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J. WEHR

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MOVING ILLUSTRATION

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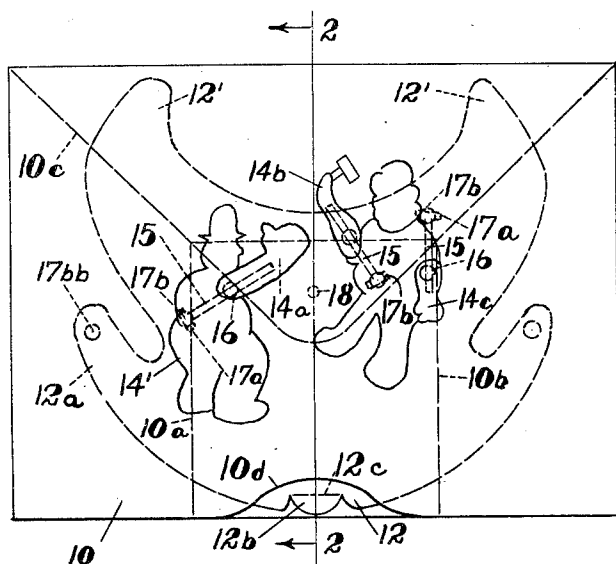


Fig. 1

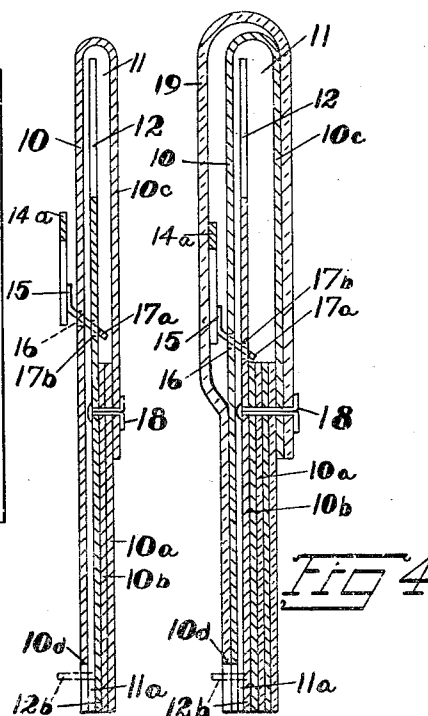


Fig. 2

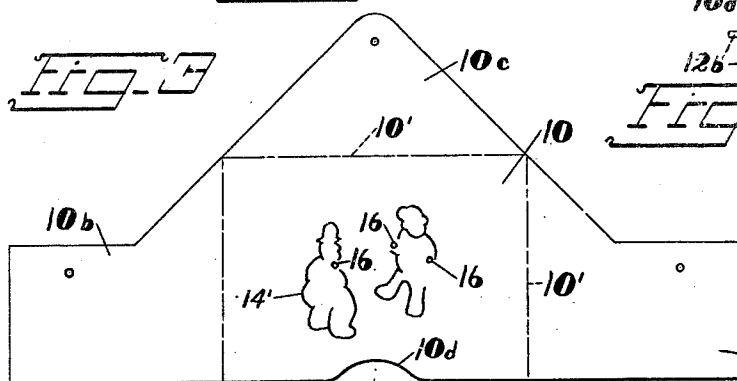


Fig. 3

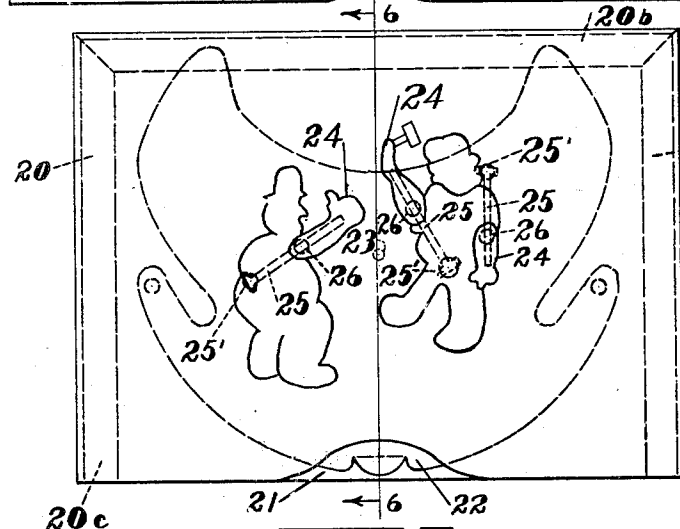


Fig. 4

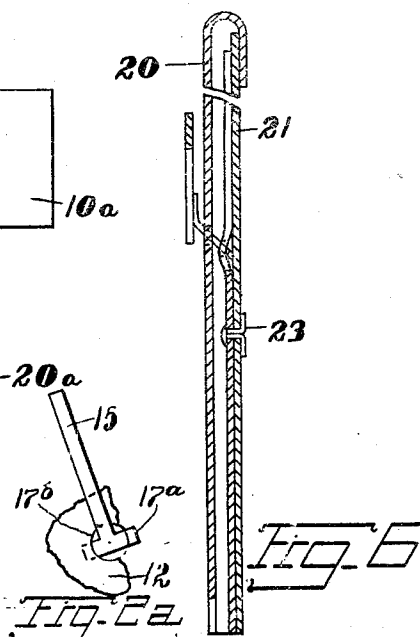


Fig. 5

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MOVING ILLUSTRATION

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9 Claims. (Cl. 46—36)

This invention relates to new and useful improvements in moving illustrations.

The invention has for an object the construction of movable illustrations which are primarily intended as an article for the amusement of children. It is proposed to so arrange the article that it may be sold as separate leaves or pages, or a plurality of them may be assembled and sold as a book.

10 The invention still further proposes to so construct the article that it may be sold with the different parts from which it is made unassembled—to be assembled by the children receiving the same. Or it is proposed that the assembled
15 articles be supplied for sale.

More specifically, the invention proposes to characterize the moving illustration by an illustrated sheet to which illustrated movable elements are associated on the front thereof in a particular manner. It is proposed to provide a
20 rocker member to the back of the illustrated sheet and to connect and support the movable elements by strips, in a particular fashion, which pass through openings in the illustrated sheet
25 and are connected with the rocker member.

It is further proposed to so arrange the strips that they may be pivoted and simultaneously longitudinally moved for transmitting motions to the movable element as controlled and directed by the rocker member.
