United States Patent

Mellow

[54] ANIMATED TWO-DIMENSIONAL FIGURE

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- [58] Field of Search40/106.41, 106.43; 46/115, 46/126

[56] References Cited

UNITED STATES PATENTS

2,856,729	10/1958	Clintsman	46/126 X
2,788,609	4/1957	Rollins	
3,390,481	7/1968	Runanin	

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[15] **3,691,676** [45] **Sept. 19, 1972**

[57] ABSTRACT

An animated two-dimensional character defined by a fixed outline applied to a flat board and a plurality of movable character features positioned on top of the outline and movable with respect to it. Some of the features are mounted to a first bar that is loosely secured to the board and centered in an original position with respect to the outline while others of the features are mounted to a second member such as an independently movable second bar placed on top of the first bar and also centered with respect to the outline. The bars are substantially universally movable in the vicinity of the outline, the features thereon define portions of the character such as facial features, hands or pieces of clothing and some of the features can be further movable with respect to the mounting bars of the stationary operations of such features, say the closing or opening of the character's mouth or eyelids and, simultaneously therewith or independently thereof, for repositioning of the features with respect to the outline to change the overall appearance of the character and thereby cause animation of individual character features as well as of the overall character figure.

27 Claims, 11 Drawing Figures



SHEET 1 OF 5



FIG_1

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SHEET 2 OF 5



FIG_2

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SHEET 3 OF 5



SHEET 4 OF 5





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ATTORNEYS

1 ANIMATED TWO-DIMENSIONAL FIGURE

BACKGROUND OF THE INVENTION

Two-dimensional character animation is most commonly employed in the production of cartoons for film ⁵ and television viewing. Typically, great numbers of characters are drawn in slightly different positions and the drawings are then sequentially photographed to obtain the desired animation. This method of making animated cartoons is tedious, time consuming and very ex-10 pensive.

To speed up the making of cartoons and to reduce production costs it has been suggested to employ animated two-dimensional puppets. Although there are large numbers of two-dimensional puppets, or figures, which have means for moving one or another part of the figure, such as an arm, eyes, the mouth or the like, such figures are unsatisfactory for the production of high quality animated cartoons since the movement is too limited and it is practically impossible to alter the overall impression of the figure. Relative movements are limited to isolated figure portions.

In the more recent past, an animated puppet has been patented in U.S. Pat. No. 3,070,920 in which the figure is constructed of resiliently deformable materials which define the outline and secondary features, such as facial features, fingers, arms and the like, of the character. Long rods are secured to the deformable features at predetermined points, such as at the figure's 30 hands, nose and stomach to manipulate and deform the figure and thereby animate it.

Although animation is possible with such figure, the large number of loose rods that must be simultaneously operated requires great skill on part of the operator and 35 is difficult. The fragility and flexibility of the figure, due to its construction of structurally weak, e.g. deformable materials makes it difficult to maintain characteristic features and impressions of a depicted character. Lastly, the number and types of movement of the 40 character, even though theoretically unlimited, is for practical purposes restricted since an operator can only handle a limited number of operating rods. Consequently, the animation provided by puppets constructed in accordance with the above cited patent, is 45 limited and not fully satisfactory.

SUMMARY OF THE INVENTION

The present invention provides an animated puppet for two-dimensional viewing which is relatively easy to 50 operate and which can be employed for making animated cartoons without distractive restrictions in the movement of the character, undesirable character changes due to structural weaknesses of the puppet and the like. Broadly speaking, the puppet of the present in- 55 vention comprises an immovable outline defining an overall impression of the puppet, first animation means movable relative to the fixed outline defining a first animated feature of the puppet, and second animated 60 means movable relative to the outline and the first animated means and defining a second animated feature of the puppet. Means are provided for positioning the animated features proximate to the outline and for operating the features from a point remote from the 65 outline.

In the preferred embodiment of the invention, the outline is placed, e.g. painted on a substantially flat surface of the board. The first animation means is defined by an elongated member, such as a first bar, carried by the surface for relative movements of the member with respect to the outline. An end of the member is disposed adjacent the outline and mounts the first feature or features of the puppet. A handle at the other end of the member enables the manipulation of the member and the first features. Feature actuating means are preferably provided and movably mounted on the member and connected with the first features for operation from adjacent the handle. Means is preferably also provided for biasing the features into a mutual or original position.

