Oct. 8, 1929. B. E. LLOYD 1,730,854

DOLL

Filed Nov. 20, 1926 3 Sheets-Sheet 1

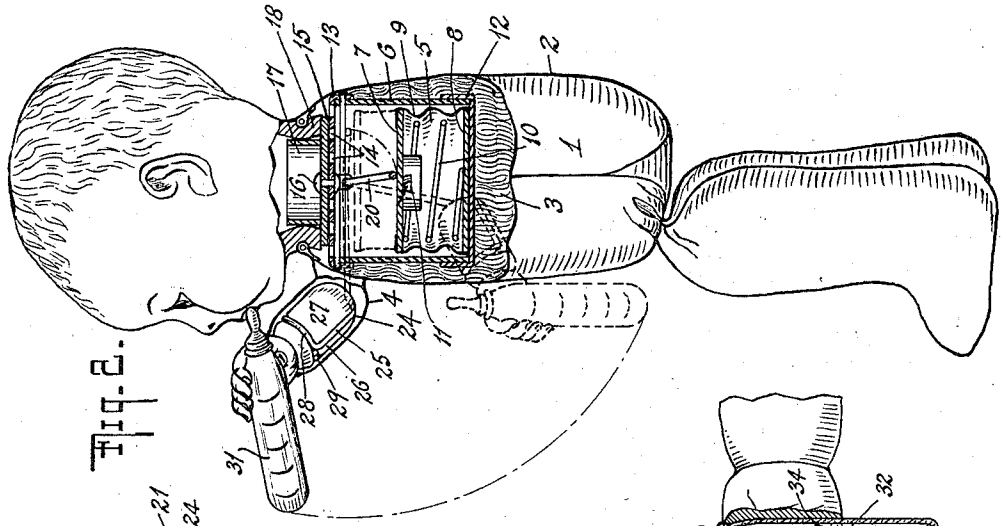


Fig. 2.

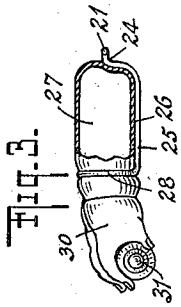


Fig. 3.

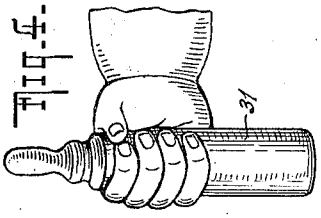


Fig. 4.

Fig. 5.

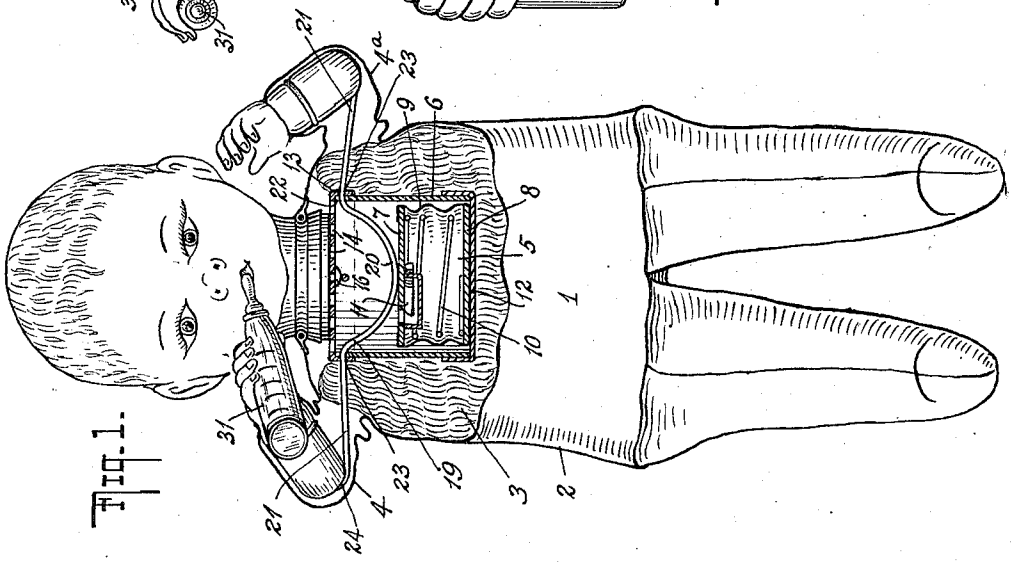


Fig. 1.

