic prints and negatives comprising in its construction a comparatively-shallow body portion having vertically-extending sides, said tray being provided with hollow legs which extend below the bottom of the tray, substantially as described.

2. A plurality of trays for washing photographic negatives and prints, each comprising in its construction a comparatively-shallow body portion having vertically-extending sides, said trays being provided with hollow legs which extend below the bottoms of the trays, the legs of the upper tray resting in the legs of the lower tray, substantially as described.

3. A tray for washing photographic negatives and prints, comprising in its construction a comparatively-shallow body portion having vertically-extending sides, said tray being provided with legs, which are secured thereto at unequal distances from the ends thereof, substantially as described.

4. A tray for washing photographic negatives and prints, comprising in its construction a comparatively-shallow body portion having vertically-extending sides and a cut-out overflow portion, said tray being provided with legs which are secured thereto at unequal distances from the ends thereof, substantially as described.

5. A tray for washing photographic negatives and prints, comprising in its construction a comparatively-shallow body portion having vertical sides, legs which extend below the bottom of said tray, tubes which extend above the upper edge of said tray and downwardly within a short distance of the bottom of the tray, substantially as described.

6. A tray for washing photographic negatives and prints, comprising in its construction a comparatively-shallow body portion having vertical side walls, suitable legs on said tray, tubes for supplying water to the said tray which latter extend within a short

distance of the bottom of the tray and a removable corrugated rack in said tray, substantially as described.

7. A plurality of trays for washing photographic negatives and prints arranged one above the other, each tray comprising in its construction a comparatively-shallow body portion having vertically-extending sides, and a cut-out overflow portion formed in one of the ends thereof, which cut-out portion being of less width than that of the tray, and one end of an upper tray falling inside of one end of a lower tray, substantially as described.

8. A tray for washing photographic negatives and prints which can be used separately or in a series without the use of an auxiliary supporting-rack, said tray comprising in its construction a comparatively-shallow body portion provided with supporting-legs and having upwardly-extending side and end walls, one of said end walls being cut away at its upper edge, said cut-away portion being of less width than that of the tray whereby a regulated overflow-discharge for the water is secured which is of less width than that of the pan, substantially as described.

9. A plurality of trays for washing photographic negatives and prints arranged one upon the other, each comprising in its construction a comparatively-shallow body portion provided with supporting and engaging legs and having upwardly-extending side and end walls, one of said end walls being cut away at its upper edge to form an overflow portion for the discharge of water from one pan to the other, said cut-away portion being of less width than that of the pan, so as to guide and direct the discharge of the water to a lower pan, substantially as described.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

WILLIAM I. EVANS.

Witnesses:

LUTHER L. APPLE,

E. T. FENWICK.