May 20, 1958 J. WEIH 2,835,076

WALKING DOLL

Filed March 8, 1957

FIG. 1.

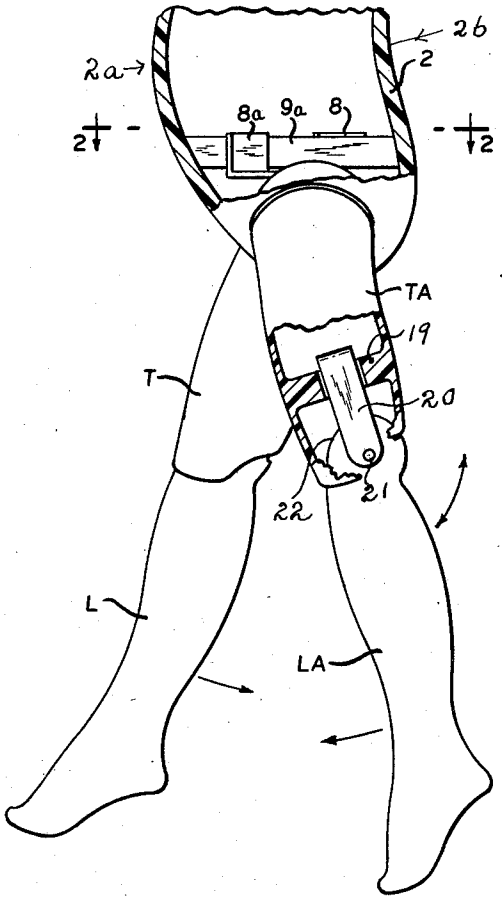


FIG. 3.

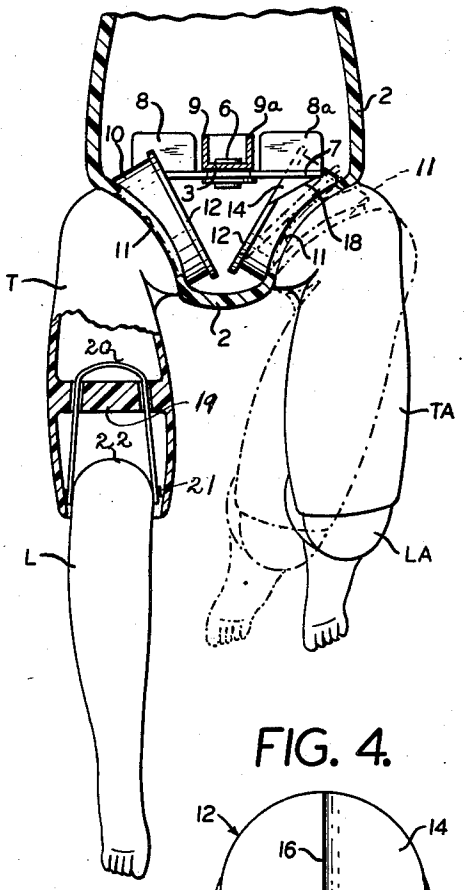


FIG. 4.

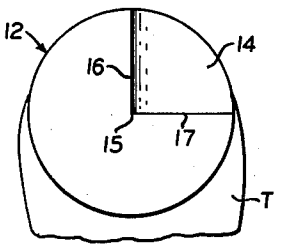


FIG. 2.

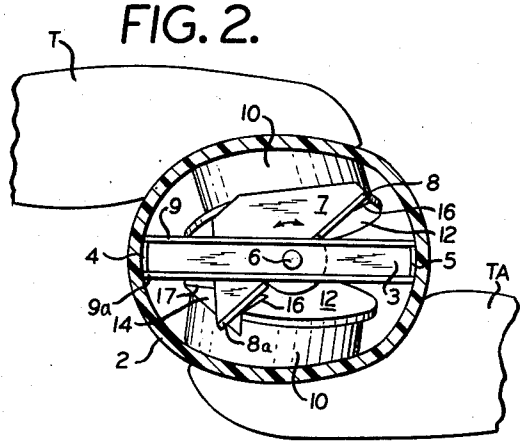
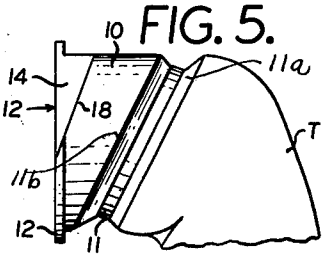


FIG. 5.



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WALKING DOLL

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3 Claims. (Cl. 46—149)

My invention relates to a doll of simple and sturdy construction, said doll being a walking doll which is adjustable to a sitting position and to a cross-thigh sitting position.

The invention is explained in the annexed drawings and in the following description.

Fig. 1 is a side elevation, partially in transverse vertical cross-section.

Fig. 2 is a section on the line 2—2 of Fig. 1.

Fig. 3 is a front elevation, partially in lateral vertical cross-section.