WITNESS

G. V. Rasmussen

INVENTOR

BURT E. LLOYD

BY Brown & Schrenk

ATTORNEYS

Oct. 8, 1929. B. E. LLOYD 1,730,854

DOLL

Filed Nov. 20, 1926 3 Sheets-Sheet 2

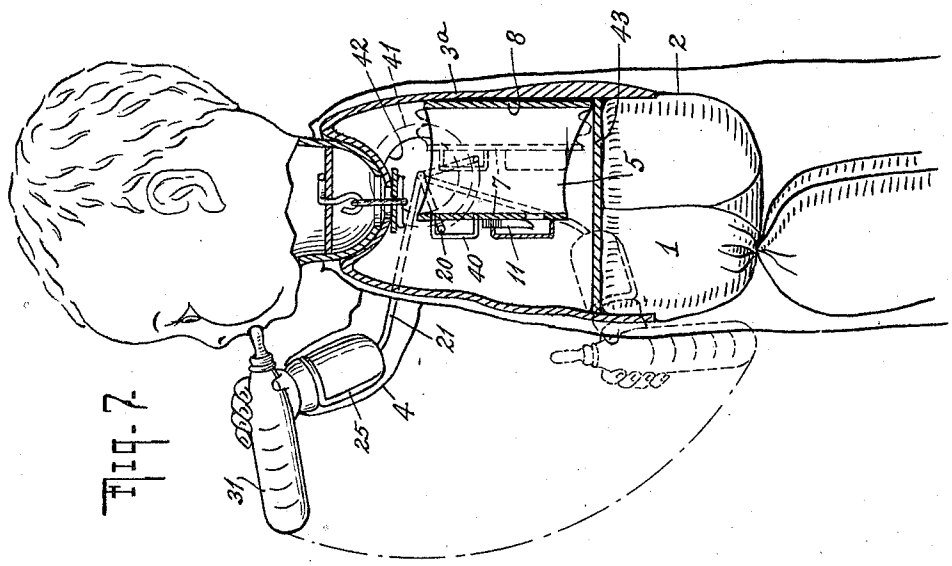


Fig. 7.

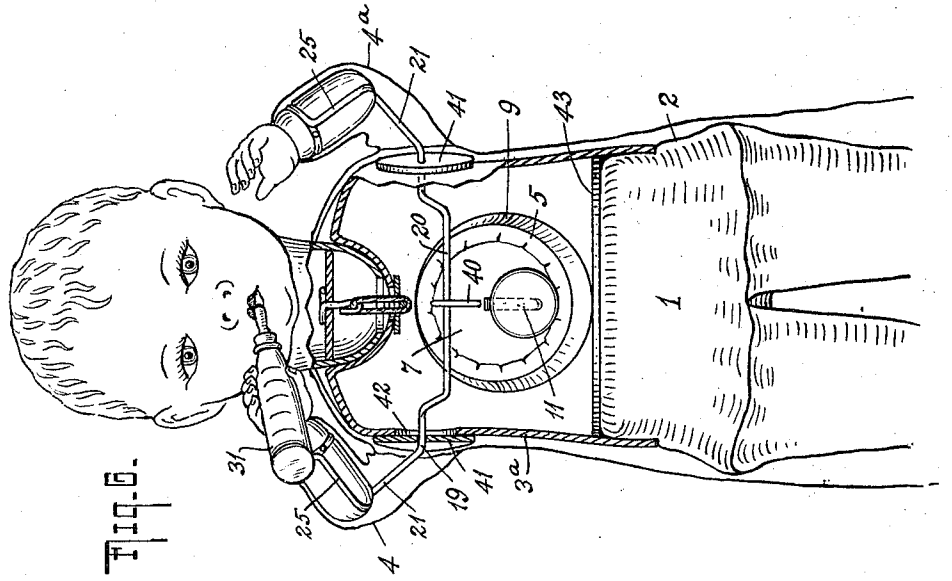


Fig. 6.

