

R. H. BROWN.
 PORTABLE DEVELOPING CABINET.
 APPLICATION FILED DEC. 21, 1907.

903,052.

Patented Nov. 3, 1908.

2 SHEETS—SHEET 1.

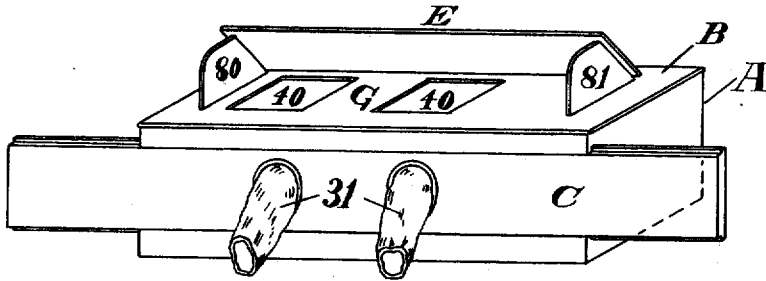


Fig. 1.

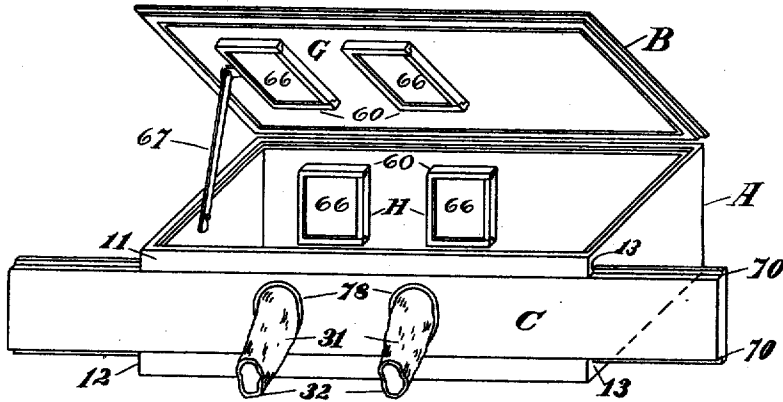


Fig. 2.

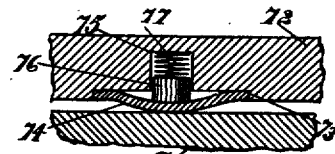


Fig. 4.

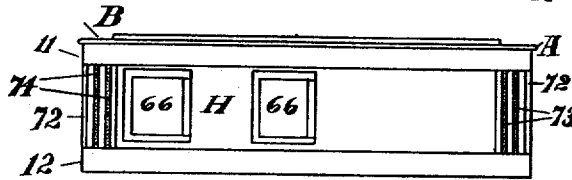


Fig. 3.

WITNESSES:

Fisher H. Pearson
Clarence A. Parr.

INVENTOR.

Richard H. Brown
 BY
Clarence A. Parr
 ATTORNEY.

R. H. BROWN.
 PORTABLE DEVELOPING CABINET.
 APPLICATION FILED DEC. 21, 1907.

903,052.

Patented Nov. 3, 1908.
 2 SHEETS—SHEET 2.

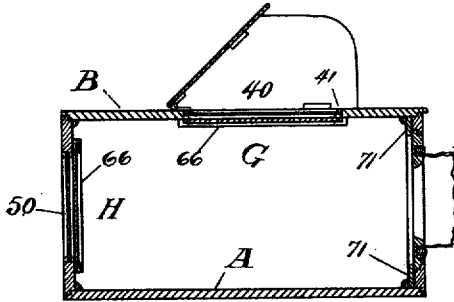


Fig. 5.

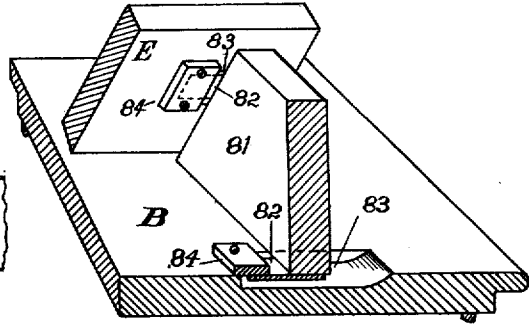


Fig. 6.

