Jan. 10, 1928. 1,655,989

E. E. DUVAL

STEREOSCOPIC DEVICE

Filed Nov. 10, 1926

Fig. 1.

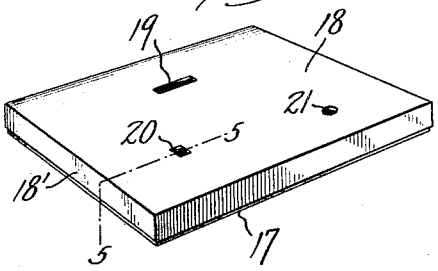


Fig. 4.

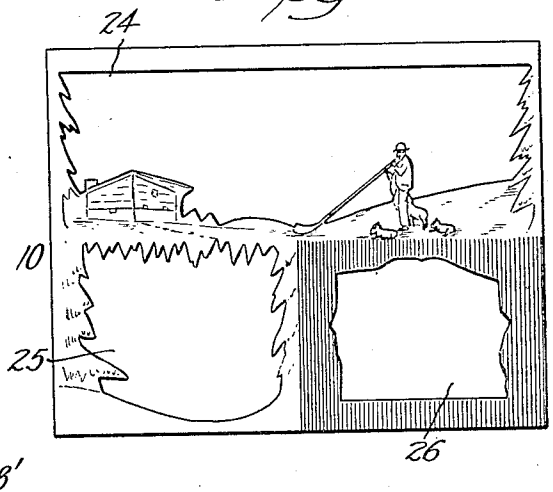


Fig. 2.

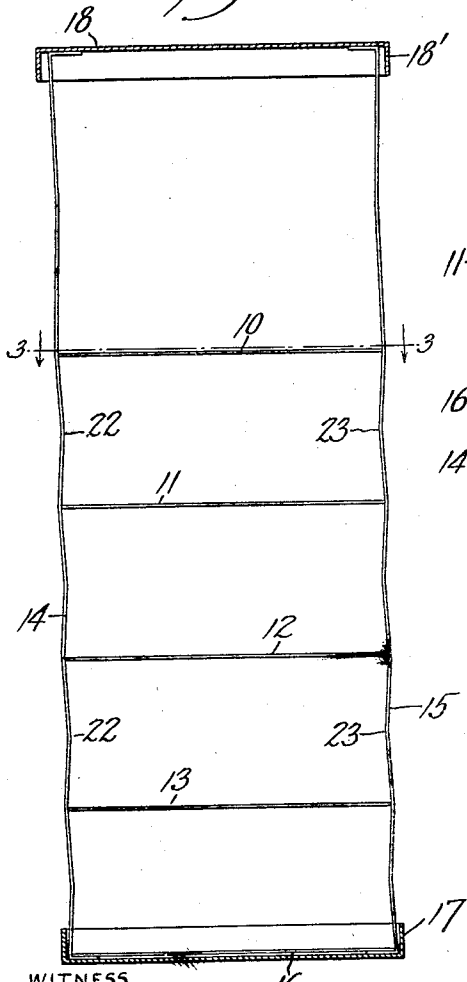


Fig. 3.

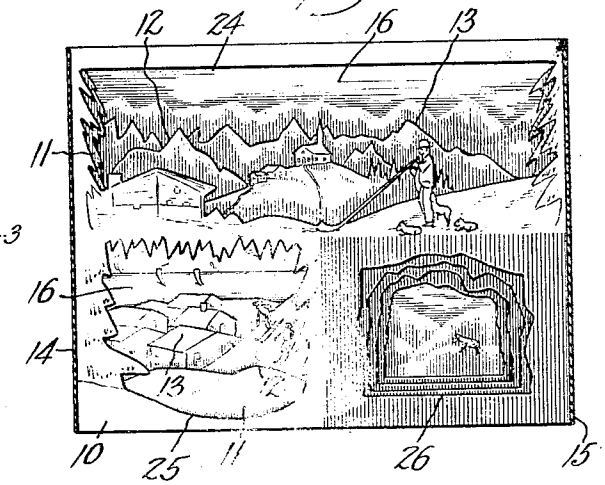
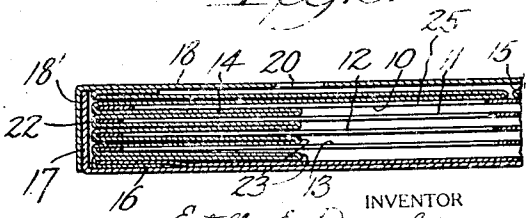


Fig. 5.



WITNESS

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UNITED STATES PATENT OFFICE.

ESTELLE E. DUVAL, OF NEW YORK, N. Y.

STEREOSCOPIC DEVICE.

Application filed November 10, 1926. Serial No. 147,424.

My present invention relates to a stereoscopic device, and more particularly to a device capable of illustrating landscapes or other views in the spacial arrangement that will illustrate the depth and distance of various objects.

An object of the invention is to provide a number of superposed scenes or plates which may be pressed into close contact and compacted to a very small space or may be expanded and spaced to bring the various scenes to predetermined distances from a sight and thus give a stereoscopic view.

Another object of the invention is to provide a stereoscopic device in the form of a box, which may be extended to bring a number of scenes to proper spacial positions, and to permit a number of related scenes to be viewed in a single device.

