

No. 728,538.

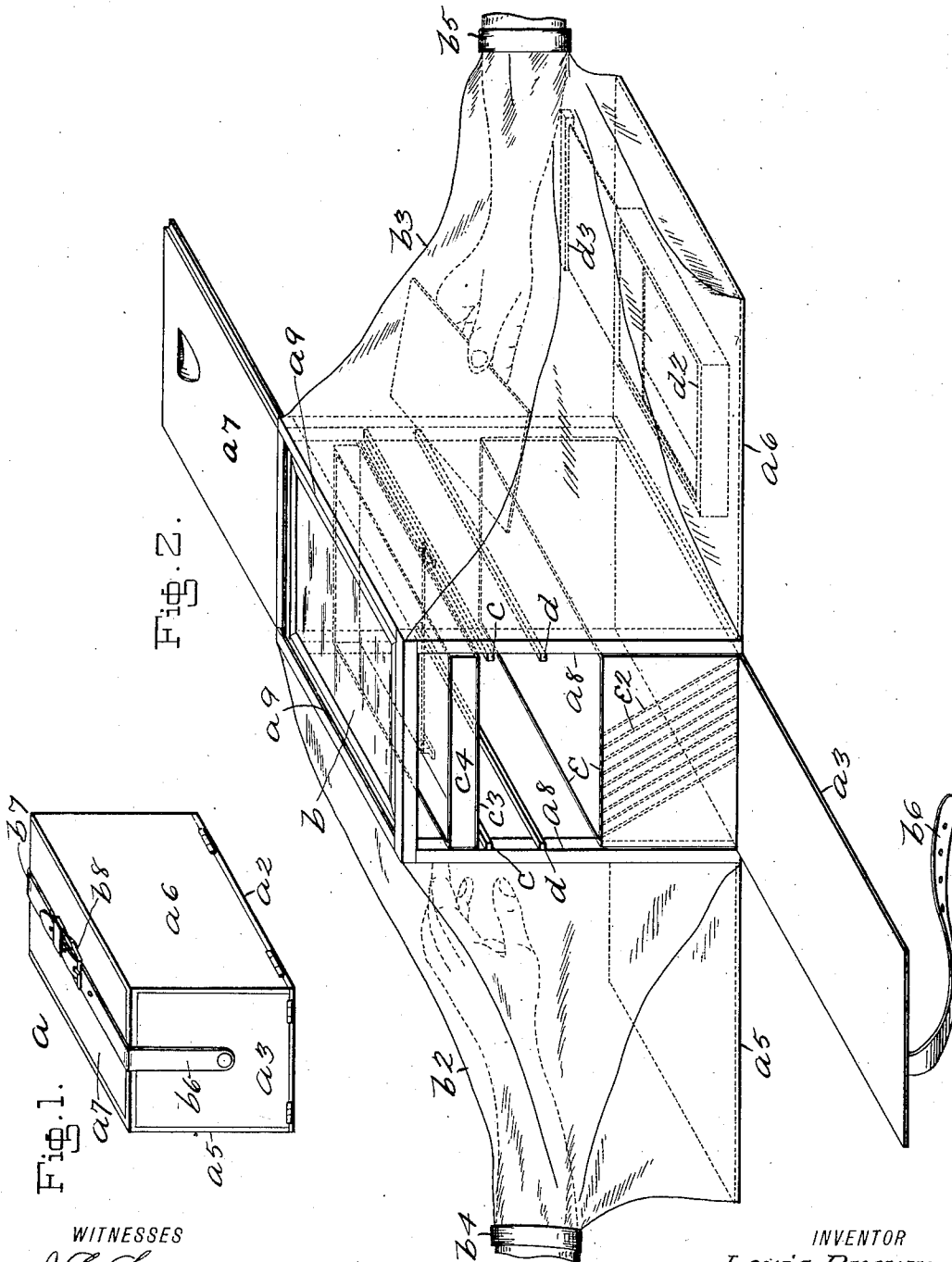
PATENTED MAY 19, 1903.

