Dec. 23, 1924. 1,520,566

J. W. DORAN

MOTION PICTURE DEVICE

Filed Jan. 24, 1922

Fig. 1.

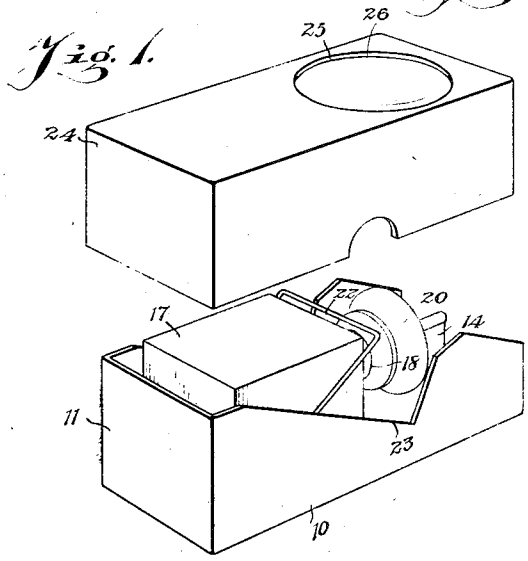


Fig. 4.

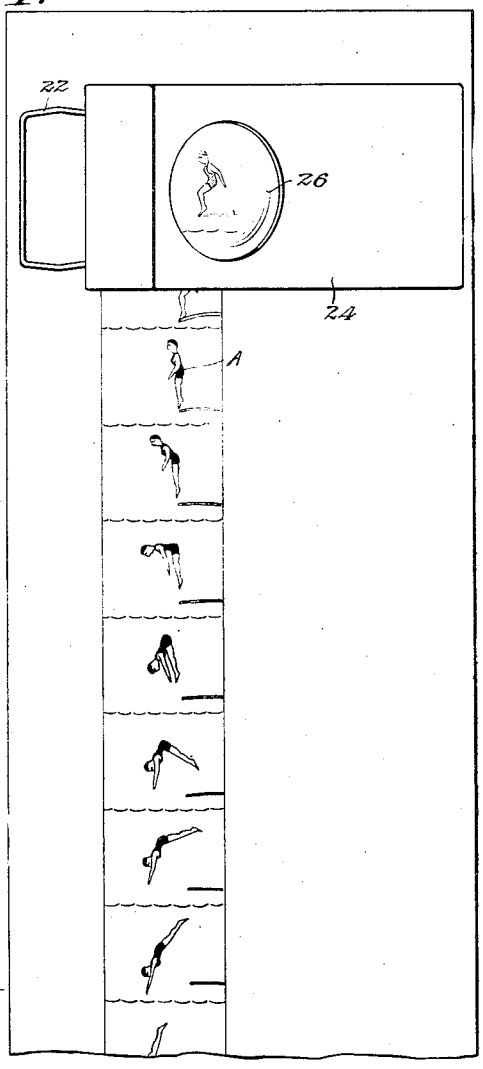


Fig. 2.

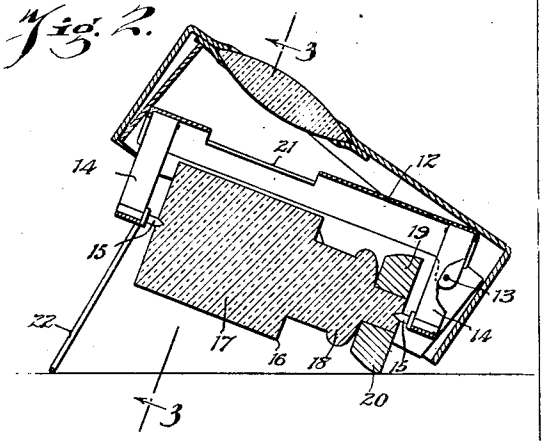
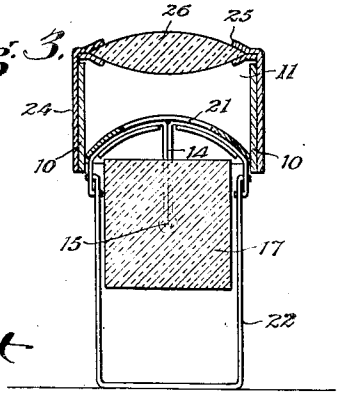


Fig. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

JAMES W. DORAN, OF BROOKLYN, NEW YORK.

MOTION-PICTURE DEVICE.

Application filed January 24, 1922. Serial No. 531,404.

To all whom it may concern:

Be it known that I, JAMES W. DORAN, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Motion-Picture Device, of which the following is a full, clear, and exact description.

This invention has relation to amusement devices and refers more particularly to a motion picture device to successively visualize pictorial representations of figures or objects in various postures or positions to simulate movement of the same.

The invention contemplates a device bodily movable over a series of pictorial representations whereby the same are successively visualized through the device to simulate movements thereof.

As a further object the invention contemplates a device of the character described which may be folded to occupy a minimum amount of space whereby the same may be carried in the vest pocket and which may be readily and quickly unfolded and adjusted to render the same operable.

As a still further object the invention aims to produce a device of the character described which is extremely simple in its construction, inexpensive to manufacture, and which is highly amusing and attractive in its purpose and use.

With the above recited and other objects in view, the invention resides in the novel construction set forth in the following specification, particularly pointed out in the appended claims and illustrated in the accompanying drawings, it being understood that the right is reserved to embodiments other than those actually illustrated herein to the full extent indicated by the general meaning of the terms in which the claims are expressed.

