

July 8, 1924.

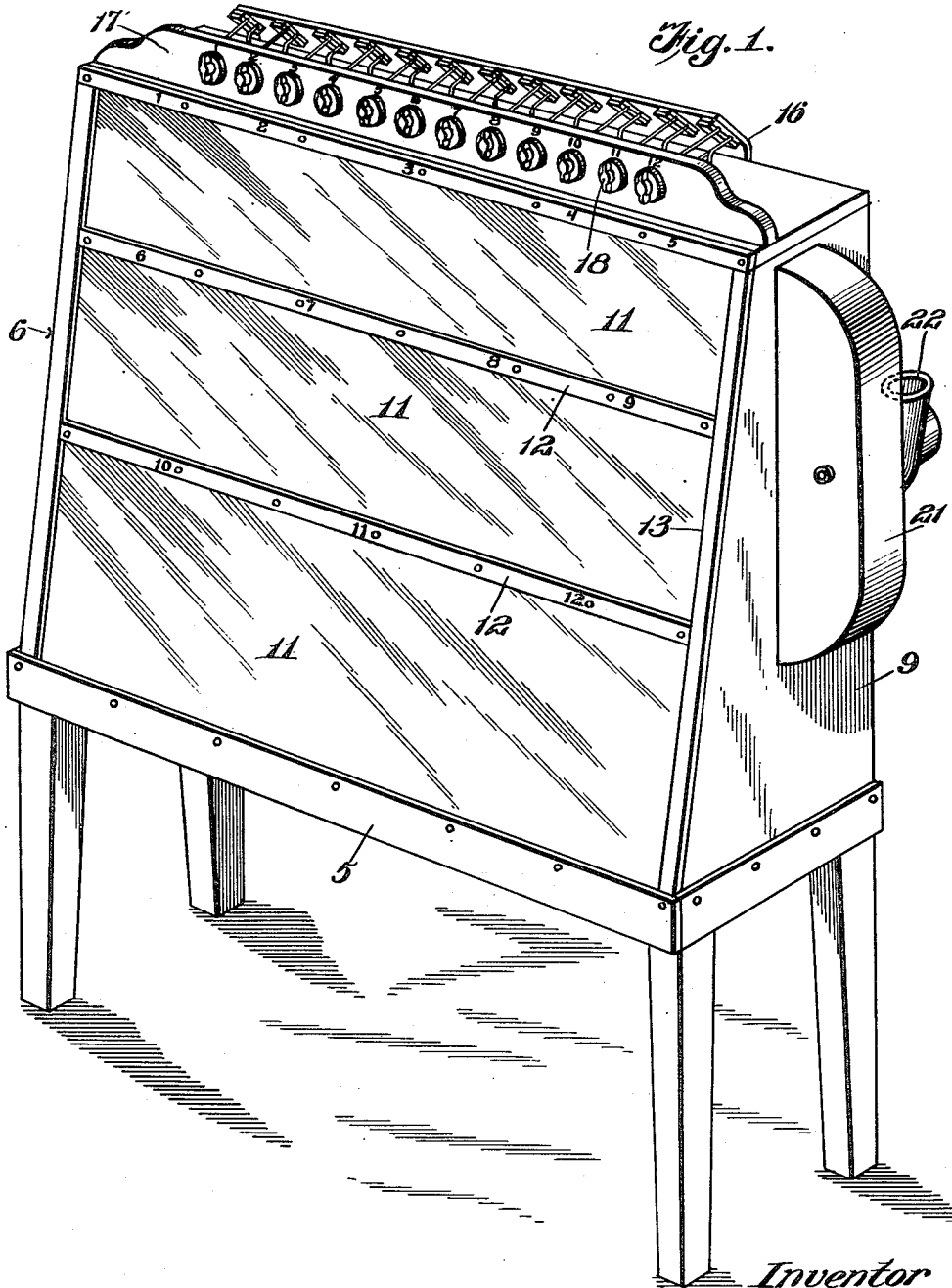
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MEANS FOR EXAMINING X-RAY PLATES AND THE LIKE

Filed Oct. 8, 1923

3 Sheets-Sheet 1



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July 8, 1924.