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A further object of the invention resides in providing the illustrated sheet with edge portions on the end sides and the top side and bent rearwards and overlapping in a manner to form an envelope with an open side. It is proposed to
35 arrange the rocker member within said envelope and to pivotally support the rocker member to the overlapping portions by a pintle in such a manner that the pintle simultaneously holds the overlapping portions together and thus holds the
40 portions in envelope formation. When the moving illustration is so constructed the envelope is open on one side through which the strips previously referred to may be attached and detached from the rocker member, as desired.
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Still further the invention proposes to provide a transparent covering for the moving illustration arranged to make the front face of the moving illustration flat without any projecting parts,
50 while not interfering with the proper motion of movable elements previously referred to.

Another object of the invention is the construction of a device as mentioned which is simple and durable and which may be manufactured
55 and sold at a reasonable cost.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawing, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawing forming a material part of this disclosure:

Fig. 1 is a front elevational view of a moving illustration constructed according to this invention.
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Fig. 2 is a sectional view taken on the line 2—2 of Fig. 1.

Fig. 2a is an elevational view of one of the strips used in the device and a portion of the
35 rocker member, and specifically shows in detail the cooperative fastening elements of these parts.

Fig. 3 is a developed view of the illustrated sheet drawn on a reduced scale.
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Fig. 4 is a sectional view similar to Fig. 2 but showing a moving illustration constructed according to a modification of this invention.