L. BROWN.
PHOTOGRAPHIC PLATE DEVELOPING APPARATUS.

APPLICATION FILED MAR. 6, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



WITNESSES

J. C. Lassen
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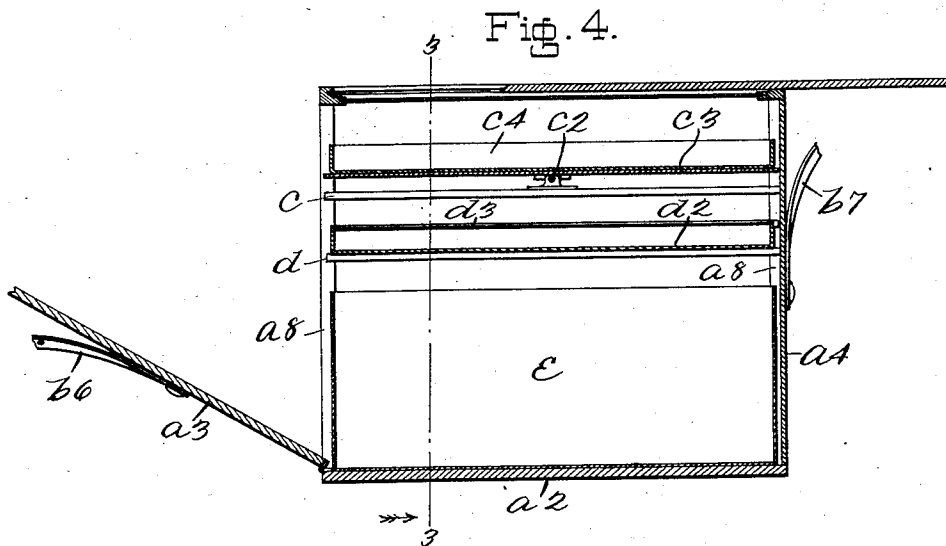
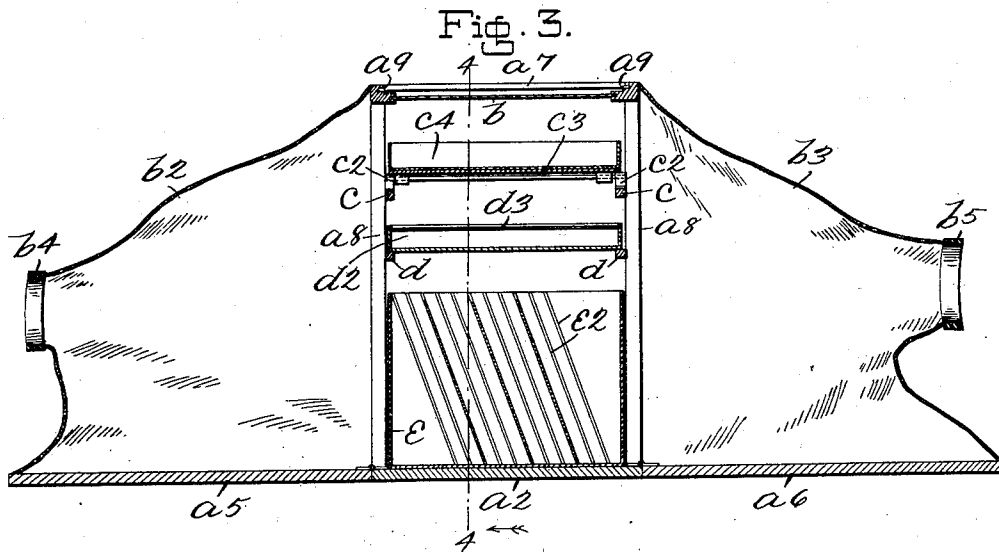
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UNITED STATES PATENT OFFICE.

LOUIS BROWN, OF NEW YORK, N. Y.

PHOTOGRAPHIC-PLATE-DEVELOPING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 728,538, dated May 19, 1903.

Application filed March 6, 1903. Serial No. 146,461. (No model.)

To all whom it may concern:

Be it known that I, LOUIS BROWN, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Photographic-Plate-Developing Apparatus, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the same.

The object of this invention is to provide an apparatus whereby the development of photographic plates may be readily accomplished in broad daylight without the use of a dark room, a further object being to provide an apparatus of the class described which may be used for either films or plates and wherein the development thereof may be noted from without; and with this and other objects in mind the invention consists of a photographic plate or film development apparatus of the class hereinafter described and claimed.

My invention is fully described in the following specification, of which the accompanying drawings form a part, in which similar reference characters are used to indicate similar parts in each of the views, and in which—

Figure 1 is a view of my apparatus closed; Fig. 2, a view thereof open and in operative position; Fig. 3, a transverse section thereof on the line 3 3 of Fig. 4, and Fig. 4 a longitudinal section thereof on the line 4 4 of Fig. 3.

In the practice of my invention I provide a box or casing *a*, consisting of a bottom member *a*², end members *a*³ and *a*⁴, side members *a*⁵ and *a*⁶, and a top member *a*⁷, and the end member *a*³ and side members *a*⁵ and *a*⁶ are hinged to the bottom member *a*², as will be readily seen, and secured to the bottom member *a*² is a frame *a*⁸, provided with a run *a*⁹ at its top, in which the top member *a*⁷ is adapted to slide, the said top member serving as a cover thereby.

