Nov. 11, 1952 J. A. SIMPSON 2,617,232

MULTIPLE MEMBER ANIMATED FIGURE DEVICE

Filed May 27, 1949 2 SHEETS—SHEET 1

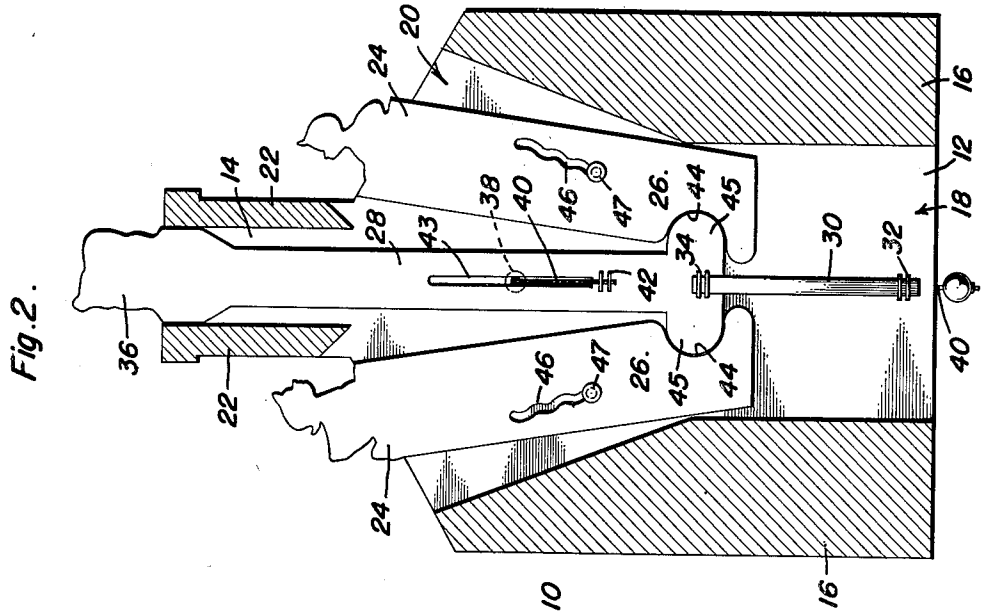


Fig. 2.

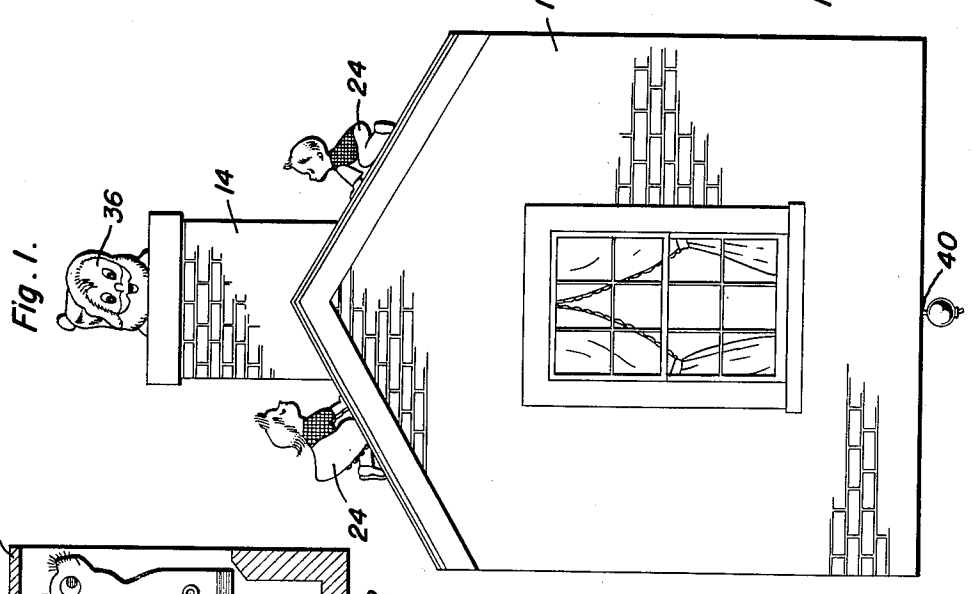


Fig. 1.

