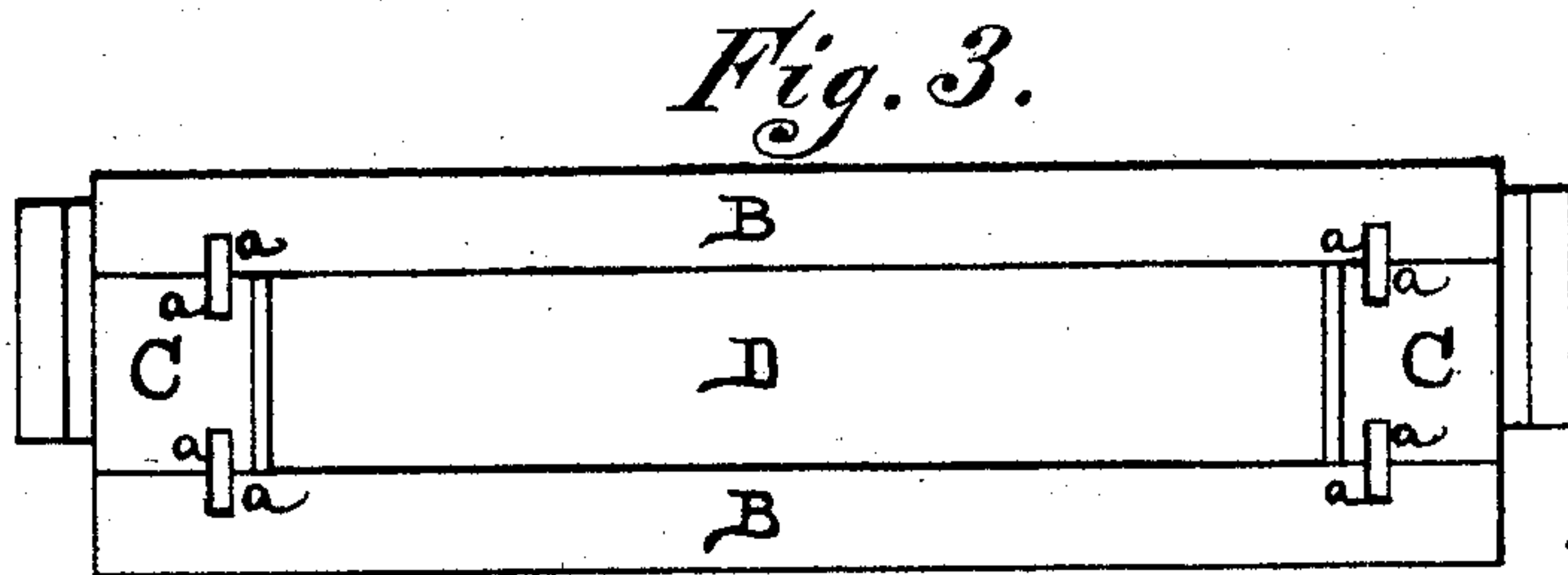
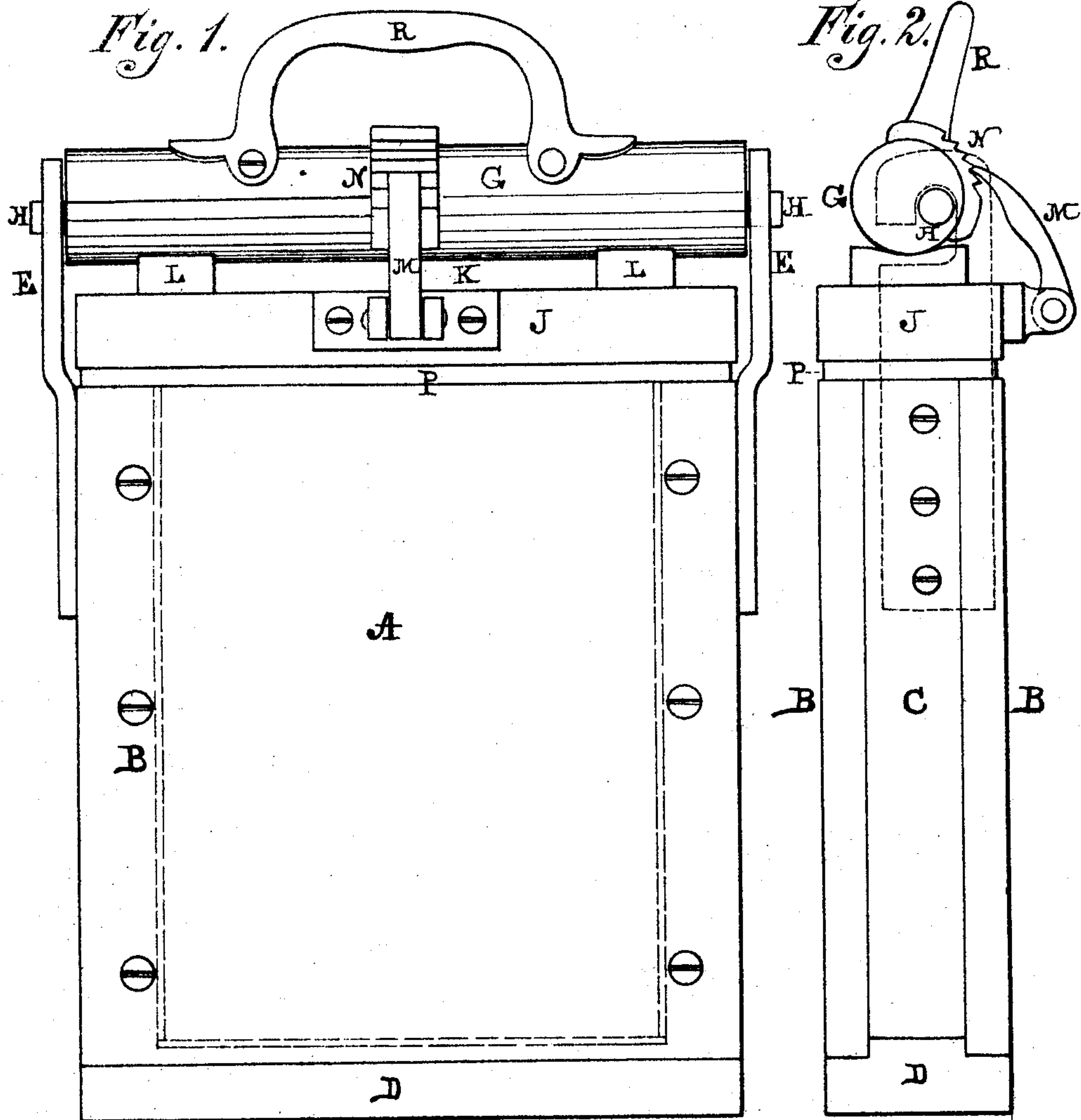


