(No Model.) 2 Sheets—Sheet 1.

J. P. KING.

AUTOMATIC CRYING DOLL.

No. 489,014. Patented Jan. 3, 1893.

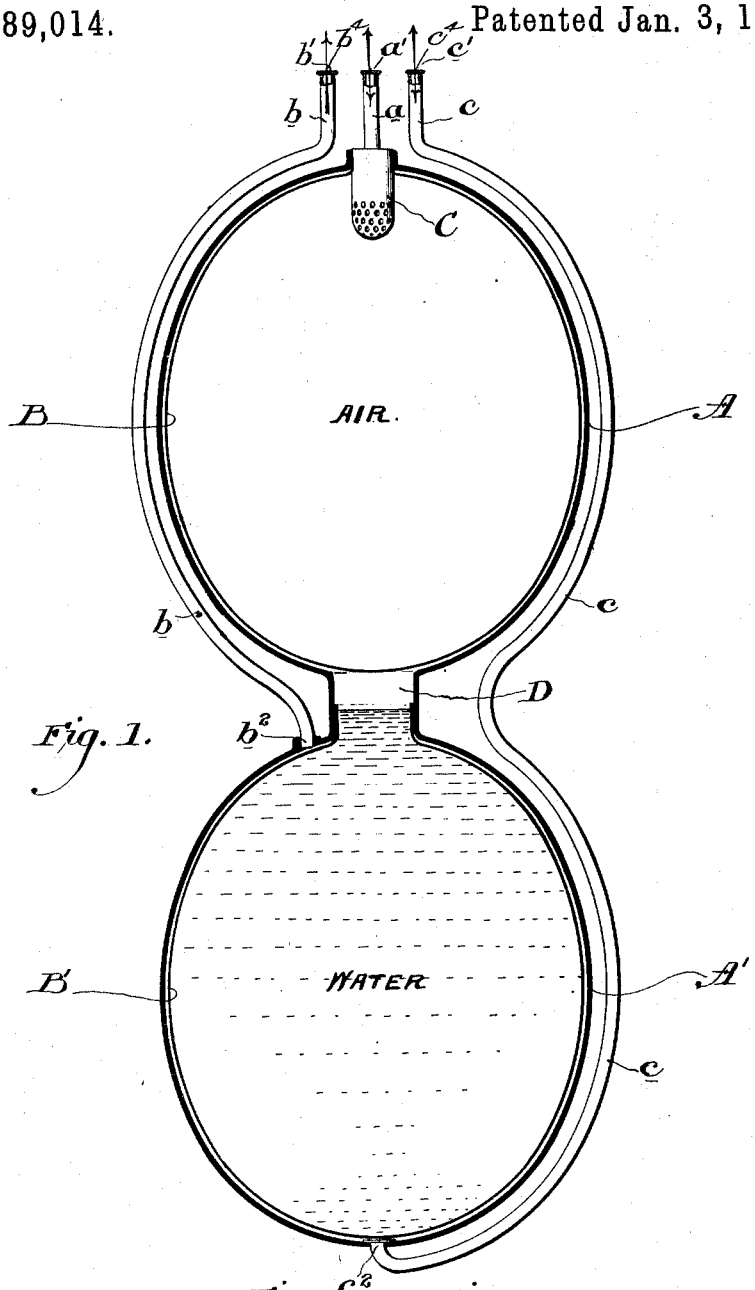
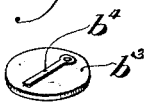


Fig. 1.

Fig. 2.

Fig. 3.



WITNESSES:

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(No Model.) 2 Sheets—Sheet 2.

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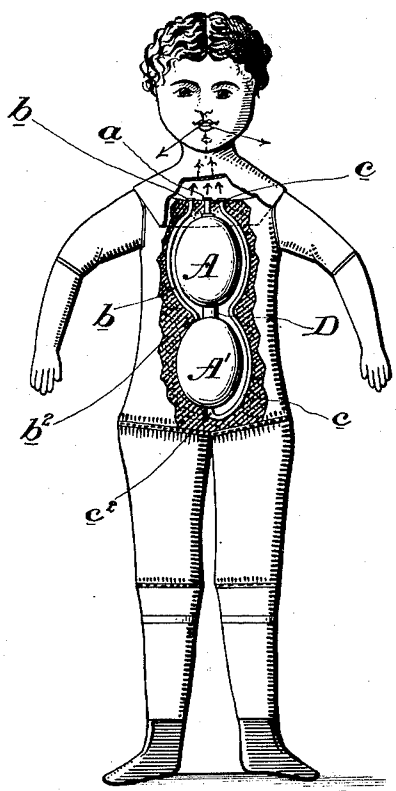
Fig. 4.



