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X-RAY FILM HOLDING DEVICE

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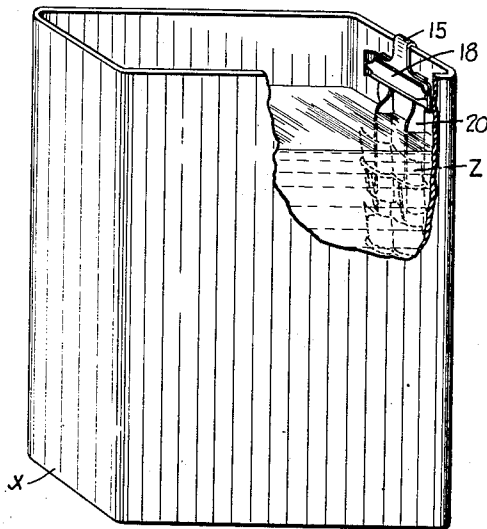


Fig. 1.

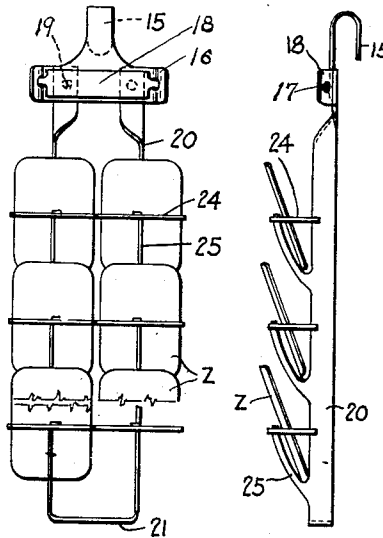


Fig. 2.

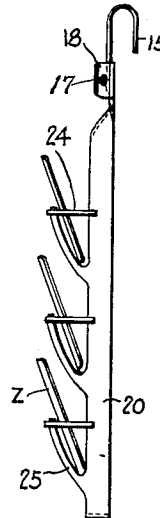


Fig. 3.

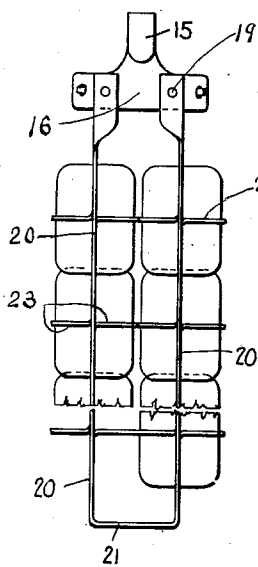


Fig. 4.

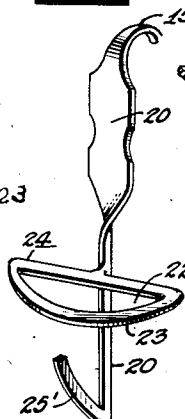


Fig. 5.

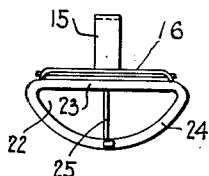


Fig. 6.

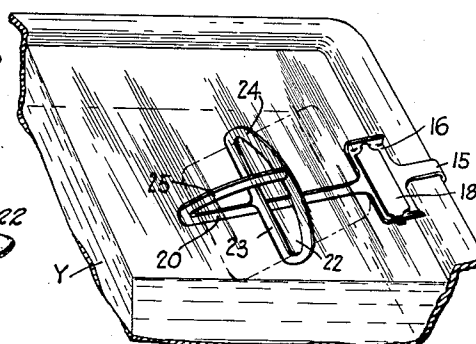


Fig. 7.

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2,255,580

X-RAY FILM HOLDING DEVICE

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3 Claims. (Cl. 95—100)

This invention relates to devices for supporting X-ray or other photographic films and plates while undergoing development, or other treatment while submerged in a liquid bath.

An object of the invention is to provide a skeleton frame in which the film is held in such a manner as to avoid distortion, blurring by contact of its surfaces, marring by fasteners, marking on the edge, and collection of dust, while permitting free, full and complete contact of the liquid to all of its surfaces.

A further feature is in the provision of a holder capable of supporting films in upright columns, independently of each other, and having means to engage over the rim of a tank, or rods disposed thereon.

Another purpose is to produce a three-point edge support for a film, having means to carry a label bearing designations relative to the film, all parts being of inexpensive manufacture.

