

Sept. 5, 1933.

H. CONOVER

1,925,136

ANIMATED PICTURES

Filed Nov. 28, 1930

2 Sheets-Sheet 1

FIG. 1.

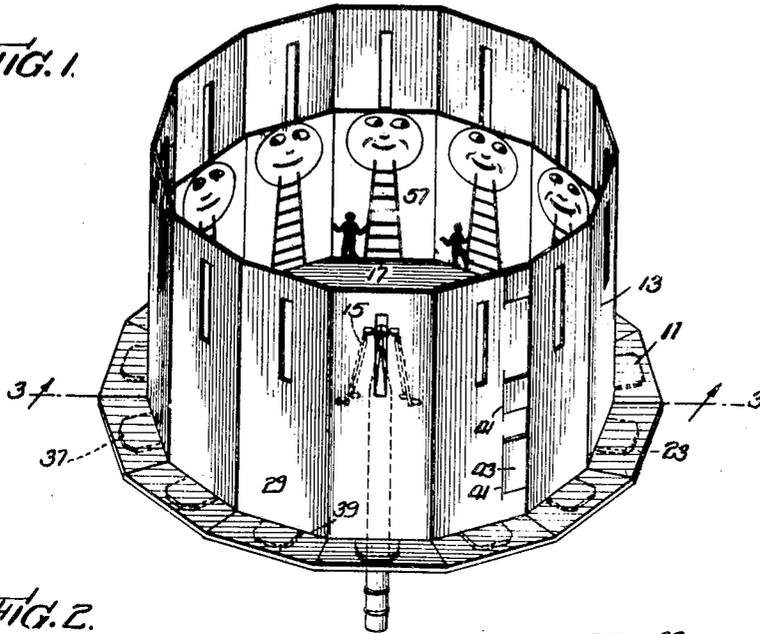


FIG. 2.

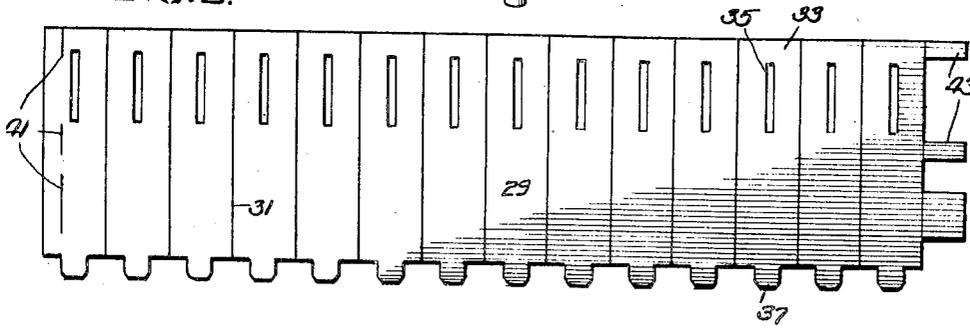


FIG. 3.

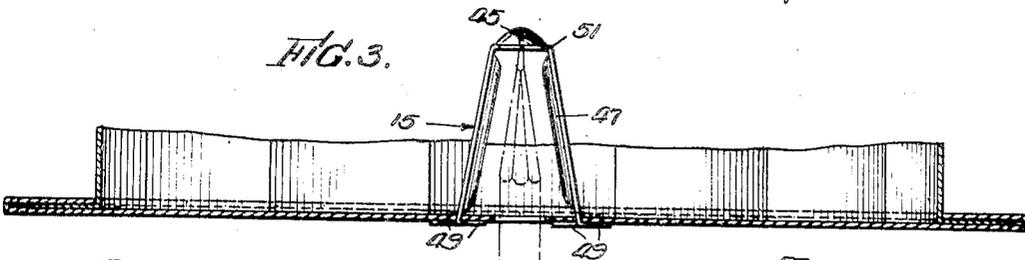


FIG. 4.