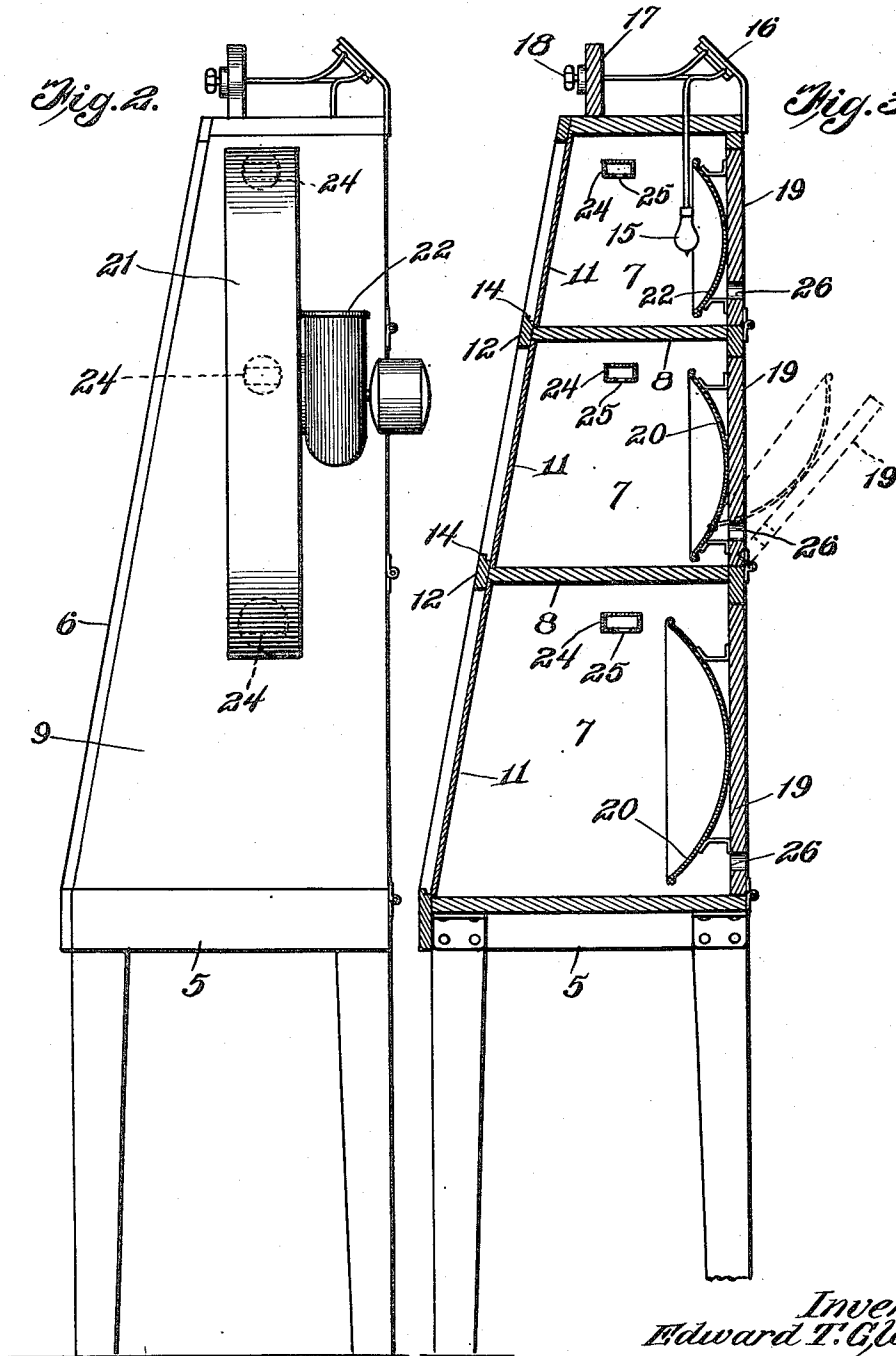
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MEANS FOR EXAMINING X-RAY PLATES AND THE LIKE