In the preferred embodiment, the second animation means is defined by another member, such as a flat bar, which is placed over and carried by the first member for relative movement with respect to the outline and the features carried by the first member. The bar mounts at least one character feature adjacent an end of the bar proximate the outline for movement with respect to the first bar and the outline. The bar also includes a handle remote from the outline and positioned adjacent the handle for the first bar to facilitate the ease with which the first and second bars can be manipulated. Means are provided and connected to the feature on the second bar for moving that feature relative to the first and second bars and to the outline from adjacent the handles for the bars. To further facilitate the ease of operation, the feature means carried by the second bar is also biased into an original position.

To prevent distraction of the animated puppet when it is being viewed in a direction substantially perpendicular to the supporting board surface, means is provided with and secured to the second bar to obscure at least all portions of the second animation means which do not comprise character features. Furthermore, the cover means can be employed to obscure character features, such as the tongue or teeth of the character, for example, which are mounted to the first animation means and can be actuated to move into view from beneath the cover.

An animated character constructed in accordance with the present invention is simple to operate since it is self-supporting. Thus, the operator merely needs to actuate those portions of his controls which cause movement of the desired secondary character features. It is inexpensive to construct and enables the filming of animated sequences, or the direct viewing thereof without time delays.

In addition to the ease of operation and economy, puppets constructed in accordance with the invention also provide for real animation as distinguished from isolated movements of certain features of the body such as the eyelids, the mouth, arms and the like. Distinctive character features, say the face, are provided with first movements in which the features themselves move, that is in which eyelids are or the mouth are opened or closed, the lips are curled, and the like. In addition thereto, groups of features can be simultaneously moved relative to the fixed character outline from one point to another to give the appearance of body animation as contrasted with only feature animation.

Animated characters constructed in accordance with the invention have a permanency in their shape. that is

they do not collapse or deform and they need, therefore, not be skillfully manipulated into a desired form to assure a continuity in their impression during movements. Thus, the degree of skill required for operating puppets constructed in accordance with the invention 5 is less while complete character duplication of the character impression independent of the operator's skill is assured. Consequently, the present invention comprises a substantial improvement over animated characters heretofore available and constructed in accordance with the prior art.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a plan view of an animated character con- 15 structed in accordance with the present invention;

FIG. 2 is a plan view similar to FIG. 1 but illustrates the character in a different position with various secondary features moved and deformed as compared to FIG. 1;

FIG. 3 is a fragmentary plan view of the first animation means constructed in accordance with the invention and illustrates, in phantom lines, the second animation means superimposed thereover;

FIG. 4 is a fragmentary plan view similar to FIG. 3 25 and illustrates the second animation means;

FIG. 5 is a side elevational view of the puppet illustrated in FIGS. 1 and 2;

FIGS. 6 through 9 are schematic fragmentary views of the construction of a secondary character feature 30 from a resiliently deformable flexible member and illustrates the member in various operative positions;

FIG. 10 is a plan view similar to FIGS. 1 and 2 of a bodiment of the invention and illustrates, in phantom 35 and can only be moved with respect to each other but lines, an inoperative position of one of the animation means for that character; and

FIG. 11 is a side elevational view of the animated character illustrated in FIG. 10.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring first to FIGS. 1 and 2, an animated character or puppet 12 constructed in accordance with 45 the invention boradly comprises a back board 14 having a substantially flat supporting surface 16 having painted thereon at least a substantial portion of an outline 18 of a character 20 to be animated. First animation means 22 are carried by board 14 and, in the pup- 50 pet illustrated in the drawings, mounts a movable mouth, tongue 24 and teeth (not shown in FIGS. 1 and 2) of the character. Movable second animation means 26 are disposed above the first animation means and define further animated features of character 20 such 55 as his eyes 28, nose 30 and hat 32. Third animation means 34 comprise a pair of arms 36 that are secured to board 14 with pivotally mounted posts 35 and that can be pivoted via strings or wires 38 and a handle 40 disposed adjacent an upper end 42 of the board that is 60 relatively remote from outline 18. Means such as handles 44 and 46 are provided for moving the character features of the respective animation means relative to outline 18 from adjacent upper board end 42 to give 65 the character an overall animated appearance. Operating means 48 are further provided and mounted to the respective animation means for individually actuating

the character features to simulate the depicted body functions.

Thus, in the puppet illustrated in FIGS. 1 and 2, operation of the animation means can move the facial features defined by the first and second animation means with respect to the fixed and stationary character outline to broadly animate the overall body appearance of the character. Moreover, the facial features carried by the first and the second animation means, respectively, can be moved with respect to each other to alter the facial expressions. Lastly, the individual functions of the facial features carried by the first and second animated means can be performed as by opening and closing the eyes, showing the teeth and/or the tongue, respectively, curling the lips, etc. Additionally, the third animation means permits hand motions to further animate the character.