In the drawings—

Figure 1 is a perspective view of the device in folded condition with the cover removed and in juxtaposition.

Fig. 2 is a longitudinal sectional view therethrough illustrating the device unfolded and positioned for use.

Fig. 3 is a transverse sectional view therethrough taken approximately on the line 3—3 of Fig. 2.

Fig. 4 is a plan view illustrating the device in use in connection with a series of representations of figures or objects in various relative postures or positions.

Referring to the drawings by characters of reference the device consists of a housing having side walls 10 connected at one end by an end wall 11 and a top wall 12 pivoted as at 13 to the side walls 10 adjacent the free extremities thereof. The top wall 12 is provided adjacent its opposite ends with depending bearing brackets 14 carrying at their lower extremities bearing trunnions 15 arranged in axial alignment and projecting inwardly toward each other. A rotary refracting element designated generally at 16 includes a square glass body 17 and an axial extension 18 having a reduced squared extremity 19. The refracting element is journaled at its opposite ends on the trunnions 15. An actuating roller 20 having a square bore is fitted over the squared extremity 19 prior to the association of the refracting element with the trunnions 15. The top wall 12 is provided with an aperture 21 disposed in alignment with the squared body of the refracting element and the bracket 14 at the free extremity of the top wall has pivotally attached thereto a bail 22.

In use and operation the top wall is swung upon the pivots 13 to dispose the same at an angle to the housing, as illustrated in Fig. 2, and the bail 22 is swung outwardly to provide with the roller 20 a supporting means for the device. The device is then ready for use in connection with a series of representations of figures or objects A in various poses or positions. By arranging the device over the initial figure or object of the series to refract and frame the same in the aperture 21 and moving the device bodily over the series, the rotary refracting element will successively visualize the figures or objects in the aperture to simulate movement thereof. The movement of the device over its supporting surface will effect rotation of the refracting element due to the frictional engagement of the roller 20 with said supporting surface. The fundamental power of the transparent refracting element when revolving will bend the line of vision through the transparent body and effect crossing of the same when the device travels over the pictures, thereby merging the successive pictures into each other to give the optical illusion of continuous motion. This arrangement eliminates the necessity of employing a shutter and an intermittent move-

ment now generally employed in moving picture devices. In order to provide clearance space to permit of free rotation of the refracting element, notches or cutaway portions 23 are provided in the under edges of the side walls 10 of the housing. When not in use the top wall 12 is folded or swung on its pivots 13 to lie within the housing and the bail 22 is swung inwardly whereby the device is nested to occupy a minimum amount of space. A slip cover 24 is adapted to telescope over the under side of the device to completely house and protect the same. If desired said slip cover is provided with a sight opening 25 in which a magnifying lens 26 is arranged. In use of the device the cover may be telescoped and arranged over the upper side of the housing to dispose the magnifying lens 26 in registry with the aperture 21 whereby the figures will be enlarged when presented to the observer. It is, of course, understood that the device may be used with or without the magnifying lens according to the desires of the user. It is further understood that the body 17 of the refracting element may be of any polygonal shape which includes an equal number of faces, each opposing pair of which are parallel and that the same may be of any transparent material having the requisite refractory powers. It is, of course, obvious that the roller 20 should be of a proper diameter with respect to the length of the pictures to time the framing of the same through the refracting element in the aperture.

I claim:

1. A motion picture device designed for use with a picture strip laid flat upon a supporting surface and comprising a casing adapted to rest upon the supporting surface and to be moved thereon along and over the picture strip, said casing being apertured above the picture strip, a rotary refracting element carried within the casing and disposed between the picture strip and the aperture of the casing, and means for rotating the rotary refracting element as the casing is moved along the picture strip.

2. A motion picture device designed for use with a picture strip laid flat upon a supporting surface and comprising a casing adapted to rest upon the supporting surface and to be moved thereon along and over the picture strip, said casing being apertured above the picture strip, a rotary refracting element carried within the casing and disposed between the picture strip and the aperture of the casing, and a roller connected to the rotary refracting element and engageable with the supporting surface for rotating the rotary refracting element as the casing is moved along the picture strip.

3. A motion picture device designed for use with a picture strip laid flat upon a supporting surface and comprising a casing adapted to rest upon the supporting surface and to be moved thereon along and over the picture strip, said casing including side walls, and end walls and a top wall having an aperture and pivotally connected to the side walls, bearing brackets carried by the top wall, a rotary refracting element mounted on the brackets and disposed between the picture strip and the aperture of the top wall, a roller connected to the rotary refracting element and engageable with the supporting surface for sustaining one end of the device and for rotating the rotary refracting element as the casing is moved along the picture strip, and a bail pivotally connected to one of the bearing brackets for supporting the end of the device opposite the roller.

4. A motion picture device designed for use with a picture strip laid flat upon a supporting surface and comprising a casing adapted to rest upon the supporting surface and to be moved thereon along and over the picture strip, said casing including side walls and end walls and a top wall having an aperture and pivotally connected to the side walls, bearing brackets carried by the top wall, a rotary refracting element mounted on the brackets and disposed between the picture strip and the aperture of the top wall, a roller connected to the rotary refracting element and engageable with the supporting surface for sustaining one end of the device and for rotating the rotary refracting element as the casing is moved along the picture strip, a bail pivotally connected to one of the bearing brackets for supporting the end of the device opposite the roller, and a cover for the casing adapted to complete the enclosure of the parts of the device when the device is not in use and having an opening provided with a lens adapted to overlie and register with the aperture of the top wall of the casing when the device is in use.

JAMES W. DORAN.