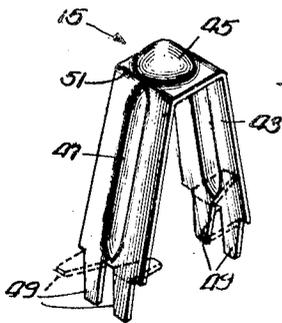
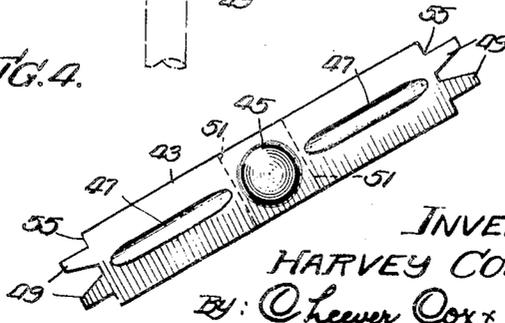


FIG. 5.



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FIG. 6.

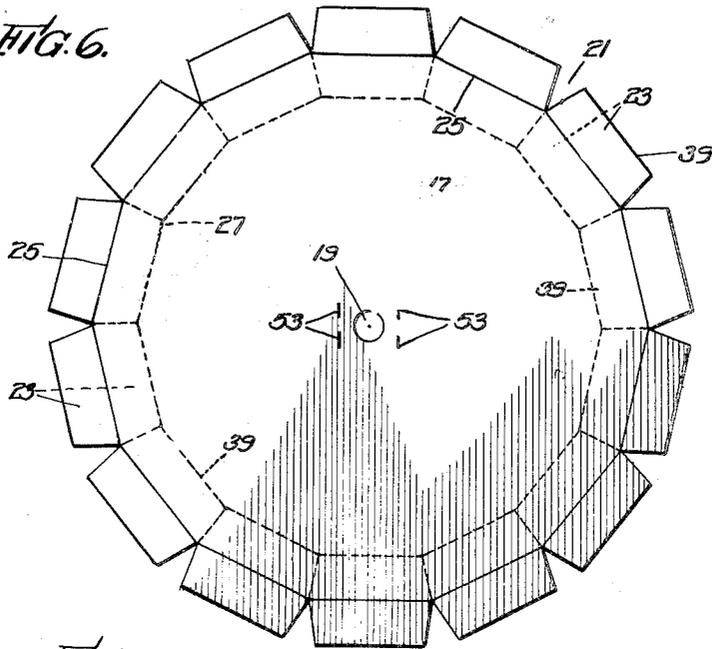


FIG. 7.

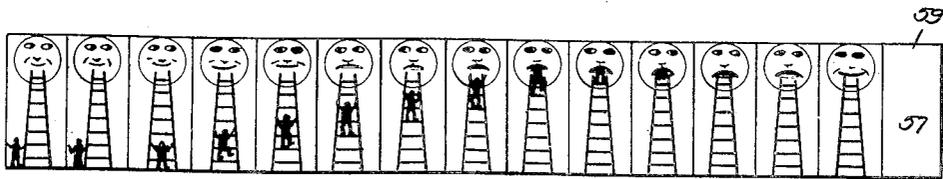
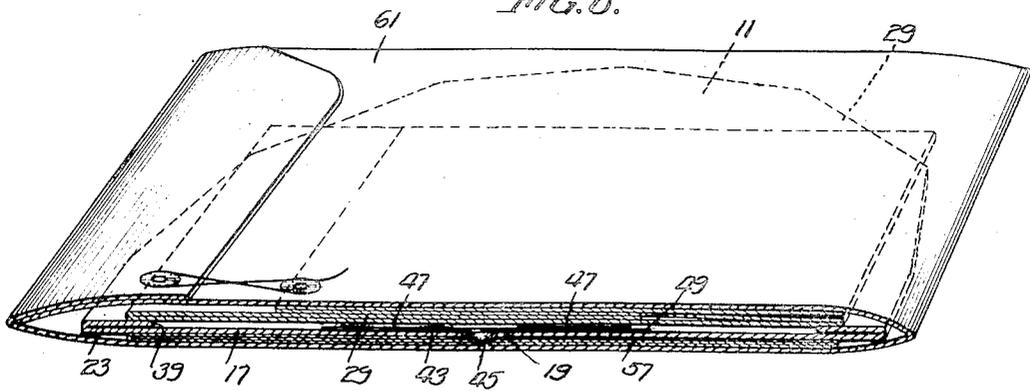


FIG. 8.



