

T. BROWN.
TOY.

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1,027,589.

Patented May 28, 1912.

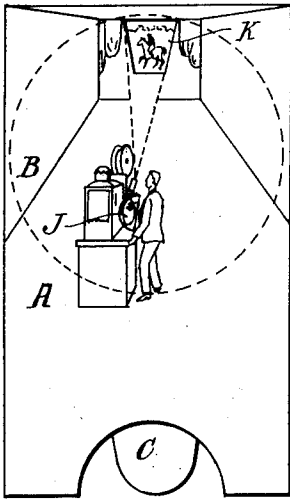


Fig. 1.

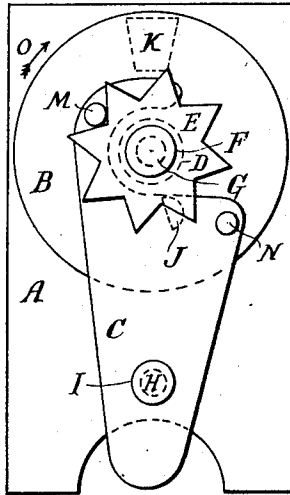


Fig. 2.

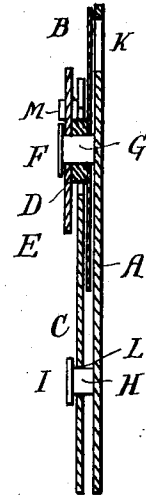


Fig. 3.

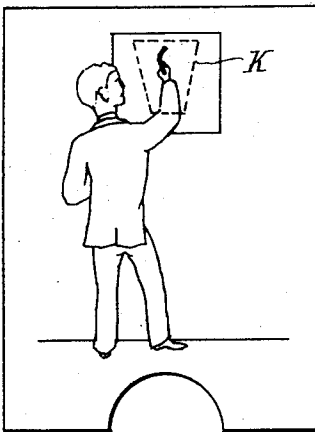


Fig. 4.

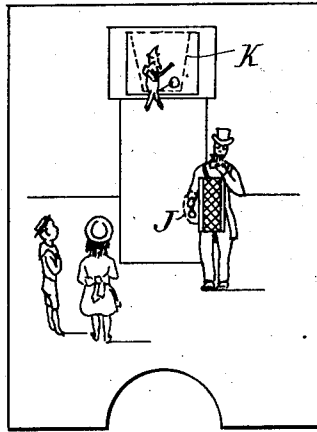


Fig. 5.

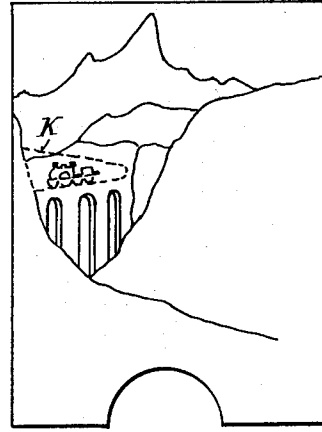


Fig. 6.

Witnesses:
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UNITED STATES PATENT OFFICE.

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TOY.

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To all whom it may concern:

Be it known that I, THEODORE BROWN, of 22 Gresham road, Brixton, London, England, have invented certain new and useful
5 Improvements in Toys, of which the following is a specification.

This invention relates to a device for creating the illusion of motion similar to that produced by any ordinary kinematograph.
10 graph.

Figure 1 is a front view of one embodiment of the invention. Fig. 2 is a rear view thereof; and Fig. 3 is a central longitudinal section thereof. Figs. 4, 5 and 6 are
15 front views of other embodiments.

Reference being made to the drawings:— Figs. 1, 2, and 3, the device is composed of a plate or card A, having in it perforations K, J, through which the moving portions
20 of the scenes depicted are visible. A disk B, of cardboard, paper, celluloid or gelatin, or other suitable material, acts as a support for the pictures or portions of pictures that go to make up the animated scene. Successive
25 phases of an object or objects in motion are arranged in circles on the disk, but only one phase of any moving part or parts is visible at one time, such parts being seen through the perforations in the plate or card
30 A. The said disk B is furnished with a star wheel E, raised slightly from the back surface of the said disk by an intervening washer or ring D. At a suitable point on the back of the said plate or card A, a stud
35 G is fixed, which answers the purpose of a bearing for the combined disk and washer which together revolve on the said stud. To carry out effectually the object of this
40 invention the disk B is caused to rotate intermittently by the action of the two studs M, N, fastened to a lever C, working to and fro on the pivot or stud H. Thus, at each
45 movement, either to the right or left of the said lever C, one of the said studs pushes against the side of one of the points on the star wheel E, and causes it to move in a rotary
50 direction to a distance equal to half a star wheel point. The disk B, to which the star wheel E is fixed, is thus caused to rotate intermittently in the direction of the arrow O. I may elect to use a star wheel composed of any number of points, but I prefer to use one having eight points as shown in the drawings. As each movement of the lever

