March 8, 1960 O. L. BAILEY 2,927,400

ANIMATED FIGURE

Filed Feb. 3, 1958 2 Sheets-Sheet 1

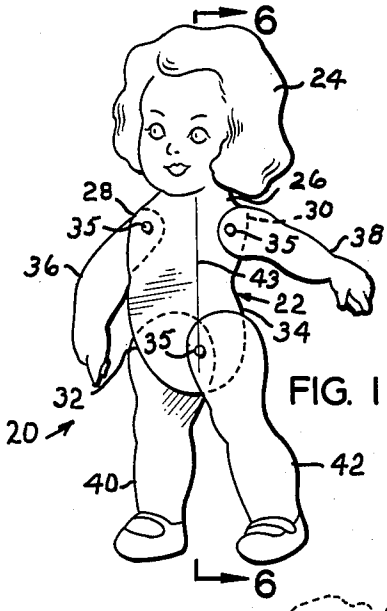


FIG. 1

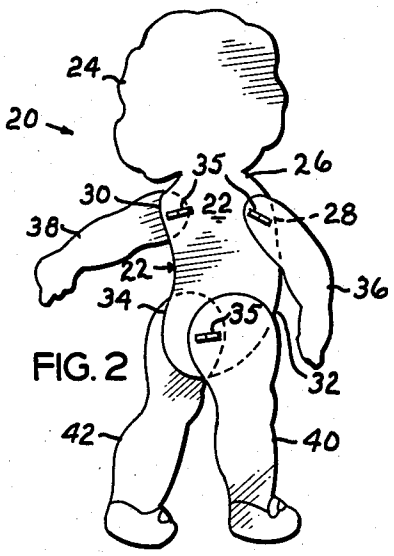


FIG. 2

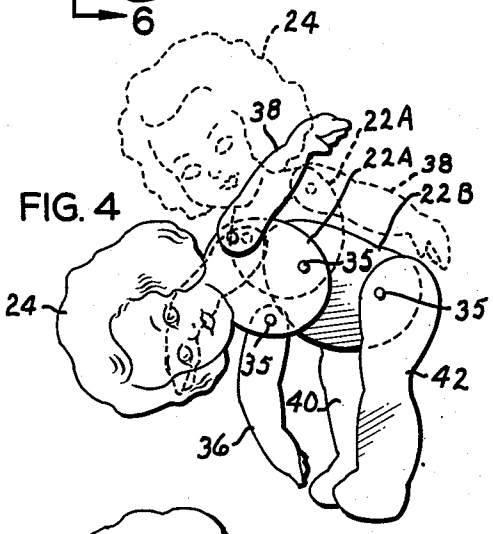


FIG. 4

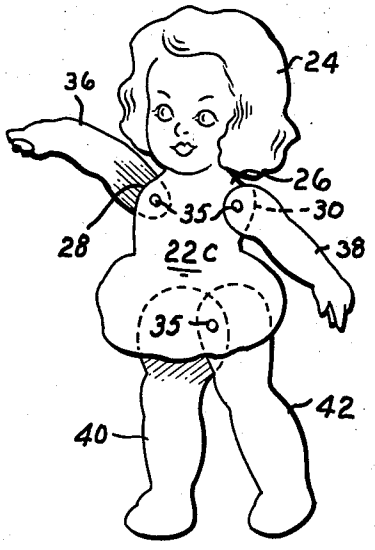


FIG. 5

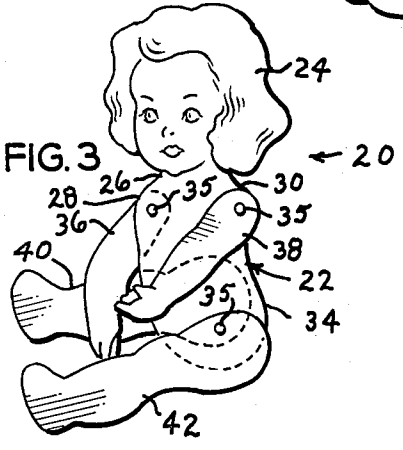


FIG. 3

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ANIMATED FIGURE

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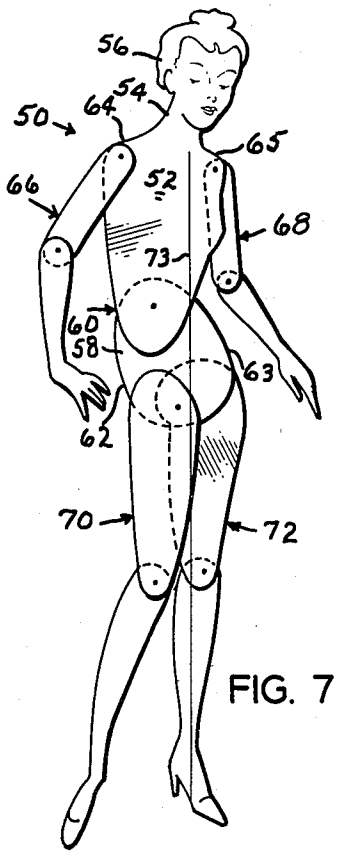