Thus, a comparison of FIGS. 1 and 2 reveals that while the character's mouth position remains stationa-20 ry, the nose and eye features, together with the character's hat 32, moves from left to right, as if he turns his head, his eyes close and his tongue 24 appears as if he were in the process of dosing away. Moreover, he turns his hands towards a position in which they clasp over his stomach. An unlimited further number of facial expressions can be formed by correspondingly moving the animation means. Although the position and expression of the character can be constantly changed in this manner, and his movements are continuously animated, the overall impression of the character remains the same so that he can be recognized as being the same character. His overall impression cannot be changed since the outlines characterizing him are rigid character becomes known to the audience since substantial goodwill may then attach to it to greatly enhance the commercial value of a puppet.

Referring now to FIG. 3, and 6 through 9, first ani-40 mation means 22 comprises a generally rectangularly shaped board 50 provided with a plurality of longitudinally extending, parallel and spaced apart grooves 52. The board terminates in a first end 54 which, when the puppet is in operation and the first animation means is disposed on back board 14 (shown in FIGS. 1 and 2) is proximate to character outline 18. Another end 56 of the grooved board is remote from the outline and adjacent upper back board end 42. Disposed in grooves 50 are elongate pairs of push rods 58, 59 and 60 for respectively actuating tongue 24 and teeth 62, for pivoting outer ends of a lip 64 constructed of a resiliently deformable material, and for curling intermediate lip portions. The end of the push rod pairs adjacent board end 56 suitably mount actuating buttons 66 that project above board 50 and that can be grasped with the operator's fingers for longitudinally moving rod pairs 58 and 59 to extend or retract tongue 24 or teeth 62 and to curl or uncurl lip 64. A transverse push bar 68 is suitably slotted, secured to ends of outermost push rods 60, and is employed for pivoting the outer ends of the lip. The first animation means are also provided with helical tension springs 70 which continuously bias rods 48, 59 and 60 into an original position. Thus, the operator must grasp buttons 66 or push bar 68 and apply a force in opposition to the one exerted by spring 70 to actuate the corresponding facial features.

The end of board 50 defining proximate board end 54 is defined by a widened portion 72 and mounts a pair of upright posts 74 that include transverse slots 76 through which the resilient material of tongue 64, which has a generally rectangular cross-section, ex- 5 tends. The posts are pivotally retained in bores (not separately shown). Each post includes an inwardly extending arm 78 to which the bent ends 80 of push rods 60 are secured. Thus, when transverse bar 68 is depressed, posts 74 are pivoted to move free lip ends 10 82 upwardly into a position as generally shown in FIG. 1. Release of the transverse bar enables the corresponding springs 70 to move push rod 60 upwardly and pivot posts 74 in the opposite direction to thereby 15 pivot free lip ends 82 downwardly into the position most clearly shown in FIG. 6. Intermediate position as illustrated in FIGS. 7 through 9 can be obtained. Furthermore, only one of the free lip ends can be pivoted downwardly while the other one remains in a 20generally upwardly extending direction (as shown in FIG. 7) by releasing only the right hand side (as seen in FIGS. 3 and 7) of push bar 68 while the left hand side remains depressed.

A further movement of resiliently flexible lip 64 is 25 provided via push rod pair 59 which terminates in an outwardly angled lower end 84 and is suitably secured to portions of the lip intermediate posts 74. Rod pair 59 enables the independent upward or downward movement of lip sections to give the lip a curled appearance 30 as illustrated in FIGS. 8 and 9.

Referring now to FIGS. 3 and 5, a cover plate 86 (shown in FIG. 5 only) is placed over board 50 and is disposed between handle 46 and lip 64. It terminates short of both to permit the operation of push rods 59 35 with actuating buttons 66 to move lip 64 in the earlier described manner. A transverse bar 88 is secured to the upper side of board 50, terminates in a rounded end and securs the end of cover plate 86 proximate handle 46. Intermediate spacer blocks 90 rigidly secure the 40 remainder of plate 86 to board 50. A section 92 of a flexible, preferably resilient sheet such as rubberized fabric is secured to the end of cover plate 86 proximate lip 64 and to the lip itself for movement of the sheet with the lip and for obscuring push rods 58, 59 and 60, 45 tongue 24, teeth 62 and the mechanisms for operating the movable features of first animation means 22. The flexible sheet can stretch and/or can be placed loosely between the cover plate and the lip to permit free, unrestrained lip movements while covering the operating 50 mechanism.