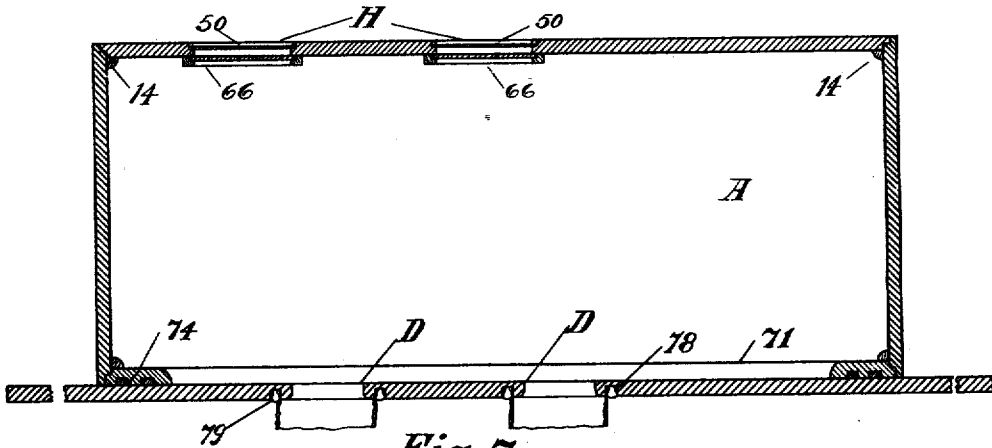


Fig. 7.

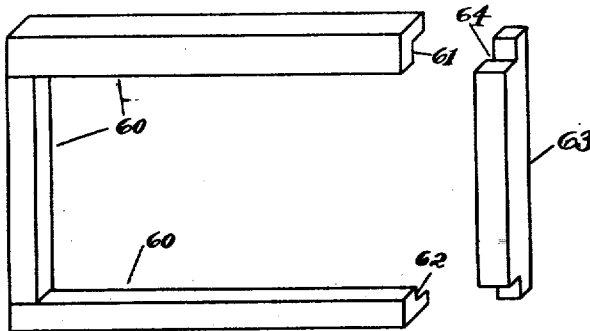


Fig. 8.

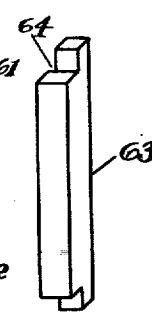


Fig. 9.

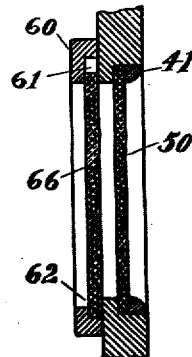


Fig. 10.

WITNESSES:
 Fisher H. Pearson
 Florence A. Parr.

INVENTOR.
 Richard H. Brown,
 BY
 Gardner W. Pearson
 ATTORNEY.

UNITED STATES PATENT OFFICE.

RICHMOND H. BROWN, OF LAWRENCE, MASSACHUSETTS.

PORTABLE DEVELOPING-CABINET.

No. 903,052.

Specification of Letters Patent.

Patented Nov. 3, 1908.

Application filed December 21, 1907. Serial No. 407,505.

To all whom it may concern:

Be it known that I, RICHMOND H. BROWN, a citizen of the United States, residing at Lawrence, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Portable Developing-Cabinets, of which the following is a specification.

My invention relates to improvements in portable dark rooms or developing cabinets for photographic work and is especially adaptable for developing and fixing sensitive plates, films, or paper, and for loading holders.

The object of my invention is to provide a cabinet which is of such shape and size as to allow of loading holders, to receive the various trays of developing and fixing solutions and to receive a number of plates, films or papers and, at the same time, is small enough to be conveniently carried around, and is so arranged that every part of it will be readily accessible to the operator.

In the accompanying drawing, Figure 1 is a front perspective view with the cover down. Fig. 2 is a front perspective view with the cover raised. Fig. 3 is a front view with the slide removed. Fig. 4 is a detail of a modified form of bearing. Fig. 5 is a sectional side view. Fig. 6 is a detail of the light shade and ends connection. Fig. 7 is a sectional top view. Figs. 8 and 9 are details of the supplementary glass frame and Fig. 10 is a detail section of the glass frames.

My cabinet consists of a box A which is of a length to receive, side by side, the different trays and films or plates used in developing. It is preferably made of wood in such manner as not to warp or crack. It may however be made of sheet metal or other suitable material. Its width, from front to back, is comparatively small and its depth is comparatively small. It is open at the top and is provided with a hinged cover B. The front is substantially open, see Fig. 3, and is provided at the top and bottom with strips 11, 12, in which are suitable grooves or rabbets, 13, 13. In these grooves 13, 13, an arm slide C, which is considerably longer than the cabinet, slides freely. In this arm slide C are arm holes D around which are attached sleeves 31.