These and other valuable objects which will later appear, are accomplished by the novel and practical construction, combination and arrangement of parts hereinafter described and illustrated in the accompanying drawing, forming a part of this disclosure, and in which:

Figure 1 is a perspective view of a conventional type developing tank partially broken away to show an application of the invention.

Figure 2 is a front elevational view of an embodiment of a duplex form of the device.

Figure 3 is a side elevational view thereof.

Figure 4 is a rear elevational view of the same.

Figure 5 is a perspective view illustrating a single holder as displayed within a tray.

Figure 6 is a top plan view of the same.

Figure 7 is a perspective view of a modified form of the device.

Referring in detail to the several views, a common form of tank is designated by the letter X, the tray Y and the film to be treated Z.

The film here depicted is of the small standard size, such as is commonly used for X-raying the teeth, an elongated rectangle in profile, of thin material, as celluloid, and having a light sensitive emulsion thereon.

The film support, as shown, is composed of two parts, a hanger hook 15 and cradle 20, sheared from blanks of sheet material, to produce at one end the hook 15 suited to freely engage over the edge of a tank, tray or like container, holding the developing liquid, or over rods resting on its rim, in such manner that it can be readily grasped by the hand of an operator.

Below the hook 15 the material is extended laterally forming a pair of opposed tabs 16 provided with openings 17 by which may be secured a blank panel 18, preferably of material adapted to undergo surface erosion, to receive inscriptions relative to the film Z.

At a point midway of and below the horizontal center of the tabs are strips 20 secured to the support, as at 19, at their upper ends, the strips being twisted at right angles connected at their lower extremities, as at 21; if preferred, other similar integral connections may extend across the strips at different distances apart.

The rear edges of these strips may be straight, but their front edges are sheared and the narrow branches twisted centrally of their length, at right angles, to produce bow-shaped, integral horizontal loops 22, consisting of a straight element 23, joined at its ends by an arcuately curved guard 24, these elements being so proportioned that the distance between the corner intersections is slightly less than the width of the film Z to be treated.

The front edges of the strips 20 are further sheared to produce branches 25 bent upwardly and outwardly and fixed to the center of the arcuate guard 24 in the manner of a strut, their curved bottoms acting as seats on which the films rest when positioned in the loops 22.

In Figures 5 and 6, a single film support is shown, suited for use in connection with a shallow tray Y, but having the characteristic features described previously.

It is to be noted that, while sheet material has been mentioned, wire of a suitable size may be substituted and the same bent to produce a device fully equivalent and of the same general structure.

Attention is called to Figure 3, as showing clearly the angular position of the films, the manner in which they are held by compression at their side edges, and by which they are temporarily given a curvature while being treated, together with the fact that each film is held independently, safely and completely out of contact with any part of the support that can interfere with proper development of the image carried by the film.

In the modified form shown in Figure 7, the branch portions 25, indicated in this view as 25', extend upwardly but do not contact the arcuate band 24 in the manner of a strut, as previously described. However, their curved bottoms act as seats on which the films rest when

positioned in the loops 24, in the same manner as indicated in the form shown in Figures 1 to 6. In this form the cost of manufacturing the device is somewhat reduced.

Obviously there are no fastenings to secure or release, the elasticity of the film material acting as the only binding or clamping agent; a moderate pressure exerted on the edges of the film is sufficient to enter or remove the same.

Although the foregoing is descriptive of the best known embodiment of the invention, the device may take all such other forms as fall within the scope of the claims.

Having thus described the invention and set forth the manner of its construction, application and use, what is claimed as new and sought to secure by Letters Patent is:

1. A photographic film holder for developing purposes, comprising a support hook having a wide integral base, a perforate lug formed on each end of said base at its front, a blank panel engageable at its ends in the perforations of said lugs, said panel having a surface adapted to receive inscriptions capable of being erased, one or

more strips depending from said base, and means integral with said strips to supportingly engage the bottom and both side edges of a film.

2. A photographic film holder for developing purposes, comprising a support hook having a base, a vertical strip supported thereby, said strip having an integral branch shaped to present a closed bow-shaped transverse guard, the distance between the inner ends of the bow being less than the width of a film disposed therein, and a strut-like branch of said strip connecting with said bow-shaped guard at the center of its convexity.

3. A photographic film holder for developing purposes, comprising a hook formed from flat material and having a shank, a strip extending from said shank twisted at a right angle therefrom, a semi-circular loop disposed at a right angle to said strip and extended horizontally outward to receive a film when sprung therein, and an arm on the end of said strip extending upwardly and outwardly towards the convex element of said loop to support a film therein, all of said elements being integral.

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