FIG. 7

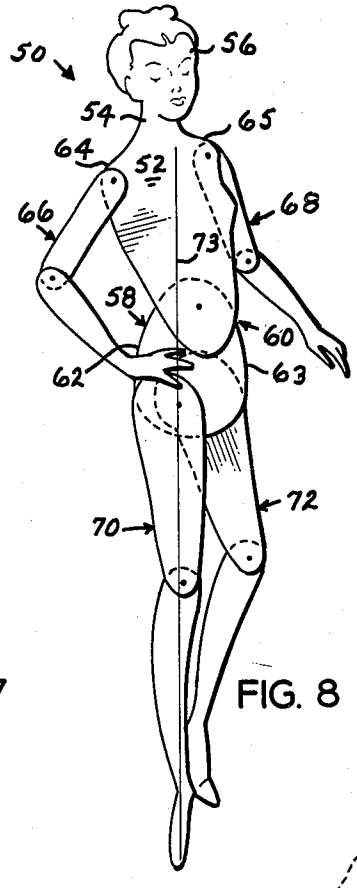


FIG. 8

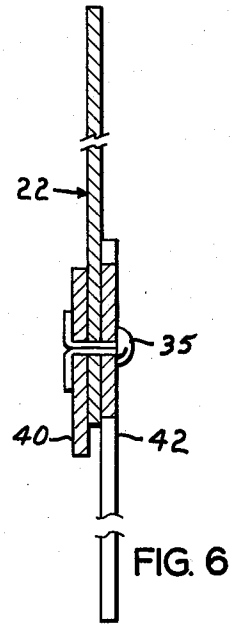


FIG. 6

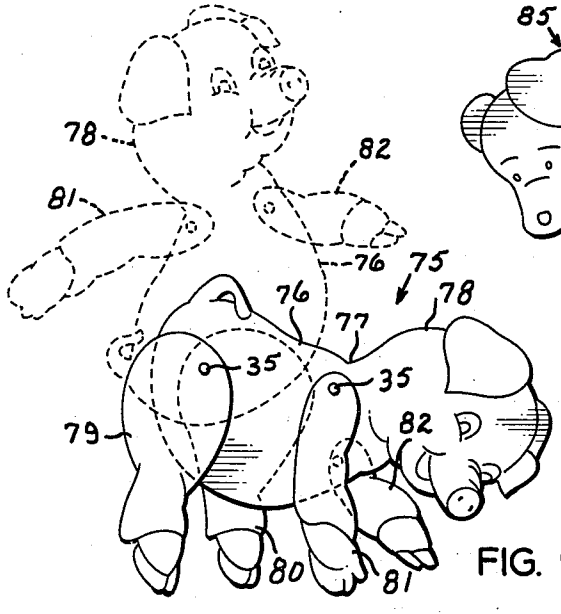


FIG. 9

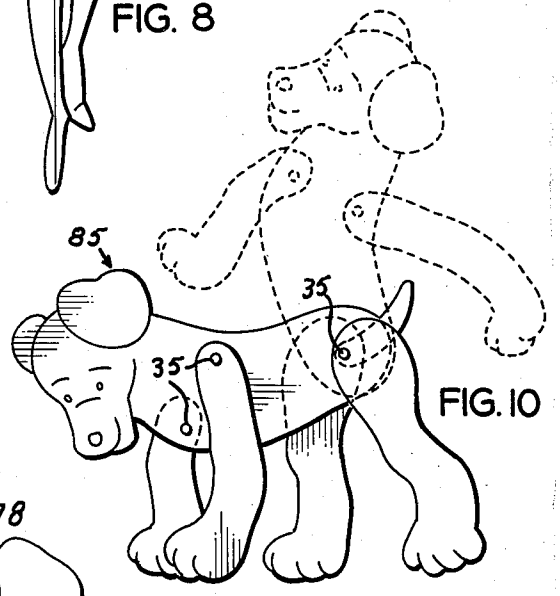


FIG. 10

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United States Patent Office 2,927,400 Patented Mar. 8, 1960

2,927,400

ANIMATED FIGURE

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Application February 3, 1958, Serial No. 712,742

10 Claims. (Cl. 46—157)

The present invention relates to animated figures and has reference more particularly to flat articulated type dolls and the like.

The present invention is a continuation-in-part of an application filed by me in the United States Patent Office on April 7, 1953, for Animated Figure, Serial No. 347,241, Div. 62, now abandoned.

The prior art reveals a number of doll like representatives of the flat articulated type. However, each of these devices, for the most part, illustrate or form front view structures which provide only front view posture positions. Those that depict side view structures, similarly only provide or show side view positions. Because of the arrangement of the elements of the prior art structures, none of these devices portray the many inbetween positions which might result in changing the figure from a direct front to a direct side view. In each of the doll structures which depict front view positions the legs are attached independently to the torso at two spaced-apart pivot points providing a pivot point for each leg. Therefore, when the doll's feet are secured to a base, the torso portion of the doll is held in one position and is not capable of being moved or pivoted with respect to its juncture with the legs to simulate stooping or bending in one direction or the other. Similarly when the feet are not secured to a base, the legs being independently attached to the torso, results in the legs being of a different length when the figure is bent over than when the figure is upright, resulting in an out of proportion appearance when the doll is arranged in such varied positions.