Referring now to FIGS. 4 and 5, second animation means 26 also comprises an elongated, generally rectangularly shaped member or board 94 which has a first end proximate character outline 18 (shown in FIG. 55 1) and a second end remote therefrom and adjacent remote end 56 of the first animation means when the second animation means is in the operative position illustrated in FIGS. 1 and 2. A thin sheet 96 is secured to 60 the upper side of member 94 and shaped and/or painted to define the facial features, e.g. eyes 28, nose 30 and hat 32, to be carried by the second animation means. In use, the second animation means is placed over the first animation means and supported thereon 65 as illustrated in FIG. 5 by the rounded end of transverse bar 88 and a lower end of a support web 98 secured to the underside of member 94. A conventional rubber or

elastic band 100 is secured to the underside of member 94 and to cover plate 86 and loosely retains the first and second animation means to each other while permitting substantially free, universal movement of the first animation means with respect to the second means in the vicinity of outline 18 (FIG. 1). In addition to retaining the second animation means to the first means, rubber band 100 centers the second means with respect to the first means into an original position after use. This aids the operator in manipulating the puppet of the present invention.

Second animation means 26 also includes an eye blinker defined by a disc 102 hinged to sheet 96 with a conventional hinge or with a piece of readily deformable material such as a webbing section 104. One side of the disc includes lines portraying an open eye while the other side (see FIG. 2) includes lines portraying a closed eye. Similarly, the right hand eye (as viewed in FIG. 4) applied to sheet 94 is open while the left hand eye applied to the sheet (see FIG. 2) is closed. The webbing section 104 positions disc 102 so that it obscures either one or the other eye applied to sheet 96. Thus, when the disc covers the left hand eye on the sheet, both eyes appear open while when it is flipped over to cover the right hand eye both eyes appear closed. For actuating disc 102, the second animation means includes a string section 106, one end of which is secured to a tension spring 108 while the other end is secured to an end of an actuating lever 110. The string extends through suitable small bores in sheet 96 in the vicinity of disc 102 and through a bore in the disc. It is further secured to the disc so that movement of the string moves the disc with it.

Another tension spring 112 biases a lever 110 towards lower end 95 until actuating button 114 rests against the upper end (as seen in FIG. 4) of sheet 96. The string length and the position on the string at which the disc 102 is secured thereto is so selected that when actuating button 114 rests against sheet 96 disc 102 covers the left hand eye as seen in FIG. 4. Actuating the lever 110 by lifting button 114 moves the spring and the disc 102 to the right until the right hand eye on sheet 96 is covered. In that position, the character's eyes are closed. Upon release of the actuating button spring 112 automatically returns lever 110 to its original position. Spring 108 returns string 106 and, therewith, disc 102 into their original position in which the character's eyes are open. The quick opening and closing of the eyes to simulate blinking is thus possible.

Puppet 12 is assembled by connecting first and second animation means 22 and 24 with rubber band 100 and by placing the underside of board 50 on support surface 16. Preferably another elastic rubber band (not shown) connects the underside of board 50 with back board 14 to generally maintain the animation means in position and to generally center them with respect to outline 18. To reduce friction between board 50 and back board 14 it is preferred to provide upper end 42 of the back board with a slide bar 116 which spaces board 50 a slight distance above board 14.

In operation, the operator positions himself at the upper end of the board and a camera, projector or the like is pointed generally in a perpendicular direction towards character 20. Thereafter, the operator manipulates the various character features defined by

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the first and second animation means to animate movements of the character. To prevent distracting shadows and to simulate a true cartoon, it is preferred to paint all parts deep black and to define the character's outline and animated features by white lines or vice versa. Adequate lighting is of course necessary. With reverse polarity photography, the outline color actually seen can be reversed from that on puppet 12.

Referring now to FIGS. 10 and 11, another embodi-10 ment of the puppet may have the same as or a different character 118 than that illustrated in FIGS. 1 and 2. It too includes first and second animation means 120, 122 defined by generally rectangular boards or members 124 and 126, which include operating means for such 15 secondary character features as tongue 128, lip 130 or eves 132. The eves of character 118 are movable in generally opposing directions via a rotatable knob 134 secured to board 124 of second operating means 120. Operation of knob 134 moves the eyes via a string ac- 20 impressions comprising: means defining a main operattuator 136 in opposite directions. The remaining operating functions of the first and second animation means 120, 122 may be the same as those illustrated and described in FIGS. 1 through 9, they may differ therefrom, may include additional moving features or may delete some. Boards 124 and 126 are preferably also secured to each other via a centering rubber band and secured by another rubber band (not shown) to back board 138.

