(No Model.)

S. B. PRATT.

DEVICE FOR HOLDING PHOTOGRAPHIC PLATES IN DEVELOPING TRAYS.

No. 306,281. Patented Oct. 7, 1884.

Fig. 1.

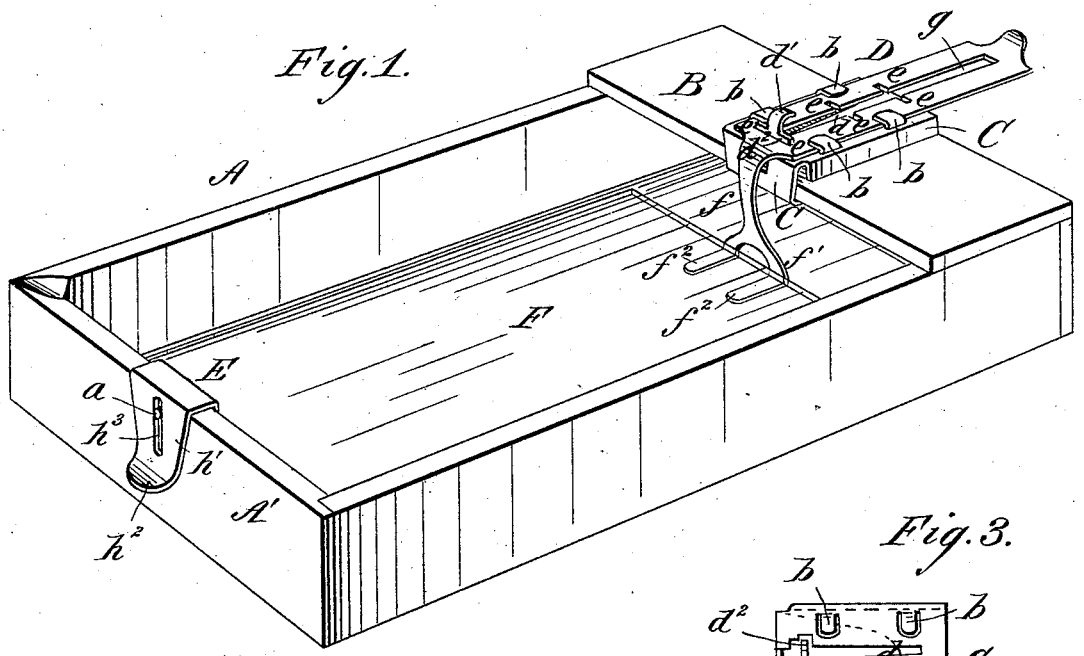


Fig. 3.

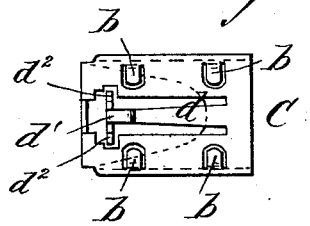
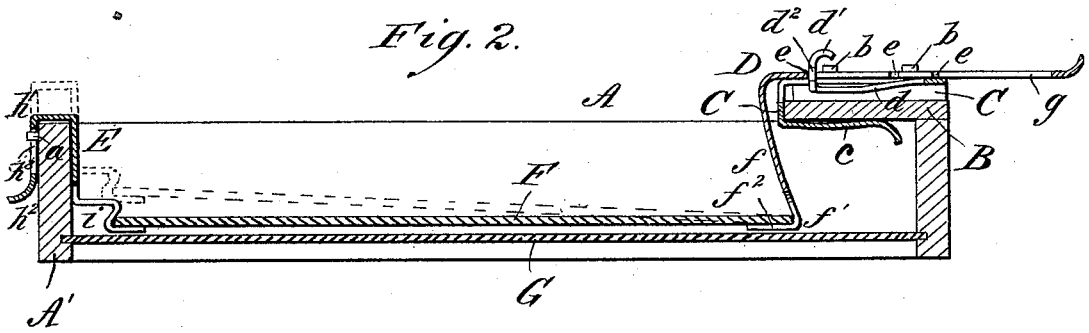


Fig. 2.



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DEVICE FOR HOLDING PHOTOGRAPHIC PLATES IN DEVELOPING-TRAYS.

SPECIFICATION forming part of Letters Patent No. 306,281, dated October 7, 1884.

Application filed February 18, 1884. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL B. PRATT, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and Improved Device for Holding Photographic Plates in Developing-Trays, of which the following is a full, clear, and exact description.

The object of this invention is to provide novel and convenient means for holding photographic plates in the liquid contained in the developing-tray, and means for easily removing the plates from the liquid without immersing the fingers in the liquid, the device being adapted to be adjusted for holding plates of different sizes.

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

Figure 1 is a perspective view of a photographer's developing-tray having my invention applied thereto. Fig. 2 is a longitudinal sectional elevation of the same, and Fig. 3 is a plan view of the clamp-plate and guide which holds the sliding spring-foot or holding-plate.

