

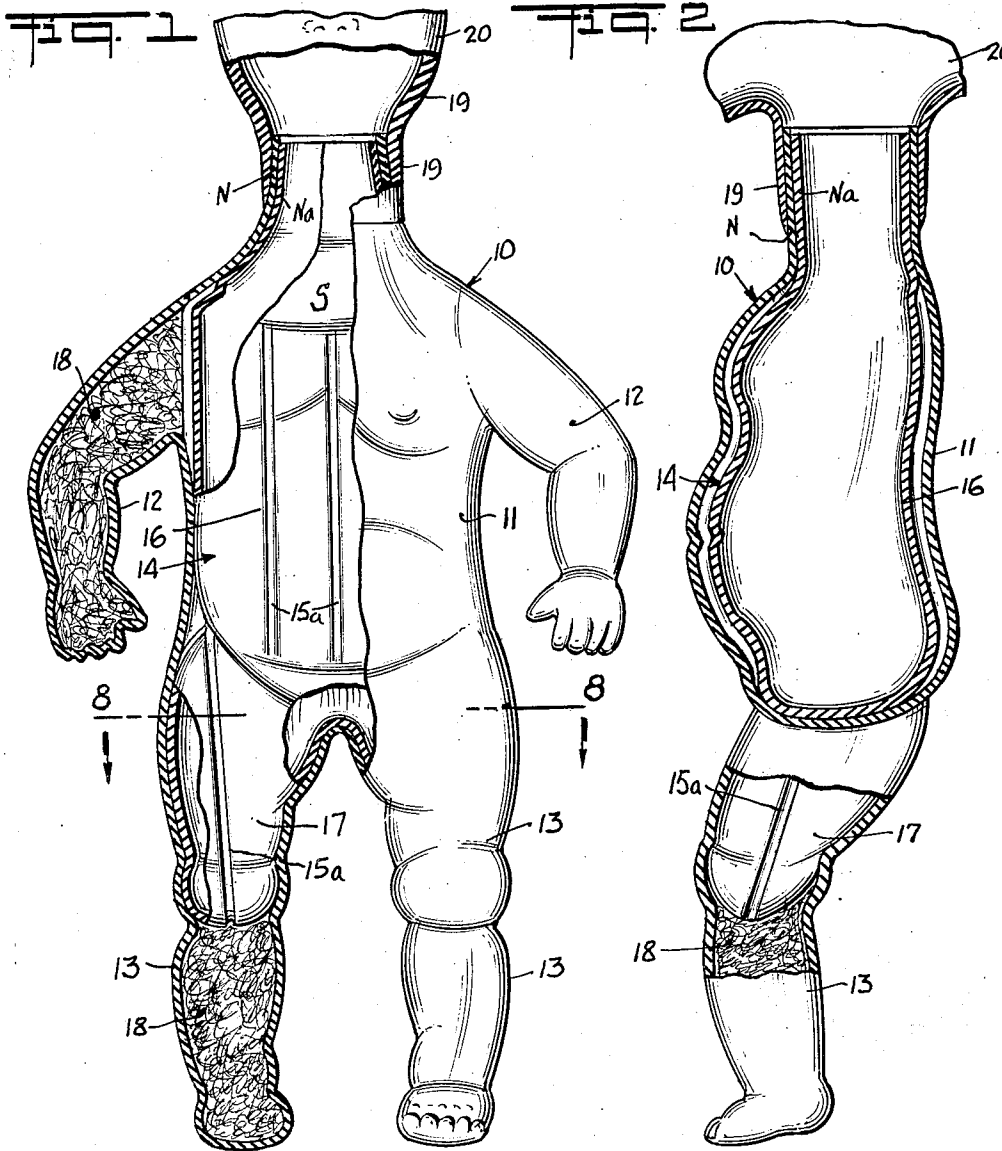
May 22, 1951

C. L. BEAL
RUBBER DOLL

2,554,001

Filed Dec. 29, 1947

3 Sheets-Sheet 1



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