May 22, 1951 J. CARR 2,553,957

FILM HOLDING FRAME

Filed July 25, 1947

Fig. 1.

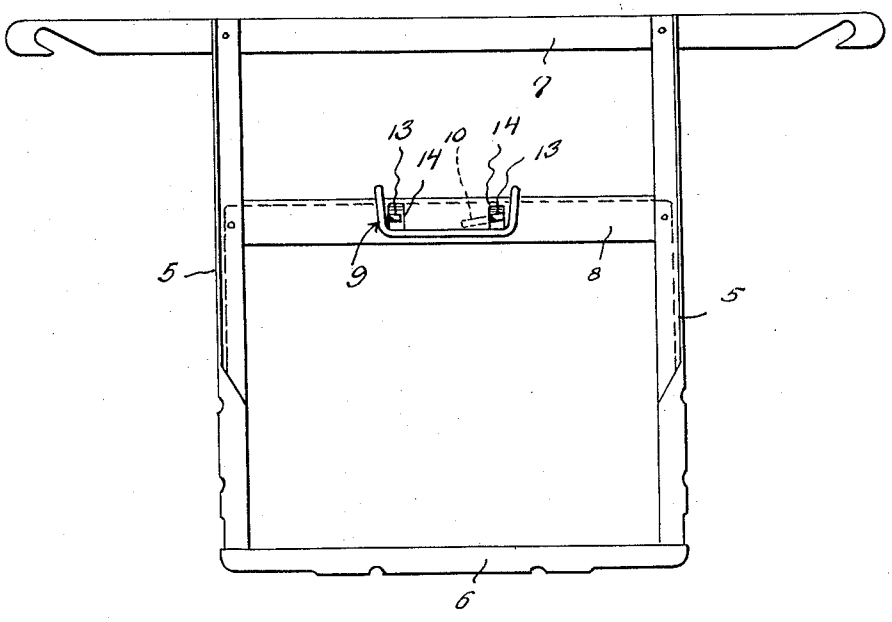


Fig. 2.

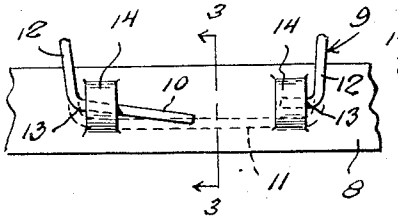


Fig. 3.

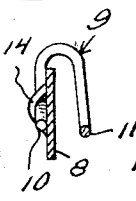


Fig. 4.

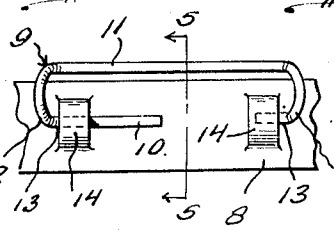


Fig. 5.

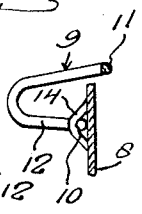


Fig. 6.

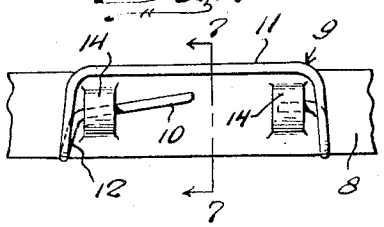
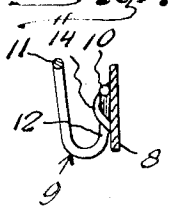


Fig. 7.



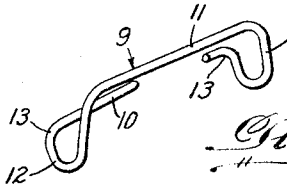


Fig. 8.

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FILM HOLDING FRAME

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1 Claim. (Cl. 95—100)

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This invention relates to frames for holding photographic films during fluid treatment and drying thereof.

An object of the invention is to provide a frame of the above kind including side and bottom channel bars for receiving the side and bottom edges of a film, a flat top bar rigidly connecting the side channel bars, and a keeper member hinged to said top bar to swing to and from an operative position wherein it is adapted to engage over the upper edge of the film to hold the latter in the frame, said keeper member having a resilient part coacting with the top bar to hold said keeper member in the operative position.

Other objects and features of the invention will appear from the following description when considered with the accompanying drawing, in which:

Figure 1 is a front elevational view of a film holding frame constructed in accordance with the present invention.

Figure 2 is a fragmentary rear view of the top bar and keeper member with the latter in its operative position of Figure 1.

Figure 3 is a vertical section on line 3—3 of Figure 2.

Figure 4 is a view similar to Figure 2 with the keeper member midway between its operative and inoperative positions.

Figure 5 is a section on line 5—5 of Figure 4.

Figure 6 is a view similar to Figure 2 with the keeper member in its inoperative position.

Figure 7 is a section on line 7—7 of Figure 6.

Figure 8 is a perspective view of the keeper member.

Referring in detail to the drawing, the present frame includes the usual side channel bars 5 and bottom channel bar 6 for receiving the side and bottom edges of a film. The upper ends of the side bars are connected by a supporting bar 7, as usual.

In accordance with the present invention, the side bars 5 are rigidly connected a short distance below the supporting bar 7 by a flat top bar 8, and a keeper member 9 is hinged to the bar 8 to swing between the operative position of Figures 1 to 3 and the inoperative position of Figures 6 and 7. In the operative position, the keeper member is adapted to engage over the upper edge of the film to hold the latter in the frame. The keeper member has a resilient part 10 which coacts with bar 8 to hold said keeper member in the respective positions.

As shown, the keeper member comprises a length of spring wire having a U-shaped central portion 11 whose ends are return bent as at 12 and then inturned toward each other as at 13 to provide pintles journaled in spaced bearings 14 stamped from the bar 8. The part 10 comprises

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an oblique extension of one of the pintles 13 and is tensioned to bear against the bar 8, as well as being laterally movable relative to the adjacent bearing 14 to opposite sides of a center line intersecting the axes of the bearings 14. Thus, the part 10 will coact with the bar 8 to hold the keeper member 9 in the operative and inoperative positions thereof. It shifts laterally between the positions of Figures 2 and 6 as the keeper member is swung between said operative and inoperative positions. When in the inoperative position, the keeper member is behind the bar 8 and allows ready insertion or removal of the film. When in the operative position, the keeper member extends forwardly and downwardly in front of bar 8 to engage over the upper edge of the film. In actual operation, the keeper member snaps from the midway position of Figure 4 to either the operative position or the inoperative position in accordance with the direction in which it is manually moved.

The construction is simple, efficient, easy to manipulate, and economical to manufacture.

What I claim as new is:

A frame for holding film during fluid treatment and drying, comprising side and bottom channel bars for receiving the side and bottom edges of a film, a top bar rigidly connecting the side channel bars, and a keeper member hinged to said top bar to swing between an operative position extending forwardly and downwardly in front of said top bar, and an inoperative position behind said top bar, said keeper member comprising a length of spring wire having a U-shaped central portion whose ends are return bent and then inturned toward each other to provide pintles, said top bar having bearings struck therefrom in which said pintles are journaled, one of said pintles having an oblique extension tensioned to bear against said top bar and disposed to move past a center line intersecting the axes of said bearings to hold the keeper member in each of said positions.

JOHN CARR.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,398,938	Chapman	Nov. 29, 1921
1,583,708	Viken	May 4, 1926

FOREIGN PATENTS

Number	Country	Date
253,731	Germany	Nov. 15, 1912
569,104	Germany	Jan. 28, 1933