(No Model.)

J. T. LONG.

PHOTOGRAPHIC PRINT WASHER.

No. 361,070. Patented Apr. 12, 1887.

Fig. 2.

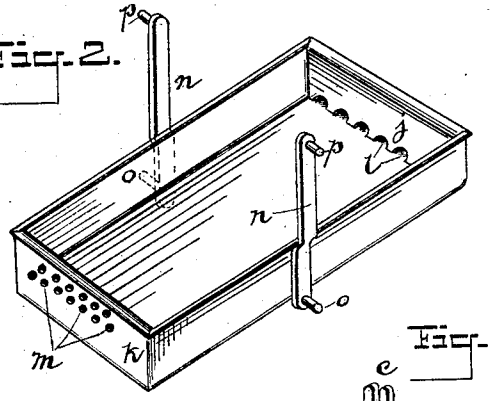


Fig. 3.

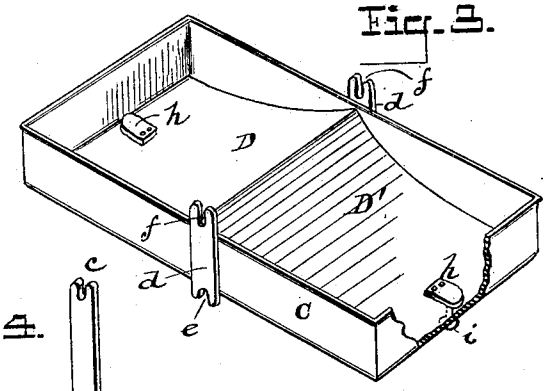


Fig. 4.

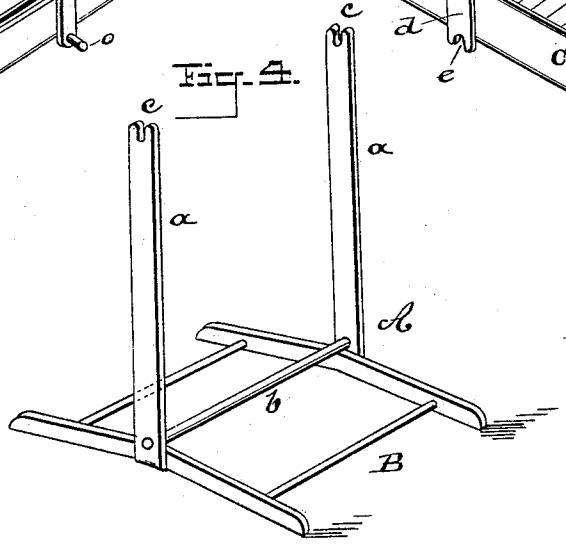


Fig. 5.

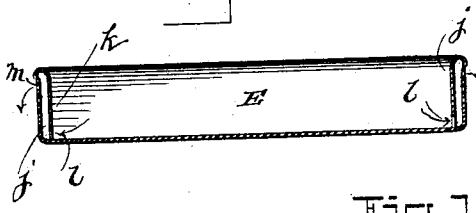
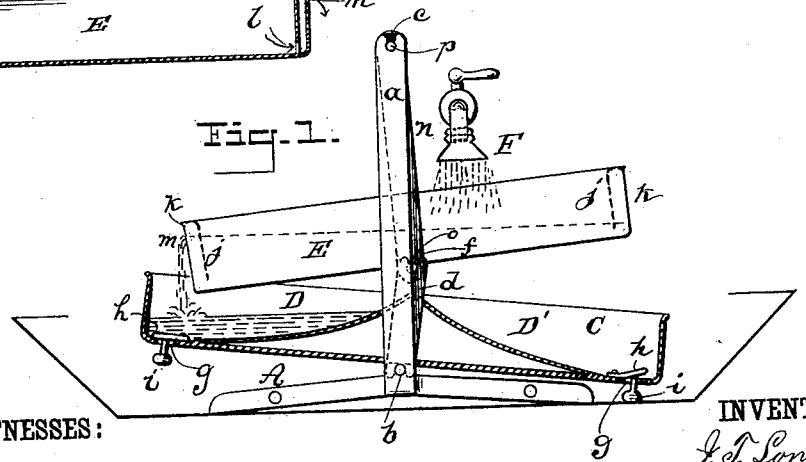


Fig. 1.



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PHOTOGRAPHIC-PRINT WASHER.

SPECIFICATION forming part of Letters Patent No. 361,070, dated April 12, 1887.

Application filed October 25, 1886. Serial No. 217,148. (No model.)

