W. P. DUN LANY.

DOLL OR THE LIKE.

APPLICATION FILED MAY 4, 1917.

1,273,469. Patented July 23, 1918.

Fig. 1.

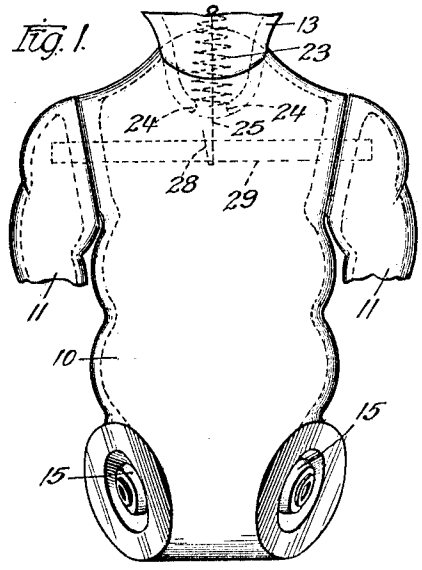


Fig. 2.

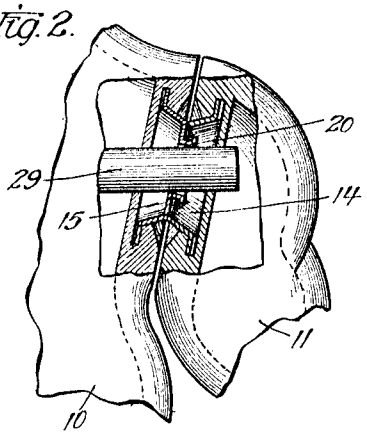


Fig. 3.

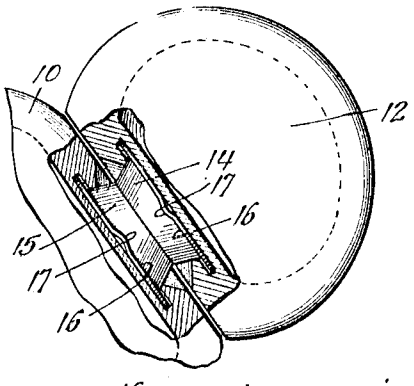


Fig. 4.

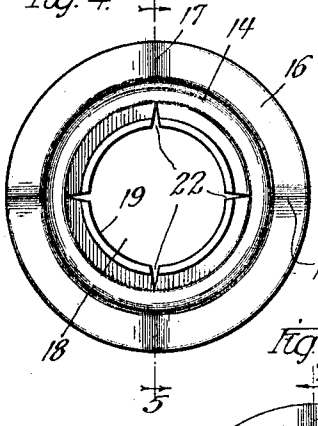


Fig. 5.

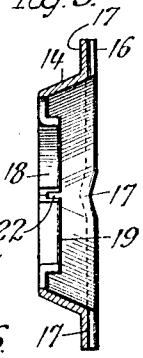


Fig. 6.

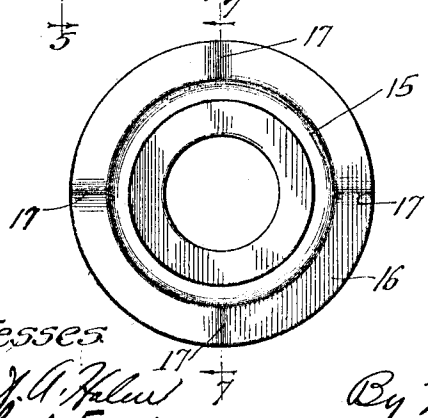


Fig. 7.

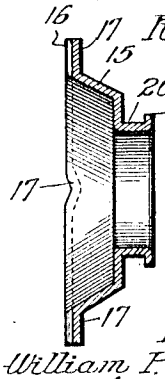
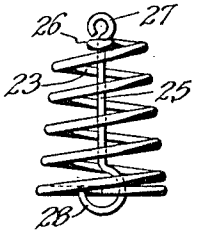


Fig. 8.



Witnesses

Robert A. Kelly

Robert H. Weir

Inventor

William P. Dun Lany

By Miller, Chindahl & Casper

Attys.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

WILLIAM P. DUN LANY, OF CHICAGO, ILLINOIS, ASSIGNOR TO SEARS, ROEBUCK AND COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF NEW YORK.

DOLL OR THE LIKE.

1,273,469. Specification of Letters Patent. Patented July 23, 1918.

Application filed May 4, 1917. Serial No. 166,314.

To all whom it may concern:

Be it known that I, WILLIAM P. DUN LANY, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Dolls or the like, of which the following is a specification.

This invention relates to dolls or like figures and the general object of the invention is to provide a novel and improved means for securing the head and the limbs to the torso.

A special object is to provide improved means for attaching the arms and legs in a manner which is firm and secure and yet allows rotative adjustment thereof with respect to the torso.

Another object is to provide improved means for securing the head or neck section to the torso in a manner allowing the said section to be adjusted into different rotative and angular positions with respect to the torso.