FIG. 3

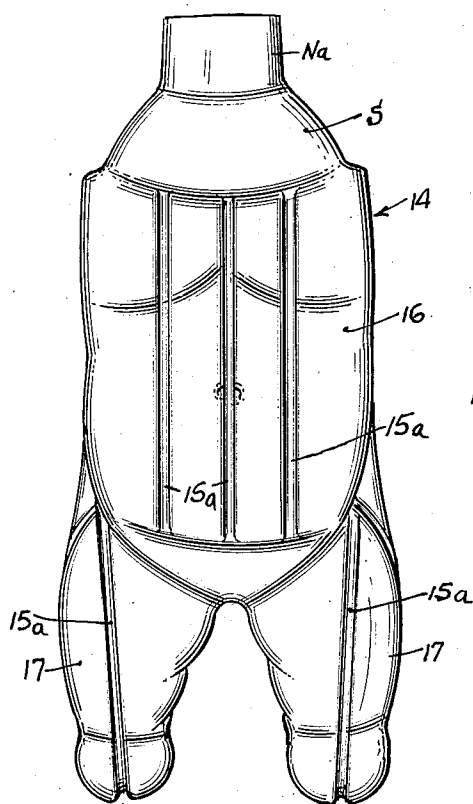


FIG. 4

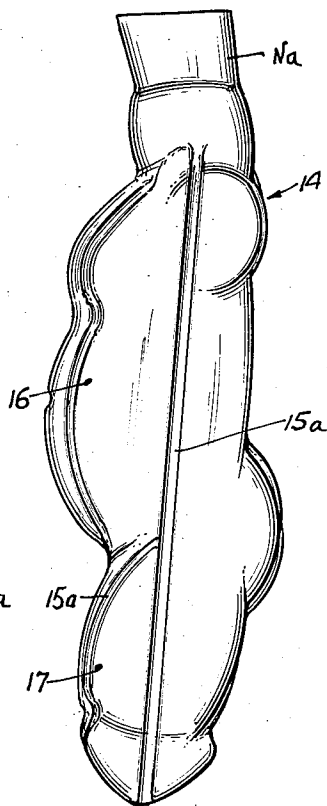
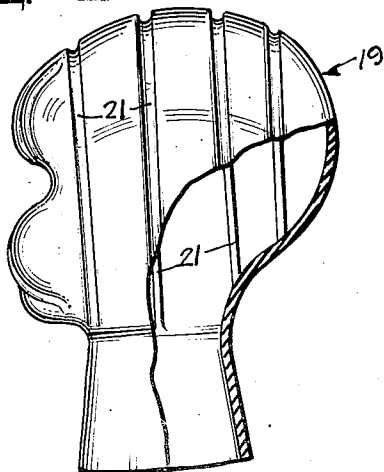


