

R. V. TUTTLE.
DEVELOPING CABINET.
APPLICATION FILED APR. 6, 1914.

1,132,808.

Patented Mar. 23, 1915.

Fig. 1.

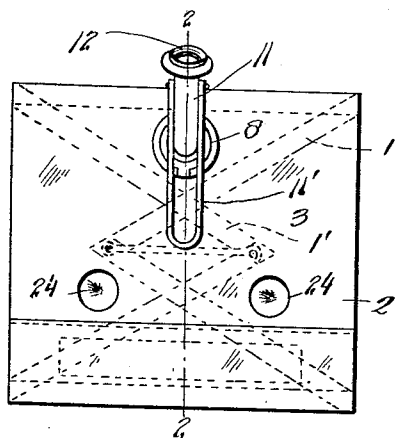


Fig. 3.

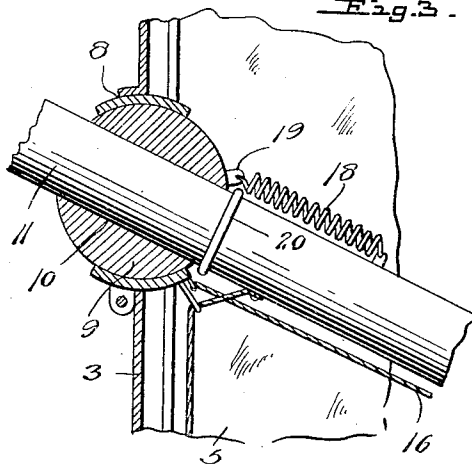


Fig. 2.

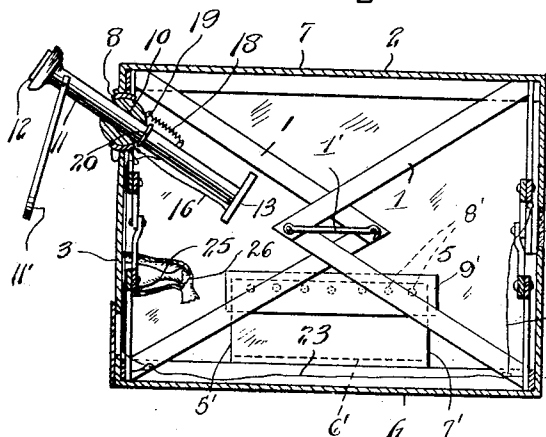


Fig. 4.

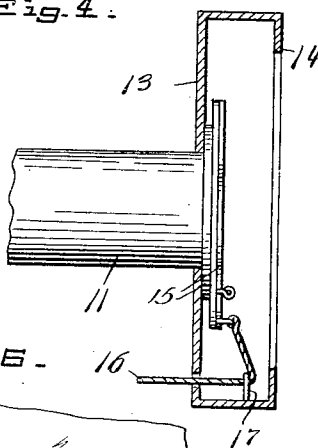


Fig. 5.

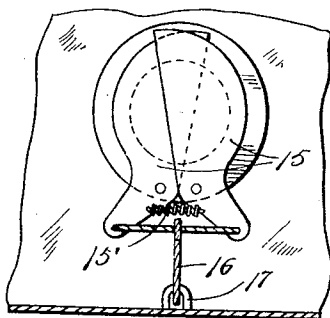
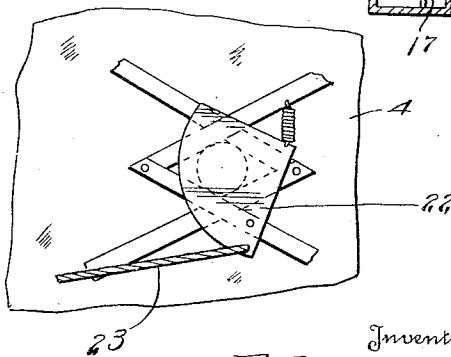


Fig. 6.



Witnesses

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DEVELOPING-CABINET.

1,132,808.

Specification of Letters Patent.

Patented Mar. 23, 1915.

Application filed April 6, 1914. Serial No. 830,021.

To all whom it may concern:

Be it known that I, RALPH V. TUTTLE, a citizen of the United States, residing at Pomeroy, in the county of Garfield, State of Washington, have invented certain new and useful improvements in Developing-Cabinets; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The present invention is directed to improvements in cabinets for developing photographic plates or films, and has for its object to so construct a device of this character that a photographer can observe the developing process in a convenient manner and without danger of letting light enter the cabinet.