In the cover and back of the cabinet are windows G and H of nonactinic glass which provide light for and a view of the interior. The developing materials, plates, and other

articles, are placed inside the box A and the cover is closed. The arms of the operator are then inserted through the sleeves 31 and arm holes D so that his hands are inside. By reason of the length and longitudinal sliding action of arm slide C, he is enabled to reach freely from one end of the cabinet to the other and to all parts thereof for developing the plates or handling the different articles therein.

All flat parts of the cabinet are preferably rabbeted to fit each other, and, as an additional precaution to keep out the white sunlight, a quarter round strip 14 may be broken around the various joints.

The cover B is hinged at the back and is provided with preferably two windows G in which are panes 40 of nonactinic glass, as for instance, ruby glass, leaving considerable space at the right without glass. These are for the operator to look through at his work while they exclude the sunlight which injures the light sensitive surface. The cover B is rabbeted on the outside around the window openings to receive the ruby panes 40, and these are held in place by means of quarter round moldings 41 tacked around the edges.

At the back of the cabinet, I place two more windows H, with ruby panes 50 in a corresponding position and manner to those on the cover. A dark space is thus left on the right of the cabinet where the holders or other light-tight receptacles which may be opened and manipulated by the sense of touch alone by any one versed in the art may be placed. These windows at the back are mainly to light the work.

As it is sometimes desirable to change the color of the working light, as by interposing an orange glass, I provide on the inside of each of the windows spoken of, a rabbeted frame 60, such as shown in Fig. 8, in which the rabbet 61 at the top is deeper than the one at the bottom 62. Three sides of this frame are fixed around each window and the fourth 63 is rabbeted at each end to enter the top and bottom rabbets 61 and 62 and is rabbeted along its inner edge 64 to allow it to pass over the adjoining edge of the orange glass. To insert the orange glass pane 66, the detachable end 63 is removed, the glass 66 is pushed up into the deep rabbet 61 at the top, and is then pushed in and dropped into the shallower bottom rabbet 62. The detachable end 63 is then pushed into place

over the glass 66 which is thus held firmly in place with all its edges covered. The orange glass pane is removed in the reverse way.

In order to make a light-tight joint for the arm slide C, I rabbet it at the top and bottom at 70 on the outside and rabbet the top and bottom front box strips 11 and 12 on the inside at 13. I then tack strengthening strips 71, 71 on the inside of each front box strip 11 and 12 so as to lap over the inside of the arm slide, thereby overcoming any tendency of arm slide C to spring in at the middle portion and admit light.

To make a smooth and light-tight bearing at each end of the box for the arm slide C, I attach vertical bearing strips 72, 72, in which are vertical grooves 73, 73 which I fill with soft yielding material such as plush or velvet, 74. These plush or velvet strips exclude the light and at the same time make a soft and yielding bearing.

A better construction is shown in Fig. 4, wherein the grooves 73 are somewhat wider and the plush or velvet 74 is glued along each vertical edge in said groove. In each groove 73, is a deeper groove 75 in which I place a strip 76 of wood or metal and behind this strip one or more springs 77. Springs 77 push out strip 76 and so plush 74, making at all times a tight elastic joint.

Preferably, in attaching the sleeves to the arm slide, I cut a rectangular annular groove 78 outside the edge of each arm hole. Over this, I spread the inner end of a sleeve 31. Over the cloth of the sleeve I then place an annular wooden spline 79 which I drive into place in the annular groove 78, thus holding each sleeve firmly in place and preventing any possible access of light. Each sleeve is preferably provided with an elastic 32 at its outer end to hug the sleeve of the operator.

To prevent any reflection of direct light or light from any bright articles from the outside on the top windows from interfering with the view of the interior by the operator, I arrange a light shade which consists of a board E hinged near the back of the cover. This board, when down, serves to protect the top windows G from breakage in packing or in transporting the cabinet. To hold it in the operative raised position shown in Fig. 1, I provide detachable ends 80, 81, each of which is of the shape of an acute angle, the ends of which are joined by a curve as shown. Projecting inward from each straight side of each end is a metal tongue 82 adapted to enter a corresponding groove 83, one in board E and one in cover B. Each of these grooves is partly covered by a plate 84. It will be seen that the ends 80, 81 can thus be pushed sidewise into place and will then hold the light shield E in place. They will prevent board E from falling backward when cover B is raised and they can be readily removed by pressing outward when it is de-

sired to drop the light shade. I prefer to provide a pivoted arm 67 to hold the cover B in a raised position.

It will be seen that for packing or transporting or to obtain access to the interior for cleaning or otherwise, the arm slide with its sleeves can be slid entirely out of its grooves and thus separated from the box.

