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C. F. SPEIDEL

PROJECTION SCREEN HOLDING CLIP

Filed Oct. 20, 1923

FIG. 1.

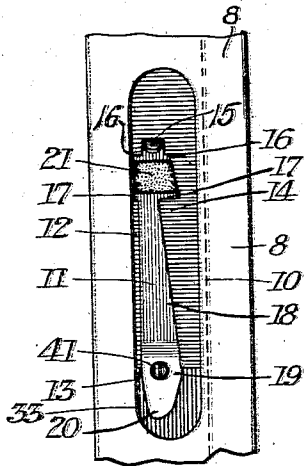
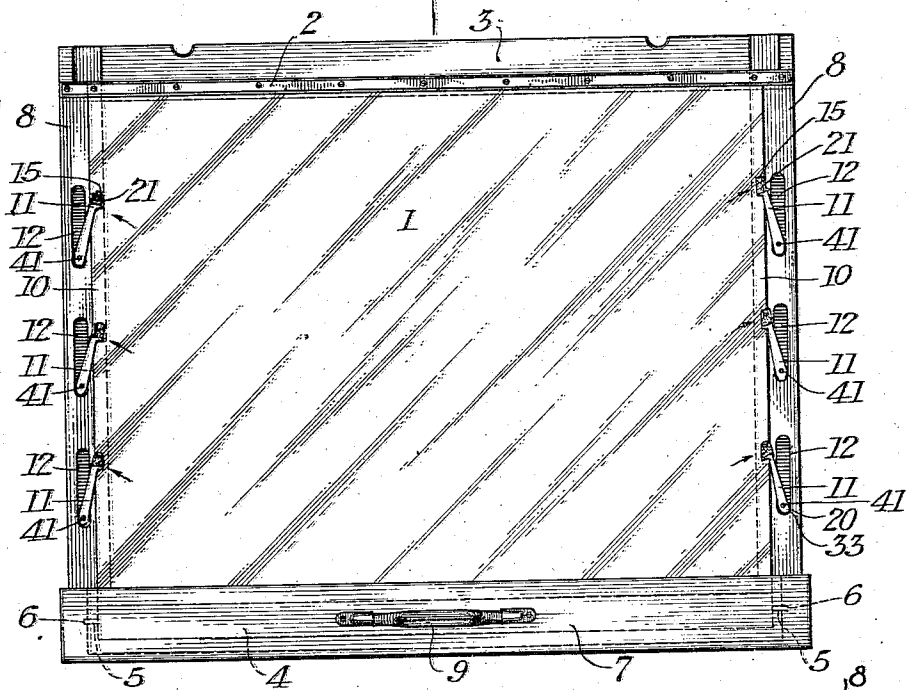


FIG. 2.

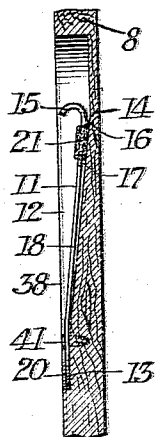


FIG. 3.

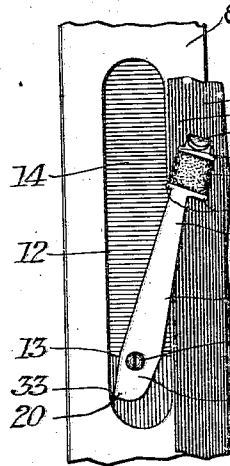


FIG. 4.

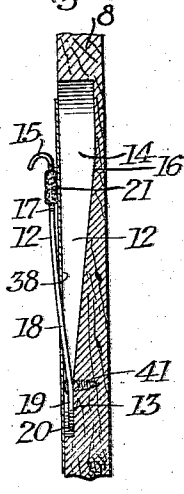


FIG. 5.

INVENTOR,
Charles F. Speidel,
BY R. L. Stumfield,
Quesset & Stewart,

ATTORNEYS.

UNITED STATES PATENT OFFICE.

CHARLES F. SPEIDEL, OF ROCHESTER, NEW YORK, ASSIGNOR TO EASTMAN KODAK COMPANY, OF ROCHESTER, NEW YORK, A CORPORATION OF NEW YORK.

PROJECTION-SCREEN HOLDING CLIP.

Application filed October 20, 1923. Serial No. 669,685.

This invention relates to photography, and more particularly to projection screens for receiving still or motion pictures projected by a machine. One object of my invention is to provide a screen holding clip which can easily and quickly be moved into an operative position in which it will press an edge of a flexible screen against a flat support. Another object is to provide a housing for such a clip in which the clip may lie in an inoperative position without projecting from its support when in such an inoperative position. Still another object is to provide the clip with a gripping portion adapted to firmly engage and hold a portion of the screen. Another object is to provide a clip by means of which the screen may be drawn taut and free from wrinkles. Other objects will appear from the following specification, the novel features being pointed out in the claims at the end thereof.

Fig. 1 is an elevation of a screen equipped with clips constructed in accordance with and illustrating one form of my invention;

Fig. 2 is an enlarged detail plan of a clip with a portion of the support upon which it is mounted;

Fig. 3 is a longitudinal section through my clip and the clip pocket, showing the clip in an inoperative position;

Fig. 4 is a view similar to that of Fig. 2, but showing the clip in an operative position engaging an edge of the screen; and

Fig. 5 is a detail section through the clip pocket but with the clip shown in full lines engaging the screen.