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UNITED STATES PATENT OFFICE.

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AUTOMATIC CRYING DOLL.

SPECIFICATION forming part of Letters Patent No. 489,014, dated January 3, 1893.

Application filed December 3, 1891. Serial No. 413,887. (No model.)

To all whom it may concern:

Be it known that I, JOHN P. KING, a citizen of the United States, and a resident of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Mechanical Toys, reference being had to the drawings which accompany and form part of this specification and in which similar letters denote similar parts.

My invention has for its object the production of a toy which by the change of position will cause sounds to be given forth.

I will describe my invention as applied to a doll, as I consider the same one of the most desirable forms in which the invention can be used.

Figure 1 is a section of my apparatus detached from the doll; Fig. 2 is a section of one of the pipes showing the reed in position; Fig. 3 is a perspective view showing the reed; Fig. 4 is a front view, showing my apparatus in position in the doll.

B B′ are two flexible pouches or bags preferably formed of rubber, and A A′ are non-flexible cases surrounding said pouches.

C is a hollow stand having perforations and to this stand is connected the flexible pouch B and casing A, the lower portion of the casing A is removed and the ends connected to the connecting joint of neck D. This neck or joint D is also connected to the flexible pouch or bag B′. The casing A′ and pouch B′ being connected together at the neck D.

c is a hollow tube or pipe which opens at one end into the casing A′ at c^2. *b* is another pipe or tube which opens into casing A′ at b^2. Each of these pipes contain a reed b^4 c^4 at or near the free end, b' c', said reeds being adapted to be acted upon by air when the air is moving in the direction respectively denoted by the arrows. A pipe *a*, provided with a reed *a′* adapted to act in either direction passes into the hollow stand C. The opening into said stand being only sufficiently large to admit said pipe.

The operation is as follows: Supposing the apparatus to be in the position shown in Fig. 1 and it be turned end for end or in a horizontal position, the water which is contained in the pouch B′ passes through the flexible neck into the case A compressing the flexible bag B, driving out the water through the pipe *a* and sounding the reed *a′*. At the same time the water pressure on the flexible bag B′ closes the pipe *b* at the point b^2 and opens the pipe *c* at the point c^2, and the air passes in through the pipe *c*, and in its entrance passing through reed *c′*, into the casing A′, also causing a noise. When the apparatus is again reversed the water passes back into the pouch B′ allowing pouch B to expand and the air passes into said pouch through the pipe *a* through reed *a′* while the pressure of the water in the pouch B′ closes the openings c^2 of the pipes *c*, and the pressure is removed on the end of the pipe *b* so that the air in the case A′ is forced out through said pipe B and through the reed.

I have described in this apparatus, (in the upper portion, Fig. 1) the flexible air chamber surrounded by a fixed water casing and in the lower section a flexible water pouch with a fixed air casing surrounding it. It is evident that the upper section might be used with a lower section adapted to contain water and without the other parts of the lower section, and in the same way the lower section might be used with an upper section adapted to hold water only, and without the other portions of said upper part of said drawings, Fig. 1.

When this apparatus is used with a doll the reeds may be so constructed as to give the imitation of a cry and the reeds may be fixed at different tones so as to create discord.

Having now fully described my invention, what I claim and desire to protect by Letters Patent is:—

1. In combination, a flexible pouch or bag adapted to hold air, a non-flexible case surrounding said pouch or bag, an outlet from said pouch to the air, a reed in said outlet, a water receptacle and connection between said water receptacle and case.

2. In combination, a flexible bag or pouch adapted to hold water, a non-flexible case surrounding said pouch or bag, an outlet to the air in the upper portion of said case and an outlet to the air in the lower portion of said case, a reed in each of said outlets, a water receptacle and connection between said water receptacle and said flexible bag or pouch.

3. In combination, a flexible bag or pouch adapted to hold water, a non-flexible case sur-

rounding said pouch, or bag, outlets from said case to the air, one of said outlets being at or near the top of the case, the other at or near the bottom of the case, a reed in each of said outlets, a water receptacle, and connection between said water receptacle and flexible bag.

4. In combination, a flexible bag or pouch adapted to hold water, a non-flexible case surrounding said pouch or bag, an outlet from said case to the air, a reed in said outlet, a water receptacle, and connection between said water receptacle and said flexible bag.

5. In combination, a flexible pouch or bag adapted to hold air, a non-flexible case surrounding said pouch or bag, an outlet from said pouch to the air, a reed in said outlet, a flexible bag or pouch adapted to hold water, connection between said water pouch and said case, a non-flexible case surrounding said water pouch, outlets from said case to the air, and a reed in each of said outlets.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN P. KING.

Witnesses:
THOS. J. HUNT,
W. H. FARRAND.