(No Model.)

G. R. PERKINS.

PHOTOGRAPHIC WASHING TANK.

No. 562,239. Patented June 16, 1896.

Fig. 1.

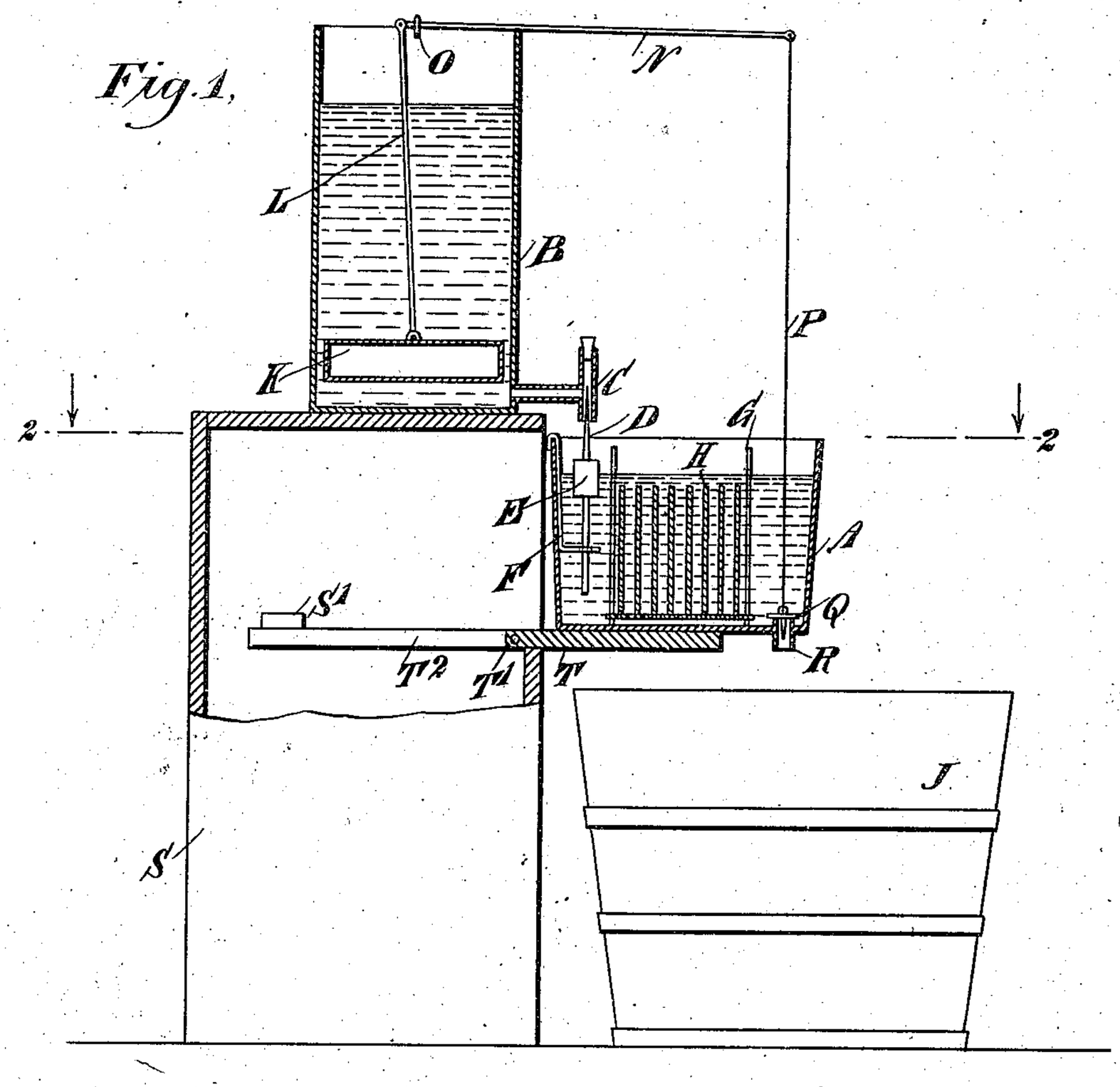


Fig. 2.