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3 Sheets—Sheet 2



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MEANS FOR EXAMINING X-RAY PLATES AND THE LIKE

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3 Sheets-Sheet 3

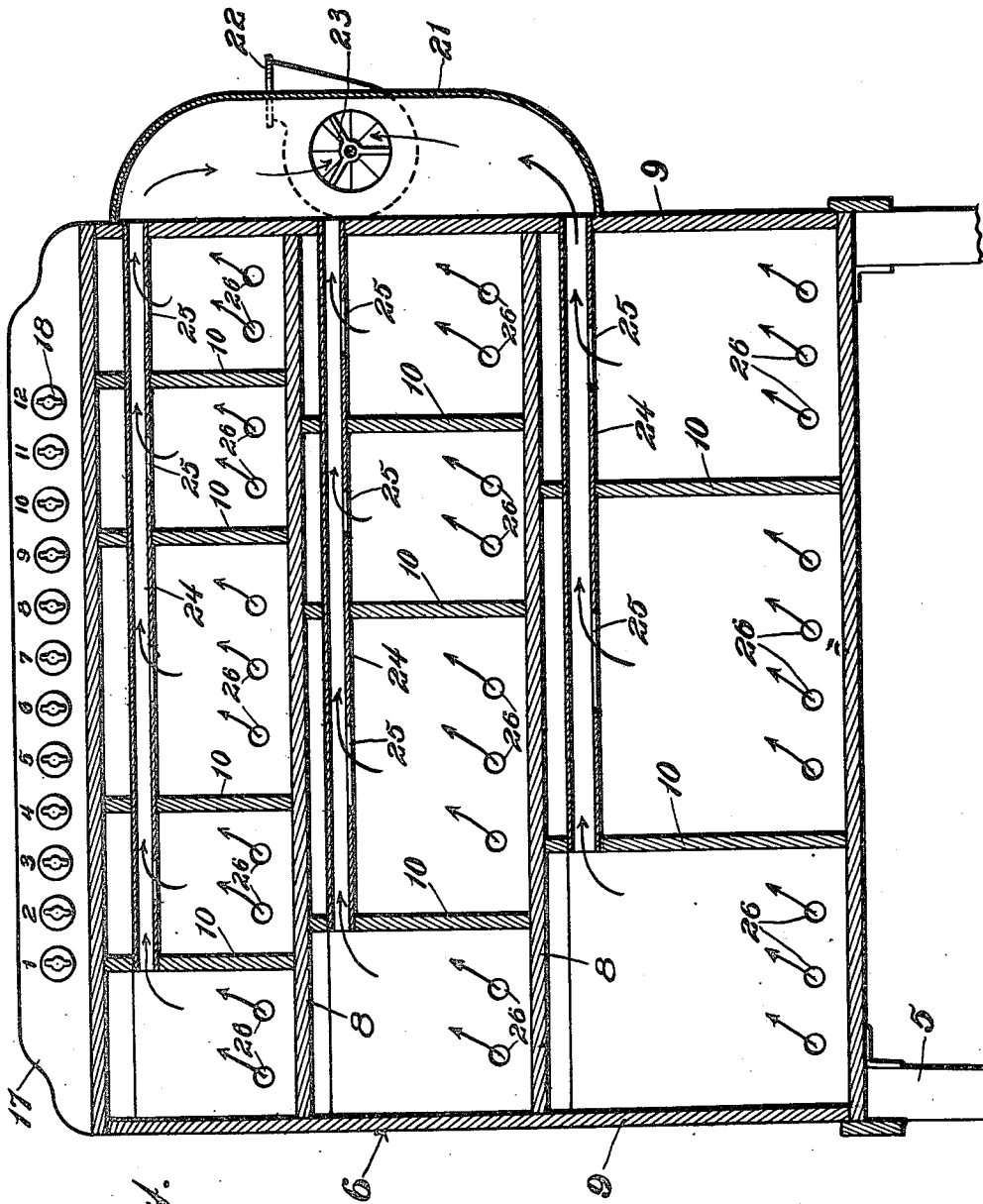


Fig. 4.

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Patented July 8, 1924.

UNITED STATES PATENT OFFICE.

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MEANS FOR EXAMINING X-RAY PLATES AND THE LIKE.

Application filed October 8, 1923. Serial No. 687,241.

To all whom it may concern:

Be it known that I, EDWARD T. GLOVER, a citizen of the United States, residing at Portsmouth, in the county of Norfolk and State of Virginia, have invented certain new and useful Improvements in Means for Examining X-Ray Plates and the like, of which the following is a specification.

This invention relates to appliances for the use of physicians, surgeons and others, and has special utility for simplifying and expediting the examination of X-ray plates and the like. These examinations are ordinarily conducted in dark rooms and, so far as I am aware, no appliance has heretofore been proposed which would admit of examining single plates or groups of plates without the necessity of flooding the room with light and consequently appreciably heating it much to the annoyance and discomfort of the operator and to the detriment of the plate or plates the sensitized coating of which is injuriously affected by heat.