The projection screen is of the folding variety and may be, as illustrated, of the same construction as the screen shown in the Loyd A. Jones application Serial No. 640,992, filed May 23, 1923.

The curtain 1 is of flexible material attached by a bar 2 to the top frame member 3, and at the bottom to a roller 4 adapted to turn on trunnions 5 revolubly mounted in blocks 6. The base consists of a box 7, of which blocks 6 form the ends, and into which the top frame 3, and side frame members 8 may fold when not in use. The curtain is wound upon roller 4. There may be a handle 9 to carry the box. The screen so far described may be similar to the Jones screen above cited.

Coming now to my invention, it some-

times happens that due to various causes such as atmospheric conditions the curtain 1 may tend to wrinkle between the edges 10 which will be held by the spring roller 4 under more or less tension against the side frame members 8. These wrinkles can be smoothed out and the screen can be held flat by the clips 11 which will now be described.

A series of pockets 12 are cut into the frame members 8, each having a shallow seat 13 with a portion of gradually increasing depth 14 extending therefrom, so as to form a clip holding pocket in which the clip may lie inside of the walls of a frame member.

The clips 11 may each consist of a piece of spring metal having a bent up finger grip 15, two pairs of spaced lugs 16 and 17, a shank 18 and a base 19 formed with an extension 20 at the end on one side forming a stop lug, and pivotally attached in the seat 13 by a screw 41. A frictional foot 21, here shown as conveniently made from a short section of rubber tubing, is located between the pairs of lugs 16 and 17, so that it is held in place. If necessary a new piece of rubber may be readily inserted.

The operation of the device is as follows:

After setting up the screen with the flexible curtain 1 unrolled as in Fig. 1, the clips are still in the position shown in Fig. 2. The finger grip 15 is then used to draw the clip from its pocket 12 and then it is swung over without contacting the screen to the position shown in Fig. 4, and the rubber foot 21 is then placed in contact with the curtain edge 10. By moving the finger grip toward the edge of the curtain while in contact therewith, the curtain will be stretched or smoothed flat upon the frame uprights 8, and, when all the clips are in place, the curtain will lie in a plane.

It should be noted that the extension 20, by striking the edge 33 of seat 13 forms a stop so that the clip cannot be swung so far across member 8 as to press curtain 1 into the opening between the frame members. When the clip is in its inoperative position in the seat, as can be seen from Fig. 3, no part of the clip projects above the surface 38 of the frame member, so that these parts can be easily placed in box 7 when the screen is to be folded.

Having thus described my invention, what

I claim as new and desire to secure by Letters Patent is:

1. In a projection screen, the combination with a frame having a pocket cut therein, of a flexible curtain adapted to lie against the frame, a clip movably mounted in the pocket, and adapted to move from a position in which it contacts with a portion of the curtain holding it flat against the frame into the pocket and out of contact with the flexible curtain.

2. In a projection screen, the combination with a frame having a pocket cut therein, of a flexible curtain adapted to lie against the frame, and means carried by the frame for pressing a portion of the curtain flat against the frame, said means being movable and being adapted to lie entirely within the pocket when not in use.

3. In a projection screen, the combination with a frame, of a flexible curtain adapted to be stretched thereover, of supports for the ends of the screen, and spring clips for holding the sides of the curtain against the side frame members, pockets for the clips in the frame members, said clips being movable between an operative position in which a portion of a clip engages an edge of the curtain, and an inoperative position in which the clip lies entirely inside of the pocket cut in the frame member.

4. In a projection screen, the combination with a frame made of a plurality of frame members of a flexible curtain adapted to lie against the frame, at least one of the frame members being provided with a pocket having side and bottom walls, and a spring clip adapted to be normally housed in the pocket and having a finger grip extending from the clip by which the clip may be raised from its pocket in which it lies inside of the frame member, to a position outside of the frame member in which it may contact with and

press the flexible curtain against a frame member.

5. In a projection screen, the combination with a frame made of a plurality of members, a flexible curtain adapted to be against the frame, at least one frame member having a pocket formed therein with side and bottom walls, a spring clip mounted in the pocket and being adapted to be moved to and from the pocket upon its mount, a portion of the spring clip being shaped to strike a wall of the pocket to limit the movement of the clip.

6. In a projection screen, the combination with a frame made of a plurality of members, a flexible curtain adapted to be against the frame, said curtain being attached to some of the frame members and being adapted to lie against other of the frame members, said last named frame members being provided with a plurality of pockets provided with bottom and side walls, spring clips pivotally mounted in the pockets, portions of the clip and the side walls of the pockets cooperating to limit the movement of the clips upon their pivots.

7. In a projection screen, the combination with a frame made of a plurality of members, a flexible curtain adapted to be against the frame, at least one frame member having a pocket formed therein with side and bottom walls, a spring clip pivotally attached to a bottom wall of the pocket being movable upon the pivot to and from a position in which the clip lies in the pocket, an extension on the clip adapted to form a stop to limit the movement of the clip upon its pivot, said extension being adapted to stop the clip by striking a wall of the pocket.

Signed at Rochester, New York, this 17th day of October, 1923.

CHAS. F. SPEIDEL.