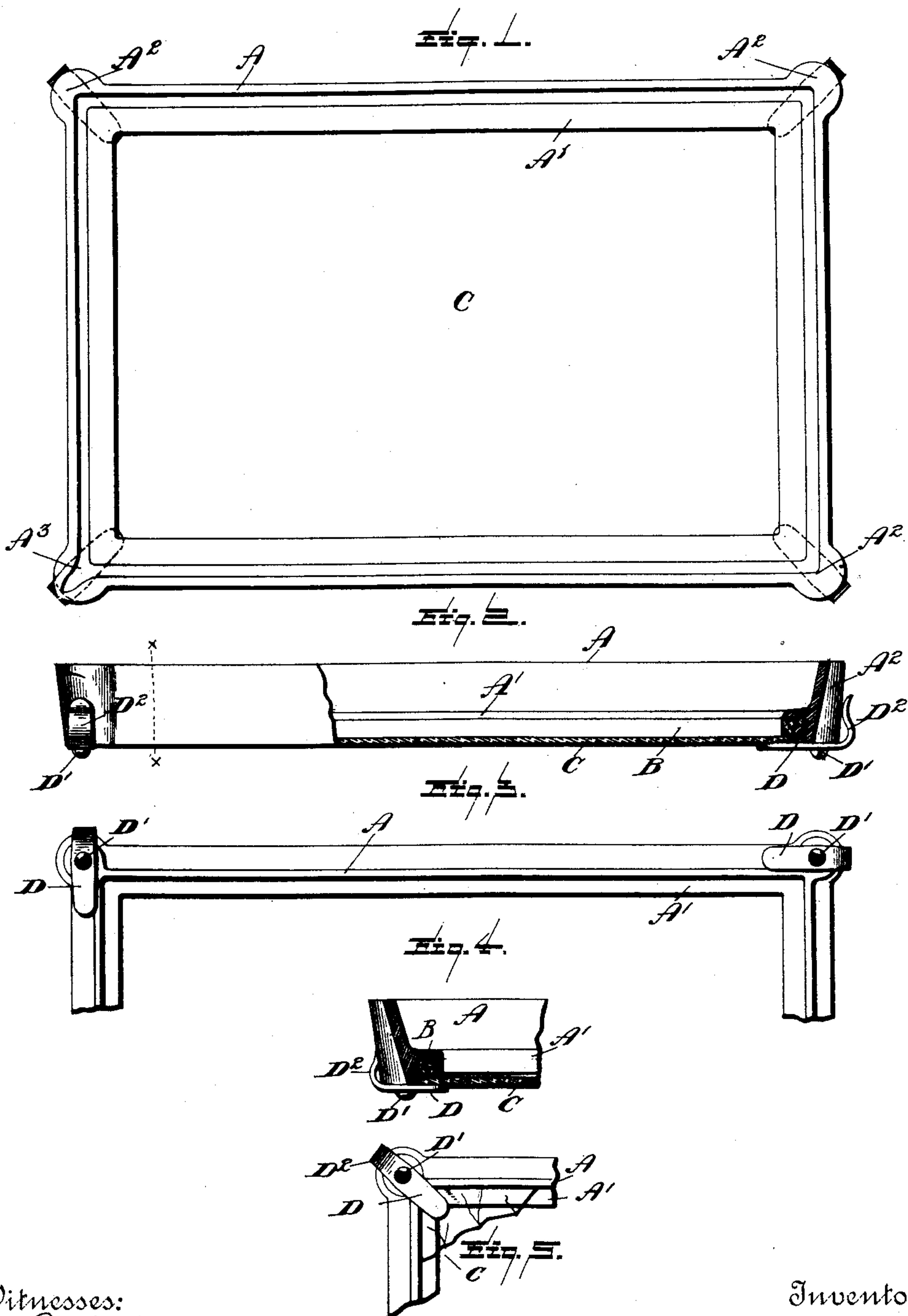


(No Model.)

T. S. WILES.  
PHOTOGRAPHIC PLATE DEVELOPING TRAY.

No. 402,214.

Patented Apr. 30, 1889.



Witnesses:

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# UNITED STATES PATENT OFFICE.

