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M. GELLER

2,448,668

JOINTED MANNEQUIN DOLL

Filed Jan. 26, 1945

FIG. 1.

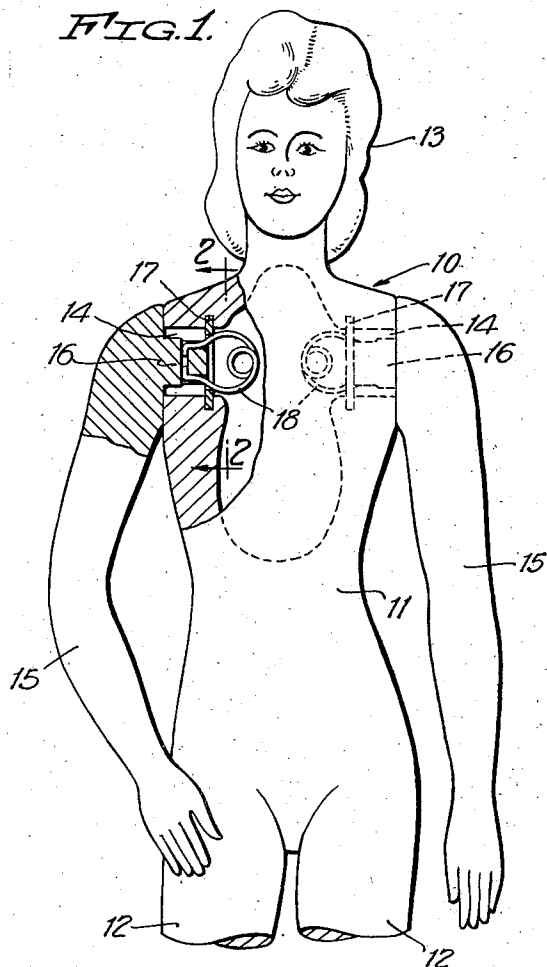


FIG. 2.

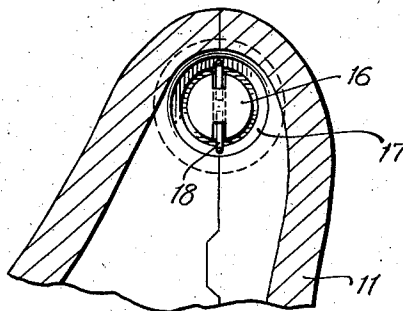


FIG. 3.

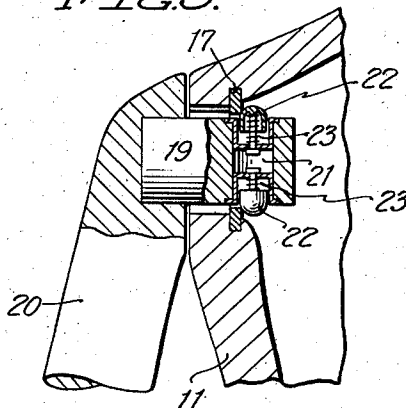
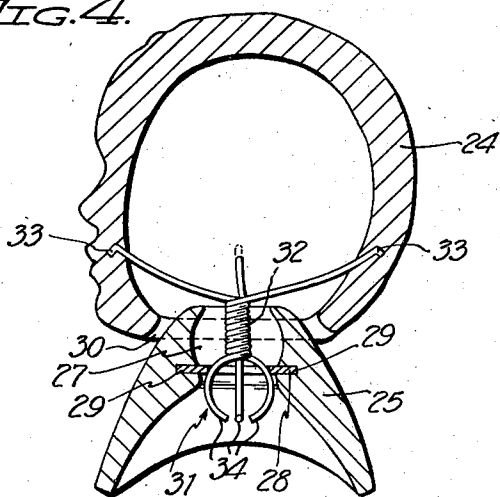


FIG. 4.



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JOINTED MANNEQUIN DOLL

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Original application September 22, 1942, Serial No. 459,233. Divided and this application January 26, 1945, Serial No. 574,708

1 Claim. (Cl. 46—173)

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This application is a division of my co-pending patent application, Serial No. 459,233, filed September 22, 1942, allowed November 10, 1944, and which has now issued under U. S. Letters Patent No. 2,381,897, dated August 14, 1945.

This invention relates to improvements in dolls and more specifically to jointed mannequin dolls.

The primary object of the invention resides in a movable joint for the arms, legs, or heads of dolls which will hold together regardless of expansion and contraction of the joined parts due to climatic conditions such as heat, cold, and moisture.

Mannequin dolls have been constructed of wood-pulp plaster, wax compositions, rubber compositions and other substances which contract and expand due to heat, cold, and moisture which effects the conventional friction pin and socket arm, leg and/or joints with which this type of doll is usually provided. Contraction of the jointed parts causes them to stick and likely to become broken if forcibly loosened, whereas expansion of the same effects a loosening of the jointed parts and subsequent disconnection of the same. It is one of the main features of this invention to provide a compressible joint for compensating for any contraction and expansion of the parts due to extreme changes in temperature and moisture.

Other features of the invention are to provide a joint for the jointed extremity members of dolls which permits the easy separation of the jointed member for packing and shipping purposes; which enables the members to be moved to various fixed adjusted positions relative to the torso of the doll to effect different life-like poses; and which is simple and inexpensive of construction and manufacture.