WITNESS

G. V. Rasmussen

INVENTOR

BURT E. LLOYD

BY Wiesen & Schmeck

ATTORNEYS

Oct. 8, 1929. B. E. LLOYD 1,730,854

DOLL

Filed Nov. 20, 1926 3 Sheets-Sheet 3

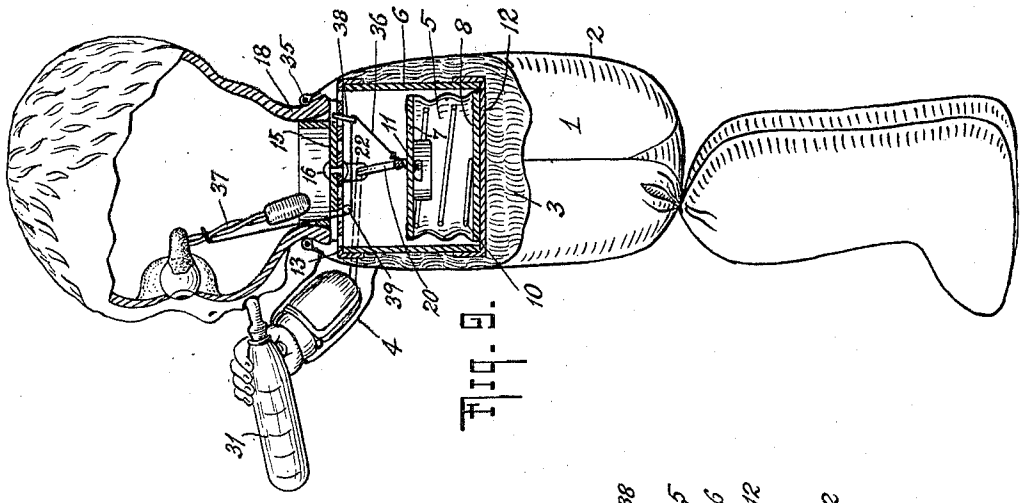


Fig. 9.

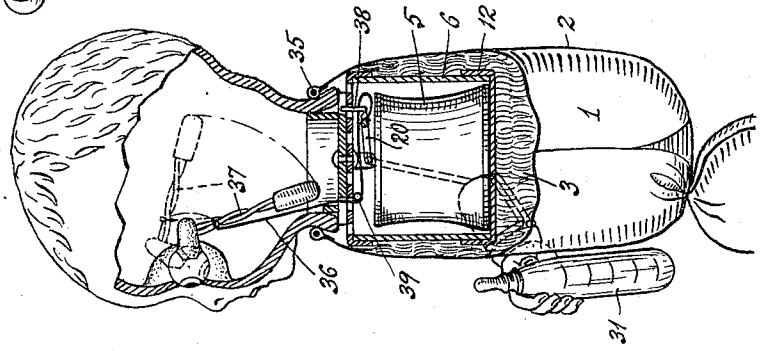


Fig. 10.

