

J. B. BOWMAN.
TOY.
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939,586.

Patented Nov. 9, 1909.

Fig. 1.

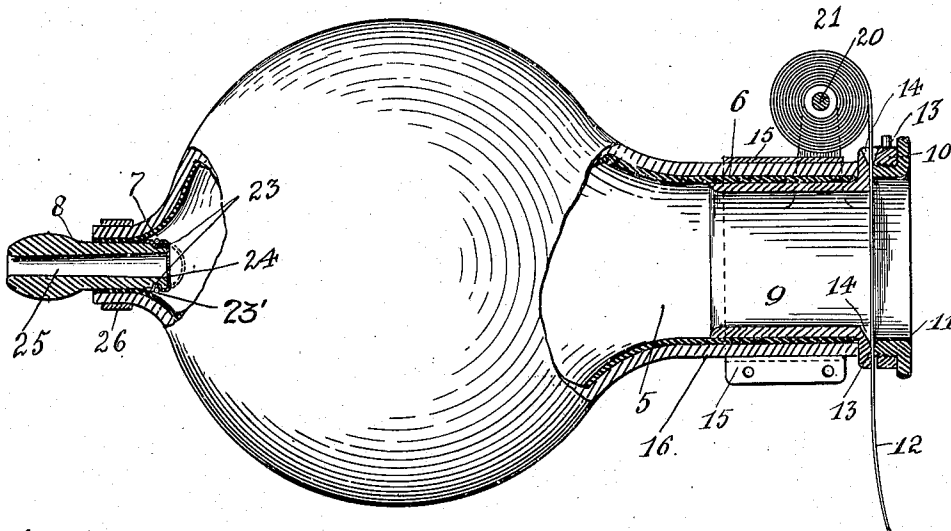
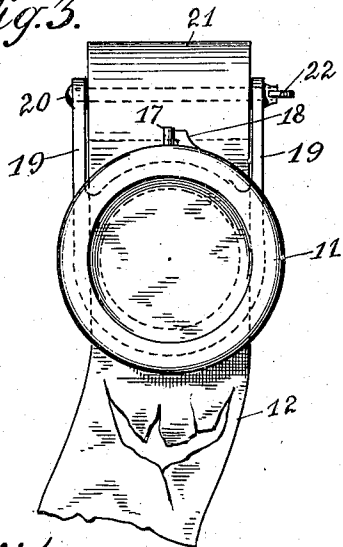


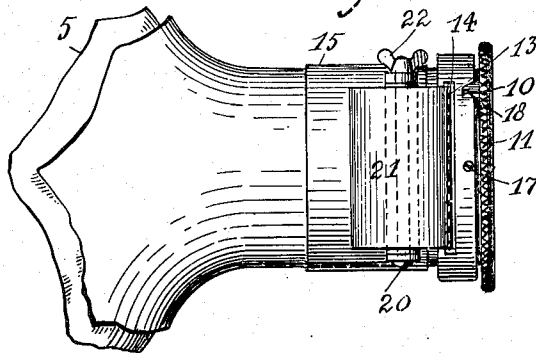
Fig. 3.



Witnesses,

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Fig. 2.



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UNITED STATES PATENT OFFICE.

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TOY.

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To all whom it may concern:

Be it known that I, JOHN B. BOWMAN, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Toys, of which the following is a specification.

My invention relates to that class of toys which employ an explosive force for furnishing the source of amusement, and among the objects thereof is to provide a pneumatic toy which when compressed will fracture a paper diaphragm and cause an explosion.

A further object is to provide a toy that may be readily inflated by the operator, and one in which the paper cartridges employed are formed in a continuous roll and detachably secured to the toy, thus obviating the necessity of transporting a separate supply of cartridges.

In the accomplishment of the above objects I preferably employ an inner elastic inflatable body and a protective covering therefor provided with a pneumatically operated inlet check valve. The inflatable body of the toy is also provided with a cylindrical neck in which is mounted a suitable carriage clamping mechanism, all of which will be more fully and particularly described hereinafter.

In the drawings attached hereto and forming a part of this specification: Figure 1— is an elevation of my improved toy partly in section. Fig. 2— is a detail side elevation showing the cartridge attaching mechanism. Fig. 3— is a top plan view of the device showing the cartridge mechanism.

Referring to the drawings, 5 designates an inner elastic body preferably approximately spherical provided with a cylindrical neck 6 to which the cartridge retaining mechanism is secured. Disposed diametrically of the neck 6 is an opening 7 in which an air inlet check valve 8 is rigidly secured. The inner elastic body is covered by an outer inelastic body or covering preferably formed of leather or like material which is designed to prevent an accidental fracture of the inner body.

