

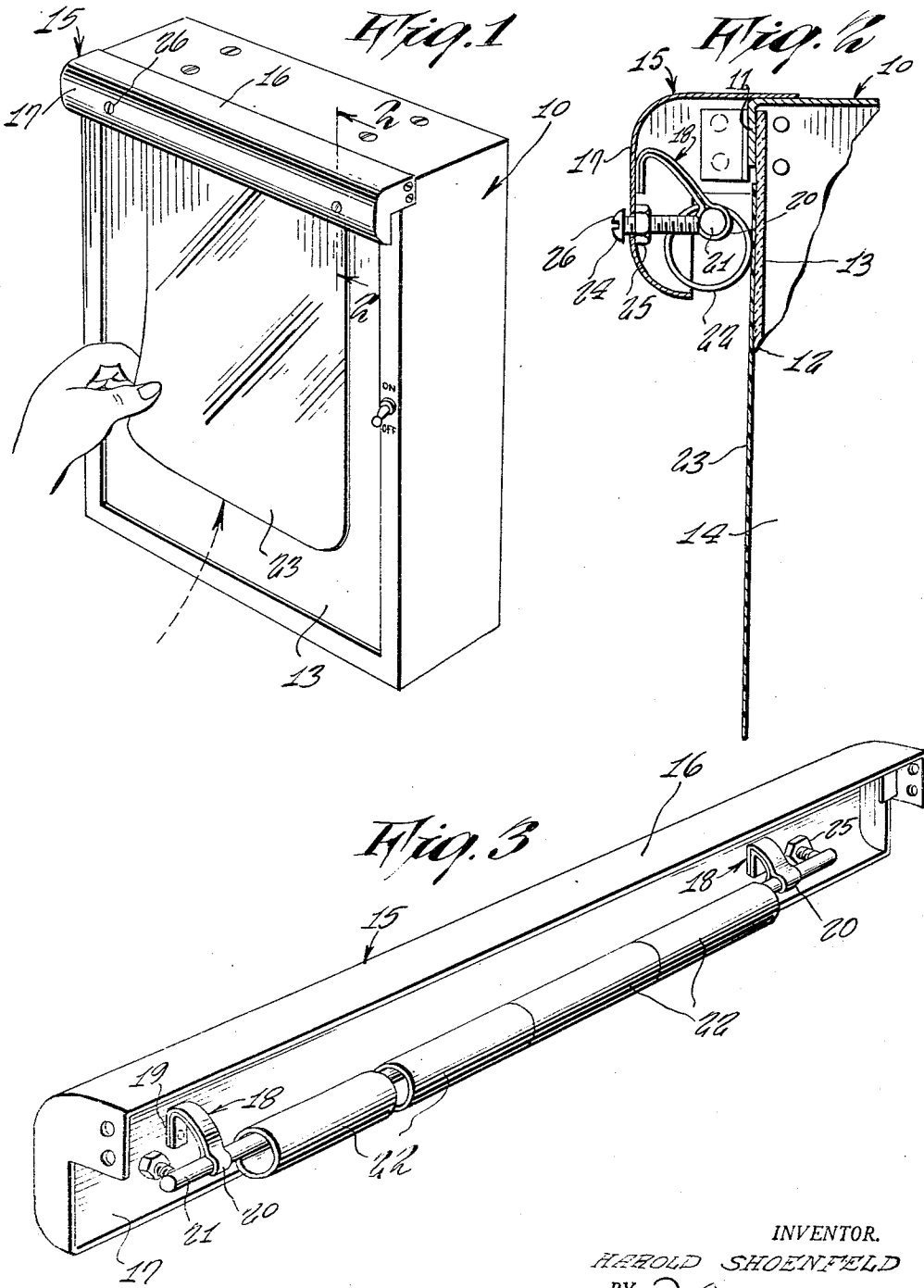
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H. SHOENFELD

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HOLDER FOR SHEETS, CARDS, FILMS OR THE LIKE

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INVENTOR,
HAROLD SHOENFELD
BY *Hedermann*
ATTORNEY

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**HOLDER FOR SHEETS, CARDS, FILMS
OR THE LIKE**

Harold Shoenfeld, Brooklyn, N. Y.

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5 Claims. (Cl. 40—130)

This invention relates to releasable card or sheet holding devices, and in the present instance is particularly devised as an attachment or part of an X-ray viewer, that is, an illuminated housing having the holder across the top thereof where it is positioned in front of a transparent panel having a light source therebehind. Thus, the X-ray film which is suspended from the holder is illuminated from behind so that it may be clearly viewed or examined.

Another object of the invention is to provide such a holder having a construction and arrangement of parts whereby the sheet is attached in suspension from the holder merely by inserting the edge of the sheet with a light force between the holder and the rigid portion therebehind which, in the case of an X-ray viewer, is the above-mentioned transparent panel.

A further object of the invention is the provision of a holder as indicated above, having additional adjusting means for accommodating the holder to sheets of varying thickness.

The above broad as well as additional and more specific objects will be clarified in the following description, wherein characters of reference refer to like-numbered parts in the accompanying drawing. It is to be understood that it is neither desired nor intended to limit the invention necessarily to any or all of the exact details of construction or operation shown or described, except insofar as they may be deemed essential to the invention.

Referring briefly to the drawing, Fig. 1 is a perspective view of an X-ray viewer, illustrating an application of the present invention.

Fig. 2 is a sectional view taken on the line 2—2 of Fig. 1.

Fig. 3 is an enlarged perspective view of the novel holder structure per se, dismantled from the viewer shown in Figs. 1 and 2.

