April 8, 1924. 1,489,880

H. DEWEY

CINEMATOGRAPH AND LIKE SCREEN

Filed July 11, 1923

Fig. 1.

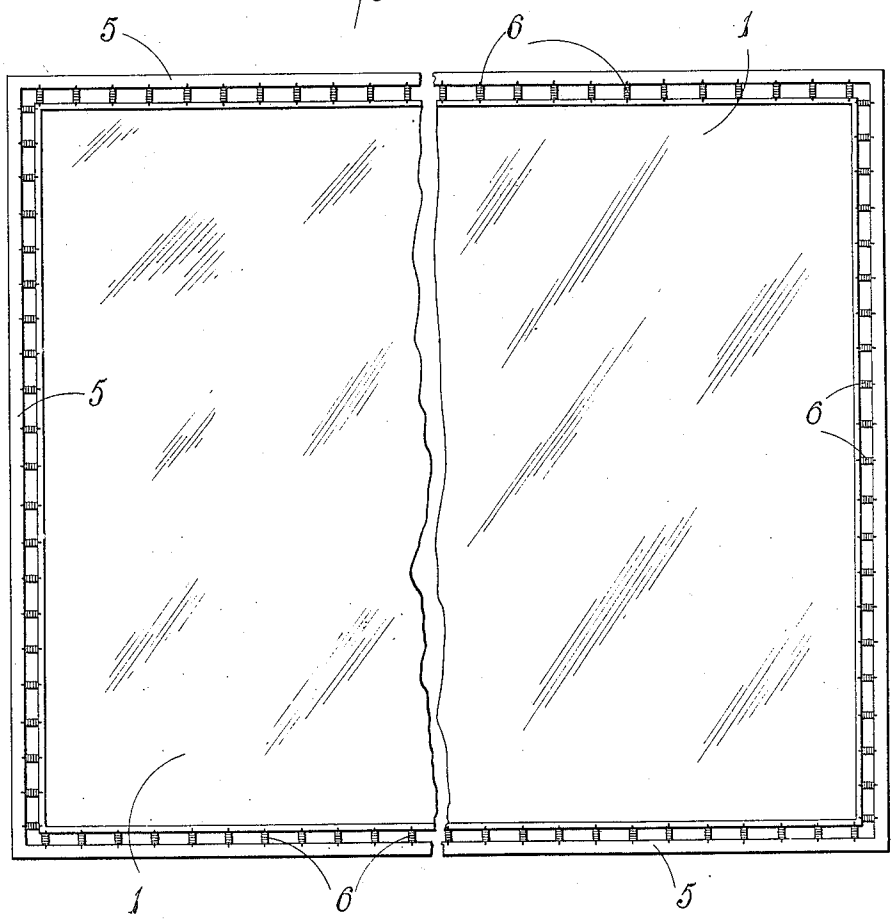
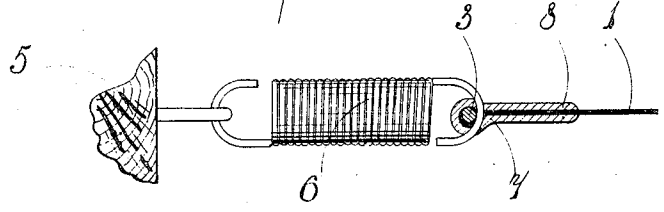


Fig. 2.



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UNITED STATES PATENT OFFICE.

HARRY DEWEY, OF SPARKHILL, BIRMINGHAM, ENGLAND.

CINEMATOGRAPH AND LIKE SCREEN.

Application filed July 11, 1923. Serial No. 650,929.

To all whom it may concern:

Be it known that I, HARRY DEWEY, a subject of the King of Great Britain, residing at 9 Grove Road, Sparkhill, Birmingham, in the county of Warwick, England, have invented certain new and useful Improvements in Cinematograph and like Screens; and I do hereby declare the following to be a full, clear, and exact description of the same.

This invention relates to cinematograph and like screens and to fabrics for forming the same.

One object of the present invention is to provide a screen on which the projected pictures will show with greater clearness than heretofore and which can be readily washed or otherwise cleaned when required.

Another object of the present invention is to provide a surface for cinematograph screens whereby the energy used in lighting can be reduced without detracting from the effect produced upon the screen.

A further object of the present invention is to provide an improved apparatus for supporting a fabric screen so that the tension thereof will remain uniform under changing atmospheric conditions whereby a perfectly flat and taut screen can be obtained under all conditions.

Referring to the drawings:—

Figure 1 is a front view of a screen constructed in accordance with my invention.

Figure 2 is a view to an enlarged scale showing one of the springs.

According to my invention the uncured rubber surface *a* of the proofed fabric or double proofed fabric *b* from which the screen is made is covered with fine mica dust or finely crushed quartz, glass or other suitable reflecting material *c* so that it adheres to but lies exposed upon the surface of the screen.

My invention is particularly applicable to screens formed of what is shown as "proofed" or "double proofed" fabric which has a white or whitish sheeny surface and which is preferably maintained in a state of constant tension by the new or improved means hereinafter described.

In forming the improved screen surface, the surface of the fabric is preferably treated so as to form innumerable angular or rounded or other highly reflecting surfaces which reflect the light in many or all directions from the face of the screen or fabric.

To carry out this part of my invention the uncured rubber surface of the proofed or double proofed fabric is well covered all over with a fine mica dust or with a fine dust of powdered quartz or glass or the like, this dust being rolled or otherwise pressed on to the surface of the screen to which it adheres. Either before or after the curing process the mica covered surface is roughened or formed by rolling between engraved rollers or by other means into innumerable small projections *d* and intermediate depressions or pits *e* preferably irregularly disposed.

In the construction illustrated the screen itself is shown at 1 and it is provided at its edge with a strip of webbing or the like 7 stitched at 8 and enclosing flexible wires or the like 3, preferably a separate wire for and coextensive in length with each side of the screen.

Instead of employing this construction, the webbing may be omitted and the wires may be enclosed in pockets formed by folding over the edges of the fabric and sticking them to the main sheet by solution.

The usual frame 5 or other suitable support is provided and coil springs 6 are arranged around the outer periphery of the screen at suitable intervals and in the space between the screen and the frame, one end of each coil spring engaging with the supporting frame 5 or the like, whilst the other end engages with the flexible wires 3 carried by the screen 1.

By the rotation of the springs in the space between the sides or edges of the screen and the sides of the frame, they are free of friction on the frame and each can exert its entire tension on the screen.

Owing to the pull of the springs being transmitted to the fabric of the screen through the medium of the wire, a much more even distribution of pressure is obtained than when each individual spring is connected to the fabric.

What I claim then is:—

A cinematograph screen comprising a sheet of material, a flexible wire arranged in the sheet near and substantially parallel with each edge and extending along each side of the sheet, a rigid frame around said sheet of material and spaced therefrom, and retractile springs arranged in the spaces between the sides of the frame and the edges of the sheet and respectively connected at the ends with a wire of the sheet and one side of the frame.

In witness whereof I affix my signature.

HARRY DEWEY.