It is therefore the principal object of the present invention to provide a flat articulated figure having the component parts thereof formed and arranged to provide the structure with front view representations as viewed from the front of the form and which additionally provides the figure with side view representative positions as viewed from the side of an animate form and which further provides a doll structure for assuming all possible positions between a direct front and a direct side view of such a figure.

Another important object is to provide a device of this class having the elements thereof arranged to provide the doll structure with front and side view positions simultaneously.

An additional object is to provide an improved animated figure which includes a torso having pivotally secured thereto a plurality of extremities at least two of said extremities being pivotally connected to the torso by a single fastener.

An additional object is to provide a flat animated structure of this character whereby when the figure so formed depicts an anmial or the like the same may be adjusted to simulate human like positions.

An additional object is to provide an improved animated figure of relative simple construction which may be easily formed and assembled to provide a figure whose extremities may be adjustedly positioned relative to its

torso and which positions may be retained by the frictional contact between the adjacent surfaces.

Still another object of this invention is to provide a doll of front view structure capable of representing natural and life-like posture positions of the front, side, and views therebetween of the human figure whereby when the doll figure is stood on one foot the articulated torso portions of the doll structure assumes the natural posture positions of the human torso.

Yet another object is to provide a flat doll figure simulating a front view doll structure whereby upper and lower portions thereof co-act with the other elments of the structure to provide both front and side view posture positions of the human figure.

Still another object is to provide a device such as described which may be used as a toy; as an amusement or entertaining medium; as an educational device; or as a model for fashion sketching or the like.