With these and other objects in view, the invention comprises the device set forth in the following specification and claims.

The various features of the device are illustrated in the accompanying drawing in which:

Fig. 1 is a perspective view of a device embodying my present invention, the device being shown in its compressed or compact position.

Fig. 2 is a cross-sectional view of the device in its extended position.

Fig. 3 is a horizontal sectional view of the device taken on line 3—3 of Fig. 2.

Fig. 4 is a view of the first scene of a number of scenes forming part of the invention.

Fig. 5 is a part sectional view of the apparatus taken on line 5—5 of Fig. 1.

In my present invention a number of plates are painted or decorated and cut to form a number of distinct scenes, so that when arranged in properly spaced positions, with the plates having larger openings arranged nearest to the observer, they will form an ensemble in which various objects will be spaced to correspond with their proper distance from the observer. These various secenes are arranged in their proper sequence and supported within a flat shallow box, in the cover of which suitable sight openings are provided. The scene plates are so supported between the cover and base of the box that when the cover is lifted from the base, the plates or scenes will automatically take a spaced position to correctly portray the distances of the various elements of the landscape or other picture, when viewed through one of the sight openings in the cover.

Referring more particularly to the accompanying drawings, a number of scenes 10, 11, 12 and 13, four being shown by way of example, are supported by means of collapsible supporting elements 14 and 15 between the bottom plate 16 of a flat shallow box 17 and the top plate 18 of a cover 18′, therefor. The cover 18′ is provided with a number of sight openings 19, 20 and 21. When the cover is pressed downwardly to close the box 17, the supporting elements or strips 14 and 15, bend inwardly at points 22 and 23 midway between the scene 10 and the top 18, and between the successive scenes 10 and 11, 11 and 12, 12 and 13, and the end scene 13 and bottom 16 of the box 17, as indicated in Fig. 5. In this position the box is very flat and compact.

However, when the cover 18′ is drawn upwardly or away from the box 17, the supporting elements 14 and 15 straighten to the position shown in Fig. 2, and the scenes 10, 11, 12 and 13 take positions correctly spaced to portray the depth of the objects painted on the scenes. For this purpose the distances between the cover 18′ and scene 10, and between the successive scenes 11, 12 and 13 will not in general be equal, but the distance between the cover 18′ and the scene 10 will be greater than that of successive scenes, and in some instances the distance between the scenes will be decreased as the distance from the cover 18′ increases.

The scene 10 is provided with a number of outline openings 24, 25 and 26 corresponding with the sight openings 19, 20 and 21 in the cover 18′. The scenes 11, 12 and 13 also have corresponding outline openings. The openings in the scene 10 are generally larger than those in the succeeding scenes in which the openings usually become slightly smaller, so that when viewed through the sight openings 19, 20 or 21 in the cover 18′, the observer sees first and nearest the outline of scene 10 then at successively further distance the outlines of scenes 11, 12 and 13. At the furthest distances is seen a background painted or otherwise provided on the inner face of the bottom 16, of the box 17 as indicated in Fig. 3.

It will be apparent that the figures portrayed on scene 10 will represent those in the foreground, whereas the objects on suc-

cessive scenes will represent more distant objects.

The arrangement of the cut out portions and the objects portrayed on the successive scenes 10, 11, 12 and 13 and the bottom 16, are so spaced that several stereoscopic views may be provided in a single box and so arranged that one view may be seen through the opening 19, another view through the opening 20 and still a third view through the opening 21. Thus if a group of views of a particular country, such as Switzerland are to be portrayed, a summer scene may be viewed by looking through a sight 19, a winter scene through sight 20, and a still different scene, such as a tunnel through the sight opening 21. Similarly various rooms of a house may be portrayed as designed under a unitary plan of interior decoration, showing the various objects in the color and position they may occupy in the various rooms.

It will be understood that various types of boxes may be used and various types of supporting and spacing elements for the scenes may be employed.

Through my present invention I provide a very simple compact device by which a true representation of the space and distance of various scenes may be stereoscopically represented. It also provides an arrangement by which a more complete and satisfactory representation of related scenes or designs may be provided in a device that may be easily transported in compact form.

As changes of construction could be made within the scope of my invention, it is intended that all matter contained in the above description or shown in the accompanying drawing shall be interpreted as illustrative and not in a limiting sense.

Having described the invention, what I claim and desire to secure by Letters Patent is:

1. A device of the type described which comprises a shallow box, a number of scene plates in superposed position in said box, collapsible supporting means extending between the bottom of said box and the cover, and holding said scene plates in spaced position when said cover is drawn from said box, the distance between the cover and the nearest scene plate being greater than the distances between successive scene plates, said cover having a sight opening through which said scenes may be viewed when said cover is drawn from said box and the scene plates are in their spaced relation.

2. A device of the type described which comprises a shallow box, a cover for said box having a number of sight openings, supporting means extending between said cover and the base of said box, a number of scene plates supported by said supporting elements in spaced relation between said bottom and said cover, said supporting element being collapsible to bring said plates in closely spaced position to each other in said box, and being expanded when the cover is lifted from the box to automatically position the successive plates in proper spaced relation, said scene plates having a number of related scenes corresponding to the number of sight openings in said cover.

In testimony whereof I hereunto affix my signature.

ESTELLE E. DUVAL.