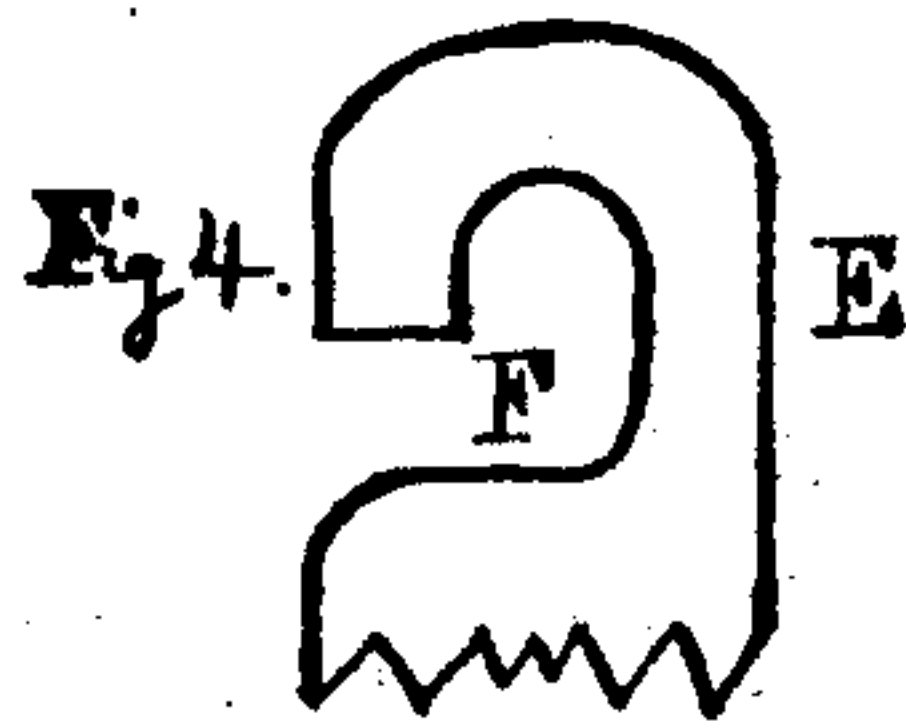
R. NEWELL.
Photographic Baths.

No. 152,246.

Patented June 23, 1874.



Witnesses.
D. Beidelman
J. H. Knepp



Inventor.
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UNITED STATES PATENT OFFICE.