FIG. 5



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FIG. 5

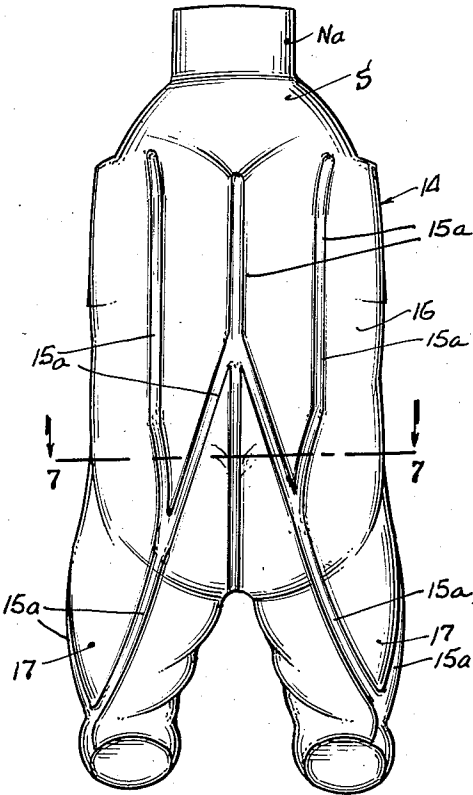


FIG. 2

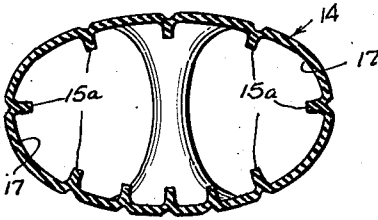
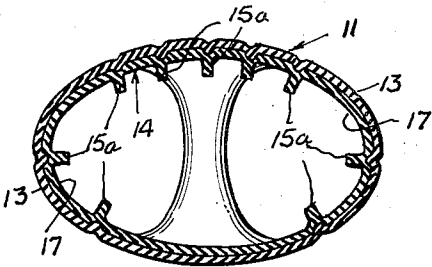


FIG. 3



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RUBBER DOLL

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3 Claims. (Cl. 46—156)

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My invention relates to a new and improved doll.

The principal object of my invention is to provide a doll which has a hollow and resilient and bendable body, and which is provided with an internal hollow and resilient and bendable insert, in order to eliminate the necessity of using stuffing material such as cotton, kapok and other stuffing materials, save that such stuffing materials may optionally be used in parts of the legs and arms of the doll.

It has heretofore been well known to provide dolls with bodies which are made of flexible and resilient material, such as vulcanized rubber. Such bodies have convex or protruding portions, as at the stomach portion of the body. When the heads of such dolls are made of flexible and easily bendable material, such heads are also provided with convex or protruding portions, as at the cheeks of the head.

If such doll bodies and heads are hollow and they are squeezed inwardly at their protruding portions, such protruding portions permanently collapse. It has therefore been found necessary to use stuffing materials. The use of such stuffing materials increases the weight of the doll and its cost of manufacture, and such stuffing materials are often objectionable because they absorb moisture.

According to my invention, I provide the hollow and flexible and resilient unstuffed body of the doll with a flexible and resilient and unstuffed insert. I also reinforce said insert by means of one or more internal reinforcing ribs which are bendable and resilient.

Further objects and advantages of my invention are stated in the annexed description and drawings which illustrate a preferred embodiment thereof.

Fig. 1 is a front elevation, partially in vertical section, showing the body of the doll and a part of its head.

Fig. 2 is a transverse longitudinal section, partially in side elevation, of Fig. 1.

Fig. 3 is a front elevation of the body-portion insert.

Fig. 4 is a side elevation of Fig. 3.

Fig. 5 is a side elevation, partially in vertical section, of the reinforcing head insert.

Fig. 6 is a rear elevation of the body-portion insert.

Fig. 7 is a section along the line 7—7 of Fig. 6.

Fig. 8 is a section along the line 8—8 of Fig. 1.

The drawings are substantially to scale and reference is made thereto as part of the disclosure.

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The outer, hollow doll-body 10 is made of any suitable flexible and resilient material, such as vulcanized rubber or a suitable flexible and resilient plastic or the like. Said doll-body 10 is provided with a hollow body portion 11, hollow arms 12, and hollow legs 13. At its top, said doll-body 10 is provided with a neck N.

Said body portion 11 has a convex front wall. This doll-body 10 is easily bendable, so that the inner face of any wall part thereof can be squeezed inwardly to contact with the inner face of the opposed wall part. This applies especially to the front and rear walls of said body-portion 11 and the side walls thereof. If the body-portion 11 is thus squeezed inwardly to a small extent, it has sufficient resilience to return said body-portion 11 to the selected normal shape shown in the drawings. However, if the convex front wall of said body-portion 11 is squeezed too far, said convex front wall remains collapsed.

The body portion 11 is preferably integral with arms 12 and legs 13. Such a doll-body 10 can be made by dipping a form into latex, forming a film of latex and vulcanizing said film and stripping it from the form. The body portion 11 may be integral only with the arms 12 or legs 13.

The hollow insert 14 is also made of bendable and resilient material, such as vulcanized rubber or a suitable bendable and resilient plastic or the like. This insert 14 is easily bendable and squeezable, so that the inner face of its front wall may be squeezed into contact with the inner face of its rear wall, and the same applies to other opposed wall-portions of insert 14. This insert 14 has a convex front wall. If not for the internal bendable and resilient reinforcing ribs later described, excessive squeezing of insert 14 would cause it also to remain collapsed, especially at its convex wall. By means of said reinforcing ribs, such collapse is prevented, and the resilience of insert 14 is sufficient to return it to the selected normal shape.