To all whom it may concern:

Be it known that I, JOHN THOMAS LONG, of Menomonee, in the county of Dunn and State of Wisconsin, have invented a new and Improved Photographic-Print Washer, of which the following is a specification, reference being had to the annexed drawings, forming a part thereof, in which—

Figure 1 is a side elevation, partly in section, of my improved photographic-print washer. Fig. 2 is a perspective view of the tray for containing the prints. Fig. 3 is a perspective view of the oscillating tray. Fig. 4 is a perspective view of the frame for supporting the trays, and Fig. 5 is a longitudinal section of the print-washing tray.

Similar letters of reference indicate corresponding parts in all the views.

The object of my invention is to provide apparatus for automatically shifting the position of the print-washing tray, so as to cause the water to reach every portion of the batch of prints, and to constantly renew the water in every part of the tray.

My invention consists in a rocking tray pivotally supported in the lower part of the frame and provided with forked arms for engaging studs projecting from the side of the print-washing tray for communicating an oscillating motion from the rocking tray to the swinging tray.

It also further consists in an arrangement of valves automatically operated by the movement of the rocking tray, so as to cause the tray to periodically tilt on its pivots.

The frame A, which supports both of the trays employed in washing the prints, is provided with a broad base, B, and two vertical standards, *a*, connected near their lower ends by a rod, *b*, and having in their upper ends notches *c*.

The lower tray, C, is provided at the middle of its length, on opposite sides, with vertical bars *d*, which have concave notches *e* at their lower ends for receiving the rod *b*, and slots *f* in their upper ends for operating the print-washing tray. The bottom of the tray C is formed of two parts, D D′, which extend from a transverse line at the middle of the tray, near the top thereof, to the lower edge of the ends of the tray. In the bottom of the tray, near opposite ends, are formed discharge-openings *g*, over which are secured flap-valves *h*, provided with stems *i*, which extend through the openings *g* in position to strike the support of the washer in alternation.

The print-washing tray E is provided with double walls *j k* at opposite ends. The inner wall, *j*, is provided with a row of discharge-apertures, *l*, at the bottom of the tray, and in the outer wall, *k*, there are discharge-openings *m*, near the top of the tray. To the middle of the tray E, on opposite sides thereof, are secured vertical bars *n*, provided at their lower ends with studs *o*, which project outwardly at right angles, and at their upper ends with studs *p*, which also project outwardly at right angles. The studs *p* are received in the notches *c* in the upper ends of the standards *a*, and the studs *o* are received in the slots *f* of the bars *d*, carried by the tray C.

The prints to be washed are placed in the tray E, and water is admitted to the tray preferably through a sprinkler-nozzle, F. When the tray E is filled with water, so that it overflows through the openings *m*, the water is discharged into one of the compartments of the tray C, and when a sufficient amount of water has been discharged into the tray the end of the tray containing the water will preponderate, and the tray C in swinging on its pivot will swing the tray E, thus imparting motion to the water contained therein and the prints submerged in the water. As the filled end of the tray C approaches the support of the washer, the valve-stem *i* strikes the support and opens the valve *h*, allowing the water to escape from that end of the tray C. At or about the same time the water is discharged from the opposite end of the tray E into the higher end of the tray C, when the operation just described will be repeated, but in a reverse direction. The constant swinging of the tray E changes the direction of the water and stirs the prints contained therein, so that a very thorough washing of the prints is secured. The removal of the water from the bottom of the tray carries off the chemicals which are washed from the prints and gravitate toward the bottom of the tray. By removing the wa-

ter from the tray through a series of apertures the water is prevented from tearing the prints. By making the discharge-opening of the tray C in the end of the tray the valves *h'* may be dispensed with.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. In a photographic-print washer, the combination, with a swinging tray, of an oscillating tray actuated by water discharged from the swinging tray, substantially as described.

2. The combination of the tray E, provided with discharge-openings *l m* at opposite ends, and pivotal studs *p* and studs *o*, the frame A, provided with the notched standards *a* and the transverse rod *b*, the rocking tray C, having a bottom formed of two sections, D D', elevated in the middle of the tray, the bars *d d*, provided with notches *e* at their lower ends and slots *f* at their upper ends, and the valves *h*, provided with stems *i*, substantially as described.

3. The combination of the tray E, provided with discharge-openings *l m* at opposite ends, and pivotal studs *p* and studs *o*, the frame A, provided with the notched standards *a* and the transverse rod *b*, the rocking tray C, having a bottom formed of two sections, D D', elevated in the middle of the tray, the bars *d d*, provided with notches *e* at their lower ends and slots *f* at their upper ends, and the valves *h*, provided with stems *i*, and the sprinkler-nozzle F, substantially as described.

JOHN T. LONG.

Witnesses:
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FRED L. FRENCH.