Fig. 5 is a front elevational view of another moving illustration constructed according to another embodiment of this invention.
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Fig. 6 is a sectional view taken on the line 6—6 of Fig. 5.

The moving illustration, according to this invention as shown on the drawing, comprises an
30 illustrated sheet 10 having edge portions 10a, 10b and 10c on the ends and top side thereof normally bent rearwards and overlapping and forming an envelope pocket 11 with an open bottom side 11a. A rocker member 12 is disposed
35 to the back of the illustrated sheet 10 and within the envelope pocket 11. Movable elements 14a, 14b, 14c, etc., are disposed to the front of the illustrated sheet. A strip 15 is attached to each of the movable elements for supporting
40 same. These strips extend through openings 16 in the illustrated sheet 10 and are capable of pivoting and sliding in the said openings for correspondingly moving the movable element. Cooperative fastening elements 17a and 17b are
45 disposed on each of the strips 15 and on the rocker member 12 and are adapted to be engaged with each other, manually, and be disengaged, all through the open side 11a of the envelope pocket. A pintle 18 supports the rocker member
50 12 so that it may be rocked backwards and forwards and engages through the overlapping portions 10a, 10b and 10c for holding the same together, in envelope formation.

The illustrated sheet 10 is painted or printed,
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or in any other manner illustrated with illustrations 14'. While a sample illustration has been shown on the drawing it should be borne in mind that various illustrations embodying various ideas may be applied to the illustrated sheet according to this invention. The movable elements preferably should have a direct or indirect relation to the illustration. The relationship shown in the particular example illustrated on the drawing is to provide movable arms for figures illustrated on the sheet. The same arrangement may be applied to objects, mechanism, and other material which may be illustrated.

The cooperative fastening elements 17a and 17b applied to the strips 15 and the rocker member 12 comprise head portions 17a formed upon the strips 15 and engageable through openings 17b formed in the rocker member. The end portions of the head 17a may be manually bent and slipped through the openings 17b for connecting the cooperative fastening elements and so connecting the movable strips with the rocker member.

The rocker member 12 is formed with an irregular contour 12a and with additional openings 17bb. The irregular contour is formed when the rocker is cut down to its smallest possible area so as to reduce frictional resistance of the rocker member against the adjacent stationary parts, and shaped to facilitate connection with the strips 15. The portions 12' act as stops to strike against portions of the envelope and limit pivoting of the rocker member to a certain predetermined amplitude. It is thus possible to only pivot the rocker member 12 first in one direction a certain amount and then in the other direction, and then back again, etc. The additional openings 17bb are for the reception of additional support strips 15 for additional movable members similar to the members 14a, 14b and 14c. The illustration on the sheet is not complete and for this reason the additional movable parts and the additional illustrations are not given. Therefore, in so far as the additional openings 17bb are concerned they could be omitted from the particular example of the moving illustration shown on the drawing.

The illustrated sheet 10 is formed with a cutout edge portion 10d at its bottom through which a portion of the rocker member 12 projects. The projecting portion of the rocker member 12 is formed with a tab portion 12b which may be bent upwards along the dot and dash line 12c. When so bent upwards it may be conveniently gripped and used for a handle for manually operating the rocker member.

The outer ends of the strips 15 are pasted to the inner faces of the movable elements 14a, 14b and 14c and are so set upon these elements that portions of these movable elements extend over and completely cover the openings 16 through which the strips 15 pass. When the rocker member 12 is manually rocked the strips 15 may pivot in the openings 16 and may also slide slightly forwards and rearwards. Thus a combination motion is given to the movable members 14a, 14b and 14c.

The dot and dash lines 10' in Fig. 3 indicate the lines for folding rearwards the edge portions of the illustrated sheet. Preferably first one end portion 10a is folded rearwards, then the other is folded upon it, and finally the top edge portion 10c is folded downwards. This is clearly indicated by the dash lines in Fig. 1. The pintle 18 is then utilized for holding the overlapping ends together and simultaneously for forming a pivot

for the rocker member. The pintle 18, as shown on the drawing, is in the form of a pin having a head portion and a split shank the ends of which may be bent outwards. Other types of pintles such as eyelets and the like may be used.