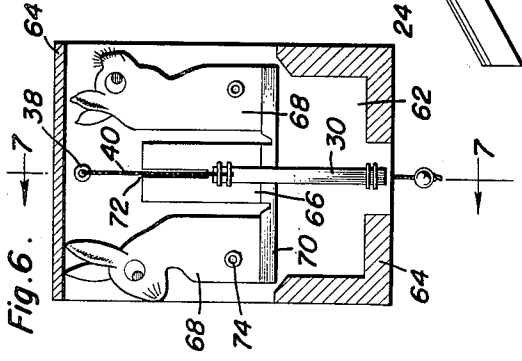


Fig. 6.

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MULTIPLE MEMBER ANIMATED FIGURE DEVICE

Filed May 27, 1949 2 SHEETS—SHEET 2

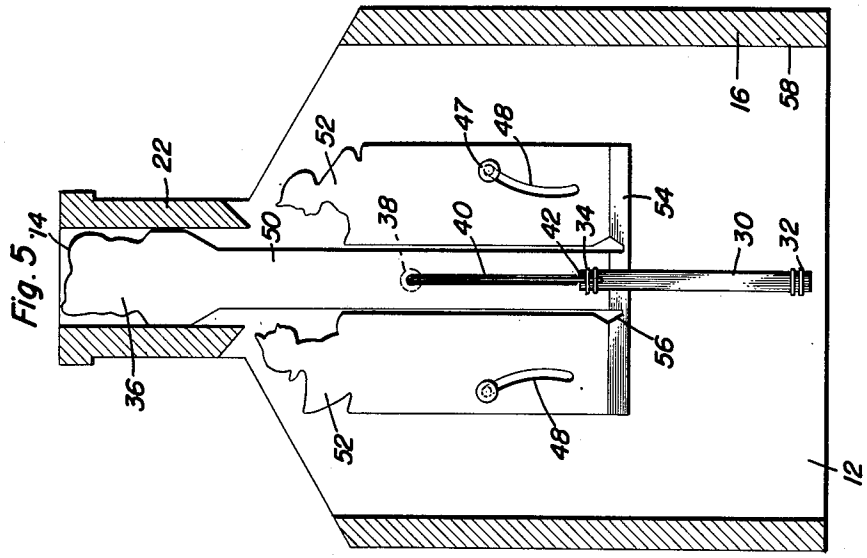


Fig. 5

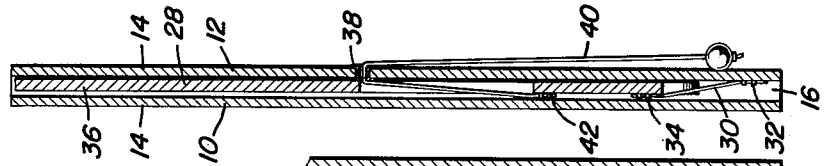


Fig. 4.

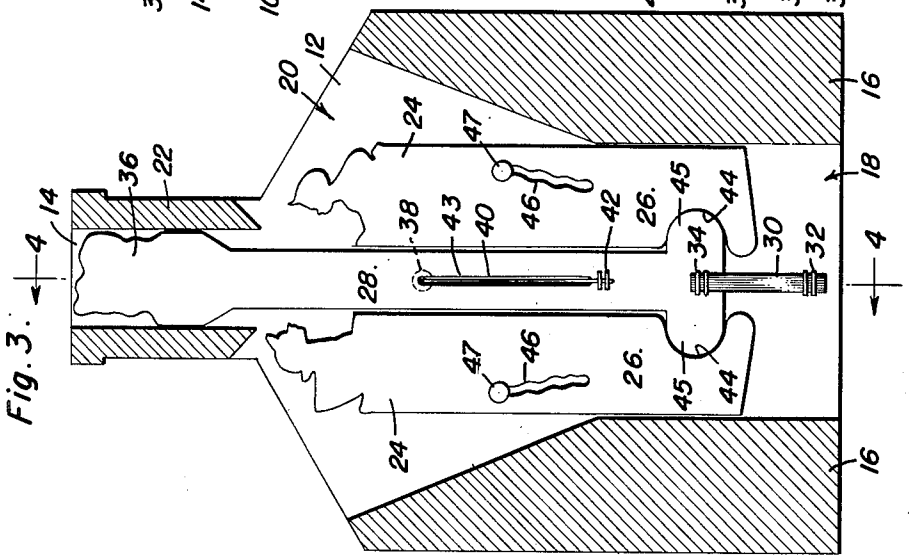


Fig. 3.

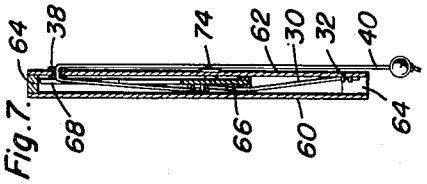


Fig. 7.