The present invention accomplishes these and other objects and advantages by providing an animated figure characterized by a main torso portion having a head connected thereto. A pair of extremities depicting legs are connected to the hip position torso, on opposing sides thereof, in overlapping relation by a single pivot. A second pair of extremities is connected to the shoulder position of the torso on opposing sides thereof and in spaced-apart relation.

Other objects will be apparent from the following description when taken in conjunction with the accompanying two sheets of drawings, wherein:

Figure 1 is a front elevational view of an articulated figure in the form of a doll;

Figure 2 is a rear elevational view of the doll of Fig. 1 illustrating the manner in which the extremities thereof are pivotally secured to the torso;

Figure 3 is a front elevational view of the doll as seen in Fig. 1 but illustrating the relative position of its extremities when in a seated position;

Figure 4 is a front elevational view of a doll figure similar to Fig. 1 illustrating a two piece torso;

Figure 5 is a front elevational view illustrating a modified doll structure form for depicting a dress on the torso portion thereof;

Figure 6 is a vertical sectional view taken substantially along the line 6—6 of Fig. 1;

Figure 7 is a front elevational view illustrating an articulated doll capable of simulating human like posture positions;

Figure 8 is a view similar to Fig. 7 illustrating the doll in another position; and,

Figures 9 and 10 are front elevational views of articulated figures depicting animal forms, the dotted line positions thereof representing human-like stances.

Like characters of reference designate like parts in those figures of the drawings in which they occur.

In the drawings:

Referring now more particularly to Figs. 1 to 4, inclusive, the reference numeral 20 indicates, as a whole, an animated figure in the form of a doll. The doll 20 includes a central or torso section 22 having a head 24 rigidly secured to the torso by an upstanding neck portion 26. The torso 22 further includes a pair of shoulder-like sections or areas on opposing sides of the upper end portion designated generally by the numerals 28 and 30. The lower end portion of the torso is formed to define a pair of hips sections or representations 32 and 34.

Pivotally secured to the shoulders 28 and 30 by fasteners 35 are right and left arms 36 and 38, respectively. The arms 36 and 38 are thus arranged in spaced-apart relation with the inner portion of the right arm 36 disposed rearwardly of the shoulder portion of the torso

while the left arm 58 has an inner portion overlying the torso shoulder portion 30.

The doll 20 is completed by a pair of depending right and left legs 40 and 42, respectively, each having upper inner portions disposed in overlapping relation on opposing sides of the torso. The right leg 40 is thus disposed rearwardly of the torso in co-operation with the right arm 36 and in alignment with the right hip section 32. Similarly the left leg 42 has its inner portion disposed in overlying relation with respect to the torso and in alignment with the left hip section 34. A fastener 35 extending through the upper inner portions of the respective legs and the torso therebetween pivotally connects the legs thereto.

As viewed in Fig. 1 the fastener 35 passes through the upper forward inner portion of the left leg 42 and through the upper rearward inner portion of the right leg 40. Thus a line 43 extended between the pit of the neck and the leg pivot point passes between the shoulder pivots.

The various parts forming the doll-like figure are preferably formed of flat material such as card board or other paper formed by flatly bonding a number of plys of paper together. The torso 22, head 24, arms 36 and 38 and legs 40 and 42 are preferably formed with a peripheral edge simulating the respective portions of the human figure. Similarly these portions of the doll 20 may be painted or printed to more nearly resemble the various characteristics of the desired doll-like figure. For example, a face may be painted on the head and hands and feet or shoes may be painted on the ends of the extremities forming the arms and legs, respectively.

