(No Model.)

S. ELDRIDGE.

DOLL.

No. 278,420. Patented May 29, 1883.

Fig1.

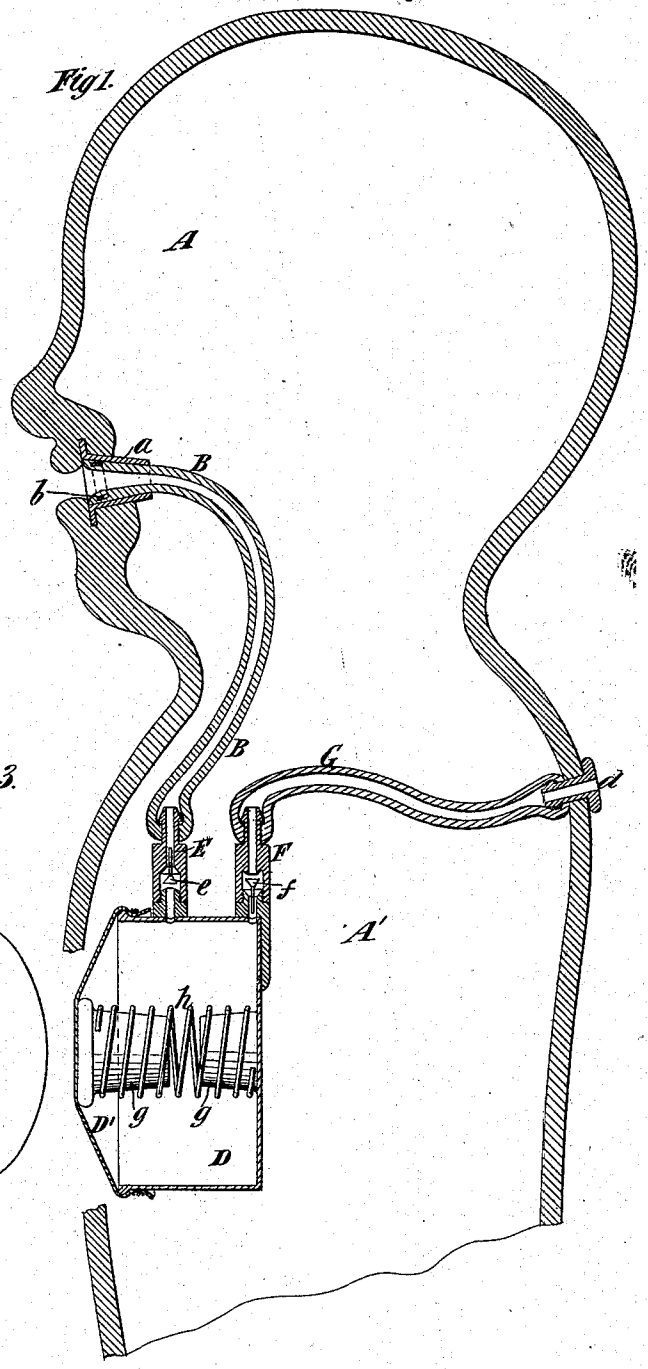


Fig6.

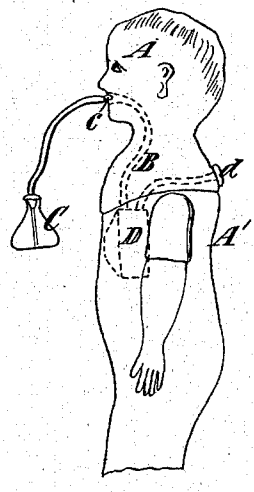


Fig4.

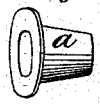


Fig5.



Fig2.

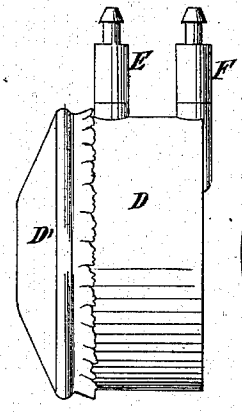
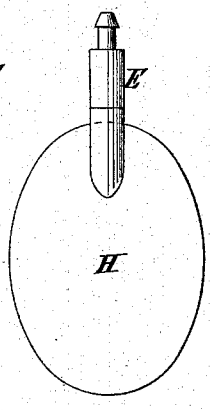


Fig3.



Witnesses:
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Inventor:
Stuart Eldridge
by his Attorneys
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UNITED STATES PATENT OFFICE.