What I claim as my invention and desire to cover by Letters Patent, is:

1. A portable developing cabinet comprising a rectangular box with solid ends and bottom, a back provided with nonactinic windows, a top provided with nonactinic windows, and a front which is partly open lengthwise to receive an arm slide, and said arm slide which is provided with arm holes and is of greater length than the box.

2. In a portable developing cabinet, a rectangular box in which are windows of nonactinic glass, and a front comprising upper and lower grooved strips, combined with an arm slide which slidably fits said grooved strips and is longer than the box, arm holes therein, and arm sleeves attached around said arm holes.

3. In a portable developing cabinet, a rectangular box in which are windows of nonactinic glass, and a front comprising upper and lower grooved strips, vertical end strips in which are grooves, yielding material carried by said grooves, combined with an arm slide which longitudinally and slidably fits said upper and lower grooved strips and is longer than the box, arm holes therein, and arm sleeves attached around said arm holes.

4. In a portable developing cabinet, a rectangular box in which are windows of nonactinic glass, combined with a front comprising upper and lower grooved strips, an arm slide which longitudinally and slidably fits said grooved strips and is longer than the box, arm holes therein, a rectangular annular groove around each of said arm holes, a sleeve which enters said groove, and an annular spline which enters said groove.

5. In a portable developing cabinet, a rectangular box in which are windows of nonactinic glass, combined with a front comprising upper and lower grooved strips, an arm slide, arm holes therein, sleeves around said arm holes, vertical end strips in which are grooves, yielding material attached in said grooves, strips behind said yielding material located in deeper grooves, and springs behind said strips in said deeper grooves.

6. In a portable developing cabinet, a rectangular box in which are windows of nonactinic glass, rabbeted strips attached around the inside of each of said windows on three sides, a removable rabbeted strip on the fourth side, a pane of nonactinic glass fitted in the rabbets inside of each window, a front comprising upper and lower grooved strips, combined with an arm slide,

arm holes therein, sleeves around said arm holes, vertical grooved bearing strips, yielding material carried by the grooves therein, strips under said yielding material, and springs under said strips.

5 7. In a portable developing cabinet, a rectangular box in which are windows of nonactinic glass, rabbeted strips fixed around the inside of each of said windows on three
10 sides one of the fixed strips being rabbeted deeper than the others, a removable rabbeted strip on the fourth side, a pane of nonactinic glass fitted in said rabbets, a front comprising upper and lower grooved strips,
15 combined with an arm slide, arm holes therein, sleeves around said arm holes, vertical grooved bearing strips, yielding material carried by the grooves therein, strips under said yielding material, and springs
20 under said strips.

8. In a portable developing cabinet, a rectangular box in which are windows of nonactinic glass, combined with rabbeted strips around each of said windows, a pane
25 of nonactinic glass for each window detachably carried by said rabbeted strips, a front comprising upper and lower grooved strips, an arm slide which slidably fits said grooved strips, arm holes therein, sleeves
30 around said arm holes, vertical grooved bearing strips, yielding material carried by said grooves, strips under said yielding material, and springs under said strips, a light shield on the box cover, and end pieces for
35 said light shield.

9. In a portable developing cabinet, a rectangular box in which are windows of nonactinic glass, combined with rabbeted strips attached around each of said windows,
40 a pane of nonactinic glass for each window detachably carried by said strips, a front comprising upper and lower grooved strips,

an arm slide which slidably fits said grooved strips, arm holes therein, sleeves around said arm holes, vertical grooved bearing strips,
45 yielding material carried by the grooves therein, strips under said yielding material, and springs under said strips, a light shield on the box cover, end pieces for said light shield, grooves in said light shield and cover,
50 plates which partly cover said grooves, tongues which project from said end pieces and pass into said grooves under said plates.

10. In a portable developing cabinet, a plurality of windows of nonactinic glass,
55 rabbeted strips fixed around said windows on the inside on three sides the rabbet in the top strip being deeper than in the bottom, a detachable rabbeted strip on the fourth side, and a detachable pane of nonactinic
60 glass fitted in the rabbets of said strips.

11. A bearing for an arm slide in a portable developing cabinet comprising vertical strips in which are one or more grooves,
65 yielding material attached on each side in said grooves, a deeper groove extended from said grooves, a strip in said deeper groove, and a spring behind said strip in said deeper groove.

12. In a portable developing cabinet, a
70 light shade hinged to the cover thereof, detachable ends adapted to support said light shade, grooves in said light shade and in said cover each partially covered by a plate, said plates and tongues fixed to said end pieces
75 each adapted to fit into one of said grooves under said plate.

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

RICHMOND H. BROWN.

Witnesses:

ORRIN ANDREWS,
HELEN V. FLEMING.