ROBERT NEWELL, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN PHOTOGRAPHIC BATHS.

Specification forming part of Letters Patent No. **152,246**, dated June 23, 1874; application filed December 9, 1873.

To all whom it may concern:

Be it known that I, ROBERT NEWELL, of the city and county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Photographic Baths; and I do hereby declare the following to be a clear and exact description of the nature thereof, sufficient to enable others skilled in the art to which my invention appertains to fully understand, make, and use the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a front view of the device embodying my invention. Fig. 2 is a side view thereof, a portion having been removed. Fig. 3 is a top view thereof, the cover of the box being removed. Fig. 4 is a view of a detached part.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to a photographic bath wherein negatives are to be coated preparatory to application to the camera. The invention consists in the construction of the bath box or holder to prevent leakage. It also consists in means for securely holding the cover on the box or holder. It further consists in rubber blocks interposed between the cover and the eccentric roller which forces the cover against the box or holder, for preventing strain on the parts during the great leverage of the roller.

Referring to the drawings, A represents a box, which is preferably constructed deep and narrow, and of wood. The sides B and end pieces C of the box are firmly secured to each other, and vertically grooved, as at *a a*, at such points that each groove of the sides will communicate with one of the grooves of the end pieces, and the grooves break the joints transversely between the sides and end pieces. The grooves thus constructed form vertical channels, which will be filled with cement or other suitable material, so that the bath, solution, or preparation placed in the box will be prevented from passing out of the joints of the box, the same being resisted by the transverse channel, as stated, the location of the latter being such that the entire space of the interior of the box is preserved. The inner

face of the box will be coated with an acid-proof composition in order to protect the wood, and a lining of glass or other suitable material may be placed on the coating to prevent scratching or cutting thereof by the negative placed in the box. The bottom D of the box will be attached to the body thereof by rabbeted joints to prevent escape of the bath solution or preparation through the bottom. From each side of the box A there rises an ear, E, which is formed with an open slot, F, of somewhat L shape. G represents a roller, having gudgeons or journals H, which are arranged eccentrically on the sides or ends of the roller. The roller is adapted to be placed between the ears E E, and the gudgeons or journals are to enter the slot in said ears. The box A is provided with a cover, J, which fits thereon between the ears E E, and the roller G is elevated above the cover J to leave a space, K, between the cover and roller. Blocks L of rubber are secured to the top of the cover J, and, when the roller is in position, rest in the space K. M represents a pawl, which is hinged to one side of the cover J and adapted to engage with the teeth of a ratchet, N, secured to the face of the roller G. A packing, P, will be interposed between the cover J and body of the box, and a handle, R, secured to the roller G, for purposes to be stated.

The operation is as follows: The box A constitutes a holder or bath for the preparation with which the negative is to be coated. The cover J is placed in position on the top of the box. The roller G is now located on cover J, and its gudgeons are inserted into the slots F of the ears E to the upper termination or limbs of said slots, the blocks L keeping the gudgeons in such position, and said upper terminations of the slots constituting the subsequent fulcrum of the roller G. Now rotate the roller, by means of the handle R, in the direction opposite to the pawl M, and, owing to the eccentric axis of the roller, the latter will be pressed against the blocks L, and force the cover J tightly against the box. The pawl M will then drop on the ratchet N, or may be brought against it by hand, and engages with one of the teeth of the ratchet. This movement locks the roller, and completes the operation of holding the cover in place. It will

now be seen that the box is completely closed on all sides, and is proof against air, light, and escape of the bath solution or preparation. Access to the box for removing the coated negative is had by turning the roller so as to clear the pawl from the ratchet and permit the disengagement of said pawl and ratchet, after which the roller lets up the cover, which, with the roller, can then be easily removed, and the interior of the box is exposed. Owing to the great leverage of the roller, the rubber blocks L between the roller and cover of the box, while serving to communicate motion from the roller to the cover, yield sufficiently to prevent dead strain on the various parts and protect them from fracture and breakage.

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

1. The combination, with the sides and end

pieces B C of the bath-box A, of the grooves *a a*, arranged in relation to the joints of said sides and end pieces and operating as herein set forth.

2. The eccentric roller G and ears E, in combination with the bath-box A and cover J, substantially as and for the purpose set forth.

3. The ratchet N and pawl M, in combination with the roller G, cover J, ears E, and bath-box A, substantially as and for the purpose set forth.

4. The combination, with the eccentric roller G, cover J, ears E, and bath-box A, of the rubber blocks L, interposed between the roller and cover, substantially as and for the purpose set forth.

ROBT. NEWELL.

Witnesses:

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