March 5, 1957 R. H. STEENLAND 2,783,564

DISPLAY DEVICE

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Fig. 2.

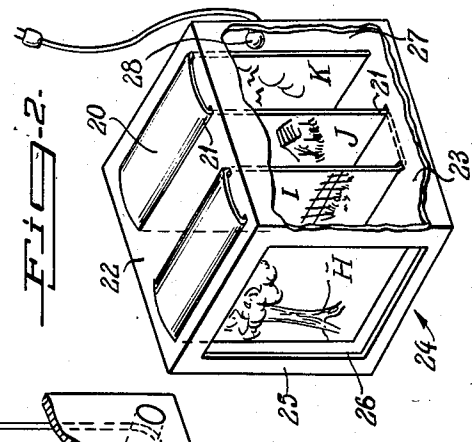
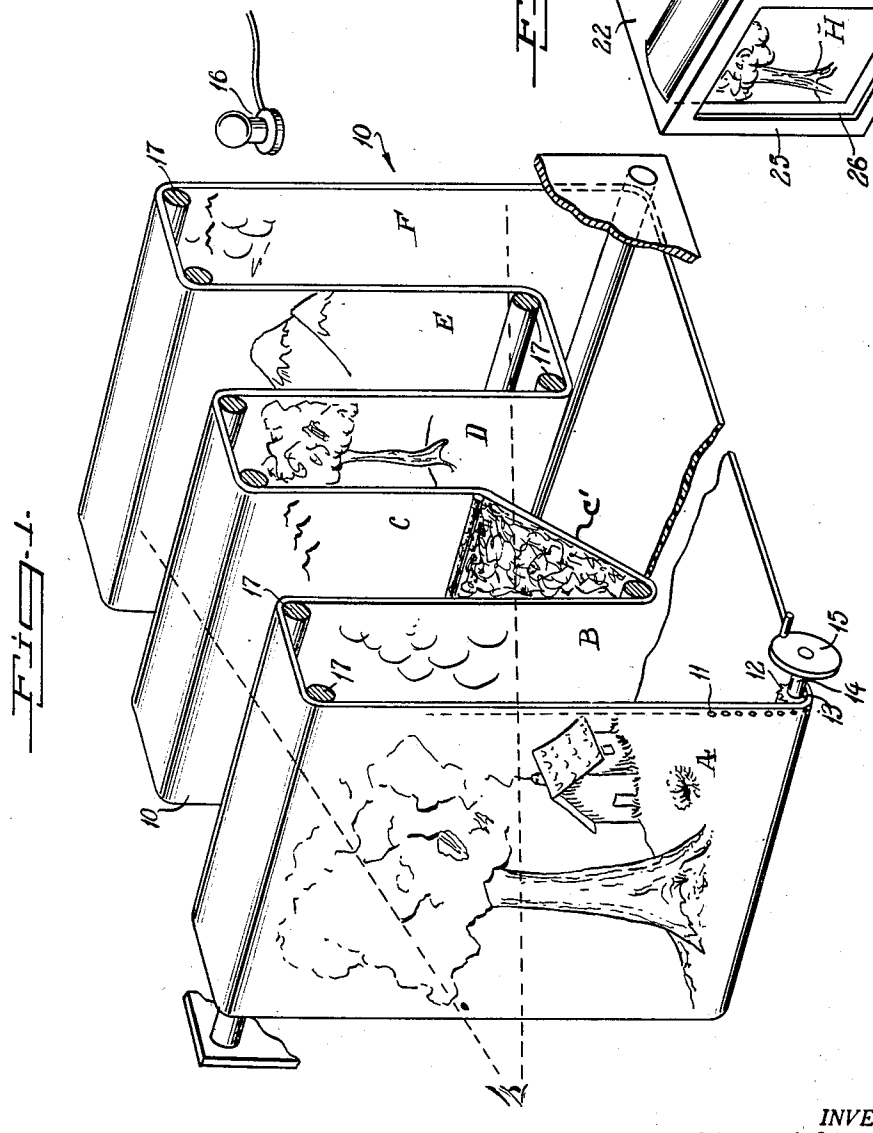


Fig. 1.



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DISPLAY DEVICE

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3 Claims. (Cl. 40—96)

This invention relates to a display device and more particularly to a device having a plurality of continuously connected transparent planes.

It is an objective of this invention to provide a display device having continuously connected transparent planes.

It is another objective to provide a display device wherein the transparent planes may be continuously or intermittently moved to present many different three or more dimensional pictures.

These and other objects of this invention will become apparent upon reading the following descriptive disclosure taken in connection with the accompanying drawing in which:

Fig. 1 is a perspective view of one form of this invention and

Fig. 2 is a perspective view of another embodiment of this invention.

Many advertising devices have been made having transparent planes with scenes thereon and placed one plane behind another to obtain the illusion of depth. However, all such devices have had separate or individual planes.

This invention employes a single continuous ribbon of transparent plastic, for example, modified Cellophane upon which a plurality of varying scenes are printed. This continuous ribbon of plastic may be connected to an electrical motor to intermittently move the entire ribbon a selected distance. However, the ribbon may be stationary or woven into the top and bottom, or alternatively from one side to the other side of a box having slits therein adapted to receive said ribbon.

