M. M. GILLAM.

PICTURE PROJECTING DEVICE.

APPLICATION FILED FEB. 17, 1915.

1,164,937. Patented Dec. 21, 1915

Fig. 1.

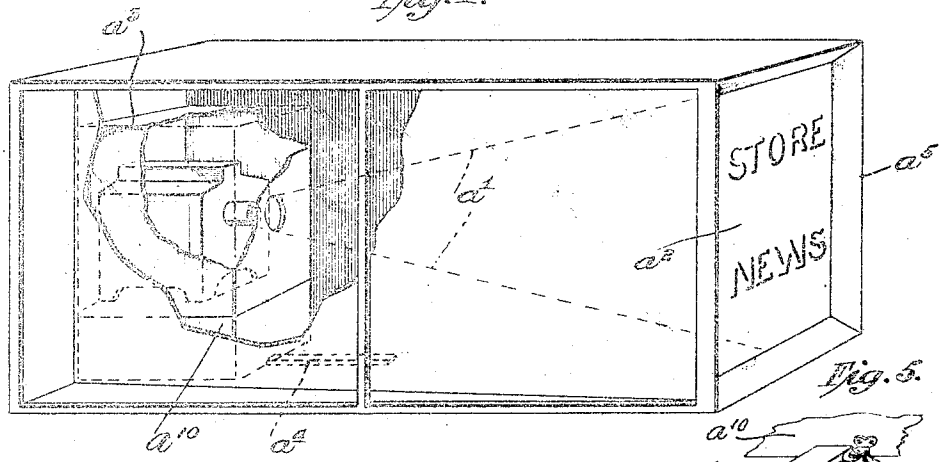


Fig. 5.

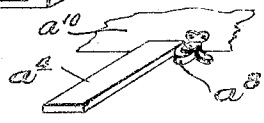
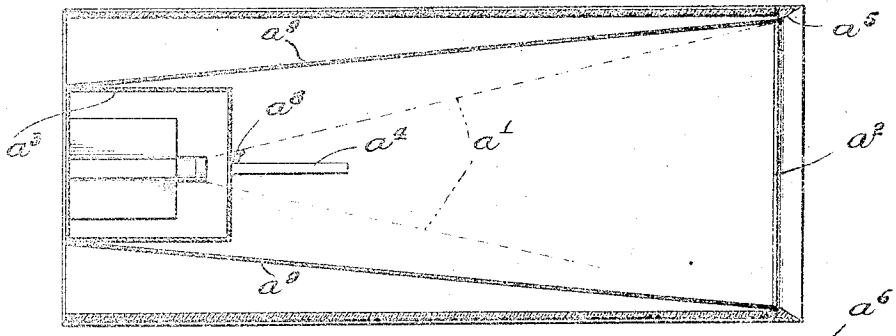


Fig. 2.



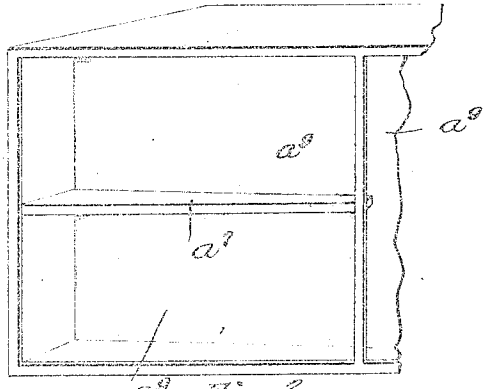


Fig. 3.

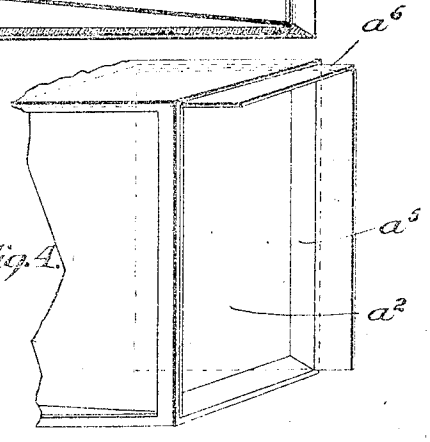


Fig. 4.

Witness:

[illegible]

A. Richardson

by

Inventor:

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Atty

UNITED STATES PATENT OFFICE.

MANLY M. GILLAM, OF FLUSHING, NEW YORK.

PICTURE-PROJECTING DEVICE.

1,164,937. Specification of Letters Patent. Patented Dec. 21, 1915.