Referring in detail to the drawing, the numeral 10 indicates an X-ray viewer housing having the front wall 11 cut away to provide an opening 12 therethrough, this opening being covered by a transparent panel 13. Electric lights, not shown, are contained within the compartment 14 of the housing 10, and when they are energized the light therefrom passes through the panel 13.

A transverse hood 15 is attached to the top edge of the front wall of the housing 10; this hood has a top wall 16 and a front wall 17, and is open at the bottom. The load is attached to the housing 10, as shown in Figs. 1 and 2.

A pair of spaced spring fingers, or supports, 18 are attached, by means of their doubled-back bases 19, to the inner side of the front hood wall 17. On their free extremities these fingers are provided with aligned sleeves 20 in which the ends of an elongated rod 21 register and are held. A plurality of hollow cylinders 22 of considerably larger diameter than the rod 21, are loosely mounted on the latter and thus hang therefrom. If desired, a single such cylinder, elongated to approximately

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the distance between the fingers 18, may of course be substituted for the plurality of cylinders.

As shown in Fig. 2, the normal position of the rod 21 with respect to the panel 13 (with which it is maintained parallel), is such that when a sheet such as, for example, an X-ray film 23 is inserted between the cylinders 22 and the panel 13 in the manner illustrated by the arrow in Fig. 1, the thickness of the sheet forces the cylinders to the left (Fig. 2) a distance sufficient to cause the pressure of the thus unbalanced cylinders to hold the film against the panel. In other words, when a sheet is thus inserted into the holder, the cylinders are swung to the left; and the farther they are swung, according to the thickness of the sheet, the greater will be the unbalance of the cylinders and hence the greater will be their weight or pressure against the film. It is found in practice that the upper edge of a sheet thus inserted enters between the cylinders and the panel without any difficulty, and that the sheet is firmly held after insertion. Conversely, the sheet may be instantaneously removed by simply pulling it down.

In case the sheet to be inserted is of considerable thickness, the following means has been provided to accommodate the holder to it. Between each support 18 and the adjacent end of the hood 15, an opening 24 is provided through the hood wall 17, at the same horizontal level as the rod 21. Surrounding this opening inside the wall 17 is a threaded nut 25, fixed to the wall. A screw 26 is passed through the opening 24 and threaded through the nut 25, the stem of the screw being sufficiently long to contact the rod 21. The spring fingers 18 are so sprung that they tend to swing their free ends 20 clockwise (Fig. 2), that is, so that they tend to swing the rod 21 away from the panel 13. Thus, in case it is desired to attach a relatively thick sheet in the holder, by unscrewing the screws 24 the fingers 18 will carry the rod 21 away from the panel, thus accommodating the holder to the thicker sheet.

As the holder shown in Fig. 3 may, together with a back wall or plate equivalent to the panel 13, be used as a card, sheet, or film holder irrespective of the transparency of the panel or of the application of the holder to a film viewer, applicant does not wish to limit the scope of the invention to a film viewer.

Obviously, modifications in form or structure may be made without departing from the spirit or scope of the invention.

I claim:

1. A holder for sheets of material adapted to suspend a sheet therefrom, comprising a substantially flat vertical back wall, a support fixed to and extending forward over the upper edge of said back wall, brackets extending from said support, a rod supported on said brackets in spaced parallel relationship with said back wall, a hollow cylinder having an internal diameter substantially greater than the diameter of said rod and thus loosely mounted on said rod and suspended therefrom with the axis of the cylinder displaced a substantial distance below the axis of the rod, the radius of said cylinder being greater than the distance between said back wall and the axis of said rod whence said freely suspended cylinder is urged by gravity against said back wall and the axis of the cylinder is positioned in a vertical plane between a vertical plane through the rod and said back wall thereby exerting pressure against said back wall, said sheet being adapted to be inserted between said cylinder and said back wall and thereby being clamped between said cylinder and said back wall.

2. The holder set forth in claim 1, having means for varying the distance between said rod and said back wall and hence varying the distance of the said plane through

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the cylinder with respect both to said plane through the rod and to said back wall.

3. The holder set forth in claim 1, said brackets comprising spring fingers each including a base secured to said support and normally urging said rod away from said back wall, and adjustable means restraining said rod from movement away from said back wall, said adjustable means comprising screws passing threadably through said support and lying in the same horizontal plane as said rod, said spring fingers urging said rod against the tips of said screws.

4. In combination, a film viewer comprising a rectangular housing adapted to be positioned upright, said housing including a vertical transparent wall adapted to be illuminated from within the housing, a hood secured to the upper front edge of the housing above said transparent wall and including a front wall extending downward below the top of the housing and spaced from said transparent wall, said front wall having spaced brackets secured thereto and extending toward said transparent wall, a rod supported in the ends of said brackets substantially parallel with said transparent wall, at least one hollow cylinder loosely mounted on said rod and having an internal diameter substantially greater than the diameter of the rod and thus loosely mounted on the rod and freely suspended therefrom with the axis of the cylinder displaced a substantial distance below the rod, the radius of said cylinder being greater than the distance

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between said rod and said transparent wall whence said freely suspended cylinder is urged by gravity against said transparent wall and the axis of the cylinder is positioned in a vertical plane between said transparent wall and a vertical plane through the rod thereby exerting pressure against said transparent wall, said sheet being adapted to be inserted between said cylinder and said transparent wall and thereby being clamped between said cylinder and said transparent wall.

5. The combination set forth in claim 4, said brackets comprising spring fingers normally urging said rod away from said transparent wall, and adjustable means for restraining said rod from movement away from said transparent wall comprising set screws passing threadably through said front wall of the hood and lying in the same horizontal plane as said rod and at right angles thereto, said rod being urged by said spring fingers into contact with the tips of said screws.

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