Beneath the top member *a*⁷ and secured in the frame *a*⁸ is a glass plate *b*, which is preferably colored and is similar to the ordinary ruby glass used in photography, and secured to the top and sides of the frame *a*⁸ and to the edges of the hinged sides *a*⁵ and *a*⁶ are two pieces of flexible material *b*² *b*³—such as rubber, silk, &c.—and which form light-tight

bags or casings on each side of the box *a*, and the flexible casings *b*² and *b*³ are each provided with an elastic opening *b*⁴ and *b*⁵, respectively, and the end members *a*³ and *a*⁴ are each provided with straps *b*⁶ and *b*⁷, the straps *b*⁷ of which are provided with buckles *b*⁸, which engage the end of the straps *b*⁶, and which closes the box, as clearly shown in Fig. 1.

Secured to the frame *a*⁸ and at each side thereof below the ruby glass *b* are members *c*, which carry at their centers hinges *c*² and on which is mounted a plate *c*³, which serves as a support for a tray *c*⁴ for holding the developing fluid, and by means of the hinges *c*² a rocking motion may be given to the tray *c*⁴. Also secured to the frame *a*⁸ and at each side thereof are fixed members *d*, which serve as a support for a box *d*² when the apparatus is closed, as shown in Fig. 1, and the box *d*² is provided with a sliding cover *d*³, which is entirely light-proof. Resting on the bottom *a*² of the box *a* is a tank *e*, which is much deeper than the tray or bath *c*⁴ and which is provided with slanting or inclined grooves *e*², adapted to hold the plate being developed.

The operation is as follows: When it is desired to develop a number of plates at once in daylight, the end members *a*³ and side members *a*⁵ and *a*⁶ are opened and the box *d*² placed on the member *a*⁵ or *a*⁶, and the plate-holders containing the exposed plates are then inserted, through the open end of which serves as a cover, and, if desired, the tray *c*⁴ and tank *e* may at this time be removed to allow room for more plate-holders. The cover *a*⁷ is also opened or removed, and when a sufficient number of the plate-holders are within the box *a* the end *a*³ is closed, and the operator inserts his hands and arms through the openings *b*⁴ and *b*⁵, which being elastic permits of no light passing therethrough. The operator then removes the plates from the holders and places them in the box *d*², which is closed when all the plates are so placed, and the operator having withdrawn his hands the end *a*³ is again opened and the plate-holders removed, and if the tray *c*⁴ and tank *e* have previously been removed they are filled or partially filled with the developing liquids and replaced in their respective positions. The operator then removes the cover *a*⁷, rein-

serts his hands through the elastic openings b^4 and b^5 , opens the box d^2 , removes a plate therefrom, and places the same in the tray c^4 , which being close to the ruby glass permits of his viewing the same and observing when the plate is sufficiently developed, the tray c^4 being agitated to thoroughly cover the plate with the liquid in the tray, and when so treated the plate may be removed and placed in one of the grooves e^2 of the tank e , which contains the hypo or other bath, and this operation is repeated for each plate in the box d^2 . The box a by means of this construction being light-proof except through the ruby glass b , the plates will not be spoiled, and when all the plates have been placed in the tank e the operator removes his hands, opens the end a^3 , withdraws the tank e , and the developed plates are removed, dried, and are ready for printing.

It will be apparent that my apparatus may be made of any size to fit regular or special plates, and various changes in and modifications of the construction herein shown and described may be made without departing from the spirit of my invention or sacrificing its advantages.

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

1. A photographic-plate-development apparatus comprising a casing, the side members and one end member of which are hinged at the bottom thereof, a frame mounted therein a ruby-glass plate secured in the top thereof, a removable cover mounted thereover and flexible casings provided with elastic apertures secured to the tops and sides of said

side members and to said frame adjacent thereto, substantially as shown and described. 40

2. In a photographic-plate-development apparatus of the class described, a casing the side members and one end member of which are hinged, a frame mounted therein, a ruby-glass plate in the top thereof, a removable cover therefor, a plurality of supports mounted on said frame, a tray and light-tight box supported thereon, and a flexible casing connecting the tops and sides of each of said side members with the adjacent tops and sides of said frame substantially as shown and described. 50

3. In an apparatus of the class described a casing, the side members and one end member of which are hinged, a frame therein a ruby-glass plate and removable cover therefor in the top of said frame a tank and light-tight box removably mounted in said frame, a longitudinally-arranged support on each inner side of said frame and near the top thereof, a plate pivotally mounted on said supports, a tray resting on said plate, flexible casings connecting said side members with said frame, elastic apertures in each of said flexible casings, and means for securing said casing in a closed position, substantially as shown and described. 60

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 5th day of March, 1903. 70

LOUIS BROWN.

Witnesses:

F. A. STEWART,
C. E. MULREANY.