Oct. 9, 1928. 1,686,880

J. M. SHAY

PICTURE SCREEN

Filed Oct. 5, 1925

Fig. 1.

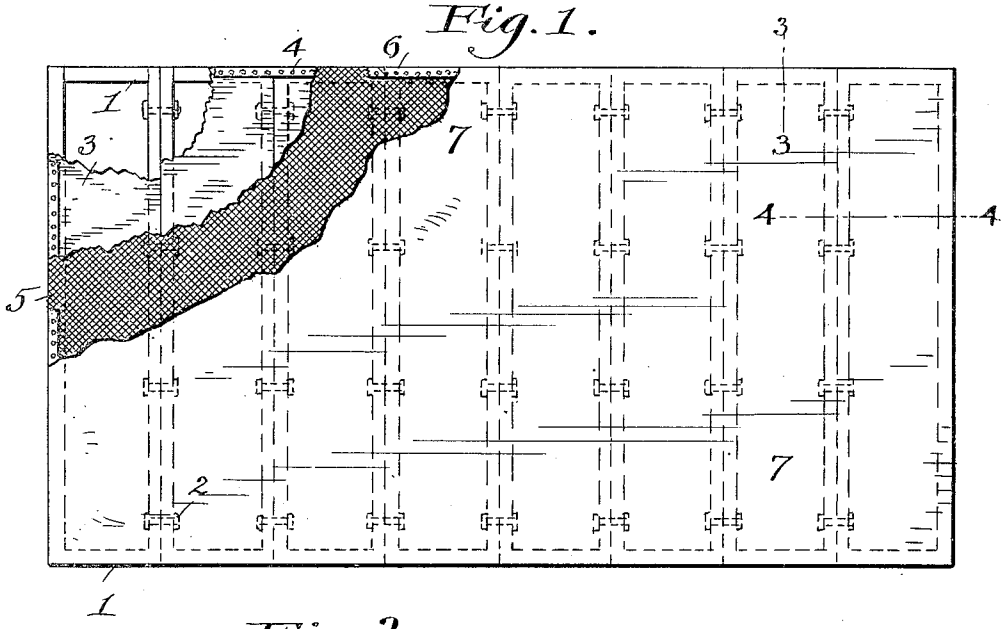


Fig. 2.

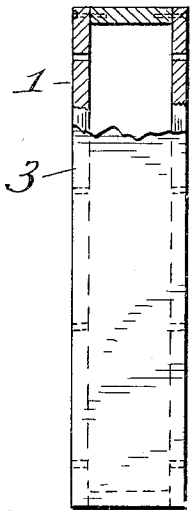


Fig. 3.

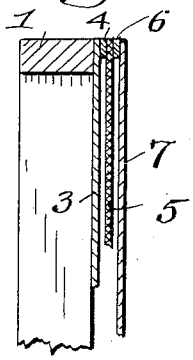
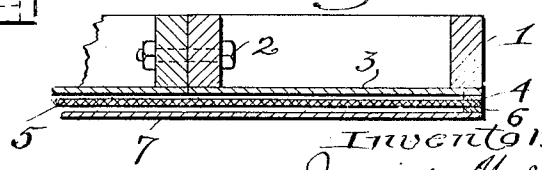


Fig. 4.



Inventor
James M. Shay
Kerr Hudson & Kent
attys.

Patented Oct. 9, 1928. 1,686,880

UNITED STATES PATENT OFFICE.

JAMES M. SHAY, OF CLEVELAND, OHIO, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, OF ONE-THIRD TO HARRY J. LINDIG AND ONE-THIRD TO HOMER P. YODER, BOTH OF CLEVELAND, OHIO, AND ONE-THIRD TO SHAY MOTION PICTURE SCREEN CO., OF SPRINGFIELD, ILLINOIS, A CORPORATION OF ILLINOIS.

PICTURE SCREEN.

Application filed October 5, 1925. Serial No. 60,459.

The invention relates to an improved picture screen for reflecting images or pictures projected against the screen from suitable projection apparatus, and more particularly to screens for motion pictures.

Among the objects of the invention are to provide a screen which will eliminate the glare and consequent eye strain to which the members of the audience are subjected in viewing motion pictures as now exhibited, to equalize light reflected from various portions of the screen, to enable the pictures to be viewed without eye strain from a point close to the screen, as well as more remote points, and to enable those sitting to one side of the screen upon which the picture is exhibited to see the picture as well as those directly in front of the screen, and to give depth to the pictures so that the persons and objects exhibited in the pictures appear to stand out in relief on the screen.

With the above and other objects in view the invention may be said to comprise the picture screen as illustrated in the accompanying drawings, hereinafter described, and particularly set forth in the appended claim, together with such variations and modifications thereof as will be apparent to one skilled in the art to which the invention appertains.

Reference should be had to the accompanying drawings forming a part of this specification, in which Fig. 1 is a front elevation of the screen with the portion of the screen proper broken away at one corner to show the various layers of material in the screen; Fig. 2 is a plan view of one section of the screen supporting frame; Fig. 3 is a section on line 3—3 of Fig. 1, and Fig. 4 is a section on line 4—4 of Fig. 1.

Referring to the accompanying drawings, the screen has a supporting frame which is made up of a series of detachably connected rectangular sections 1, each of which extends the full height of the screen, the sections being secured together side by side by means of bolts 2. The section 1 has a facing or cover secured to the front face thereof, which consists of a sheet of fabric 3, preferably canvas, which is impregnated with a pure white paint to render it opaque. When sections 1 are secured together the canvas forming the front faces thereof lie in a single plane and the edges of the canvas cover strips abut each other from the top to the bottom of the screen.

Along the top and bottom edges of the supporting frame there is a spacing strip 4 secured upon the outside of the canvas covering strips 3. This spacing strip is preferably about half an inch in width, and upon these strips 4 there is secured a wire screen 5 which is preferably of very fine mesh, a screen of about 100 meshes to the inch having been found to give satisfactory results.

A second spacing strip 6 is secured upon the outer face of the wire screen 5 directly over each of the two spacing strips 4 at the top and bottom of the screen. The spacing strips 6 are about the same width as the spacing strips 4, and secured to the strips 6 there is a translucent sheet of white fabric, preferably a thin linen sheet.

Part of the light projected against the screen passes through the outer sheet 7 and wire mesh 5, and is reflected back through the wire mesh 5 from the rear opaque sheet 3.

It has been found in use that the screen above described prevents the reflection of excessively bright rays of light from the screen surface, and shows pictures in which the objects shown appear to stand out in relief. The objectionable glare reflected from screens heretofore used has made it quite uncomfortable for persons viewing the picture from a point close to the screen, but with the screen of the present invention this objectionable feature is entirely eliminated. It has also been found that the pictures can be viewed from points considerably to one side of the screen practically as well as from points directly in front of the screen.

Having described my invention, I claim:

A picture screen comprising a supporting frame made of sections detachably secured together, said sections each having its front face formed of a sheet of fabric impreg-

nated with a pure white paint, and said sections having their front faces in the same plane with the edges of the fabric on one abutting the edges of the fabric on another, spacing strips secured to the front face of the frame, a fine mesh wire screen secured to said strips, spacing strips on the outer side of the screen and secured to the frame, and a sheet of white translucent fabric secured upon the outer spacing strips.

In testimony whereof, I hereunto affix my signature.

JAMES M. SHAY.