The associated parts of the doll 20 are joined in pivoting relation by the fastener 35 as referred to hereinabove. The fastener 35 may be any desired conventional type fastener such as a tubular rivet or the pronged or split fastener as is illustrated in Fig. 6. The fastener 35 is preferably applied in a manner which will secure the adjacent portions together tightly so that the various sections of the doll may be adjusted to a selected position, and frictional contact between the adjacent parts will maintain them in the selected positions. Another type of fastener which may be equally as well employed is a fastener of the snap type which will allow relative pivoting movement between the two parts of the fastener when joined. One half of such a fastener may be fastened to the torso and the mating half joined to the arm or leg which in turn may then be connected to and disconnected from the torso at will. This type of arrangement will permit the forming of cartoon-like figures by simply exchanging portions of the figure or with other figures. Similarly such a fastener will permit the effect of a single pivot point for the leg pivot point and yet use two or individual fasteners for the legs. Furthermore the apertures formed through the torso for receiving the fasteners 35 may be made slightly larger than the diameter required for receiving the fastener as long as such enlargement does not permit the head of the fastener to pass through so that the location of the extremities may be adjusted relative to their attachment to the torso. The aperture through the torso 22, providing the single pivot connection for the legs, may be formed even larger than the head end of the fastener 35, since the fastener is carried by the opposing legs, thus permitting even greater freedom of adjustment of the connection of the legs with the torso.

Referring now to Fig. 4 it may be seen that the torso portion of this figure is formed in two sections 22A and 22B which are pivotally connected together by a fastener 35. The top section 22A of the torso preferably overlies the lower section 22B as seen in Fig. 4. The adjacent ends of these two sections 22A and 22B are preferably formed with full rounded or arcuate edges so that this divided torso portion maintains substantially the same contour as does the one piece torso 22. The principal advantage of the divided or pivoting torso resides in the additional positions in which the device may be positioned. In other words this arrangement provides for more freedom of movement of the component parts. It may be desirable in the arrangement depicted by Fig. 4 to provide a spacer or washer, not shown, to be carried by the fastener 35 between the torso and the arm 36 so that the arm will not bind against the upwardly disposed arcuate edge of the torso portion 22B as might be seen from an examination of Fig. 4.

Fig. 5 illustrates a further modification of the doll of Fig. 1 wherein the torso portion is formed to substantially define a dress or clothing contour 22C. In this arrangement the legs are preferably connected to the rearward surface of the dress torso 22C so that they will not interfere with nor detract from the appearance of the figure.

Referring to Figs. 7 and 8 there may be seen another representation of the human figure indicated, as a whole, by the numeral 50. The device 50 is assembled substantially identical with respect to the doll-like figure of Fig. 4. The Figure 50 includes a divided torso comprising an upper section 52 having an upstanding neck 54 and a head 56 connected thereto. The lower end portion of the torso section 52 is pivotally connected to the upper end portion of a lower torso section 58 thus forming a waist position as indicated by the numeral 60. The torso section 58 is provided with opposing hip sections 62 and 63 while the upper torso section 52 includes shoulder representations 64 and 65 and the contour of a female bust line. The arms 66 and 68 and legs 70 and 72 are joined to the torso sections in a manner similar to that described hereinabove for the doll 20. The principal object for forming the doll 50 in this manner is to provide a device which may be used as an aid in securing the proper positions of the human figure in drawing sketches in fashion drawings and the like. It may be seen from an examination of Figs. 7 and 8 that a line 73 extending from the pit of the neck downwardly passes along the leg upon which the weight would be placed if the figure were standing thus pivoting the waist portion toward the side opposite the supporting leg and tilting the shoulders oppositely to the tilt of the hips. The arms 66—68 and legs 70—72 may be divided at their respective elbow and knee positions and pivotally connected by fasteners 35, as shown, to further facilitate natural positioning or representations of the human figure.

It seems obvious from an examination of the figures illustrated in Figs. 1 through 8 that a doll-like device has been provided which is capable of simultaneously representing views normally associated with front and side view positions as well as all the positions therebetween any two of these views.