STUART ELDRIDGE, OF YOKOHAMA, JAPAN, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, OF ONE-HALF TO ETHEL C. HINE AND RICHARD W. BEYRICH, BOTH OF BROOKLYN, NEW YORK.

DOLL.

SPECIFICATION forming part of Letters Patent No. 278,420, dated May 29, 1883.

Application filed September 9, 1882. (No model.)

To all whom it may concern:

Be it known that I, STUART ELDRIDGE, a citizen of the United States, residing at the town of Yokohama, in the Empire of Japan, have invented a certain new and useful Improvement in Dolls, of which the following is a specification.

My invention consists in the combination, with a doll having an opening or socket in the mouth, of a pump within the body of the doll and communicating with said opening or socket in the mouth.

My invention also consists in the combination, in a doll, of a pump arranged in the body of the doll, a mouth-piece or socket adapted to receive a nipple, a suction-tube extending from the pump to the mouth-piece or socket and provided with a suitable valve, and a discharge-tube extending from the pump, and also provided with a suitable valve, whereby upon placing the tube or nipple of a nursing-bottle or other vessel to the mouth of the doll and working the pump the doll may be made to simulate the operation of nursing or sucking.

In the accompanying drawings, Figure 1 represents a sectional view of a portion of a doll and the apparatus embodying my invention. Fig. 2 represents an exterior view of the pump detached. Fig. 3 represents a pump of modified form. Figs. 4 and 5 represent detail views of parts employed to shape the mouth properly to receive a nipple, and Fig. 6 represents a view of the doll upon a smaller scale.

Similar letters of reference designate corresponding parts in all the figures.

A designates the head, and A′ a portion of the body, of the doll, which may be made of any suitable material. In the mouth of the doll is secured a metal socket or thimble, *a*, through which a tube, B, is inserted, and in order to prevent the tube from being drawn through the thimble, I may embed in the tube, which in such case would be of rubber, a ring, *b*. The thimble *a* and ring *b* are both shown clearly in Figs. 4 and 5. The end of the tube B forms a mouth-piece or socket which is adapted to receive the nipple *c* of a nursing-bottle, C, as shown in Fig. 6; but the mouth of the doll may be otherwise formed to enable a tight joint to be made with the nipple.

Within the body A′ of the doll is arranged a pump, which, as here shown, consists of a metal box or chamber, D, closed at the front by a flexible diaphragm, D′. The said diaphragm is accessible from the front of the doll, and the pumping is effected by pressing in the diaphragm. The chamber D has two tubes or nozzles, E F, extending from it, and the tube B is connected with the former, while from the latter extends a tube, G, which opens to the atmosphere at the back of the doll, forming a vent, *d*. In the nozzle E is a suction-valve, *e*, opening toward the pump, and in the nozzle F is a discharge-valve, *f*, opening away from the pump. The extent to which the pump may be compressed is limited by the two checks or stops *g*, which are attached one to the diaphragm D′ and the other to the chamber D, and after the pump is compressed the diaphragm is returned by the action of a spring, *h*, and the pump expanded. When the pump is compressed the air within the pump is forced through the valve *f* and out through the tube G, while the valve *e* is closed; but when the pump is expanded by the action of the spring *h* the valve *f* is closed, and air or liquid is drawn in through the tube B from the bottle C into the pump, thereby simulating the appearance of nursing or sucking. When the bottle shall have been emptied or the pump filled, the pump may be emptied by placing the doll on its back with the head depressed, and then working the pump. The liquid will then all be driven out through the tube G.

Instead of employing a pump of the kind described, I may use a simple bulb of rubber, like a syringe-pump, H, as represented in Fig. 3, and which is provided with nozzles, to which the tubes B and G may be connected, the nozzle E only being shown.

By the term "doll" I mean an image made in the form of a living creature, whether it be a human being or not.

My invention may be applied to the crying or squeaking doll in common use without in any way interfering with the operation, and I

thus produce a doll which has a greater number of attractive features.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, with a doll having an opening or socket in the mouth, of a pump within the body of the doll and communicating with said opening or socket in the mouth, substantially as and for the purpose herein described.

2. The combination, with a doll, of a pump arranged in the body thereof, a mouth-piece or socket to receive a nipple, a suction-tube leading from the pump to the mouth-piece or socket and provided with a suitable valve, and a discharge-tube leading from the pump, and also provided with a suitable valve, substantially as and for the purpose specified.

STUART ELDRIDGE.

Witnesses:

THOS. B. VAN BUREN,

F. P. GILMORE.