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UNITED STATES PATENT OFFICE

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MULTIPLE MEMBER ANIMATED FIGURE DEVICE

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Application May 27, 1949, Serial No. 95,833

2 Claims. (Cl. 46—119)

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This invention relates generally to animated devices such as are used for advertising and entertainment purposes, and more particularly to a device in which at least three figures can be motivated in a device adapted to be constructed from sheet material.

A primary object of this invention is to provide a device which is particularly well suited for use by advertisers, the device including figures which may be animated in a distinctive and attractive manner.

Another object of this invention is to provide a device of this character in which a plurality of figure members may be motivated to travel in different directions at the same time, and in which the motion of the figures can be made extremely suggestive of actual human or animal movements.

Another very important object of this invention, intimately related to the preceding objects, is to provide a device of this character in which a minimum number of moving parts is required to produce the desired effect, and in which the character of the different elements is uniformly simple and easy to manufacture, and, finally, in which the different parts are easily assembled without auxiliary means to achieve alignment and registration.

A last object to be mentioned specifically is to provide a device of this character which is very simple to operate and which will give durable service without unduly great initial cost.

With these objects definitely in view, together with other objects which will appear hereinafter as this description proceeds, this invention resides in certain novel features of construction, combination and arrangement of elements and portions as will be set forth in the following specification and of which a preferred embodiment is represented in the drawings forming a part of this disclosure, in which drawings:

Figure 1 is a front elevational view of the assembled device;

Figure 2 is a vertical transverse sectional view with the moving parts shown in elevation;

Figure 3 is a view, similar to Figure 2, but showing the arrangement of the figure members, central member and related parts in the positions assumed thereby when the actuating cord is released;

Figure 4 is a vertical transverse sectional view, taken substantially upon the line 4—4 in Figure 3;

Figure 5 is a view, vertical sectional in character, of a slightly modified form of this invention, in which the figure members are pivotally secured to the central member by flexible tape, and the channels in the figure members are shown as having different configuration;

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Figure 6 is a transverse sectional view of another modified form of this invention, thought to be generically similar to the other forms, the pivotal connections of the figure members being sufficiently loose to constitute structure analogous to the slots and pins in the other embodiments of this invention; and

Figure 7 is a vertical sectional view of the embodiment of this invention shown in Figure 6, the figure being taken substantially upon the line 7—7 in Figure 6.

Similar characters of reference designate similar or identical elements and portions throughout the specification and throughout the different views in the drawings.

Referring now to the drawings in detail, this device includes a front panel 10 and a rear panel 12 and in the embodiment represented in Figures 1–5, these panels are each provided with extending portions 14. A pair of guide plates 16 are secured to and between the panels 10 and 12, with a space 18 defined therebetween, and these guide plates comprise spacers and attachment means for the panels as well as defining lateral limits to a space preserved between the panels 10 and 12. The guide plates are reduced so that the space therebetween is increased as indicated at 20 in the embodiment represented in Figures 1–4, to allow divergence of figure members 24 during the operation of the device.

The figure members 24 will ordinarily each be provided with shank portions 26. A central member 28, which, like the figure members 24 and shank portions 26, is of a thickness not greater than the thickness of the guide plates 16, is slidably mounted centrally of the space designated at 18 and 20 and will extend into the space between the extending portions 14 of the panels 10 and 12, and it may be noted in the preferred embodiment of this invention that spacers 22 may be secured to and between the extending portions 14, in a manner similar to the manner in which the guide plates 16 are secured.

The central member 28 is biased in one direction by a resilient and elastic member 30 which is stapled or otherwise secured to one of the panels 10 or 12, as indicated at 32, and similarly secured, as indicated at 34, to the inner end of the central member 28. In this connection, it

may be noted that the outer end of the central member 28 may also comprise a figure as indicated at 36, it being a feature of this invention that three figures can be motivated simultaneously and in different directions in an attractive manner.