Turning to Fig. 1, a continuous ribbon **10** of flexible transparent plastic such as Cellophane, cellulose acetate, etc. is provided with a plurality of scenes thereon. Preferably the scenes are as many in number as there are vertical or substantially vertical planes or dimensions to be transviewed by the eye of a viewer.

Thus in Fig. 1 there are six planes, A through F, each portraying a different panoramic scene giving the illusion of six planes of depth. While a plurality of planes are preferred, two planes will suffice as a minimum number.

The planes A through F are preferably vertically disposed but they need not be so as a plane may be completely or partly angularly disposed as for example plane C', to obtain unique advertising effects such as reflection of a scene in water, or a stream of water, etc.

Turning to Fig. 1, the ribbon **10** is preferably provided with sprocket holes **1** adapted to receive sprocket teeth **12** of sprocket wheel **13**. The sprocket wheel is disposed on a shaft **14** to which a hand wheel crank **15** is attached.

In lieu of wheel crank **15**, a conventional electrical motor (not shown) adapted for intermittent operation may be secured to shaft **14** for intermittently shifting the sequence of scenes. Thus one sequence of scenes may present a winter panorama the next is a spring panorama, then a summer panorama, etc.

Where many panorama sequences are employed, a cut-off shutter may be placed in front of plane A, to prevent seeing the panorama during shifting of the scenes. Also a conventional light **16** may be employed, although the use of sunlight for a lighting source is operable.

The planes need not be vertical, so that various illusory advertising effects become possible. Thus water may be cascaded down an inclined plane to give the effect of a natural stream or rain.

The continuous ribbon **10** may be motivated by means of a frictional engagement with a rubber covered roll (not shown) in place of the sprocket wheel and hole arrangement shown.

However, the sprocket arrangement advances the ribbon positively and is the preferred means of moving the ribbon. Moreover, two sprocket wheels may be used on shaft **14**, one on each end thereof in which case both edges of the ribbon **10** will be provided with coacting sprocket teeth receiving holes **11**.

The ribbon **10** is woven tortuously over tensioning rollers **17** disposed in a parallel disposed wall support. Preferably the tensioning rolls **17** are disposed so as not to be visible, but the rolls may optionally be very thin or provided with color or scenic indicia to blend into the panorama selected, especially where the planes are angled for obtaining a scenic effect.

The inner surfaces of the walls or support structure into which the rolls **17** fit may be painted with fluorescent paint or they may be provided with advertising legends if so desired. Also the advertising legend may be disposed on the successive planes to give depth thereto.

This invention also embraces the embodiment shown in Fig. 2. In this embodiment the continuous strip or ribbon **20** is woven through longitudinal slits **21** slightly longer than strip **20** is wide disposed in the top wall **22** and the bottom wall **23** of an enclosure, preferably a rectangular box **24**.

The front wall **25** is partly cut away to permit a sight aperture **26** and the rear wall **27** is preferably provided with a suitable conventional light source **28**.

The embodiment of Fig. 2, may also be provided with vertical or inclined panels H through K. The ends of the ribbon **20** need not be secured together in the embodiment of Fig. 2 and they may be stapled, glued or otherwise permanently secured to the bottom wall **23**. Thus in the form of Fig. 2, the continuous ribbon **20** is permanently fixed and immovable.

One of the big advantages of this device is that the continuous strip **10** or **20** may be printed with all the scenes as a unit, thereby avoiding the expensive printing of many separate panels.

This invention has been disclosed generically by means of several embodiments but it is not to be limited to these embodiments as it is an invention of broad scope.

I claim:

1. A multiple dimension display device adapted for presenting a plurality of vertically disposed stationary scenes in depth relationship comprising a continuous film having mating scenes thereon in predetermined spaced apart and consecutive relationship, said scenes being adapted to be disposed one behind the other to present a picture of depth, a plurality of pairs of top rollers, a pair of intermediate rollers disposed between consecutive pairs of said top rollers and a pair of spaced apart bottom rollers disposed parallel to said pairs of top rollers and in linear extension therewith whereby said continuous film is disposed in a generally rectangular and tensioned configuration about all of said rollers.

2. A multi-dimensional display device comprising a rectangular box having a top wall, a bottom wall, an

apertured front wall for viewing purposes and a rear wall, said top and bottom walls being provided with a plurality of identical slots disposed parallel to one another and to the front apertured wall, a continuous transparent film disposed through said slots, said film having appropriate and pre-determined spaced-apart scenes thereon whereby said scenes are disposed in vertical spaced-apart relationship in said box to produce a composite picture of depth, and means disposed in said rear wall for transmitting light through the parallel disposed film.

3. A multi-dimensional display device comprising a stationary transparent continuous film disposed in a plurality of consecutive vertical parallel disposed planes one behind another, said vertical planes having pictures thereon forming a composite picture of visual depth, and means for holding the film planes in continuous spaced-apart relationship.

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