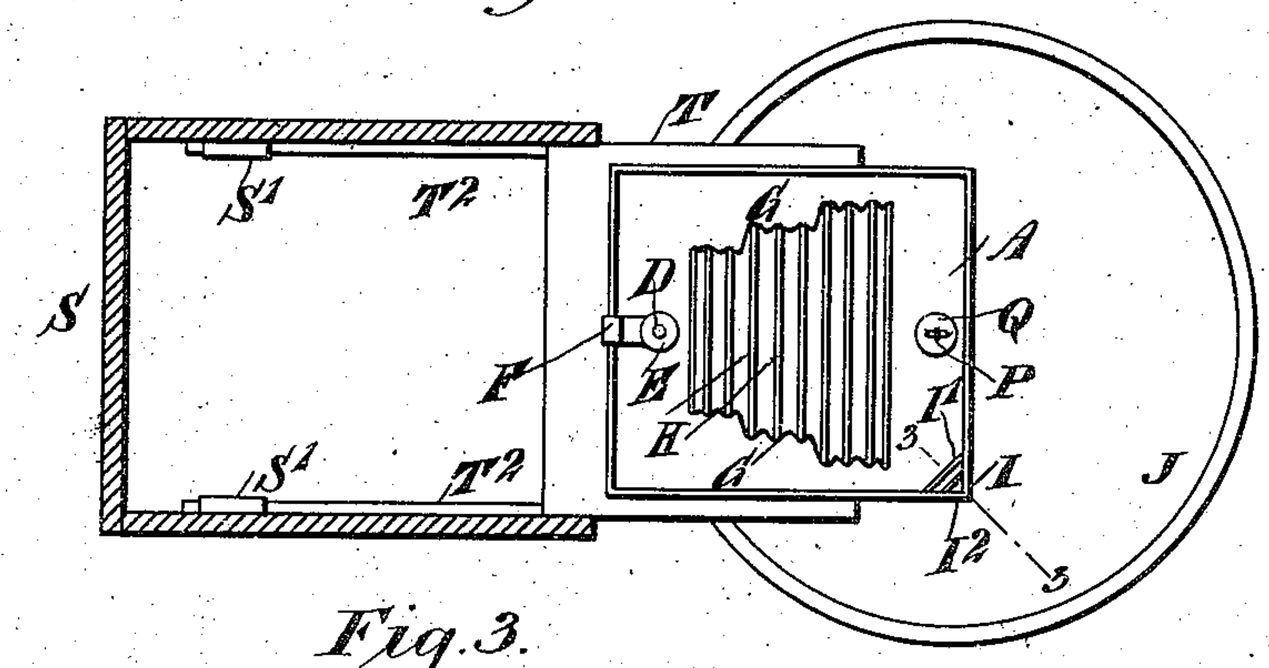
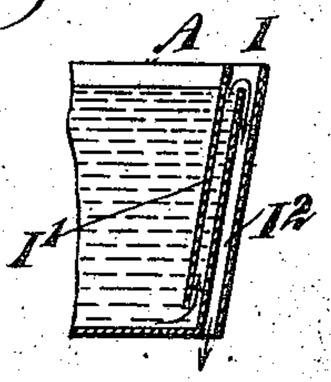


Fig. 3.



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PHOTOGRAPHIC WASHING-TANK.

SPECIFICATION forming part of Letters Patent No. 562,239, dated June 16, 1896.

Application filed February 15, 1896. Serial No. 579,425. (No model.)

To all whom it may concern:

Be it known that I, GEORGE R. PERKINS, of Schuyler, in the county of Colfax and State of Nebraska, have invented a new and Improved Washer for Photographic Negatives, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved portable washer for photographic negatives, arranged for properly washing the developed negative-plates, and for permitting the same to dry after washing and without requiring a rehandling of the plates.

The invention consists principally of a wash-box having an overflow and an automatically-opening outlet, said wash-box being adapted to contain the negative-plates to be washed, and a float-valve for controlling the water-supply to said box.

The invention also consists of certain parts and details and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional side elevation of the washer. Fig. 2 is a sectional plan view of the same on the line 2 2 of Fig. 1, and Fig. 3 is a sectional side elevation of the overflow for the wash-box on the line 3 3 of Fig. 2.

The improved device is provided with a wash-box A and a water-supply tank B, having an outlet C, adapted to discharge water into said wash-box A, as indicated in the drawings. The amount of water passing through the outlet C into the wash-box A is regulated by a needle-valve D, held to slide vertically and mounted on a float E, adapted to rise and fall with the water in the wash-box A.

The upper end of the valve D extends into the outlet C, and the lower end thereof is guided in a bracket F, held on the rear wall of the box A. In the latter is adapted to be set a rack G, of any approved construction, and adapted to support in a vertical position the exposed negative-plates H, to be washed by the water passing through the wash-box A. The rack G is preferably made with corrugated sides made step-like, as indicated in Fig. 2, so as to accommodate negative-plates of various sizes.