In Fig. 4 a modification of the invention has been disclosed in which a transparent casing 19 is provided for extending over the movable elements so that the front of the illustrated sheet is of one piece and flat, but at the same time it is possible to see and view the parts underneath. The transparent casing 19 may be a sheet of Cellophane or other flexible transparent material which is of the identical form and shape and size as the sheet shown in Fig. 3. When the illustrated sheet is bent and folded at the same time the transparent sheet may be similarly bent and folded. When the illustrated sheet is secured by the pintle the transparent sheet may be simultaneously secured by the same pintle. But, the movable elements 14a, 14b, 14c, etc., must be disposed to the front of the illustrated sheet and to the rear of the transparent cover.

In Figs. 5 and 6 another embodiment of the invention has been disclosed. This embodiment distinguishes primarily from the prior forms in the construction of the envelope. According to this form there is an illustrated sheet 20 having flap edge portions 20a, 20b and 20c on the top side and end sides thereof, normally bent rearwards. These flap portions are attached to a back sheet 21. The illustrated sheet 20 may be made of relatively lighter stock than the back sheet 21. It is advisable that the back sheet 21 be of durable, strong stock as it is required to support the moving parts of the article. The flaps of the illustrated sheet may be attached to the edge portions of back sheet 21 by adhesive material or other known means.

Within the envelope formed by the illustrated front sheet and the back sheet there is a rocker member 22 which is pivotally supported on the back sheet 21 by a pintle 23. Movable elements 24 are disposed to the front of the illustrated sheet 20 and are supported by strips 25 which extend through openings 26 in the illustrated sheet 20. These strips 25 extend into the interior of the envelope and at their inner ends 25' connect with the rocker member 22. Further details of the construction of this form of the invention will be omitted as they will be obvious from the preceding disclosure of the prior forms.

While I have illustrated and described my invention with some degree of particularity, I realize that in practice various alterations therein may be made. I therefore reserve the right and privilege of changing the form of the details of construction or otherwise altering the arrangement of the correlated parts without departing from the spirit or the scope of the appended claims.

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

1. A moving illustration comprising an illustrated sheet having edge portions on the end sides and top side and bent rearwards and overlapping and forming an envelope with an open bottom side, a rocker member to the back of said illustrated sheet and within said envelope and having its bottom portion extending from said open bottom side by which it may be moved, movable elements to the front of said illustrated sheet, strips attached to said movable elements for supporting same and extending through open-

ings of diameters substantially as wide as said strips in said illustrated sheet so that the strips may pivot and slide therein, cooperative fastening elements on said strips and said rocker member manually engageable and disengageable through the open side of said envelope, and a pintle supporting said rocker member and engaging through said overlapping portions for holding same together.

2. A moving illustration comprising an illustrated sheet having edge portions on the end sides and top side and bent rearwards and overlapping and forming an envelope with an open bottom side, a rocker member to the back of said illustrated sheet and within said envelope and having its bottom portion extending from said open bottom side by which it may be moved, movable elements to the front of said illustrated sheet, strips attached to said movable elements for supporting same and extending through openings of diameters substantially as wide as said strips in said illustrated sheet so that the strips may pivot and slide therein, cooperative fastening elements on said strips and said rocker member manually engageable and disengageable through the open side of said envelope, and a pintle supporting said rocker member and engaging through said overlapping portions for holding same together, said cooperative fastening elements comprising head portions on the strips engaging through openings in the rocker member.