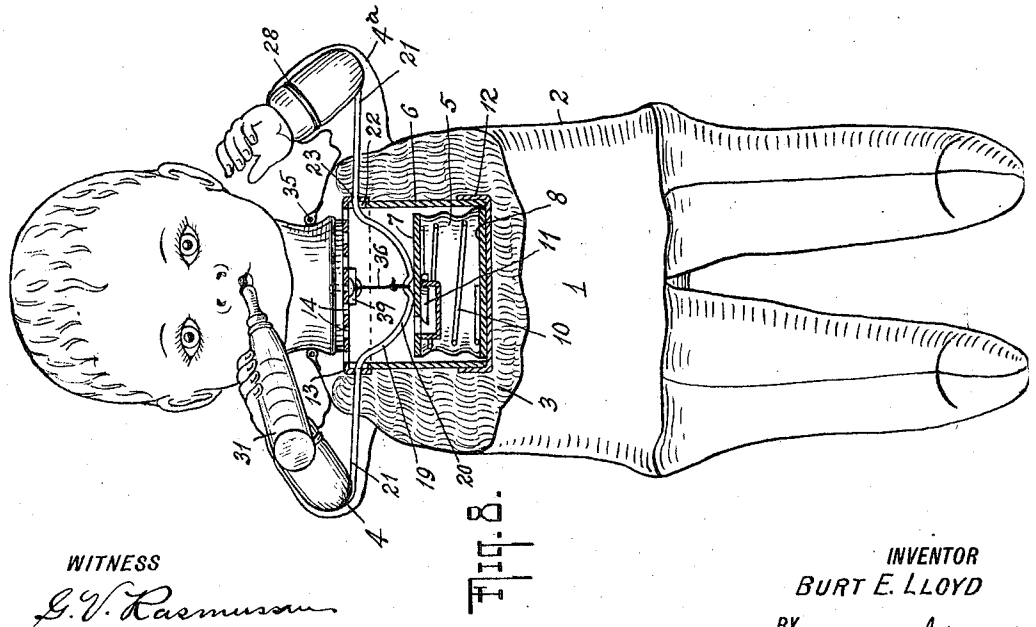


Fig. 8.

WITNESS

G. V. Rasmussen

INVENTOR

BURT E. LLOYD

BY Wilson & Schrenk

ATTORNEYS

Patented Oct. 8, 1929 1,730,854

UNITED STATES PATENT OFFICE

BURT E. LLOYD, OF MONTCLAIR, NEW JERSEY

DOLL

Application filed November 20, 1926. Serial No. 149,555.

This invention relates particularly to an attachment adapted to be inserted in a doll and comprises a doll hand and arm holding a nursing bottle and a voice which may be caused to sound after the doll drinks from the bottle or both after and before it drinks therefrom. An additional feature comprises an eye control mechanism whereby the moving eyes of the doll are held open while drinking and closing when the bottle is removed from the mouth.

The doll hand, arm and bottle and the voice are built into a unitary structure whereby, by positioning the voice with respect to the doll's body and head, the path of movement of the bottle is exactly defined so that the nipple will always be brought to the doll's mouth when the arm is raised, bringing the bottle to the correct inclination to cause the milk in the bottle to flow to imitate a baby drinking. When the arm is lowered, the bottle will be positioned against the body of the doll and give the correct inclination to cause the bottle to refill.

In the drawing Figs. 1 and 2 represent respectively front and side elevations of the doll with portions removed; Fig. 3 a plan detail of arm, hand and bottle partly in section; Fig. 4 a side view of a modified form of bottle and arm; Fig. 5 a sectional detail of Fig. 4; Figs. 6 and 7 are modifications of another form of Fig. 1; Fig. 6 being a front elevation with portions of the body removed, the major portion of the body being made of a composition material and Fig. 7 a side elevation of Fig. 6 with a portion of the body removed; Figs. 8 and 9 are respectively similar to views Figs. 1 and 2 showing the eye control mechanism; Fig. 10 is a view similar to Fig. 9 showing the doll in a non-drinking position and the eyes free to close when the doll is caused to recline.