In one of the corners of the box A, preferably at the front, is arranged an overflow I, made in such a manner that the water enters the overflow at the bottom of the box, to prevent fresh water from being drained off by the overflow, and to cause the impure water—that is, that which has passed over the plates H—to be drawn off as fresh water enters at the outlet C. For this purpose the overflow I is provided with inner and outer channels I′ I², (see Fig. 3,) of which the inner channel I′ extends from the top of the box to within a short distance of the bottom thereof, and its upper end connects with the upper end of the channel I², which opens at its lower end to the outside of the box, to discharge the water into a pail J, set below the wash-box A.

In order to drain the wash-box A of all the liquid contained therein after the plates H are washed, I provide the following device: In the supply-tank B is arranged a float K, connected by a link L with a lever N, fulcrumed on the top edge of the tank, and limited in its swinging motion by a stop O, so as to hold the float K normally in an uppermost position; that is, as long as water is in the tank B. The outer end of the lever N is pivotally connected by a cord or rope P with a valve Q, normally seated on the outlet R, arranged in the bottom of the box A, and situated directly over the pail J, so that when all the water is discharged from the tank B the float K sinks, and in doing so imparts a downward-swinging motion to the inner end of the lever N and an upward-swinging motion to the outer end of said lever, whereby the cord or rope P lifts the valve Q off its seat to open the outlet R. The water contained in the box A is now drained off through said outlet R into the pail J.

In using the device, the rack G, filled with the plates H, is set in the wash-box A and the latter and the tank B are filled with water. The float E in the form of a cork is adjustably held on the valve D, so that the amount of water dripping through the outlet C past the valve D can be regulated to any desired degree. Now, as the water rises in the wash-

box A to within a short distance of the upper end and above the partition between the channels I′ I², the surplus of water flows off through the overflow into the pail J. It will be seen that by this arrangement fresh water flows into the wash-box A from the tank B continuously for a desired length of time, to insure a proper washing of the plates H, it being understood that the impure or wash water is drained off by the overflow I into the pail J. When the tank B is nearly empty, the float K commences to sink, and in doing so finally lifts the valve Q off its seat, whereby all the water from the wash-box A is discharged through the outlet R into the pail J. Thus the washed plates H can remain in the box A until they are completely dry, it being understood that the draining of the water from the box A is automatic, and consequently the plates need not be disturbed or removed from the box A until they are completely dry.

In order to make the apparatus portable and to readily set the same up for use whenever required, I provide a packing-box S, in which the box A and tank B, as well as the other parts, can be stored when not in use. This box S is adapted to support at its top the tank B, as shown, part of the front side being made in the form of a hinged door T, adapted to be swung downward into a horizontal position, so as to form a shelf for the wash-box A. This door T is fulcrumed at T′ in the sides of the box and is provided with rearwardly-extending arms T², adapted to abut against the under side of stops S′, secured to the inside of the box to hold the door in a horizontal position. When not in use, the door T is closed to form a continuation of the side of the box.

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

1. A photographic washing-tank, comprising a wash-box having an outlet and provided with an overflow, a reservoir for supplying water to the wash-box, a valve for closing the outlet of the wash-box, and means for automatically opening the valve to empty the wash-box when the reservoir is empty or nearly so, substantially as described.

2. A photographic washing-tank, comprising a wash-box having an outlet in its bottom and provided with an overflow, a reservoir for supplying water to the wash-box, a valve for closing the outlet of the wash-box, a float in the reservoir, and a connection between the float and valve for operating the latter from the former when the reservoir is empty or nearly so, substantially as described.

3. A photographic washing-tank, comprising a wash-box having an outlet in its bottom and provided with an overflow, a reservoir having its outlet above the wash-box, a float-valve in the wash-box for controlling the supply of water from the reservoir to said box, a valve for closing the outlet of the wash-box, a float in the reservoir, and a connection between the float and the valve in the outlet of the wash-box, substantially as herein shown and described.

4. In a photographic washing-tank, the combination with a reservoir having an outlet in its lower portion, of a wash-box arranged under the outlet and provided with an overflow, a needle-valve having guided movement in the wash-box, and a float on the said valve, substantially as described.

5. In a photographic washing-tank, the combination with a reservoir having an outlet, of a wash-box below the outlet of the reservoir and having an outlet in its bottom and provided with an overflow, a valve in the outlet of the wash-box, a float in the reservoir, and a pivoted lever having one end connected with the float and the other end with the valve, substantially as described.

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Witnesses:
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