Referring now to Fig. 9 it may be seen that an animal figure in the form of a pig 75 has been illustrated. The pig 75 includes a torso or body portion 76 having a neck 77 to which is connected a head 78. Rear legs 79 and 80 having upper inner end portions are connected to the rearward end portion of the body 76 on opposing sides thereof and in overlapping relation in a manner similar to that described for the doll 20. Similarly the forelegs 81 and 82 are connected in spaced relation to the shoulder section of the body 76. The rear leg 79 and the fore leg 81 are on the right side of the body 76 while the rear leg 80 and fore leg 82 are disposed on the opposite or left side of the body 76. The right fore leg 81 is substantially of greater length than is the left leg 82 so that when the legs are connected to the body in spaced-apart relation the feet or extreme outward ends of these legs extend substantially the same distance outwardly of the body to produce the appearance of a natural stance for the pig. The dotted line position of this figure illustrates how the pig may be used to imitate a human-like stance.

Similarly the figure illustrated by Fig. 10 indicates how other animals may be formed such as a dog 85, as shown.

The dog 85 is assembled substantially identically with respect to the manner in which the pig 75 is formed. This figure of the dog 85 further illustrates how the devices may be used for facing either right or left and how the contour of the edges and painting or marking may be varied to produce doll or figures as desired, and to represent either the male or female.

Obviously the invention is susceptible to some change or alteration without defeating its practicability, and I therefore do not wish to be confined to the preferred embodiment shown in the drawings and described herein, further than I am limited by the scope of the appended claims.

I claim:

1. An animated figure, comprising: a flat torso having a neck, a pair of shoulders and a pair of hips; a head connected to said neck; arms pivotally connected independently to said shoulders; legs pivotally connected to said torso in alignment with said hips, said legs having upper inner portions in overlapping relation; and a single pivot pin extending through said upper inner portions and through said torso, a line extending between the neck and the pivot pin of said legs passing between the pivot points of said arms, the arm and leg at one side of said torso disposed forwardly of said torso and the arm and leg at the other side of said torso disposed rearwardly of said torso.

2. Structure as specified in claim 1 in which said torso is divided intermediate its length and pivotally joined together in overlapping relation to form a waist portion.

3. Structure as specified in claim 1 in which said arms are of unequal length and form leg-like supports for said torso when the latter is horizontally disposed.

4. An animated figure, comprising: a flat torso having an upstanding neck, a pair of shoulders and a pair of hips; a head rigidly connected to said neck; arms pivotally connected independently to said shoulders; legs pivotally connected to said torso in alignment with said hips, said legs having upper inner portions in overlapping relation; and a single pivot pin extending through said upper inner portions and through said torso, a line extending between the neck and the pivot pin of said legs passing between the pivot points of said arms, the arm and leg at one side of said torso overlying said torso and the arm and leg at the other side of said torso disposed rearwardly of said torso.

5. Structure as specified in claim 4 in which said torso is divided intermediate its length and pivotally joined together in overlapping relation to form a waist portion.

6. Structure as specified in claim 4 in which said arms and said legs are each divided intermediate their ends and pivotally joined together in overlapping relation.

7. An animated figure, comprising: a flat torso having an upstanding neck, a pair of shoulders and a pair of hips; a head rigidly carried by said neck; arms pivotally connected independently to said shoulders; legs pivotally connected to said torso in alignment with said hips, said legs having upper inner portions in overlapping relation; and a single pivot pin extending through said upper inner portions and through said torso, a line extending between the pit of said neck and the pivot pin of said legs passing between the pivots of said arms, the arm and leg at one side of said torso overlying said torso and the arm and leg at the other side of said torso disposed rearwardly of said torso.

8. Structure as specified in claim 7 in which said torso is divided intermediate its length and pivotally joined together in overlapping relation to form a waist portion.

9. Structure as specified in claim 8 is which said arms and said legs are each divided intermediate their ends and pivotally joined together.

10. An animated figure, comprising: a flat torso having a neck and a pair of shoulders; a head connected to said neck; arms pivotally connected independently to said shoulders on opposing sides of said torso; legs pivotally connected to the lower end of said torso, said legs having upper inner portions in overlapping relation; and a single pivot pin extending through said upper inner portions and through said torso, a line extending between said neck and the pivot pin of said legs passing between the pivot points of said arms, one said arm disposed on one side of the line on the forward surface of said torso, the other said arm disposed on the opposite side of the line on the rearward surface of said torso.

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