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UNITED STATES PATENT OFFICE

1,925,136

ANIMATED PICTURES

Harvey Conover, Evanston, Ill.

Application November 28, 1930
Serial No. 498,738

10 Claims. (Cl. 88—16)

My invention relates in general to animated pictures and has more particular reference to a novel kinetoscope of improved construction whereby a series of still pictures, arranged in adjacent relation in a strip may be viewed rapidly in succession whereby to produce animated effects.

It has occurred to me that the newspaper cartoons, commonly known as "funnies" could be arranged with a strip lengthwise of the page, preferably on the edge of the paper, said strip to contain a series of views of a favorite character capable of being used to bring the favorite character to life by simply cutting off the strip and inserting it in my new kinetoscope.

A kinetoscope in which to view the animated comic strips necessarily has to be of extremely cheap yet durable construction, since the device will be used mostly by children, and I therefore utilize a simple form of kinetoscope, known as a zoetrope, which form lends itself particularly well to the production of a cheap yet rugged construction which can be packaged for sale in disassembled condition in an envelope and which at the same time is simple to erect so that children will be able to build the kinetoscope from the parts as packaged.

One of the important objects of the invention therefore is to provide a simple and inexpensive though rugged zoetrope structure capable of being collapsed and packaged for sale in an envelope or other compact package.

Another important object is to provide a zoetrope having a revoluble slotted wall portion through which to view the picture strip with cheap, efficient, bearing means of novel construction, whereby the revoluble portion may be rotatably supported in a novel, yet very inexpensive manner.

Still another object resides in the method of revolubly supporting a rotating body and also in the bearing construction.

Another important object of the invention resides in the provision of a collapsible amusement device of the character described, whereby the device may be arranged as a neat, convenient package for sale or distribution.

Still another object resides in the novel method of packaging the zoetrope.

Another important object of the invention is to provide a kinetoscope of novel construction which though made of light material is, on account of the structure employed, amply durable to withstand for a considerable time, the

rough usage usually accorded to playthings by children.

Numerous other objects and advantages of the invention will be apparent as it is more fully understood from the following description which taken in connection with the accompanying drawings discloses a preferred form of the invention.

Referring to the drawings:

Figure 1 is a perspective view illustrating a zoetrope embodying my invention;

Figure 2 is a flat plan development of a portion of the zoetrope shown in Figure 1;

Figure 3 is a sectional view taken substantially along the line 3—3 in Figure 1 and illustrates the details of an improved bearing about which to rotate the zoetrope;

Figure 4 is a perspective view of the member forming the bearing after the member has been bent for assembly in the zoetrope;

Figure 5 is a perspective view illustrating the bearing member before being bent for assembly in the zoetrope;

Figure 6 is a flat plan development of a portion of the device illustrated in Figure 1;

Figure 7 is a flat plan development of a picture strip adapted for use in the device illustrated in Figure 1; and

Figure 8 is a sectional view containing the several portions of my improved animated picture device in disassembled relationship, the same forming a neat and compact package whereby the same can be merchandised conveniently.

To illustrate my invention, I have shown on the drawings, a zoetrope of novel construction whereby the same may be packaged for sale in a neat compact manner and which yet may be most easily assembled for use by unskilled persons, particularly children for whom the zoetrope has great attraction.

The zoetrope comprises a disc or base 11, upstanding wall portion 13 and a novel bearing 15 about which to rotate the device. The general construction and operation of a zoetrope is well known and I do not herein claim the broad principle upon which the zoetrope operates. My invention resides more in the construction and the constituent parts than in the device itself.

In order to produce the device cheaply so that the same can be given broad distribution, I have provided a zoetrope in which the base 11 consists of a disc 17 formed of fairly stiff sheet material preferably heavy cardboard, the disc being provided with a center perforation 19 of sufficient size to permit the insertion of a pencil. The pe-

ripheral edges of the disc 17 are provided with a plurality of spaced apart substantially V-shaped notches 21 defining a plurality of flaps 23, the outer edges of which are straight and extend tangentially. The base of each flap is defined by a score line 25 extending tangentially of the disc between the apices of the adjacent notches.