Application filed February 17, 1915. Serial No. 8,960.

To all whom it may concern:

Be it known that I, MANLY M. GILLAM, a citizen of the United States, residing at Flushing, Long Island, in the county of Queens and State of New York, have invented certain new and useful Improvements in Picture-Projecting Devices, of which the following is a specification.

My invention relates primarily to the class of picture projecting devices which is designed to project or present the pictures or images of opaque objects, such as photographs, written or printed matter, engravings, woven fabrics, pottery, minerals, etc., on a screen or other suitable surface.

The object of my invention is to give to devices of this class a wider adaptability, particularly for use in connection with retail trade, by doing away with the necessity for a darkened room or audience space in which the said image must be shown to be effective.

To this end I provide a casing, inclosure, or box-like form, sufficiently large to accommodate the picture projecting device at one extremity and to form or receive a frame or support at the other extremity of any size or shape desired to hold the translucent screen, curtain or other surface on which the projected picture or image is to be shown.. I prefer that the casing or box-like form be of uniform height and width throughout but it may be tapered to conform with the requirements of the light rays in transit from the projecting device, or given any other desired form that will insure a properly darkened interior. Through the hollow interior of this casing, inclosure or box-like form the reflected rays of light from the projecting device pass on their way to the translucent screen, curtain or other display surface, and appear on its opposite side or front, in natural colors, illuminated and enlarged to any degree desired, the distance of the translucent screen, curtain or other display surface from the lens of the projecting device being an important element in determining the size of the image or picture.

By means of a so called "shadow box", which is in effect an anteriorly projecting margin to the frame surrounding the translucent screen, curtain or display space on which the illuminated pictures or images appear, or closely associated with it, such pictures or images can be made clearly and distinctly visible to observers in the ordinary daylight of a room or of a store, thus making the device available for the novel conspicuous and attractive display or presentation of written or printed announcements, advertising matter, photographic or other pictures and many other features of publicity or of popular interest, of great value in promoting the growth and progress of a business enterprise. By providing for the modification at will of the amount of projection to be given to the different sides of the shadow-box, or the anteriorly projecting marginal associated parts of the translucent display space, the effectiveness of the illuminated pictures or images may be considerably increased, because of the adjustment to peculiar light conditions which is thereby made easily possible. Since the illuminated display space is often above the level of the eyes of the observers it is at times found that a very considerable anterior projection of the upper part of the shadow box is an advantage.

In a retail store a favorite place for the location of the combined device is often on the top of a fixture behind a sales counter and with the picture or image display surface near to and facing an aisle, or passage way, or assembling place for the use of the public. But since the combined device is easily movable, if such construction is desirable, it may be placed at will wherever its operation is preferred. In any location on a selling floor of a store, if the size and shape of the casing, inclosure or box-like form permits, it is often desirable to utilize some of the space in its sides for the display or storage of merchandise or other objects. To that end I considerably narrow the open interior of that part of the said casing or box-like form nearest the said picture projecting device by means of longitudinal upright partitions, gradually tapered or stepped outward from the center in the direction of the translucent screen or display surface, and in front of each recess thus formed I place a protective cover of glass or other material, if such protection is deemed necessary.

In some instances it is advisable that the body of the combined device shall not be located in the room in which the proposed pictures or images are shown. Under such conditions the picture projecting device may be placed wherever convenient, and where

the required degree of darkness can be secured, it only being necessary for the satisfactory operation of the combined device for business, amusement or educational purposes that its picture or image displaying face be visible to those expected to observe it.

A moving picture projecting device may be used instead of the device for projecting the pictures or images of opaque objects if so desired, the same general conditions applying to both. In either case I provide, when necessary, in the immediate surroundings of the picture projecting device means for preventing danger from fire. I also provide means for holding the device in position and for adjusting it to the required distance from the display screen.

As a display screen material I prefer ground glass, lightly silvered glass or a very fine grade of tracing cloth. Through either of these the picture or image of an object, either stationary or in motion, can be projected with fidelity to the original and with satisfactory clearness to those who observe the display face of the screen.

The nature and scope of my present invention will be more fully understood from the following description taken in connection with the accompanying drawings, forming part hereof, in which:—

Figure 1, is a perspective view of one form of the combined device, in an operative position, with a part of one side removed. Fig. 2, is a view of a longitudinal cross section of the combined device parallel to its base. Fig. 3, is a perspective view of part of one side of one form of the combined device showing a method for utilizing part of the space in the casing, inclosure or box-like form for the storage or display of merchandise or other objects. Fig. 4, is a perspective view of the extremity of one form of the combined device which contains the translucent curtain, screen or other surface on which the projected picture or image appears. Fig. 5, is a perspective view of one means for holding the picture projecting device at any desired distance from the translucent screen or curtain.