Other novel features of the invention will become apparent as the following specification is read in conjunction with the accompanying drawings, in which,

Figure 1 is a front elevational view with parts broken away in section of the upper portion of a mannequin doll in which the arms are connected to the torso by my improved joint.

Figure 2 is a detail vertical transverse sectional view on the line 2—2 of Figure 1, looking in the direction of the arrows.

Figure 3 is a fragmentary vertical sectional view of a modified form of joint.

Figure 4 is a fragmentary vertical sectional view through a further modified form of joint.

Referring to the drawings by reference characters, the numeral 10 designates a doll of the

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mannequin type which includes a hollow torso body 11 having integral lower extremities or legs 12—12, and an integral head 13. The doll body 11 may be constructed of various materials such as molded wood pulp, rubber composition, plaster, or the like, and which materials are susceptible to expansion and contraction due to heat, cold and moisture. The opposite sides of the body 11 adjacent the shoulders of the doll figure are flat and vertical and opening through these flat surfaces are aligned bores 14—14 of uniform diameter. The hollow body 11 is molded of two sections, and the said sections fastened together, and it often happens that if the wedging action between the arm member and the body is excessive due to expansion or contraction of the parts, the two sections of the body may be broken apart. Each arm member 15 has an integral pin or projection 16 which is of a smaller diameter than the diameter of the opening 14. Set into the walls of each opening 14 is a metal keeper ring 17, the interior diameter of which is less than the diameter of the opening 14. In mounting the keeper ring 17 in position, the same is arranged in concentric relation with respect to the axis of the opening 14. Carried by and extending from the end of the pin 16 is a resilient wire double loop member 18, the terminal ends of which extend into transverse holes or openings 19 in the pin 16. Normally the outer loop of the loop member 18 is greater than the diameter of the opening in the keeper ring 17 which requires that the loop member be forcibly inserted through the ring member to effect a connection. The loop member 18 is capable of contracting to a size to permit its insertion through the ring member 17 as shown in the drawing, after which insertion the loop engages behind the keeper ring and interlocks with the rear inner peripheral edge thereof. The resilient connection just described permits of swinging movement of the arm member 15 to various positions of adjustment and permits of the separation of the arm member from the torso body 11.

In Figure 3 of the drawing, a wooden pin 19 has one of its ends embedded in an arm member 20. Slidably mounted in a transverse bore 21 provided in the pin 19 are diametrically opposed locking pins 22—22, each of which is provided with a rounded outer end in order to cam over the keeper ring 22 when the pin 19 is inserted there-through. The rounded end of each pin 22 is extended outwardly by a spring 22, there being stop means for limiting the outward extended movement of the locking pin. In this form of the in-

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vention, the pins 22—22 are forced to their retracted positions against the action of the spring when the pin 19 is inserted through the keeper ring 22, and after the rounded ends of the pins clear the keeper ring, the said ends engage behind the keeper ring and prevent the accidental separation of the arm member 20 from the doll body 11.

Heretofore I have mentioned that the resilient joint connection may be embodied for movably connecting an arm, leg, or head to the body of a doll, and in Figure 4, I have illustrated a doll's head 24 as being detachably and resiliently connected to a neck member 25, and which neck member is of the type conventionally used in connection with dolls having stuffed bodies instead of rigid bodies as hereinbefore mentioned. In this form, the neck member 25 is provided with an opening 27 in which a keeper ring 28 is fixedly mounted. The neck member 26 is molded in two sections with the sections fastened together, thus the sections may be provided with semi-circular shaped recesses 29 in which the keeper ring 28 is set. The head 24 is of hollow construction and is open at its bottom as at 30. Carried by the interior of the head 24 and extending through the opening 30 is a resilient jaw member 31. The jaw member 31 herein shown consists of four separate pieces of spring wire twisted together intermediate their ends to provide a twisted shank 32. The lower terminal ends of the wire are of substantially hook shape, and are arranged in equidistant spaced radial relation. The upper terminal ends of the wires extend in spider fashion, and are fixedly secured to the interior of the doll head 24 as at 33. Normally, the hooked jaws 34 which are arranged in globular formation are expanded to a degree that they cannot be inserted through the opening in the keeper ring 29 unless contracted, and this contraction occurs when the jaws 34 are forcibly inserted through the keeper ring 28 to the position shown in Figure 4. This construction provides a flexible joint between the head and the neck of a doll to facilitate adjustment of the head rela-

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tive to the neck, and functions regardless of any expansion or contraction between the joined parts. The head 24 may be separated from the neck member 26 by forcibly pulling upon the head to cause the expanded jaws 34 to be contracted as they are forcibly pulled through the openings in the keeper ring 28.

While I have shown and described what I consider to be the most practical embodiment of my invention, I wish it to be understood that such other modifications in construction and design as come within the scope of the appended claim may be resorted to if desired.

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

In a doll having a hollow body with a round opening therein, a keeper ring securely mounted in said opening and concentric relative thereto, the interior diameter of the ring being less than the diameter of said opening, a member having a reduced projection extending into said opening, and a spring loop member larger than the inside diameter of said ring, carried by said reduced projection and extending through the opening in the keeper ring and having interlocking engagement with the inner peripheral edge of the ring member.

MAX GELLER.

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