causes the star wheel E to turn half a star- 55
wheel point distance, a complete revolution of the disk will be accomplished in sixteen successive intermittent movements. Thus a disk divided into sixteen equal sectors will, by the aforesaid mechanism, have each of its
60 sectors brought to a common point in successive steps or movements. Each individual sector space of the disk B may be devoted to an image and section of a made up scene. For example: the interior of a
65 music hall may be represented on the front side of the plate or card A, as shown in Fig. 1. The operator of the kinematograph machine may be made to apparently turn
70 the handle of the machine by depicting his right hand and handle of the machine on the inner portion of a sector on the disk B, the successive phases being brought to a common point seen through the perforation
75 J. The outer portion of each sector on the disk B may be occupied by the picture of a man on horseback, as seen through the perforation K. On jerking the lever C to and
80 fro, the images through the perforations K and J will be instantaneously changed, and the following successive phase or image will be brought into register. By keeping up a constant oscillatory movement of the lever
85 C, the depicted operator will appear to be turning the handle of the kinematograph and at the same time the picture appearing at K will have the semblance of life. In addition to making the horse appear to be
90 galloping, I may also give it the appearance of making a progressive movement by depicting the background of the scene successively dissimilar, giving it the appearance
95 of a panorama moving in an opposite direction to that in which the horse is supposed to be traveling. In the present drawings I have only shown the plate or card A, with
100 two perforations, but I may elect to make any number of perforations according to the requirements of the scenes it is desired to depict. I may elect to vary the size, shape, and positions of the perforations in the plate or card A, so that my invention may be adapted for use with various designs depicted on the front of the plate or card A.

I have shown three different examples in 105
Figs. 4, 5 and 6 of the drawing accompanying this specification of designs I may elect to use in conjunction with the mechanism

aforedescribed. In Fig. 4 a man is caused to write or appear to write wording or draw a design; the right hand and upper portion of the right arm being successively represented on sectors of the rotating disk B (Figs. 1, 2 and 3) a necessary portion of which is seen through a perforation indicated by the dotted line at K, Fig. 4. The drawing or wording supposed to be executed by the man is depicted in progressive stages on succeeding portions of the disk. In Fig. 5 the animated portions of the scene appear through perforations, one at the dotted line K, and another at the dotted line J. Through K, a "Punch and Judy" performance takes place, and through J, the lower portion of the showman's arm appears to move from side to side in the operation of striking the drum. In Fig. 6 a railway over a viaduct is represented. The engine is made to appear to run out of the distant tunnel, cross the bridge and disappear behind the near cliff, the perforation in the plate or card A (Figs. 1, 2, and 3) being indicated at the dotted line K, Fig. 6. In this case the illusion is made the more realistic by making each successive picture of the engine, of increased magnitude according to the supposed distance at which the engine is located at each successive stage of its travel.

I may elect to inclose the mechanism shown in Figs. 1, 2, and 3, in a box, so that the working parts are invisible. I may elect to use my device for advertising purposes, a design especially suitable for such purposes being shown in Fig. 4. Finally, I may use the device in optical lantern projection as a lantern slide, in which case the disk bearing the images would be composed of some transparent or semi-transparent material, such as gelatin, celluloid or such like.

I am aware that it has been proposed to exhibit through apertures in a picture card a succession of different colors for the purpose of deciding upon a color scheme.

The pin and star-wheel mechanism shown I make no claim to, *per se*.

What I claim and desire to secure by Letters Patent is:—

1. An amusement device comprising in combination a plate or card bearing on its front surface a scene, an aperture therein, a movable member bearing a series of representations adapted to give an animated or kinetoscopic effect when actuated, said member being located so as to expose the representations of the series successively through the said aperture, a star wheel and a vibrating lever adapted to impart intermittent motion thereto.

2. An amusement device comprising in combination a plate or card bearing on its front surface a scene, an aperture therein, a rotary member bearing a series of representations adapted to give an animated or kinetoscopic effect when actuated and so located as to expose the representations of the series successively through the said aperture, a star wheel and a vibrating lever adapted when vibrated to impart intermittent rotation to said star wheel and rotary member substantially as described.

3. An amusement device comprising in combination a plate or card bearing on its front surface a scene, an aperture therein, a movable member bearing a series of representations adapted to give an animated or kinetoscopic effect when actuated, said member being located so as to expose the representations of the series successively through the said aperture, and a reciprocating handle, means connecting the handle to the movable member and whereby the successive reciprocatory movements of said handle are converted into an intermittent and regularly progressive motion in one direction of said movable member which bears the series of representations.

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

THEODORE BROWN.

Witnesses:

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