A retaining plate 140 is rigidly secured to back board 138 and is spaced therefrom a distance sufficient to permit the above described movements of the first and second animation means and, more particularly, of boards 124 and 126. The retaining plate, however, 35 prevents accidental movements of the boards 124, 126 off back board 138. In addition, it pivotally mounts a hat 142 provided with an actuator handle 144 with which the relative hat position can be changed as illustrated in phantom lines in FIG. 10.

Third animation means 146 are also provided and in the embodiment illustrated in FIG. 10 comprise a universally movable hand 148 holding a cigar 150 and connected to an elongate actuator handle 152 operable 45 from adjacent upper back board end 154. To simulate a cigar tipping action, a finger 156 of hand 148 is linearly movable in a direction parallel to handle 152 via a string loaded spring or push rod 158 operable with a pivot handle 160. 50

I claim:

1. An animated puppet comprising means defining a support surface and an immovable outline of a character on the surface, a first member having a first end within the outline and a second end outside the 55 outline, means securing the member to the surface defining means and permitting movements of the member over the surface, and a subfeature of the character connected to the first end for movement therewith so that operation of the member from the 60 second end to move it with respect to the outline over the surface correspondingly moves the subfeature and thus provides for animation of the character.

2. A puppet according to claim 1 wherein the surface 65 defining means defines a substantially flat surface, and wherein the outline is defined by at least one line on the surface.

3. A puppet according to claim 1 including a second member movable relative to the outline, the second member having an end within the outline and an end outside the outline, and another subfeature of the character connected to the end of the second member within the outline.

4. A puppet according to claim 3 including means for moving the other subfeature comprising means mounting the second member for independent movement of the second member relative to the outline.

5. A puppet according to claim 1 including a second member extending to within the outline, wherein the first and second members are disposed one on top of the other, and wherein the members terminate in handle portions disposed outside the surface defining means and in relative proximity to each other for manual activation by an operator.

6. A puppet for producing animated two-dimensional ing surface, at least a partial outline of the object to be animated drawn onto the surface, substantially universally movable first bar means placed on top of the surface and having an end disposed substantially within 25 the outline and an end disposed outside the outline, a feature of the object to be animated mounted to the one end of the bar means, so that operation of the bar means from the other end to move it with respect to the outline correspondingly moves the secondary feature and thus provides for animation of the puppet.

7. A puppet according to claim 6 including means mounted to the bar means and operative from the other end for moving the feature with respect to the bar means to thereby provide for additional animation of the object.

8. A puppet according to claim 7 including additional features defining means movably disposed on the surface defining means, and means positioned adjacent $_{40}$ the other end of the bar means for activating the additional feature defining means by moving the additional feature defining means relative to the surface.

9. A puppet according to claim 8 wherein the additional feature defining means comprises means rotatably mounting an additional feature to the surface defining means outside the outline, and wherein the activating means for the additional feature includes means for pivoting the rotatably mounted additional feature.

10. A puppet according to claim 8 wherein the additional feature defining means is mounted to second bar means supported on and movable with respect to the first bar means in a plane substantially parallel to the surface, the second bar means including an end disposed substantially within the outline and another end disposed outside the outline adjacent the other end of the first bar means, the additional feature defining means being carried by the second bar means for relative movements with respect to the outline and to the feature carried by the first bar means.

11. A puppet according to claim 10 including means carried by the second bar means for moving the additional feature defining means with respect to the second bar means from adjacent the other end thereof.

12. A puppet according to claim 6 including a plurality of members stacked above the bar means, the members mounting additional features for relative movements of the additional features with respect to the outline, and means for operating the additional features from adjacent the other end of the bar means.

13. A puppet according to claim 12 wherein one member is rigidly secured to the surface defining means 5 and spaced from the surface, wherein at least one of the bar means and the other member is disposed between the surface and the rigidly mounted member for retention to the surface, and wherein a further feature is movably mounted to the rigid member for at least partial viewing in a direction substantially perpendicular to the surface.

14. A puppet according to claim 13 wherein the further feature mounted to the rigid member is pivotally secured to the rigid member, and including means for pivoting the further feature mounted to the rigid member from adjacent the other end of the bar means.