The insert 14 has a body 15, a shoulder portion S, a throat portion Na, and leg extensions 17 which are closed at their bottom ends. These parts are preferably integral with each other, and said insert 14 can be made by dipping and vulcanizing as above mentioned. The insert 14 is provided with a series of internal and integral ribs at the respective longitudinal lines, said ribs being designated as 15a. Each said internal rib is aligned with an outer longitudinal recess in the respective wall of said body-portion insert 14.

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The dipping form which is used for making insert 14 may have a series of recesses which correspond to said internal ribs and to said outer recesses of insert 14. The invention is not limited to any respective method or device for making the outer hollow body 10 or the insert 14, although dipping is preferred.

As shown in Fig. 3, the front wall of the body 16 of the insert 14 is provided with three longitudinal or vertical ribs 15a, which are located between the shoulder portion S and the crotch-portion of the insert 14. At its front, each leg extension 17 of the insert 14 is provided with two longitudinal ribs 15a, as shown in Fig. 8.

As shown in Fig. 4, each side wall of the body 16 of the insert 14 is provided with a single side longitudinal rib 15a, which extends into the respective leg extension 17.

As also shown in Fig. 4 and Fig. 8, the side rib 15a of each leg member 17 is integral with the respective side rib 15a of the body 16.

As shown in Fig. 6, the rear wall of the body 16 of the insert 14 is provided with three vertical or longitudinal ribs 15a. Each rear vertical or longitudinal rib 15a is transversely aligned with a respective front vertical rib 15a. As also shown in Fig. 6, the median rib 15a of the rear wall of the body 16 extends substantially to the crotch-portion of the insert 14. At its rear, each leg member 17 is provided with a rib 15a, as shown in Fig. 8.

At its top, the rear rib 15a of each leg extension 17 is integral with the laterally outer rear ribs 15a, and extensions of the rear ribs of said leg extensions are integral with the median rib of the rear wall of body 16, between the top and bottom of said median rear rib.

Due to its flexibility, the insert 14 can be easily inserted into the finished outer body 10 of the doll, through the neck portion N of the outer body 10. When assembled, the neck Na of the insert 14 then optionally fits snugly and frictionally within the neck N of the outer body 10, in order to retain insert 14 in assembled position. As shown in Fig. 2, the crotch-portion of the assembled insert 14 interfits with and abuts the crotch-portion of the outer doll-body 10. The leg extensions 17 of the insert 14 optionally fit snugly and frictionally within the upper parts of the leg members 13. The lower parts of the leg members 13 are optionally filled with stuffing 18. The invention is not restricted to any respective length of the leg extensions 17.

In this embodiment, the insert 14 does not have any arm portions, and the arms 12 of the outer body 10 are therefore optionally filled with stuffing 18.

As also shown in Fig. 2, the convex front wall of the body 16 of the insert 14 is spaced inwardly from the convex front wall of the body-portion 11 of the outer doll-body 10. Similarly, the rear wall of the body 16 of the insert 14 is spaced inwardly from the rear wall of the body-portion 11 of the outer doll-body 10.

As shown in Fig. 2, a part of each side wall of the body 16 of insert 14 optionally abuts a part of the side wall of the body 11 of the outer doll-body 10. This area of contact may be made as large as desired, and the stuffing 18 in the arms 12 may extend up to the side walls of the body 16 of the insert 14.

By means of this construction, if the stomach portion of the outer doll-body 10 is pressed slightly inwardly, the body 16 of the insert 14 is not flexed, so that the doll-body 10 can be

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easily squeezed like an ordinary unstuffed doll within a selected limited range. If the outer doll-body 10 is squeezed beyond this range, it is reinforced by the flexible and resilient insert 14, thus preventing collapse of the outer doll-body 10, especially at its convex part or parts, which otherwise would be caused by excessive squeezing. Due to the internal rib reinforcement of the insert 14, said insert 14 cannot be permanently collapsed even if the front and rear walls of its body 16 are pressed into contact with each other. Similarly, the leg portions 17 cannot be permanently collapsed, due to the improved reinforcing rib construction.