Objects of the invention are to provide a cabinet to facilitate the examination of single or groups of X-ray plates or films and to provide for prolonged examination without hazard to the plates or films; to provide a cabinet of the nature indicated embodying a plurality of light boxes arranged in tiers and of graduated dimension; to provide for selectively illuminating individual or groups of boxes; to provide for concentrating the light directly upon the object to be examined; to provide appropriate means for positioning the plates or films with relation to the source of light; and to provide for a constant circulation of air between the plates and lights.

With such and other objects in view, the nature, characteristic features and scope of the invention will more readily be understood from the following description taken in connection with the accompanying drawings, forming a part hereof, and wherein—

Figure 1 is a perspective view of an X-ray plate inspection cabinet constructed in accordance with my invention.

Fig. 2 is an end view.

Fig. 3 is a vertical sectional view.

Fig. 4 is a longitudinal sectional view.

In the drawings, the numeral 5 represents a supporting stand or table, which may be any suitable stand or table or may form part

of the cabinet 6. The cabinet is a four wall structure with top and bottom and subdivided to provide a plurality of compartments or light boxes 7, arranged side by side and in tiers. They are preferably of the knock-down type so that their dimensions may be varied. This is accomplished by the shelves or longitudinal separating members 8 appropriately supported by the end walls 9 and the provision of adjustable partitions 10. The front of the cabinet is inclined from the vertical and is formed of opal glass, or its equivalent, in the form of removable panels 11, which are marginally retained by longitudinal and upright cleats 12 and 13. The longitudinal cleats may be availed of to support the X-ray plates or films for which purpose they are formed or provided with ribs 14 spaced from the glass panels to accommodate the plates or films. While the arrangement stated affords a simple means of retaining the plates in position and has been satisfactory in practice, it is obvious that other expedients may be resorted to.

Each of the cells or boxes 7 is provided with a source of light here shown as an electric bulb 15, the conductors whereof extend to a standard 16 and from there to a source of current supply, not shown, and to a panel or switch board 17 mounted on top of the cabinet and within convenient reach. Extending across the panel or switch board are snap switches or buttons 18, progressively numbered, and respectively controlling the illumination of correspondingly numbered cells or boxes. Manifestly there is thus provided a simple and convenient means for selective lighting and excessive flooding of light is wholly obviated.

Access is had to the cells or boxes from the rear of the cabinet through the medium of downwardly swinging or hinged doors 19. The latter also serve to carry the reflectors 20 the function of which is to direct the light rays to the best advantage through the glass panels.

An important feature of the invention is the provision of means for protecting the X-ray plates or films from the effects of heat generated in lighting. Referring more particularly to Fig. 4, it will be noted that I have provided a fan casing 21 having an outlet 22 and housing a motorized fan or blower 23. The fan casing has tubular arms

or extensions 24, one for each tier of cells. The tubes 24 open into the remote cells and have ports 25 affording communication with the others. For the purpose of maintaining free circulation of air the cells are vented according to their size. As a matter of choice and convenience the air intakes or vents 26 are shown as formed in the doors 19.

10 Having described my invention, I claim:—

1. Means for examining single or groups of X-ray plates and the like comprising, in combination, a plurality of light boxes arranged side by side and in tiers, a cabinet in which said boxes are assembled so as to be adjustable as to size, a front for the cabinet including opal glass panels, one for each tier, arranged on an inclined plane, means for securing the panels including means for positioning the plates, means for selectively illuminating the boxes, air intakes for the boxes, and air exhaust means having an extension for each tier.

25 2. Means for examining single or groups

of X-ray plates and the like comprising, in combination, a plurality of light boxes arranged side by side and in tiers, a cabinet in which said boxes are assembled so as to be adjustable as to size, a front for the cabinet including opal glass panels arranged on an inclined plane, means for securing the panels including means for positioning the plates, means for directing light rays through said panels, means for selectively illuminating the boxes, and air intake and exhaust provisions for the boxes. 30 35

3. Means for examining single or groups of X-ray plates and the like comprising, in combination, a cabinet subdivided to provide a plurality of light boxes of variable size and capable of individual and group illumination, a switchboard on the cabinet for selectively controlling the illumination, means for positioning the plates with relation to the light boxes, swinging doors for the cabinet, and reflectors carried by the doors. 40 45

In testimony whereof I affix my signature.
EDWARD T. GLOVER.