15. A puppet according to claim 6 including means for movably securing the bar means to the surface defining means, and wherein the last mentioned means biases the bar means towards an original position.

16. Apparatus for making animated two-dimensional cartoons comprising: board means having an essentially 25 flat surface, a uniform color and at least a portion of an outline of a character applied to the surface, first animation means placed on top of the surface, movable with respect to the outline, and having an first end proximate to the outline, a second end remote from the 30 outline, means defining a feature of the character secured to the proximate end for movement of the feature means relative to the outline, and means operable from adjacent the remote end for moving the feature means with respect to the first animation means, and 35 second animation means disposed on top of the surface for movement relative to the outline, means on the second animation means defining another feature of the character, and means for moving the second animation means with respect to the outline from adjacent 40 the second, remote end of the first animation means.

17. Apparatus according to claim 16 wherein the moving means for the first character feature includes means biasing the feature means into an original position, and means for moving the feature means in op- 45 position to the biasing means into another position.

18. Apparatus according to claim 16 including a member immovably secured to the surface defining means, spaced from the surface and disposed between the outline and the remote end, wherein the first ani-50 mation means is disposed between the member and the surface, and including third animation means having means defining a further feature of the character, means movably mounting the third animation means to the member, and means for moving the third animation 55 means relative to the member and the outline from adjacent the remote end of the first animation means.

19. Apparatus according to claim 16 including means for biasing the first and second animation means into an original position with respect to the outline, the biasing means permitting substantially universal movement of the first and second animation means over the surface at last in the vicinity of the outline, wherein at least one of the feature means is defined by a resiliently deformable material, and wherein the moving means for said one feature means includes means for deflecting the resilient material.

20. Apparatus according to claim 19 wherein the material deflecting means comprises means pivotally mounting the material at spaced apart points to one of the first and second animation means, and wherein the last mentioned moving means includes means for pivoting a portion of the material adjacent the points to thereby deflect the resilient material.

21. Apparatus according to claim 20 including means spaced from the points and connected to the resilient material for moving a portion of the resilient material along a substantially straight path to further deform the resilient material.

22. Apparatus according to claim 21 wherein the resilient material defines a facial feature of the character.

23. Apparatus for making animated sequences of two-dimensional characters comprising:

- means having a flat surface and an immovable representation of at least a portion of the character;
- first animation means having board means carried by the surface for relative movement of the board means with respect to the representation, means defining character features movably mounted to an end of the board means disposed adjacent the representation, handle means at another end of the board means for manipulating the board means, feature actuating means connected with the feature defining means, movably carried by the board means and having means adjacent the handle means for operating the actuating means, and spring means biasing the character defining means and the actuating means into a neutral position;
- second animation means placed over and carried by the first animation means for relative movement with respect to the representation and the features carried by the first animation means, the second animation means mounting at least one second character feature for movement with respect to the first animation means adjacent an end of the second animation means proximate the representation, the second animation means further including second handle means for manipulation of the second animation means, second actuating means connected to the second feature defining means and movably carried by the second animation means for moving the second feature defining means, means for operating the second actuating means from adjacent the second handle means, and means for biasing the second feature defining means and the second actuating means into an original position, the second animation means further including flat cover means extending beyond the second animation means for obscuring from view in a direction substantially perpendicular to the surface a portion of the first animation means in the vicinity of the representation and a portion of the second animation means and of the second actuating means;
- whereby viewing of the representation and the feature defining means and the simultaneous operation of the first and second animating means gives the impression of an animated character capable of being directly viewed, projected and filmed for subsequent viewing.

24. apparatus according to claim 23 wherein part of the feature defining means carried by the first animation means is normally beneath the and obscured from view by the cover means when the part is in its original position, and wherein operation of the first actuating 5 means moves the part from beneath the cover means into view.

25. Apparatus according to claim 24 including third animating means defining further character features, means movably placing the further feature defining 10 means adjacent the representation on top of the surface, and means operable from adjacent the first and second handle means for moving the further character features with respect to the representation.

26. Apparatus according to claim 24 including disc 15 the objects in opposing directions. means carrying a portion of the second feature

mounted to the second animation means, means hingeably securing the disc means to the second animating means, each side of the disc means carrying a different feature, the second animating means further having features corresponding to the different features on the disc means and arranged so that the visible feature on the disc means corresponds to and is adjacent the same feature on the second animation means.

27. Apparatus according to claim 23 including feature defining means carried by one of the first and second animating means having a pair of linearly movable objects, and means operable from adjacent the corresponding handle means for simultaneously moving

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