The rear panel 12 will be apertured and fitted with a grommet 38, or the like, and a flexible cord 40 will be terminally secured, as at 42, on an intermediate portion of the central member 28, the other end of the cord 40 being disposed to the rear of the device, and intermediate portions of the cord will extend through a slot 43 provided in the central member and extending longitudinally thereof, so that the said intermediate portion of the cord will frictionally engage the central member at the sides of the slot and guide the central member. In this connection, it should be carefully noted that in other embodiments of the invention, the members 14 and 22 may not be used, and the central member will depend for guidance upon the cord 40, and the pivotal connection between the figure members 24 and the central member 28 comprises, in the preferred embodiment, recesses 44 in the adjacent inner end portions of the figure members' shank portions 26, and laterally extending enlargements 45 on the inner end of the central member 28. It is preferred that the recesses 44 and the enlargements 45 be similarly curved as indicated in the drawings, and it will, of course, be understood that the guide plates 16 will cooperate with the said pivotal connection to retain the elements concerned in proper relationship within the space 18, the enlargements 45 fitting frictionally within the recesses 44, and further cooperating structure includes the elongated channels 46 in the figure members and the pins 47 which are fixed to at least one of the panels 10 and 12 and extend through the channels 46, it being understood that the pins 47 will guide intermediate portions of the shanks 26 of the figure members when the actuating cord 40 is pulled.

It will be noted that the channels 46 are represented as being non-linear, and the diverging and converging motion of the figures 24, with relation to the figure 36 or any other central portion of an embodiment of this invention, will be largely determined by the exact nature of the channels 46.

In the embodiment of this invention illustrated in Figure 5, the channels 48 are simple curves and it is believed that many types of devices may employ such simple curves, especially when a startling or pecking action is desired in the figure members. In this embodiment of the invention, it will also be noted that the inner ends of the central member 50 and the figure members 52 are pivotally secured together by flexible tape 54 which may be adhesively secured to the said inner ends, and which may be notched, as indicated at 56, to facilitate bending of the tape at this point on either side of the central member 50. The elastic member 30, cord 40, and pins 47 are unchanged in this modified form of the invention, but the guide plates 16 may be reduced as indicated at 58 to comprise mere spacer members, the function of the guide plates as such being also deleted from this embodiment.

In the second modified form of this invention, illustrated in Figures 6 and 7, a front panel 60 and a rear panel 62 are secured together by spacer members 64, and a central member 66 is pivotally secured to figure members 68 by a flexible adhesive tape 70, as illustrated in the other embodiment in Figure 5. It will be noted, however, that the central member is represented as not having a figure corresponding to the figure 36 in the other embodiments, but it should also be carefully noted that a slot 72 is provided in the central member to accommodate an intermediate portion of the actuating cord 40 in a manner similar to the manner in which the slot 43 accommodates the cord 40 in the other embodiments. It may also be noted that the extending portions 14 represented in the other embodiments need not be employed in the embodiment represented in Figures 6 and 7. However, the greatest difference in this last-mentioned embodiment is concerned with the method of pivotally securing the figure members by a loose rivet member 74, or analogous device, instead of by the pin 47. An examination of Figures 6 and 7 will indicate how a rivet member 74 provides a rather loose connection between the figure members and at least one of the panels 60 and 62. The looseness of the rivet is important, since the action is essentially that of providing a very short slot such as that provided at 46 in the other embodiments of the invention, to allow proper movement of the figure members and the central member when the actuating cord 40 is pulled, as in the other embodiments.

The operation of this invention will be clearly understood from a consideration of the drawings, and the above recited objects and the mechanical details of the invention set forth above. Further description would appear to be unnecessary.

Having described the invention, what is claimed as new is:

1. An animated device comprising a pair of panels secured together and having a space therebetween, a central member slidably mounted in said space, means to bias said member in one direction, means to move the central member in the opposite direction, a pair of figure members slidably mounted in said space and pivotally connected to said central member, and means engaging intermediate portions of the figure members to guide the movement of the figure members when the central member is moved, the pivotal connection of said figure members with the central member including recess portions in said figure members interlocking frictionally with enlarged portions of complemental shape on said central member, and lateral guide plates comprising spacers and attachment means for and between said panels.

2. An animated device comprising a pair of panels secured together, and having a space therebetween, a central member slidably mounted in said space, biasing means resiliently biasing said central member in one direction, a longitudinally extending linear slot in said central member, one of said panels having an aperture communicating with said slot, a flexible member secured to said central member at one end of said slot, said flexible member extending longitudinally of said slot and through said aperture, the sides of said slot engaging said flexible member for guiding said central member, said flexible member being operable to move the control member against said biasing means, a pair of figure members slidable in said space, laterally extending enlargements on the inner end of said central member, the adjacent inner end portions of the figure members having recesses receiving said enlargements, the cooperating surface of said

enlargement and said recesses being similarly curved, and guide plates retaining said members in operating relation in said space.

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