A further object is to provide securing means for the limbs and head which is especially adapted for use with dolls or the like made of hardened plastic material.

Further objects and advantages relating to specific features of construction will be fully understood from a perusal of the following description.

In the accompanying drawings, Figure 1 is a front elevation of a doll or like figure embodying the features of my invention, portions of the arms and head being broken away and the legs being removed from the torso. Fig. 2 is an enlarged fragmental view with the arm-securing means shown in section. Fig. 3 is a view showing a fragment of the torso and the thigh portion of one of the legs, said parts being sectioned away to illustrate the securing means in elevation. Fig. 4 is an elevational view of one of the elements for securing a limb to the torso. Fig. 5 is a section on line 5—5 of Fig. 4 looking in the direction of the arrows. Fig. 6 is an elevational view of the complementary securing element, and Fig. 7 is a section on line 7—7 of Fig. 6 looking in the direction of the arrows. Fig. 8 is an elevational view of the spring and link for securing the head section to the torso.

For the sake of imparting a full and clear understanding of the particular embodiment of my invention which I have selected for purposes of illustration, I will herein describe the said embodiment in detail, but it should be understood that I do not thereby intend in any way to limit my invention, the scope of which will be pointed out in the appended claims.

In the present embodiment, the doll is made of plastic material molded to a form simulating a small baby, the torso and also the limbs and head being made hollow, the material used being such that it becomes very hard when dry. The torso is indicated by reference numeral 10. 11 designates the arms, 12 one of the legs and 13 the head or neck section.

The means herein shown for securing each limb to the torso comprises two metallic elements 14 and 15, including base portions of dished shape having laterally protruding portions such as peripheral flanges 16 which are arranged to be embedded in the material of the torso or the limb. In order to prevent rotation of the base portions of the elements in the material in which they are embedded, suitable projections or ribs such as 17 may be formed on the flanges 16 to interlock with the material. The base portions of the elements 14 and 15 have flat faces arranged to lie alongside each other when associated and the base portion of one element 14 has a hole or socket 18 preferably surrounded by an annular rim member or flange 19, while the base portion of the other element 15 has an annular member or projection 20 provided at its end with a shoulder or flange 21, said projection being adapted to pass through the socket, and the flanges 19 and 21 being arranged to engage each other to securely hold the elements together but permit relative rotation thereof. At least one of the elements is sufficiently resilient to permit the projection to spring through the socket. In the present instance the socket element 14 is provided with radial slots 22 communicating with the central aperture to increase the resiliency. Other forms of elements may be used.

In securing a limb to the torso, the limb is simply pressed toward the torso with sufficient force to pass the projection through the socket and cause the socket flange 19 to engage behind the flange or shoulder 21 on the projection. The two elements 14 and 15 will then be securely and permanently in-

terlocked but with allowance for relative rotation so that the limb may be turned to any desired degree about an axis coinciding with the axis of the projection and socket, which axis is at right angles to the flat abutting faces on the limb and torso surrounding the securing elements.

The upper end of the torso has a central socket to receive the lower end of the head or neck section 13 and allow either rotative or angular movement of the latter. The head or neck section is held in the socket by yieldable means which in the present instance comprises a coiled compression spring 23 within the said section, said spring being rotatably insertible thereinto through an opening 24 in the lower end of the section, and the spring being of larger diameter than said opening so that it will be prevented from accidental escape downward through the opening. To the upper end of the spring is attached a connecting member or link 25 which preferably has a swivel connection with the spring as by forming an eye 26 on the end of the spring through which eye the link passes to the limit allowed by a stop 27 on the upper end of the link. The link passes down centrally through the spring and through the opening 24 and has a hook or loop 28 on its lower end. An inflexible or rigid anchor rod 29 passes transversely through the torso and the hook 28 engages said rod. It will be seen that the head or neck section will be yieldingly secured to the torso no matter what position of rotative or angular adjustment the head may occupy. The swivel joint 26, 27 contributes to the flexibility of the connection.

The ends of the anchor rod 29 pass through the central openings in the arm-securing elements 14 and 15 and disengagement of either end from the securing elements is prevented in the present instance by making the rod of such length that its ends extend into the arms a sufficient distance so that escape of either end is made impossible by reason of the abutment of the opposite end of the rod with the adjacent wall of one of the arms 11.

In assembling the head section with the torso, after the spring 23 has been inserted into said section and after the anchor rod 29 has been inserted through the torso, the hook 28 may be engaged with said anchor rod by drawing the hook downwardly to compress the spring 23, whereby the hook may be engaged with the rod by a pair of pliers before the neck is seated in its socket. When released, the spring 23 will then draw the neck down into the socket. The arms 11 may be secured to the torso after the anchor rod is in place and either before or after the head section has been mounted.