THOMAS S. WILES, OF ALBANY, NEW YORK.

## PHOTOGRAPHIC-PLATE-DEVELOPING TRAY.

SPECIFICATION forming part of Letters Patent No. 402,214, dated April 30, 1889.

Application filed December 21, 1888. Serial No. 294,268. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS S. WILES, a citizen of the United States, residing at Albany, in the county of Albany, State of New York, have invented certain new and useful Improvements in Photographic-Plate-Developing Trays, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention has relation to a pan or tray for the use of photographers and others, the object of the invention being to provide a pan or tray for developing and otherwise manipulating photographic plates.

15 Other objects and advantages of the invention will appear in the following description, and the novel features thereof will be particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a plan of a tray constructed in accordance with my invention. Fig. 2 is a side elevation with a portion broken away, showing the plate in position in the tray. Fig. 3 is a bottom view of a portion of the tray. Fig. 4 is a vertical section on the line  $x x$  of Fig. 2, and Fig. 5 is a plan of one corner of the tray inverted.

Like letters of reference indicate like parts in all the figures of the drawings.

20 A tray constructed in accordance with my invention is bottomless, and therefore consists of substantially a frame, A, which constitutes the sides and ends of the tray, the whole being formed of hard rubber or other suitable material.

35 Within the frame there is formed a flange, A', projecting substantially at a right angle from the walls, the latter being preferably inclined or flared. The purpose and object of the flange A' are to provide a recess for the reception of a soft-rubber packing, B, which extends completely around the bottom of the frame and against the inner surfaces of the walls thereof.

45 If desired, the flange A' may terminate substantially flush with the inner surface of the packing B, as shown in Fig. 2; or said flange may extend downwardly along said inner surface, as illustrated in Fig. 4. In the one construction there is formed a rabbet and in the other a groove for the reception of the packing B.

C represents a photographic plate or any

well-known photographic film-carrier, whether of glass or other material. The size of the tray is such as to receive the plate C within the walls of the tray and below the packing B. At each corner of the tray a plate-holding latch, D, is arranged in such a manner as to permit of its being placed beneath the plate to hold it against the packing and within the frame, and to be removed from beneath the plate to permit of its separation from the tray.

The plate-holding device may be of any desired construction; but in this instance it is formed of sheet metal and mounted on a screw, D', inserted in the corner of the frame. As thus described, the screw-heads D' serve as feet for the tray to rest upon.

An extension, D<sup>2</sup>, of the latch D is in this instance provided and bent to form a spring-tongue, which is adapted to bear upon projections A<sup>2</sup>, having a curved outline in cross-section and formed one at each corner of the tray. The projection and spring-tongue extension D<sup>2</sup> are relatively constructed and arranged so that the latter may spring against the former with sufficient pressure to retain the latch D in that position in which it serves to hold the plate within the tray. A pouring-lip, A<sup>3</sup>, is formed at one corner of the tray.

This being the construction the use and operation of the invention are as follows: When it is desired to employ the tray in connection with a developing-bath, the tray is inverted and a plate, after having been exposed, is placed film side down upon the packing B and is pressed thereon to form a liquid-tight joint and is retained in contact with the packing by turning the latches D until they project upon the plate. The tray is then turned right side up, the developing-bath poured therein, and the development of the plate progressed with until the proper time for washing the same, when the developer is poured from the tray by aid of the lip A<sup>3</sup>, and water is next introduced to wash the negative, and when this process has been completed the tray is inverted, the latches removed from above the plate, and the plate removed for drying, when another plate may be inserted in the tray and the process repeated.

Having described my invention, what I claim is—



1. A bottomless tray adapted to receive within its walls a photographic plate serving as a bottom and provided with swiveled fastening devices for retaining the plate removably in position, substantially as specified.

2. A bottomless tray provided with plate-securing devices having extensions adapted to bear upon the exterior of the walls of the tray, substantially as specified.

3. A bottomless tray provided with corner extensions, in combination with plate-securing devices extended to form spring-tongues, substantially as specified.

4. A bottomless tray provided with plate-retaining devices connected with the tray by headed securing devices, whereby the latter perform the additional function of feet, substantially as specified.

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

THOMAS S. WILES.

Witnesses:

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