3. A moving illustration comprising an illustrated sheet having edge portions on the end sides and top side and bent rearwards and overlapping and forming an envelope with an open bottom side, a rocker member to the back of said illustrated sheet and within said envelope and having its bottom portion extending from said open bottom side by which it may be moved, movable elements to the front of said illustrated sheet, strips attached to said movable elements for supporting same and extending through openings in said illustrated sheet to be capable of pivoting and sliding, cooperative fastening elements on said strips and said rocker member manually engageable and disengageable through the open side of said envelope, and a pintle supporting said rocker member and engaging through said overlapping portions for holding same together, and a transparent covering for said movable illustration engaging over said illustrated sheet and said movable elements, said transparent covering comprising a sheet of transparent material of the same size and shape as said illustrated sheet with its edge portions, and having similar parts superimposed on said illustrated sheet and held by said pintle simultaneous with the holding of the corresponding parts of the illustrated sheet.

4. In a moving illustration, an illustrated sheet attached at its top side and its end sides to the edge portions of a back sheet to form an envelope, a rocker member within said envelope and pivotally mounted on the back sheet, movable elements associated with the outer face of the illustrated sheet, and strips attached to the movable elements for supporting the same and extending through openings in said illustrated sheet and connected with said rocker member.

5. In a moving illustration, an illustrated sheet attached at its top side and its end sides to the edge portions of a back sheet to form an envelope, a rocker member within said envelope and pivotally mounted on the back sheet, movable elements associated with the outer face of the

illustrated sheet, and strips attached to the movable elements for supporting the same and extending through openings in said illustrated sheet and connected with said rocker member, said back sheet being of heavier stock than said illustrated sheet.

6. In a moving illustration, an illustrated sheet attached at its top side and its end sides to the edge portions of a back sheet to form an envelope, a rocker member within said envelope and pivotally mounted on the back sheet, movable elements associated with the outer face of the illustrated sheet, and strips attached to the movable elements for supporting the same and extending through openings in said illustrated sheet and connected with said rocker member, said rocker member having its edge of a cutout contour to reduce its area for reducing frictional engagement with said strips and for facilitating the connection of said strips therewith.

7. In moving illustrations, a sheet with an illustration on its front face and having a small opening, a movable element pictorially associated with the front face of said illustrated sheet and overlying the same, a rocker member pivotally supported relative to the back of said sheet at a point spaced from said opening, a strip slidably and pivotally engaging through said opening and having its front end attached to said element for supporting said element and having its rear end pivotally connected eccentrically on said rocker member at a point which moves arcuately and radially of said opening when said rocker member is pivoted, whereby when said rocker member is pivoted said strip will have a compound movement through said opening consisting of a longitudinally sliding movement and a simultaneously pivoting movement and said movable element will move in a path which is the resultant of said dual movement.

8. In moving illustrations, a sheet with an illustration on its front face and having a small opening, a movable element pictorially associated with the front face of said illustrated sheet and overlying the same, a rocker member pivotally supported relative to the back of said sheet at a point spaced from said opening, a strip slidably and pivotally engaging through said opening and having its front end attached to said element for supporting said element and having its rear end pivotally connected eccentrically on said rocker member at a point which moves arcuately and radially of said opening when said rocker member is pivoted, whereby when said rocker member is pivoted said strip will have a compound movement through said opening consisting of a longitudinally sliding movement and a simultaneously pivoting movement and said movable element will move in a path which is the resultant of said dual movement, said movable element being wider than said strip and than said opening and said movable element being attached over said strip and completely covering said strip and opening.

9. In moving illustrations, a sheet with an illustration on its front face and having a small opening, a movable element pictorially associated with the front face of said illustrated sheet and overlying the same, a rocker member pivotally supported relative to the back of said sheet at a point spaced from said opening, a strip slidably and pivotally engaging through said opening and having its front end attached to said element for supporting said element and having its rear end pivotally connected eccentrically on said rocker member at a point which moves arcuately and

radially of said opening when said rocker member is pivoted, whereby when said rocker member is pivoted said strip will have a compound movement through said opening consisting of a longitudinally sliding movement and a simultaneously pivoting movement and said movable element will move in a path which is the resultant of said

dual movement, the pivotal connection between said strip and said rocker member comprising a T-shaped end portion on one of these parts engaging through an opening in the other of the parts.

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