PORTABLE X-RAY VIEWING BOX

Filed Dec. 13, 1924

Fig. 1.

Fig. 2.

Fig. 3.

INVENTOR.

By John M. Berry

ATTORNEY.
My invention relates to viewing boxes for X-ray negatives, and the object of my invention is to produce an efficient, simple and easily portable X-ray viewing box which may be quickly prepared for use, and may be illuminated by plugging in on any usual electric light circuit.

The manner in which I accomplish my object is illustrated in the accompanying drawings, in which:

Fig. 1 is a vertical cross section through my improved portable X-ray viewing box when set up ready for use, the protective cover plate being removed.

Fig. 2 is a similar view showing the device folded and the cover plate in place.

Fig. 3 is a plan of the folding reflector which forms a part of my improved device.

Fig. 4 is a top plan view of my device when set up as in Fig. 1.

The same reference characters refer to the same parts throughout the several views.

It is to be understood that the drawings are in a certain sense illustrative only, and that many changes may be made in the device without departing from the spirit of this invention. For instance, the reflector may be hingedly attached to the traylike portion or base of the device if desired.

Referring to the drawings, B is the traylike back which forms the supporting base of the device when set up as in Fig. 1, and which is designed to contain the folding reflector R, when the device is folded or packed as in Fig. 2.

Attached to the base B by means of suitable hinged H, is a frame-like member F, the opening through which is closed by a translucent material, such as ground glass, G, upon which the picture to be viewed is to be laid. Beneath, and spaced from the part G, is a sheet of semi-transparent material, such as tracing cloth, T. A protecting cover plate C, adapted to protect the part G from accidental damage when the device is not in use, is detachably fastened in the frame F in any suitable manner, here illustrated as by the dowel d, and a spring bolt sb.

The ends of a substantially U-shaped supporting bracket U are pivotally secured to the sides of the frame F, and the cross-bar U² of the bracket, fitting into suitable notches in the sides of the base B, holds the frame F in proper angular elevation with reference to the base B. (See Fig. 1.) The cross-bar U² also provides a support for a lamp socket S, adapted to receive a lamp L, adapted to illuminate the interior of the box. I prefer to use a "daylight lamp" for this purpose, and the bracket should be so proportioned, and the socket so located on the cross arm thereof that the lamp when in place therein will be on a line with the center of the opening through the frame F, when the device is set up ready for use.

A length of cable is attached to the socket, and in this cable is preferably incorporated a suitable switch and plug whereby the same may be connected to any usual lamp socket and circuit controlled. These parts being standard and this general arrangement universal, they have not been shown.

The manner in which my device is packed when dismounted is clearly shown in Fig. 2 of the drawings. Before packing the device the lamp is to be removed from the socket, the reflector is then folded and placed in the tray-like base B, and the bracket U swung up and the parts folded together as illustrated. A storage place for the lamp and the necessary cord, switch, plug and so forth, is provided by attaching at the sides of the carrying handle H², which is located at the center of the end of the frame F, a box or boxes T².

Some suitable means, as a hook and staple, are provided for holding the parts B and F in closed relation to each other.

A device of this kind constructed substantially as illustrated and described, is quite simple and readily portable. The placing of the lamp substantially central with the frame and providing a reflector which will concentrate practically all of the light which emanates from the lamp directly against or through the semi-transparent member T and the translucent member G, insures the efficient illumination of all parts of a plate placed upon the member G to be viewed. The use of "daylight lamps" as the source of light, a ground glass as a base for the plate to be viewed to rest on, and a semi-transparent curtain between the lamp and the ground glass, produces an ap-
parent white light of even density over the whole of the surface and makes all parts of the plate clearly visible.

I claim:

1. In a device of the class described: a tray-like base; a frame, one edge thereof hinged to said base, the opening through said frame closed by a sheet of ground glass and by a sheet of semi-transparent material spaced from said glass; a U-shaped bracket the ends thereof hinged to said frame, the cross bar of said bracket having a lamp socket mounted thereon, and adapted to contact with said base so as to hold said frame away from and at an angle to said base; a folding reflector adapted to close in the space between said frame and said base and to be folded and stored in said base when the device is closed; and a cover plate detachably secured to said frame so as to protect said glass.

2. In a device of the class described; a tray-like base; a frame, one edge thereof hinged to said base; a sheet of translucent waterproof material closing the opening through said frame; a lamp socket mounted at the center of a U-shaped bracket and the free ends of said bracket pivoted to the sides of said frame so that said bracket is adapted to support said frame in angular spaced relation to said base; and a folding reflector adapted to enclose the space between the base and the frame when same are in adjusted angular relation to each other and to be folded and stored in said tray-like base when the device is packed.

3. In a device of the class described, a tray-like base; a frame hinged to said base and having a sheet of translucent material closing the opening therethrough; a lamp socket mounted on a support adapted to prop said frame at an angle to said base; and a folding reflector adapted to close in the space between said frame and said base when in angular relation to each other.

4. In a device of the class described, a base member and a frame hinged together; a sheet of semi-transparent material mounted in said frame; a lamp supported on a bracket adapted to hold said base and frame members separated from each other by a definite angle; and a folding reflector adapted to substantially enclose said lamp and the space between said base and frame when separated by said angle and to be folded and stored between said base member and frame when they are closed together.

In testimony whereof I have affixed my signature.

JOHN M. BERRY.