The doll 1 is made of a suitable fabric 2 stuffed with flexible material 3 such as cotton. The arms 4 and 4a have an outer covering of fabric which is sewn to the body of the doll. The voice 5 comprises the cardboard casing 6, the heads 7 and 8 having glued thereon the rubberized fabric 9, the spring 10 which normally extends the heads and which permits the top head to be depressed under pressure and the sound producing device 11 consisting of the usual channel and reed. The lower head 8 is secured to the cap 12 which closes the bottom of the voice 5. The top of the casing is covered with a metal cap 13 provided with suitable perforations 14 to permit the escape of sound set up by the sound producing device 11. A disk 15 is positioned on top of the cap 13 and secured thereto by a rivet 16 passing through holes in the disk 15, and in the cap 13. A circular flange 17 is secured to the disk 15 and projects into the neck 18 of the doll whereby the head is positioned with respect to the voice but may be turned on the disk 15 if desired. An arm support 19 is carried by the casing 6 having the curved cam like portion 20 thereof positioned within the casing 6 and the extensions 21 passing through the doll body and inside of the fabric coverings of the arms 4 and 4a. The support 19 passes through the slots 22 in the casing 6 and through corresponding slots 23 in the top cap 13 whereby it is supported and permitted to rock. The cam portion 20 when in downward position presses against the upper head 7 and depresses it against the tension of the spring 10 placing the voice in position so that it will sound when the cam portion 20 is rocked upwardly. The extensions 21 are suitably bent at 24 so that the portion 25 thereof will lie in a groove 26 formed in the wall of the chamber 27. The end portion 28 of the extension 21 is bent to fit in the circular groove 29 formed in the chamber 27. By this means the arm of the doll is secured to the arm support 19 and is always in fixed relation with respect to the voice 5. The bends 24 in the extension 21 are such that when the casing 6 is positioned with respect to the head of the doll the nipple of the bottle when it is raised to the mouth of the doll will always be aligned with the mouth. The chambers 27 carry hands 30 and the right hand of the doll passes around a bottle 31. The bottle 31 is filled with a liquid in imitation of milk and may be provided with suitable apertures or like arrangement so that when the doll is reclining and the nipple of the bottle is at the mouth the fluid will run into the hand of the doll, the details of this

arrangement being shown, for instance, in the patent to Wallach 1,595,840. Figs. 4 and 5 show a structure which may also be utilized as a nursing bottle in place of the structure above described. In the device illustrated in Figs. 4 and 5 the bottle may be made removable from the hand and for this purpose the hand and fingers are made of rubber so that the bottle may be readily inserted and removed therefrom. A disk 32 is secured inside of the bottle and provide with the perforations 33 and 34. The liquid in the bottom of the bottle, when the bottle is raised to the doll's mouth, flows through a perforation into the upper portion of the bottle which is normally empty, giving the appearance of the doll drinking. The disk 32 and the empty upper portion of the bottle is covered by the hand so that the arrangement for exhaustion out of the lower portion of the bottle is not clearly observable.

The head of the doll is secured to the body by drawing the fabric 2 around the neck and securing it thereto by the twisted wire 35 which fits in a suitable groove in the neck of the doll.

It will be observed that the voice, arm and bottle carrying mechanism are unitary and are first assembled before being positioned in the doll body. After the stuffing is put in the bottom of the doll this device is then inserted and properly positioned so that the nipple on the bottle aligns with the mouth of the doll. The additional stuffing is then secured around the sides of the casing to secure the parts in their proper relation and then the head is secured to the doll body. When this relation is once obtained it is not readily disturbed. The arm support 19 is preferably made of fairly heavy wire but may, nevertheless be bent should it be found necessary, to align the bottle and nipple with the mouth of the doll. The operation of the device is as follows: When the hand and arm of the doll is in the downward position as shown in dotted line in Fig. 2 the liquid is in the bottom of the bottle. If the doll is then caused to recline and the arm is manually raised the nipple will be directed to the doll's mouth and the fluid will flow in the bottle, simulating the drinking of a baby. While the arm is being raised the cam portion 20 of the arm support 19 is rocked, contacts with the head 7 and depresses the voice. While the doll is drinking the voice is retained in a depressed position by the continued contact of the cam portion 20 against the head 7 inasmuch as the position of the nipple at the doll's mouth defines the position of the cam portion 20. Should the arm be depressed as, for instance, after the drinking operation is completed, the cam 20 of the arm support 19 will swing backwardly releasing the head 7, permitting the voice to extend under pressure of the spring 10 and resulting in air being drawn through the sound producer 11 causing actuation thereof in imitation of a child crying. The voice may also be caused to sound when the bottle is brought to the doll's mouth by moving the cam portion 20 a very short distance beyond center, thereby releasing the voice and allowing it to extend and sound. When the doll has drunk from the bottle and the hand is swung downwardly the cam portion 20 will again, during its backward movement, depress the voice and when it is past center the voice will again extend the sound.