The securing elements for the legs and the flat faces which surround said securing elements are located in planes which converge forwardly and downwardly and the axes of rotative adjustment of the legs are at right angles to such planes. Numerous and quite different postures and effects may be accomplished by changing the limbs and head or neck section to varying positions. A manufacturer may provide a variety of designs of dolls by using a standard shape of torso and attaching thereto limbs and heads of different shapes. My improved securing means is very advantageous from a practical standpoint because of its cheapness of manufacture, security of its hold and adjustability.

I claim as my invention:

1. A doll or the like having, in combination, two sections, and means for securing said sections together and permitting rotative adjustment therebetween comprising two metallic elements secured to the respective sections and having flanges adapted to be sprung into locking engagement with each other.

2. A doll or the like having, in combination, two sections, and means for securing said sections together and permitting rotative adjustment therebetween comprising two interfitting metallic elements, one of said elements having a shoulder thereon and at least one of said elements being adapted to yield to permit the shoulder on the first mentioned element to enter into locking engagement with the other element.

3. A doll or the like comprising, in combination, two sections formed of hardened plastic material, and means for securing said sections together comprising two elements each having a laterally protruding portion embedded in the material of one of said sections, said elements being adapted to be interlocked to support the elements.

4. A doll or the like having, in combination, a torso having a flat face, a limb having a corresponding flat face, said torso and limb being formed of hardened plastic material, and means for securing the limb to the torso comprising two elements having peripheral flanges embedded respectively in the hardened material of the limb and the torso at said faces, one of said elements having a socket and the other element having a projection to engage in said socket, at least one of the elements having a yieldable portion to allow such engagement and hold the projection in the socket when associated, the axis of the projection and socket being perpendicular to said flat faces on the limb and the torso and the limb being rotatably adjustable about such axis.

5. A doll or the like comprising, in combination, a torso, a limb, and means for securing them together comprising two elements secured respectively to the limb and the torso, said elements having flat faces arranged to lie alongside each other when

associated, one element having a socket at such face terminating in an abutting edge and the other element having a projection adapted to fit in said socket and having a locking shoulder, at least one of said elements being resilient to permit the shoulder to be forced into locking engagement with said abutting edge at the inner end of the socket with the abutting edge and shoulder disposed substantially at right angles with the axes of the socket and projection, the limb being rotatably adjustable with respect to the torso about the axis of said projection and socket.

6. A doll or the like comprising, in combination, a torso, a pair of arms, said torso and arms being formed of hardened plastic material, means for securing each arm to the torso comprising two elements having portions embedded respectively in the arm and the torso, one of said elements having a socket and the other element having a projection to engage in said socket and allowing rotatable adjustment of the arm, a transverse anchor rod in the torso having its opposite ends engaging the respective securing means for the arms, a head or neck section, and means engaging said anchor rod for securing said head or neck section to the torso.

7. A doll or the like comprising, in combination, a torso, a pair of arms, means for adjustably securing each arm to the torso having an opening therein, a rigid anchor rod extending transversely through the torso and having its opposite ends passing into the openings in the arm-securing means, a head or neck section, and means engaging said anchor rod for securing said section to the torso.

8. A doll or the like comprising, in combination, a torso, a pair of arms, means for securing each arm to the torso for rotative adjustment, said means having a central aperture therethrough, an anchor rod passing transversely through the torso and having its ends passing through the apertures in said arm-securing means, a head or neck-section, and means engaging said rod for securing said section to the torso.

9. A doll or the like comprising, in combination, a hollow torso, a pair of hollow arms, said torso and arms being formed of hardened plastic material, means for securing each arm to the torso having a central aperture therethrough, a rigid anchor rod passing transversely through the torso, each end of said rod passing through the aperture in one of said arm-securing means and extending into the arm whereby escape of either end of said rod from said securing means will be prevented by engagement of the opposite end of the rod with the wall of the arm, a head or neck section, and means engaging said rod for securing said section to the torso.

10. A doll or the like having, in combination, a torso provided with an opening in its upper end and an opening in its side, a head, a rigid anchoring element insertible through the opening in the side of the torso and arranged to extend transversely thereof to be supported at one end in said opening and at its other end by the opposite side wall of the torso, and means insertible through the opening in the upper end of the torso yieldingly engaging with the head and adapted to be detachably connected to the anchoring element.

11. A doll or the like comprising, in combination, a torso, a pair of arms, apertured means for adjustably securing said arms to the torso, a separate head section, and means for securing said head section to the torso including a rigid transverse anchor rod insertible into the torso through one of said arm-securing means.

12. A doll or the like comprising, in combination, a torso, a head, an arm, and means forming a shoulder joint for securing the arm to the torso, said means being apertured to permit the insertion into the torso of a rigid anchoring element for the head.

13. A doll or the like comprising, in combination, a torso, a pair of arms, means forming shoulder joints for the arms, at least one of said means being apertured, a separate head section, a transverse anchor member insertible into the torso through the apertured shoulder joint, and means engaging said anchoring member for securing the head section to the torso.

In testimony whereof, I have hereunto set my hand.

WILLIAM P. DUN LANY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."