It is advantageous to provide an insert, in order to make a doll body of the usual smooth outer shape, but it is within the scope of my invention to apply the improved rib construction to any part of a hollow doll body. Thus, the outer hollow doll-body 10 can be molded or dipped or otherwise made, so as to provide the improved internal and resilient rib construction, without departing from the scope of the invention.

The bendable and resilient and hollow reinforcing head-insert 19 can be provided with a series of internal and resilient ribs 21, which have the same function and action as the ribs 15a. This hollow head-insert 19 can be inserted into a hollow head which is made of bendable and resilient vulcanized rubber or other suitable material.

If desired, the member 19 can be the head portion of the doll. This member 19 has a bottom neck portion which fits frictionally upon the neck portion N of the outer body 10. The neck portions of the respective members may be optionally permanently connected to each other, as by means of adhesive or the like.

Depending upon the size of the doll, the number of ribs in the front wall and in the rear wall of the body 16 of the insert 14 can be varied, and I do not limit the invention to any specific number of ribs or to the location of the ribs shown in the drawing.

As shown in Fig. 8, the internal wall of leg 13 has internal projections which interfit with the outer recesses of insert 14.

While I have shown a preferred embodiment of my invention, it is clear that numerous changes, additions and omissions can be made without departing from its scope.

I claim:

1. A doll comprising a hollow and bendable and resilient and unstuffed outer body having a normal selected unsqueezed shape and being deformable from said unsqueezed shape by lateral pressure thereon, means for yieldingly retaining said outer body in said selected shape in the absence of lateral pressure thereon, said retaining means comprising a hollow and bendable and resilient and unstuffed reinforcing insert located in said body and having a normal selected unsqueezed shape, said insert being adapted to be deformed to a squeezed shape by lateral pressure thereon, said insert having a resilient and bendable wall which has internal and longitudinal resilient stiffening ribs which are spaced from each other, said ribs being of sufficient length and sufficiently close to each other and of sufficient resilience in conjunction with the resilience of said insert wall to return said insert from its squeezed shape to its unsqueezed shape when lateral pressure is removed therefrom, said insert wall having insufficient

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resilience to return it from said squeezed shape to said unsqueezed shape in the absence of said ribs.

2. A doll in accordance with claim 1, in which said outer body has a bottom wall and side walls and a front convex wall and a rear wall, said insert body having a bottom wall which abuts the bottom wall of said outer body, said insert body and said outer body having respective interfitting throat portions, said insert body having front and rear walls which are spaced internally from the front and rear walls of said outer body, said outer body and said insert being sufficiently bendable under applied pressure to contact the inner faces of the front and rear walls of said insert.

3. A doll comprising a hollow and bendable and resilient and unstuffed outer body having a normal selected unsqueezed shape and being deformable from said unsqueezed shape by lateral pressure thereon, means for yieldably retaining said outer body in said selected shape in the absence of pressure thereon, said retaining means comprising a hollow and bendable and resilient and unstuffed reinforcing insert located in said body and having a normal selected unsqueezed shape, said insert being adapted to be deformed to a squeezed shape by pressure there-

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on, said insert having internal resilient stiffening ribs, means for resiliently maintaining said ribs in spaced relationship, said ribs being of sufficient size and sufficiently close to each other, and of sufficient resilience in conjunction with the resilience of said maintaining means to return said insert from its squeezed shape to its unsqueezed shape when pressure is removed therefrom, said insert having insufficient resilience to return said insert from said squeezed shape to said unsqueezed shape in the absence of said ribs.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
2,027,225	Gill	Jan. 7, 1936
2,119,499	Spanel	May 31, 1938
2,193,069	Krueger	Mar. 12, 1940

FOREIGN PATENTS

Number	Country	Date
8,118	Great Britain	Dec. 1, 1915