

Dec. 7, 1937.

M. MANFREDI

2,101,746

FRICTION CLAMP

Filed Feb. 10, 1936

Fig. 1

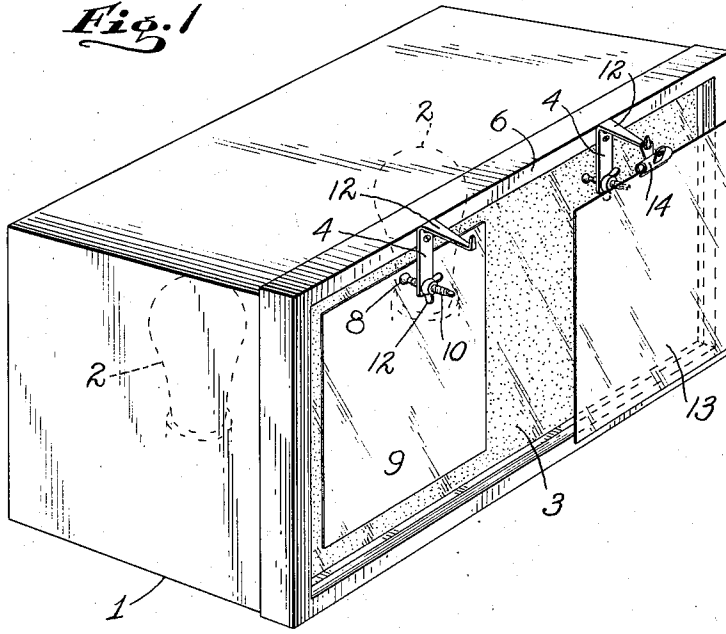
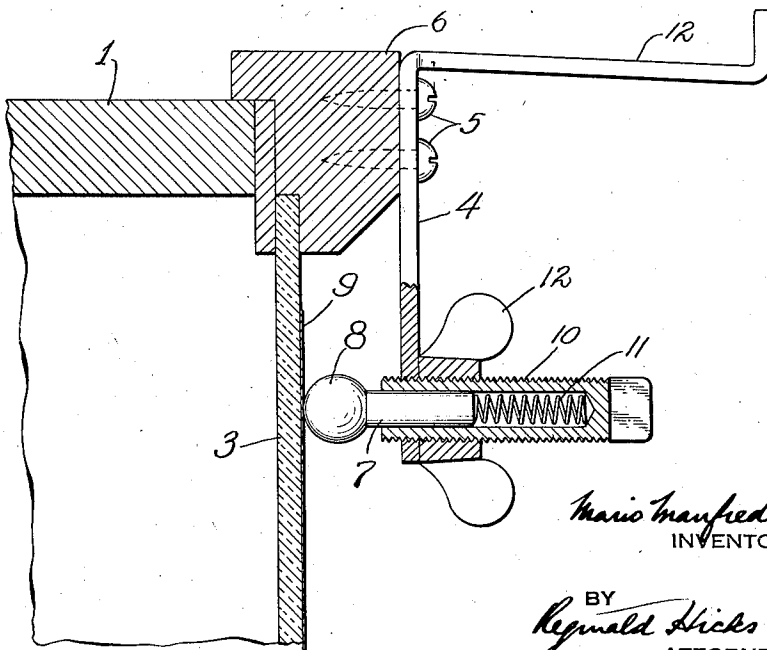


Fig. 2



Mario Manfredi
INVENTOR

BY
Reginald Hicks
ATTORNEY

UNITED STATES PATENT OFFICE

2,101,746

FRICTION CLAMP

Mario Manfredi, New York, N. Y.

Application February 10, 1936, Serial No. 63,189

3 Claims. (Cl. 24—263)

The invention relates to friction clamps for holding sheet material against a supporting surface and particularly clamps of the character required for suspending X-ray films before the translucent panels of diagnostic viewing cabinets, the object of the invention being a simple, inexpensive clamp, of rugged construction, especially suited for securely holding such films under the special conditions encountered, as more particularly pointed out below.

Fig. 1 of the drawing is a perspective view of a form of viewing cabinet with my improved clamps applied thereto and Fig. 2 is an enlarged, broken sectional view showing the clamp construction.

The reference 1 indicates the viewing cabinet, it being a box-like structure housing a number of incandescent lamps 2 and having a translucent front panel 3 against or before which the films to be viewed are to be suspended.

For this purpose it has been customary to utilize a one-piece clamp or clip consisting merely of a strip of spring material secured to the cabinet frame and appropriately shaped so as to depend in front of and bear yieldingly against the glass panel of the cabinet, the film to be viewed being inserted upwardly beneath the clip and held by the latter against the panel, but such clips are subject to breakage and weakening of their hold on the film, with much use, the more so when corroded and eaten by acids carried to them by the films which, in emergency, are required to be viewed without waiting for them to dry.

According to my invention I provide a metal bracket 4 of substantially right angled configuration and which is of sufficiently heavy stock to be quite rigid. The bracket is adapted to be secured to the top frame member 6 of the cabinet, as by screws 5 extending through one of the arms thereof, with the arm suspended in front of the panel 3, as shown. In the lower end of said arm, which is spaced somewhat from the panel 3, as indicated, is supported and guided, a plunger 7 that has a ball-head 8 constituting the clamping member for the film 9, and it will be obvious that the ball-head greatly facilitates the entering of the film between the head and panel, without danger of injury to the film.

The preferred plunger guide means comprises a hollow, exteriorly threaded stem 10, in which can be enclosed, and thereby protected, the

spring 11, by which the plunger is urged outwardly, i. e. toward the panel. Being threaded into and opening in the lower end of said arm, the stem can be adjusted in relation thereto so as to accommodate the device to various cabinets, and also to enable the spring tension to be varied somewhat, as may be required, the stem being secured in its various positions of adjustment, by the lock-nut 11.

The outwardly extending arm 12 of the bracket serves as a hook, in that it has an upturned end, and upon which, it is convenient to hang film requiring to be viewed, while still too wet to be applied directly to the panel, as illustrated in Fig. 1, wherein a film 13 is shown suspended from arm 12 by a common form of paper clamp 14.

I claim:

1. A friction clamp for releasably holding a sheet of material against a supporting surface, comprising a rigid bracket, a hollow adjustment member having threaded engagement with one end of the bracket, a ball-headed plunger slidably mounted within said member and engageable with the sheet, and a spring housed within said member and urging said plunger outwardly therefrom, and a lock-nut for securing said member in adjusted relation to the bracket.

2. A friction clamp comprising a rigid bracket adapted for mounting adjacent the edge of the translucent panel of a diagnostic viewing cabinet and including an arm for disposal in front of the panel, a tubular member supported by the arm substantially perpendicular to the panel, a spring-pressed plunger including a shank portion slidably mounted in said member, and a ball-like head on the shank portion and adapted for yielding engagement with a film for holding the latter against the panel.

3. A friction clamp comprising a bracket including an arm for receiving means to secure the bracket in position for use with respect to a supporting surface and with the arm suspended for disposal in front of said surface, said arm having an opening therein adjacent to its lower end, a hollow exteriorly threaded stem threaded through the opening for adjustment toward and away from said surface, a lock nut threaded on the stem for holding the latter in adjusted positions, a spring pressed plunger slidably mounted in the stem, and a ball shaped head on the outer end of the plunger for engagement with material for holding the latter against said surface.

MARIO MANFREDI.