The doll may be caused to cry when the bottle is being raised to its mouth by placing the sound producer 11 on the outside of the head 7 as will be well understood.

The foregoing device may be applied to dolls with sleeping eyes or with fixed eyes. It is preferred, in such cases where the doll is provided with sleeping eyes, to hold the eyes open while the doll is drinking and for this purposes an arrangement is shown in Figs. 8, 9 and 10 whereby this may be accomplished. The structure of the voice and arm mechanism is substantially the same as in Figs. 1 and 2. In order to control the eye movement a cord 36 passes from the arm support to the eye pendulum 37 so that as the curved portion of the arm support rocks downwardly it will tighten the cord and hold the pendulum from swinging the eyes to closed position. One end of the cord 36 is secured to the cam portion 20 of the arm support 19 and the other end to the wire 37 which constitutes a part of eye swinging pendulum, the intermediate portion of the cord passing through the ring 38 secured to the metal cap 13 and over the short piece of tubing 39 soldered on the underside of the cap 13. It is to be noted, that when the doll is reclining, with the nipple at its mouth the eyes are open. When the hand is down at the side of the doll the eyes are, free to close as illustrated in Fig. 10 in dotted position, by reason of the release of the pull on the cord 36.

The doll illustrated in Figs. 6 and 7 illustrates this invention applied to a doll the major portion of the body of which is made of a hard composition. In this instance the lower head 8 of the voice 5 is glued against the hard composition back 3ª. The portion 20 of the arm support is secured to the top head 7 by a staple 40 so that when the bottle is raised to the mouth of the doll and the arm support 19 is rocked, the head 7 is lifted and the voice extended.

When the bottle is moved to the downward position the portion 20 of the arm support depresses the voice and causes it to sound. In this instance the voice may be caused to sound when the bottle is raised to the mouth by changing the position of the sound producer 11 so that instead of it being sounded when the air is forced out of the voice it is

sounded when the air is sucked into it. In order to centrally position the arm support 19 and afford a bearing therefor the disks 41 are secured over the large holes 42, the arm supports passing through suitable central perforations in said disks 41. The lower portion of the body of the doll shown in Figs. 6 and 7 is made of fabric stuffed with cotton and the upper edge thereof is suitably secured in the inside of the lower edge of the composition body of the doll and against the disk 43 which is glued at its periphery to the inside walls of the composition body.

The spring 10 may be utilized for moving the bottle to the mouth of the doll by rearranging the angle of the cam portion 20 with respect to the head 7 so that it will lie slightly to the left of center when the voice is depressed and the hand is down. This will be evident by reference to Fig. 2. Should the cam 20 be given this position it will be found that by manually lifting the hand in order to start its movement toward the doll's mouth the force of the spring will complete the movement thereof by the pressure exerted through the engagement of the head 7 on the cam 20. The movement of the hand will be quite slow inasmuch as the movement of the head 7 is controlled by the escape of air through the sounding reed. It will be necessary to use a slightly stronger spring than that which is described in connection with the entire manual operation of the device.

I claim—

1. A doll, the body thereof comprising a fabric covering stuffed to body shape with a filling material, a hollow casing in the body, said casing being supported by said filling material in proximity to the doll's head, a manually operated rocking arm support carried by the casing, such support having a free portion thereof extending outside of the body of the doll, a doll arm and hand supported by said free portion at an angle to the vertical, a sound producing device in the casing, a camming member formed on the arm support engaging with said sound producing device, a spring normally tending to extend said sound producing device, said camming member being arranged to depress said spring, said doll arm and hand, by reason of its support on said arm support, being movable through a predetermined path from a position at the lower portion of the body of the doll to the mouth of the doll, said spring extending said sound producing device as the camming member moves over the top surface thereof.