The flaps 23 are or may be folded upon the upper surface of the disc 17 as shown by dotted line in Figure 6 and secured to the body of the disc by any suitable fastening means as for instance, a drop of glue 27 placed between the corner of the flap and the body of the disc 17. The upstanding part 13 of the zoetrope is preferably formed as shown in Figure 2 of the drawings as an elongated strip 29 having spaced apart score lines 31 defining sections 33 each of which is provided in its upper portion with a slot 35 centered with respect to the section and extending longitudinally in the section from a point spaced from the upper edge of the section downwardly to a predetermined point in the body of the section in order to provide a window in each section. Each section is provided with a tongue 37 at its lower end. The strip is formed so that the sections are of the same width, which width is substantially equal to the length of the outer or fly edge of the flaps 23, so that when the strip 29 is arranged circularly on the disc 17 as shown in Figure 1, the lower ends of the strip sections will coincide with edges 39 of the flaps 23 as secured in position as illustrated in dotted line of Figure 6 of the drawings. When arranged in such position the tongues 37 along the bottom edge of the strip section 29 may be bent outwardly and inserted into the pockets formed by the folded and sealed flaps 23 as indicated in dotted line in Figure 1. The initial and final section 33 of strip 29 will also be provided with cooperative slots 41 and flaps 43 so that when the strip is arranged circularly as aforesaid, the initial and final sections may be secured together.

In order to provide a bearing by which to rotatably support my improved zoetrope, said bearing being of durable construction and arranged, when the zoetrope is packaged for sale, to lie flat in the package and at the same time readily mountable on the zoetrope when the same is assembled for use, I have invented a novel and particularly effective bearing which is illustrated in detail in Figures 3, 4 and 5 of the drawings. The bearing comprises a strip of bendable metal 43 preferably tin which is formed as a flat elongated strip provided centrally with a conical depression 45 extending upwardly in the strip and ridges 47 spaced longitudinally in the strip on either side of the depression 45. The ridges and conical depression may be formed in the same direction in the strip if desired but for the purpose hereinafter more clearly explained, I prefer to form the conical depression upwardly in the strip while the elongated ridges are pressed downwardly therein so as to form ridges in the underside of the strip while the conical depression forms a mound in the upper side of the strip. At each end of the strip, tongues 49 may be formed. The bearing is assembled on the zoetrope by bending the parts containing the ridges 47 downwardly from the center portion containing the cone shaped depression 45 along the lines of bend 51. As formed, the strip will naturally bend along the lines 51 since the depressions 47 terminate a short distance from the cone shaped portion 45 and the bend will always occur in these spaces since the remaining parts

of the strip are stiffened by the elongated ridges. The strip, as bent for assembly in the zoetrope, is illustrated in Figure 4 of the drawings. The bent strip is assembled in position by pressing the flaps or prongs 49 through the disc 17 on either side of the perforation 19 substantially at the points 53 indicated in Figure 6 of the drawings.

The strip 43 is also preferably formed with shoulders 55 extending outwardly of the prongs 49 and these shoulders engage the upper surface of the disc 17, when the prongs 49 are forced therethrough, to thus limit the distance to which the prongs may be forced through the disc. The prongs 49 are then clamped over beneath the disc 17 as indicated in Figures 1 and 4, to firmly fasten the bearing strip 43 in place. This bearing is extremely cheap to make and simple to install and yet when used in connection with a pencil point, the pencil being inserted through the perforation 19 so that the point enters the conical depression 45, as clearly illustrated in Figure 3 of the drawings, a graphitized bearing is provided which I have found to be exceptionally well adapted to maintain the rotation of the kinetoscope for a long period of time. Graphite as is well known, is a lubricant and the construction I have provided, when used in connection with an ordinary lead pencil provides a bearing support of unusual efficiency.