Referring to the drawings, a^1, in Fig. 1, represents the light rays proceeding from a picture projecting device through an aperture in its casing toward the translucent screen or curtain, a^2; a^3, represents the casing or inclosure of the picture projecting device with one side partly removed; this casing or inclosure may if desired be of metal, or of other material lined with asbestos or other fire resisting substance; a^4, represents one form of track or guide on which the picture projecting device may be moved either forward or backward while being prevented from making any lateral movement; a^5, represents one side of the shadow box marginally and anteriorly associated with the frame surrounding the translucent screen, a^2; a^{10} represents the base supporting the picture projecting device.

In Fig. 3, is shown a perspective of a longitudinal part of the combined device, Fig. 1, with the side removed to show one method of utilizing the display or storage space provided by partitions, a^9, on each side of the picture projecting device, tapered or stepped outward from the center in the direction of the translucent screen or curtain, a^2, the shelf, a^7, as indicated, being intended to give additional resting place for the storage or display of articles.

In Fig. 4, is shown, a^6, a top and a side section of the shadow box, a^5, considerably projecting beyond the outward face of the translucent screen or curtain, a^2, it being understood that these as well as the other sides of the said shadow box may be adjusted at will in a similar manner, with either a greater or a less projection, with relation to the translucent screen, or curtain, a^2, with which they are associated.

In Fig. 5, is shown one means, a^8, for holding the picture projecting device in any desired position by the use of an eccentric which, at will, may be made to engage or press against the track or guide, a^4, the eccentric being mounted on the base of the frame supporting the picture projecting device.

Having thus described the nature and objects of my invention, what I claim as new and desire to secure by Letters Patent is:—

1. With a picture projecting device, the combination of a hollow form or inclosure adapted to exclude natural or artificial light from the projected light rays while in transit, a translucent screen or curtain positioned in the end of said hollow form or inclosure adapted to display on its outward face the projected picture or image, a sectional shadow box marginally and anteriorly associated with the translucent screen or curtain sections of which shadow box are adjustably mounted in position for increasing or diminishing the anteriorly projecting area of any part of the said shadow box as desired, substantially as and for the purposes described.

2. With a picture projecting device the combination of a hollow form or inclosure adapted to exclude natural or artificial light from the projected light rays while in transit, a translucent screen or curtain positioned at the end of said hollow form or inclosure adapted to display on its outward face the projected picture or image, a sectional shadow box marginally and anteriorly associated with the translucent screen or curtain, sections of which shadow box are telescopically adjustably mounted in posi-

tion for increasing or diminishing the anteriorly projecting area of any part of the said shadow box as desired, substantially as and for the purposes described.

3. With a picture projecting device the combination of a hollow form or inclosure adapted to exclude natural or artificial light from the projected light rays while in transit, a translucent screen or curtain positioned in the said hollow form or inclosure and adapted to display on its outward face the projected picture or image, a sectional shadow box marginally and anteriorly associated with the translucent screen or curtain, sections of which shadow box are adjustably mounted in position for increasing or diminishing the anteriorly projecting area of any part of the said shadow box as desired, and spaces in or about the hollow form or inclosure for the storage or display of articles, substantially as and for the purposes described.

4. With a picture projecting device the combination of a hollow form or inclosure adapted to exclude natural or artificial light from the projected light rays while in transit, a translucent screen or curtain positioned in the said hollow form or inclosure and adapted to display on its outward face the projected picture or image, and spaces in or about the said hollow form or inclosure for the storage or display of articles, substantially as and for the purposes described.

5. With a picture projecting device the combination of a hollow form or inclosure adapted to exclude natural or artificial light from the projected light rays while in transit, a translucent screen or curtain adapted to display on its outward face the projected picture or image, a shadow box marginally and anteriorly associated with the translucent screen or curtain, means for increasing or diminishing the anteriorly projecting area of any part of the shadow box with relation to the screen or curtain as desired and spaces in or about the hollow form or inclosure for the storage or display of articles, substantially as and for the purposes described.

In witness whereof, I have hereunto set my signature in the presence of the two subscribing witnesses.

MANLY M. GILLAM.

Witnesses:
EDWIN DE WOLFE MORSE,
JAMES O. PALMER.