Fig. 4 is a detail end elevation showing the top extension of the thigh and its end-collar.

Fig. 5 is a detail side elevation of thigh, and its top extension.

The doll has a torso **2**, which has a front wall **2***a* and a rear wall **2***b*. This torso **2** may be a one-piece molded torso, which is resilient, flexible and stretchable.

The lower limbs are identical, save that the top extensions of the thighs T and TA are oppositely inwardly inclined towards the vertical axes of the torso **2**. Also, the leg-parts L have respective right and left feet.

As shown in Fig. 3, each thigh T and TA has a top extension **10**, which has an axis which is inclined at an angle of about 45 degrees to the main body of said thigh.

As shown in Fig. 5, each said extension **10** has a groove **11**, which has walls **11***a* and **11***b*. The drawings are substantially to scale, and reference is made thereto as part of the disclosure.

As also shown in Fig. 5, each said thigh-extension **10** has a collar **12**.

Fig. 4 is an end-view which shows the details of collar **12** and the respective part of the thigh extension.

As shown in Figs. 4 and 5, each said collar **12** has a recess **14**, which extends into the proximate end of the respective thigh-extension **10**.

Each said recess **14** has a right-angular shape, as viewed in the end view of Fig. 4.

As viewed in Fig. 4, said recess **14** has an edge **16** in collar **12** and said edge **16** has an end-point **15**, which is concentric with the circular part of the edge of collar **12**.

As shown in Fig. 5, said recess **14** is tapered, to provide an inner, planar end-wall **18**, whose plane is inclined to the plane of the exposed face of collar **12**.

In the plane of collar **12**, said recess **18** has an edge **17**, which is perpendicular to the edge **16**.

The illustrated walking movement which is provided by plate **7** may be replaced by other types of walking movement.

The transverse horizontal web **3** has a front flange **4** and a rear flange **5**, which are fixed respectively to the front and rear walls **2***a* and **2***b* of the torso.

Said web **3** has vertical, transverse flanges **9** and **9***a*.

A plate **7** is located below web **3**. A vertical pivot **6** turnably connects plate **7** to web **3**, so that plate **7** can be oscillated in the usual manner.

Said pivoted plate **7** has upstanding flanges **8** and **8***a*.

This walking movement is novel, although a pivoted oscillating member is old.

The torso **2** has the usual hip-sockets, whose edge-walls are flexible, resilient and stretchable.

The top extensions **10** of thighs T and TA can be inserted into torso **2** through the openings of said hip-sockets, until the edge-walls of said hip-sockets are seated in the grooves **11**. When the thigh-extensions **10** are thus assembled with the torso, each edge-wall of each hip-socket is located between and contacts with the respective groove-walls **11***a* and **11***b*.

In said inserted position, one flange **8** is located in the respective recess **14**, and the other flange **8***a* is located in the other recess **14**.

When both thighs T and TA are in the vertical position, the respective vertical flanges **8** and **8***a*, as shown in Fig. 2 and Fig. 3, have their outer vertical edges in contact with the respective edges **16** and said outer vertical edges of flanges **8** and **8***a* extend about midway into the recess **14**, as measured on the horizontal lateral line of Fig. 3. That is, when both legs are vertical, the flanges **8** and **8***a* do not contact with the inner end-walls **18** of recesses **14**.

When both thighs T and TA are in vertical position, one of said thighs T and TA is turned rearwardly in its hip-socket, a bearing for this purpose being provided by the respective groove **11** and the edge-walls of the respective hip-socket.

When a thigh T or TA is thus turned rearwardly in its hip socket, the respective vertical edge **16** pushes against the respective vertical flange **8** or **8***a*, thus turning plate **3** around its pivot **6**, and thus turning the other thigh forwardly in its hip socket.

Each thigh T and TA has a diaphragm **19**. This diaphragm **19** may be cup-shaped, and the rounded top end **22** of each leg L may fit in such cup-shaped diaphragm **19**, to provide a bearing for the leg L.

A U-shaped metal clip **20** has arms which are anchored in and extend through openings of each diaphragm **19**. The arms of said clip **20** are pivoted by pivots **21** to legs L.

One end of an elastic (not shown) may be fixed to the cross-arm of clip **20**, and the upper end of said elastic may be fixed to a cross-pin in the respective thigh. Any knee-joint may be provided.

Sitting position

Both thighs T and TA may be turned forwardly, while the edge-walls of the two hip-sockets are seated in the respective grooves **11**, thus adjusting the thighs to a sitting position, without crossing the thigh.

Sitting and crossed-thigh position

When both thighs T and TA are in the sitting position, one or both thighs can be adjusted relative to the torso **2**, in order to cross said thighs.