The developing-tray A may be of the ordinary or of any approved construction, and may be made of wood or metal, and it is provided at one end, upon its upper edges, with the partial cover B, on which is placed the clamp C, which holds the spring holding-plate D, and the end piece, A′, of the tray A is provided with the stud or pin *a*, which keeps the plate supporting and lifting device E in place and guides it in its up and down movement, as hereinafter described. The clamp C is struck up from sheet metal so as to form the lips *b b*, which hold and guide the spring-holding plate D by its edges, and so as to form, also, the lower spring-tongue, *c*, which is adapted to hold the plate C upon the partial cover B, and also to form the upper spring-catch, *d*, which is adapted to engage, by its head d^2, with the notches *e e* made in the plate D, for holding the said plate D at any desired position, according to the size of the plate F to be held in the developing-tray A. The plate D, is formed with the inner spring-section, *f*, which reaches nearly to the glass bottom G of the tray A, and this section *f* is bent at its lower end to form the foot *f′*, which is divided (to avoid shading the plate) to form the two narrow parts f^2 f^2, on which one end of the plate F is supported, and the said plate D is slotted, as shown at *g*, to admit the passage up through it of the finger-piece *d′* of the spring-catch *d*, so that the spring-catch *d* may be easily pressed downward by pressing down upon the said finger-piece *d′* for disengaging the spring-catch *d* from the notches *e*, for allowing the plate D to be slid forward or backward between the lips *b b* to suit the length of the plate F to be developed. The inner portion of the supporting and lifting plate E is of such length relative to the width of the end piece, A′, that when at its lowest position it reaches nearly to the bottom G of the tray A, and this portion is bent at its lower end or edge to form the S-shaped ledge or detent *i*, which receives and holds the rear end or edge of the plate F, as shown in Fig. 2, and the outer portion, *h′* of the plate E is bent to form a clasp-spring for holding the plate E upon the end piece, A′, and this outer portion, *h′*, is also bent outward at its lower end to form the finger-piece h^2 by which the plate E may be easily raised or slid upward upon the end piece, A′, for lifting the rear end of the plate F out of the liquid contained in the tray A, as shown in dotted lines in Fig. 2; and this outer portion, *h′*, is slotted, as shown at h^3, to act in connection with the pin or stud *a* as a guide and stop, to limit the upward movement of the plate E in lifting the plates F out of the liquid in the tray A, as will be understood from the said figure.

To place the plate F in the tray with my invention, the metal holding-plate D will first be adjusted to suit the length of the plate F to be developed. Then the holding and lifting-plate E will be raised to the position shown in dotted lines in Fig. 2. Then one end of the plate F will be placed in or upon the foot *f′* of plate D, and the plate F will then be pressed forward against the spring portion *f*, which will yield sufficiently to permit the other end of the plate to be lowered into the S-shaped

ledge or detent *i*, where the pressure of the spring portion *f* of plate D will cause the plate F to be securely held. Then the plate E will be pressed downward upon the end board, A′, to the position shown in full lines, which will immerse the plate F in the liquid contained in the tray A.

To remove the plate F from the tray A, the holding and lifting plate E has simply to be raised upon the end board, A′, to the position shown in dotted lines in Fig. 2, which will lift one end of the plate F out of the liquid and permit the finger to be passed between the end of the plate F and the inner surface of the board A′, so that the plate may be lifted out of the tray without the necessity of putting the fingers in the liquid. In this manner it will be seen that the device is very convenient, that it may be applied to any developing-tray, and that it may be easily adjusted to hold plates of different sizes.

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

1. The combination, with a developing-tray, of the sliding plate E, arranged to hold one end of the photographic plate, and adapted to be raised for lifting one end of the photographic plate out of the liquid, substantially as described.

2. The combination, with the plate E, for holding one end of the photographic plate, of the foot *f f′*, for holding the other end of the photographic plate, substantially as described.

3. The combination, with a developing-tray and spring-foot *f f′*, for holding one end of the photographic plate, of a suitable detent, *i*, for holding the opposite end of the photographic plate, substantially as described.

4. The combination, with the detent *i*, for holding one end of the photographic plate, of the adjustable plate D, formed with the spring-foot *f f′*, substantially as and for the purpose set forth.

5. The plate D, having spring-foot *f f′*, in combination with the clamp C, arranged for holding the plate D, and adapted to be attached to the tray A, substantially as and for the purposes set forth.

6. The clamp C, formed with the spring-tongue *c*, spring-catch *d*, and lips *b*, in combination with the plate D, slotted and notched, and formed with the spring-foot *f f′*, substantially as and for the purposes set forth.

7. The combination, with the developing-tray A, of the sliding, holding, and lifting plate E, clamp C, and sliding plate D, held by the clamp C and formed with the spring-foot *f f′ f²*, substantially as and for the purposes set forth.

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