The device which I have just described is used with a picture strip 57. The strip consists of a series of adjacently arranged pictures which, when viewed consecutively illustrate an action sequence. When the strip is viewed through the slots 35 by turning the zoetrope, the action sequence illustrated in the strip may be rendered extremely lifelike in accordance with the well understood action of the zoetrope. The strip 57 however is preferably arranged to fit within the upstanding wall 13, the strip being wide enough to extend from the lower edge of the window portion to a point immediately below the lower end of the slotlike windows 35. The pictures forming the strip 57 correspond in number to the windows of the sections 33 so that when arranged around the inner surface of the wall 13 each picture of the strip extends across a section 33.

It is my purpose to utilize the zoetrope of my present invention in connection with the so called "funnies" which appear from time to time in the newspapers. I propose to have a strip of pictures, adapted for use in my improved zoetrope printed along the fly edge of a page of the newspaper so that the strip may be torn off and used in the device of my present invention. To this end, I prefer to make my zoetrope with a wall portion 13 having a length corresponding with the length of the average newspaper. The picture strip 57 also is or may be provided with a blank section 59 at one end, which section may be provided with adhesive and adhered to the back of the picture section at the other end of the strip so as to provide a continuous circular picture strip which will more readily hold its place in the zoetrope.

It is thought that the commercial advantage of using my zoetrope with newspaper "funnies" will be readily apparent since the device will bring to life favorite characters of the funny section and this effect can be utilized to great advantage for advertising purposes.

One of the important features, however, of the construction I have described is that it lends itself particularly well to the production of a neat package. When in disassembled condition, my

zoetrope can be presented as a flat package such as the envelope 61 illustrated in Figure 8 of the drawings. The bearing strip 43 also may be arranged on the upper surface of disc 17 with the conical depression 45 extending into the central depression 19 of the disc 17. When in this position, the remaining portion of the strip 43 will lie flat upon the upper surface of the disc, the depressions 47 extending upwardly for this purpose. It will be obvious that the strip so assembled will occupy a minimum of space in the package. The strip 29 also may be folded to form three layers and several picture strips 57 may also be included in the package without adding to its bulk.

It will be apparent from the foregoing description that I have provided a zoetrope of novel yet sturdy construction which can be merchandised in disassembled condition in a neat and compact form and which can be easily assembled even by children.

One of the important features of the invention of course resides in the provision of the novel bearing construction whereby an efficient, sturdy, frictionless bearing which can be packaged in a collapsible position without adding to the bulk of the device.

It is thought that the invention and its numerous advantages will be understood from the foregoing description and it is obvious that numerous changes may be made in the form, construction and arrangement of the several parts without departing from the spirit or scope of the invention or sacrificing any of its attendant advantages.

I do not herein claim the bearing per se, nor the method of producing animated pictures by printing a severable picture strip as on a page of a newspaper or other publication, since the same forms the subject-matter of my co-pending divisional applications, Serial Number 574,617, filed November 12, 1931, and Serial Number 663,463, filed March 30, 1933.

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

1. A device of the class described comprising a circularly arranged wall portion having a plurality of spaced apart slots therein, means to rotatably support the wall including a support member to which the wall is detachably connected, said wall having a plurality of flaps and said member having pockets to receive the flaps.

2. A device of the class described, comprising a strip having its ends formed for detachable inter-connection whereby the strip may be assembled to form a circular wall portion, said strip having a plurality of spaced slits arranged in its upper portion to provide a circular series of windows when the strip is circularly arranged as aforesaid, a disc having a diameter substantially equal to the diameter of the strip when said strip is arranged circularly, said strip and disc having co-operative means comprising flaps formed in the lower edge of the strip and pockets formed in the peripheral edge of the disc whereby the strip, when circularly arranged, may be detachably mounted to the marginal portion of the disc to extend outwardly therefrom and demountable bearing means whereby the disc and the strip when assembled may be rotatably mounted in a detachable manner to the upper end of the supporting upright.