Mounted in cylindrical neck 6 is a tubular base member 9 of a cartridge retaining mechanism. This member is provided with an annular extension 10 larger in diameter than member 9 and screw-threaded on its interior

for the reception of an annular exteriorly threaded annular clamping member 11 which is designed to retain the continuous cartridge strip 12 firmly in position over the opening formed in the neck 6 prior to inflating the body 5. Below the upper edge of the annular extension 10 and oppositely disposed are transverse guide slots 13 through which the cartridge strip 12 is adapted to pass. These slots as clearly shown in Fig. 1 have enlarged or flaring lips 14 so that the operator may experience no trouble in inserting the strips therethrough.

The cylindrical base member 9 is preferably held in place in the neck 6 of the body by means of a metallic cylindrical strap 15 which passes around the neck 16 of the outer elastic body, the ends being riveted together so as to rigidly secure the cartridge retaining mechanism firmly in place and against movement.

To prevent disengagement of member 11 from extension 10 of the cylindrical base member 9 I have provided on the periphery of said extension 10 a pin 17 which is adapted to be engaged by a boss 18 secured to the member 11. It will be observed that when the lug 18 contacts with the pin 17 as clearly shown in Fig. 2 of the drawings, that the member 11 will be in an unseated position and permit a movement through the slots of the cartridge 12.

Formed integrally with strap 15 and projecting therefrom are bearing lugs 19 in which is journaled a pin 20 that is adapted to carry a roll 21 of cartridge supply material. One end of the pin 20 is headed and its opposite end is screw-threaded and provided with a butterfly nut 22, thus enabling a new roll of material to be substituted for the used one.

The inflation valve 8 preferably consists of a cylindrical body preferably formed of wood or other inexpensive material. The inner end of this valve projects inside of the inner body 5 and is provided with an annular groove 23, a wire 23' maintaining valve closure 24 in position. This closure preferably consists of a piece of thin elastic material, such as rubber which is adapted to close the inner end of opening 25 and prevent the escape of air from the body 5. The valve 8 is rigidly secured to the body 5 by means of a metallic strap 26 or other suitable means.

The method of operating this device is as follows; the clamping member 11 is rotated until the lug 18 engages the pin 17 on the extension 10 and the roll of cartridge material 12 is then passed through the slots 13, member 11 being then rotated in the opposite direction to clamp the strip in place. The operator then places the valve 8 to his lips and forces air into the body 5, the elastic closure 24 being unseated so as to permit the entrance of the air thereto. As soon as the body is sufficiently inflated, the pressure of the air against the closure 24 will securely hold the closure in place and prevent the escape of air from the body. The toy may now be stepped on or the body forced against some hard substance such as a wall when the compressed air contained in the body will break or burst the cartridge, causing a loud explosion. The same operation may be repeated indefinitely or as long as the cartridge roll lasts, the fractured portion being drawn through and torn off each time.

It will be observed from the foregoing description that I have provided a novel toy by means of which an unlimited amount of amusement may be furnished children without the danger that usually attends the explosion of gun powder.

Having described my invention what I claim as new and desire to secure by Letters Patent is:—

1. A device of the class described, comprising an expansible body and inflation means therefor, a paper clamping mechanism secured to said body, and a roll of cartridge supply material secured to said body adjacent to said clamping mechanism, said

supply material adapted to be engaged by said clamping mechanism.

2. A device of the class described, comprising an expansible body and inflation means therefor, and a paper cartridge clamping mechanism connected to said body.

3. A device of the class described, comprising an expansible body, a cover for said body, an air inlet valve connected to said body, and a paper cartridge clamping mechanism secured to the body.

4. A device of the class described, comprising an expansible body member formed of an elastic material, a cover for said body formed of inelastic material, an air inlet valve attached to and communicating with the interior of said body, and an annular paper clamping mechanism secured to said body, said mechanism adapted to retain a paper cartridge in operative relation to said body member during inflation.

5. A device of the class described, comprising an expansible body member formed of an elastic material, a protective covering therefor, said covering being of an inelastic material, an air inlet valve attached to and communicating with the interior of said body, a paper clamping mechanism secured to said body, and a roll of cartridge supply material secured adjacent to said clamping mechanism.

In witness that I claim the foregoing I have hereunto subscribed my name this 2nd day of January, 1909.

J. B. BOWMAN.

Witnesses:

EDMUND A. STRAUSE,
M. A. PALMER.