2. A doll, the body thereof comprising a fabric covering stuffed to doll shape with a filling material, a hollow casing in the body, such casing being supported in proximity to the doll's head, a manually operated rocking arm support carried by the casing, such support having a free portion thereof extending outside of the body of the doll, a doll arm carried by the free end of the arm support, a fabric covering over said doll arm, the free end of the support extending through the arm covering, a sound producing device in said casing, a spring normally tending to extend said sound producing device, a portion of said arm support extending into said casing said arm support being provided with means for collapsing said sound producing device during rocking movement of said arm support, said arm support during its rocking movement also moving said doll arm from the lower portion of the doll to the mouth of the doll.

3. A doll adapted to be placed in a reclining position, said doll comprising a body, legs, arms and head, the body of the doll having an outer fabric covering stuffed to doll shape with a filling material, a frame in the body, said frame carrying the doll's head, a freely movable manually operated arm support supported by said frame, a free end of said arm support extending outside of the doll body and carrying a doll arm and hand, a drinking bottle in the doll's hand, said doll's hand being arranged at an angle to the vertical, said doll arm being movable by manual pressure on the doll arm, said support, while moving the doll arm and bottle from a postion at the lower portion of the doll body, guiding the bottle through a predetermined path to the mouth of the doll, the head of the doll being retainable in a fixed position with respect to the path of movement of the bottle in order that the nipple on the bottle will align with the doll's mouth.

4. A doll adapted to be placed in a reclining position, said doll comprising a body, legs, arms and head, the body of the doll having an outer fabric covering stuffed to doll shape with a filling material, a frame in the body, said frame carrying the doll's head, a freely movable manually operated arm support supported by said frame, a free end of said arm support extending outside of the doll body and carrying a doll arm and hand, a drinking bottle in the doll's hand, said doll's hand being arranged at an angle to the vertical, said doll arm being movable by manual pressure on the doll arm, said support, while moving the doll arm and bottle from a postion at the lower portion of the doll body, guiding the bottle through a predetermined path to the mouth of the doll, the head of the doll being retainable in a fixed position with respect to the path of movement of the bottle in order that the nipple on the bottle will align with the doll's mouth, a sound producing device carried by the frame, a portion of the arm support being cam shaped and positioned inside of said frame to engage with the head of the sound producing device, a spring normally tending to extend said sound producing device, said camming portion of said arm support, dur-

ing the rocking movement of said support, permitting actuation of said sound producing device.

5. A drinking bottle doll, a casing within the doll body, an arm support comprising a section of metal wire supported in said casing for rocking movement thereon, said arm support having a portion thereof extending into said casing and bent to cam shape, a free end of the arm support extending outside of the doll body and carrying a doll arm and hand, a bottle in the doll hand, a sound producing device in the casing, a coil spring in the sound producing device, said coil spring normally tending to extend said sound producing device, said cam being arranged to depress said spring and collapse the sound producing device by engagement with one of the heads thereof, said doll arm by manual operation thereof, moving from a position near the lower portion of the doll body through a predetermined path to position the nipple of the bottle at the mouth of the doll and simultaneously acting on said spring to permit actuation of the sound producing device.

6. A drinking bottle doll, the body thereof carrying a casing, an arm support rockingly mounted on said casing, a portion of said arm support located within the casing and being bent to cam shape, a free end of the arm support extending outside of the doll body and carrying a doll arm, hand and bottle, a sound producing device in the casing, a coil spring within the sound producing device normally tending to extend said sound producing device, said camming member in its downward position engaging with the upper surface of the sound producing device and retaining the sound producing device against the pressure of the spring in collapsed condition, said camming member upon the movement of the doll arm releasing said sound producing device, said sound producing device under pressure of said spring rocking said camming member and automatically moving said doll arm to position the nipple of the bottle in proximity to the doll's mouth.

In witness whereof I have hereunto set my hand.

BURT E. LLOYD.