With these and other objects in view, this invention resides in the novel features of construction, formation, combination and arrangement of parts to be hereinafter more fully described, claimed and illustrated in the accompanying drawing, in which:—

Figure 1 is an end view of the device. Fig. 2 is a sectional view on line 2—2 of Fig. 1 the sleeve for accommodating the arm of the operator being shown in section. Fig. 3 is a detail sectional view of the sight tube and its connection. Fig. 4 is an enlarged detail view, partly in section of the inner end of the sight tube. Fig. 5 is an end view of the sight tube and a portion of the casing therefor. Fig. 6 is a fragmental view of the shutter.

Referring to the drawing, the numeral 1 designates a frame, which is so constructed that the same can be easily and quickly folded when desired and held in operative position by hooks 1', said frame being covered by a suitable fabric 2. The frame is so constructed that when covered with the fabric 2 that end walls 3 and 4, side walls 5, bottom 6 and a top 7 are provided.

In order that plates may be inserted into the cabinet in one of the side members 5 is an opening 5' and sewed along the lower edge of the opening at 6' is a flap 7' detachably secured to the upper edge of the opening by glove fasteners 8'.

In order that all possibility of light entering the cabinet through the opening 5' when the flap 7' is in place may be obviated, I have secured along the upper and side edges of the opening a second flap 9' which

extends over and covers the upper edge of the flap 7'.

Pivotally connected to the wall 3 is a ring 8, which is concavo-convex in cross section so as to swivelly support the ball 9, said ball being provided with an axial bore 10 in which is slidably mounted the sight tube 11, said tube having its outer end provided with a pneumatic rubber cushion 12 so that the eye of the operator can be engaged with the tube without discomfort.

Attached to the upper end of the tube is a rubber band 11' which may be slipped around the head of the operator while he is looking through the tube 11 to hold his eye in contact with the cushion member 12 so that no light may enter the cabinet in this way.

The inner end of the sight tube 11 is provided with a casing 13, which has an open side 14 so that there will be no obstruction to the vision when the device is in operation.

Pivotally connected to the inner end of the sight tube 11 and operable in the casing 13 are shutters 15 which when in overlapping relation close the inner end of the tube so that light cannot enter the cabinet there-through. The shutters 15 are held closed by an expansion spring 15' which is secured to the shutter members at its ends. The shutters are automatically opened, when pressure is applied to the sight tube 11 to move the same inwardly which is occasioned by the operator placing the eye against the ring 12.

A cord 16 is flexibly connected to the shutters 15 at one of its ends, and has its other end connected to the ring 8, said cord being passed through the loop 17 carried by the casing 13. Thus it will be seen that when the tube 11 is forced inwardly, the shutters will be automatically opened, thus allowing the operator to look through the tube to observe the developing operation.

To return the tube 11 to its normal or inoperative position a coil spring 18 is provided, and has one end fixed to the tube and the other end fixed to the ear 19 carried by the ball 10, the outward movement of said tube being limited by the annular shoulder 20 carried by the tube.

A ruby glass 21 is carried by the end wall 4 and covers a hole 21' in the said wall and is normally covered by the removable shutter 22 so that light cannot enter there-through. This shutter is normally held

closed by a coil spring 22' connected thereto and to the frame 1. The shutter is opened by means of a cord 22''.

Connecting the shutter 22 and sight tube 11 is a cord 23, the length of which is such that when the tube 11 is forced inwardly by the operator the shutter 22 will be shifted so as to uncover the ruby glass thus permitting sufficient light to enter the cabinet to observe the developing process.

The front wall 3 is provided with openings 24 which register with the inner and outer sleeve sections 25 and 26, respectively which are designed to be engaged by the arms of the operator so that the arms can enter the cabinet for manipulating the plates or films being developed. These sections 25 and 26 are initially pressed into such shape that the ends will be normally closed, but which will be spread by the insertion of the arm of the operator. It will be obvious that when the arms are moved from the sleeves that the same will collapse, thus preventing light entering through the openings 24.

What is claimed is:—

1. A developing cabinet comprising a frame, a cover for the frame, a sight tube

swivelly supported by the covering, shutters carried by the inner end of the sight tube, and means for automatically opening the shutters when the tube is moved inwardly and means for automatically closing the said shutters.

2. A developing cabinet comprising a frame having an aperture therein, a cover for the frame, a ring carried by the covering, a ball swivelly supported by the ring, a sight tube slidably engaged with the ball, shutters carried by the inner end of the sight tube, a ruby glass carried by the covering and closing the aperture therein, a shutter normally covering the ruby glass, and means for operating the first named shutters and second named shutter for uncovering the inner end of the tube and ruby glass, and means for automatically closing the said shutters respectively, as and for the purpose set forth.

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

RALPH V. TUTTLE.

Witnesses:

J. H. BROCKMAN,
A. E. DICKSON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."