3. A device of the class described, comprising a strip having the ends formed for detachable

inter-connection whereby the strip may be assembled to form a circular wall portion, said strip having a plurality of spaced slits arranged in its upper portion to provide a circular series of windows when the strip is circularly arranged as aforesaid, a disc having a diameter substantially equal to the diameter of the strip when arranged circularly, said strip and disc having co-operative means formed in the lower edge of the strip and the peripheral edge of the disc whereby the strip, when circularly arranged, may be detachably mounted to the marginal portion of the disc to extend upwardly therefrom and a demountable bearing assembled centrally on the disc in position to receive the sharpened end of a pencil whereby to provide means for rotatably supporting the revoluble device, said bearing comprising means formed to receive the pencil point and having a part adapted for detachable inter-fitting engagement with the disc in an easily demountable manner to facilitate disassembly of the parts.

4. A device of the class described, comprising a strip having its ends formed for detachable inter-connection whereby the strip may be assembled to form a circular wall portion, said strip having a plurality of spaced slots arranged in its upper portion to provide a circular series of windows when the strip is circularly arranged as aforesaid, a disc having a diameter substantially equal to the diameter of the strip when arranged circularly, said strip and disc having co-operative means formed in the lower edge of the strip and the peripheral edge of the disc whereby the strip may be detachably mounted to the marginal portion of the disc to extend outwardly therefrom, said disc being provided with a central perforation and a bearing member comprising a formed strip demountably connected to said disc on either side of the said perforation, said strip having a depression spaced above the perforation in said disc in position to receive the point of a pencil inserted through the perforation whereby to provide means for mounting the revoluble device upon the pointed end of the pencil.

5. A device of the class described in claim 4 wherein the parts are disassembled and the bearing strip is flattened and arranged in stacked relationship to the disc and the bearing member is flattened and arranged in the stack, the stack being enclosed in an envelope or other suitable wrapper to form a neat and compact package wherein the device may be conveniently merchandised.

6. An article of manufacture and sale as set forth in claim 4 wherein the parts are disassembled and the bearing strip is flattened and arranged in the stack with its central depression fitting into the central perforation of the disc.

7. A zoetrope adapted to be supported on a pointed pencil or the like and comprising a disc having a central perforation of a size to receive the pencil and loosely embrace the body of the pencil at a point spaced from the point thereof and means forming a bearing for the point of the pencil comprising a member attachable to the disc and extending substantially above the perforation and formed with a downwardly facing depression in alignment with the perforation.

8. A zoetrope adapted to be supported on a pointed pencil or the like and comprising a disc having a central perforation of a size to receive the pencil and loosely embrace the body of the pencil at a point spaced from the point thereof and means forming a bearing for the point of

the pencil comprising a member attachable to the disc and extending substantially above the perforation and formed with a downwardly facing depression in alignment with the perforation, said disc having an upstanding substantially cylindrical wall detachably secured to its marginal portion and adapted to be demounted therefrom and said member being detachable from the disc whereby the member, the disk and the upstanding wall portion may be stacked together to form a relatively thin, flat package.

9. A zoetrope comprising a centrally perforated disk forming a base, a plurality of flaps at the edge of said disk folded to form a plurality of circularly arranged pockets, a blank comprising a strip having tongues in its lower edge and a spaced series of slots in its upper portion, said strip being foldable to form an image cylinder adapted to be mounted on the disk with the tongues entering the pockets and a metal strip straddling the center perforation of the disk and having its ends detachably connected thereto, said strip having a

depression spaced substantially above the perforation and in vertical alignment therewith to receive the point of a pencil or similar support inserted through the perforation whereby to mount the zoetrope rotatably upon the point of the pencil.

10. A zoetrope adapted to be supported on a pointed pencil or the like, and comprising a disc having a central perforation of a size to receive the pencil point and loosely embrace its body at a point spaced from the tip thereof and means forming a bearing for the tip of the pencil comprising a strip straddling the perforation of the disc and having its ends detachably connected thereto, said strip having a socket spaced substantially above the perforation and in vertical alignment therewith to receive the tip of a pencil or similar support inserted through the perforation whereby to mount the zoetrope rotatably thereon.

HARVEY CONOVER.

25	100
30	105
35	110
40	115
45	120
50	125
55	130
60	135
65	140
70	145
75	150