For this purpose, the thigh can be turned relative to the hip-socket, while the thigh is in forward horizontal position, so as to move the groove **11** outwardly of the hip-socket, to the broken-line position of Fig. 3. In said position, the unrecessed part of the edge-flange of collar **12** abuts the inner face of the respective part of the wall of the respective hip-socket, so that collar **12** then acts as a stop.

Each thigh T and TA can thus be easily shifted or adjusted into cross-position, and back to the fully inserted position shown in Fig. 2 and Fig. 3.

The thighs T and TA, including their collars **12**, are of one-piece molded construction, and said thighs are flexible and resilient. Optionally, either the torso **2** or the thighs T may be rigid, but there is enough flexibility at each hip-socket, due to the flexibility of both the torso

2 and the thighs T and TA, or due to the flexibility of either the torso 2 or the thighs T and TA, to permit the collars 12 to be inserted through the hip-sockets, and to permit the easy removal of the groove-walls 11*b* from the hip-sockets, to shift the respective groove 11 to the broken-line position of Fig. 3.

The walking movement may be omitted without departing from the spirit of the invention. Even without the walking movement, I provide a very simple, cheap and efficient construction to adjust the doll to a crossed-thigh position.

If the walking movement is omitted, as is optional, the recesses 14 may be omitted. In such case, each collar 12 has a complete circular edge.

While only one thigh may be movable outwardly to the broken-line position of Fig. 3 to a thigh-cross position, it is preferred that both thighs are thus outwardly movable.

During the walking movement of said thighs T and TA, the flanges 8 and 8*a*, which are at opposite sides of pivot 6, extend at all times into the recesses 14.

However, when both thighs T and TA are in forward, horizontal sitting positions, either in crossed or uncrossed position, said flanges 8 and 8*a* are out of said recesses 14.

Hence the recesses 14 are important for providing a walking doll which can also be adjusted to sitting position with the thighs crossed or uncrossed, but they are not necessary if the walking feature is omitted.

If the walking feature is included, and the thighs T and TA are moved from sitting position back to vertical position, the flanges 8 and 8*a* are restored to proper walking position.

That is, the vertical transverse flanges 9 and 9*a* of the web 3, limit the turning movement of flanges 8 and 8*a* relative to the vertical axis of pivot 6. Hence said flanges 8 and 8*a* can not move out of meshing position relative to the recesses 14, when the thighs are shifted from forward sitting position to vertical position.

I claim:

1. In combination, in a doll a torso which has a hip-socket, a thigh member which has an extension at its upper end, said extension being inclined inwardly relative to the body of said thigh member towards the axis of the torso, said extension having a stop-collar at its end, said extension also having a circumferential groove therein spaced longitudinally therealong from said stop collar, said collar and extension being insertible into said torso through the opening of a hip-socket in a fully inserted position of said collar, said opening having an edge-wall which is seated in said groove when said collar is thus fully inserted, said extension being movable longitudinally along its length outwardly relative to said hip-socket to a position in which said groove is spaced outwardly from the edge-wall of said opening of said socket and said collar abuts the inner face of said edge wall; said thigh being forwardly turnable in said hip-socket to a forward sitting position, said thigh being thus movable outwardly relative to said hip-socket to a thigh-crossing position.

2. In a combination in a doll, a torso which has a hip-socket, a thigh member having an extension at its upper end being inclined inwardly relative to the body of said thigh member towards the axis of the torso, said extension having a stop-collar at its end and a circumferential groove therein, said collar being insertable into said torso through the opening of the hip-socket in a fully inserted position of said collar, said opening having an edge-wall which is seated in said groove when said collar is thus fully inserted, said extension being movable longitudinally along its length outwardly relative to said hip-socket to a position in which said groove is spaced from the edge-wall of said opening of said socket and said collar abuts the inner face of said edge-wall, said thigh being forwardly turnable in said hip-socket to a forward sitting position, said thigh being thus movable outwardly relative to said hip-socket to a thigh-crossing position, each said thigh has a tapered recess extending from a part of said collar into the respective extension, each said recess having an edge in the respective collar, said torso has a pivoted walking device within said torso and connected to said torso, said pivoted walking device having flanges at the opposite sides of the pivot of said pivoted walking device, said flanges substantially abutting said edges in said collars when both thighs are vertical, said flanges extending into said recesses during the walking movement of said legs; said torso having means to limit the turning movement of said walking device to maintain said flanges in meshing position with said recesses, when said thighs are returned from sitting position to walking position.

3. A thigh construction for a doll having a torso, said torso having a hip-socket opening defined by resilient walls in which a thigh is received, a thigh including an inwardly directed extension having an end collar to be received in said torso through said opening, said end collar having a shoulder larger than said opening to prevent the removal of the collar and thigh from the opening and torso, said thigh being movable longitudinally along the length of its extension within said opening, and a groove in said extension extending peripherally thereabout at an angle relative to said collar, said groove being of a diameter smaller than that of said opening to receive and retain the resilient walls of said torso opening therein.

References Cited in the file of this patent

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