G. RUBEL.

TOY BALL THROWER.

APPLICATION FILED FEB. 3, 1916.

1,210,847. Patented Jan. 2, 1917.

Fig. 1.

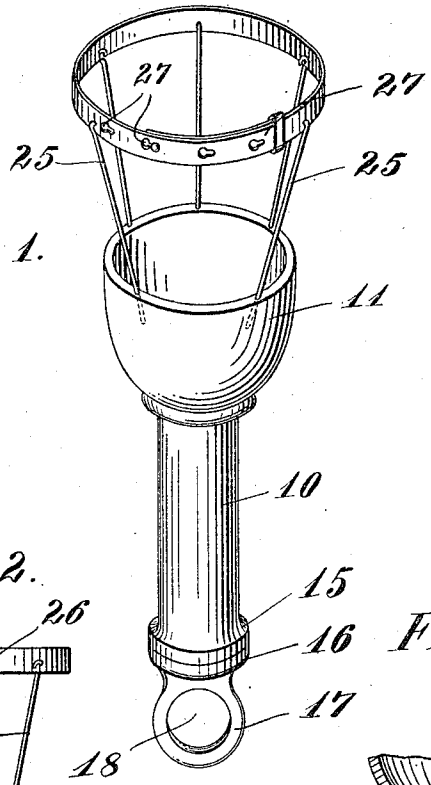


Fig. 2.

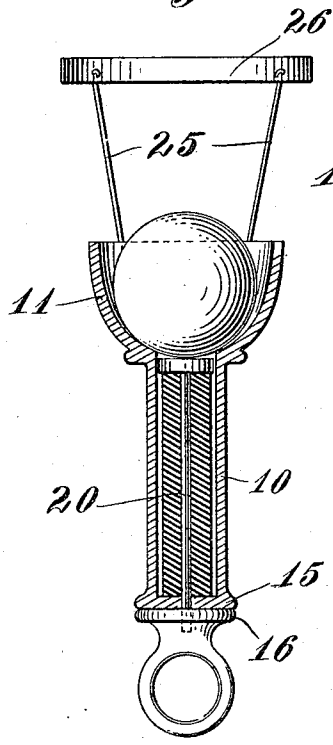


Fig. 3.

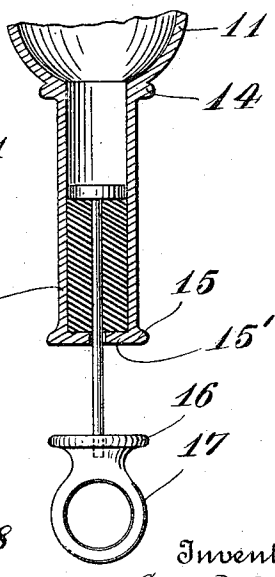
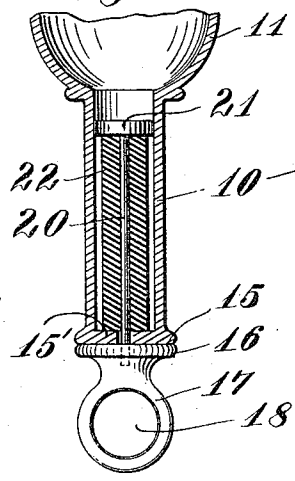


Fig. 4.



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UNITED STATES PATENT OFFICE.

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TOY BALL-THROWER.

1,210,847. Specification of Letters Patent. Patented Jan. 2, 1917.

Application filed February 3, 1916. Serial No. 75,919.

To all whom it may concern:

Be it known that I, GEORG RUBEL, a subject of the Emperor of Germany, and resident of New Orleans, in the parish of Orleans and State of Louisiana, have invented certain new and useful Improvements in Toy Ball-Throwers, of which the following is a specification.

This invention relates to improvements in toy ball throwers and particularly to that type adapted to discharge a spherical object with considerable violence.

The object of the invention is to provide a device which can be used by children in an exhibition of skill whereby a pleasing amusement is furnished inculcating a knowledge of the law of gravitation and a sense of direction desirable to attain.

This and other objects are attained by the novel construction and combination of parts hereinafter described and shown in the accompanying drawings, forming a material part of this specification, and in which:—

Figure 1 is a perspective view of a ball thrower, made in accordance with the invention. Fig. 2 is a vertical section taken through the center of the same. Fig. 3 is a similar vertical section, showing the parts in another position, and Fig. 4 is a similar fragmental view showing a modification in construction.

In all of the several views the stem or handle portion 10 is of a shape and size adapted to be conveniently grasped in the hand of an operator and is provided at its upper end with a hemispherical hollow casing 11 adapted to receive and temporarily maintain the ball or sphere with which it is to be used.

At the ends of the handle portion 10 are raised annular ribs, respectively 14 and 15, by which the hand is materially guided, the lower plate or head 15′ being similar in size to a flange 16 formed with the operating knob 17, preferably flattened as indicated, and pierced with an opening 18 suited to be held between the thumb and finger of the operator.

Rigidly affixed to the flange 16 and central thereof is a small rod or bar 20 having at its outer end a piston 21, the rod being operative through the end of the stem 10 in the manner shown. Between the piston 21 and the inner surface of the plate 15′ is an annular sleeve 22 made of any suitable, highly elastic material, as rubber, so that as the handle 17 is withdrawn and suddenly released, the elasticity of the sleeve 22 will throw the piston 21 with considerable violence toward or into the opening within the semispherical shell 11, making contact with a ball, if one be placed therein, ejecting the same with considerable force, as will be seen by an inspection of Figs. 2 and 3, the latter of which shows the sleeve in a depressed condition.

In Fig. 4 a modified form is shown in which the piston 21 is neatly fitted to the cylindrical bore of the stem 10, causing a slight suction to be formed when the handle 17 is drawn outwardly, enough air, however, leaking in so that as the handle is released the piston 21 causes the air entrained in the upper end of the bored stem to be compressed and act against the surface of the sphere, which is ejected by the air rather than by direct contact with the piston.

At the top of the semispherical shell 11, are a number of rods 25, the lower ends of which are loosely contained in openings made at the top of the shell, while their upper ends are secured to a band 26, the diameter of which can be regulated by means of the fastenings 27 as clearly shown in Fig. 1.

The superstructure operates in the manner of a guide to receive the ball, which may be tossed in the air and caught within the shell, the band 26 assisting and guiding it to its proper location.

Evidently if the band be extended to its fullest extent it is easier to enter the ball therein, but on becoming more expert in the management of the toy the band may be contracted, rendering it more difficult to enter the ball therein, entailing a considerable degree of skill. Thus it will be seen that a toy possessing unusual merit, of inexpensive construction and particularly adapted for indoor amusement is produced.

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

1. In a toy, the combination with a hollow stem adapted to be manually operated and having a cylindrical bore therethrough, of a plunger operatively engaged in said bore, means contained in said bore for normally forcing said plunger toward one end, a hollow hemisphere engaged with and open to the upper end of said stem, a guide band loosely connected with the upper edge of

said hemispherical shell, and means permitting contraction or expansion of said band.

2. In combination with a hollow stem adapted to be manually maneuvered and having a cylindrical bore therethrough, of a plunger suited to the mentioned bore, an elastic compressible sleeve adapted to force said plunger normally outward, means whereby said sleeve may be compressed, a hollow hemispherical casing connected at the upper end of said stem and an extensible guide ring removably engaged with said hemisphrical casing.

Signed at New Orleans, in the parish of Orleans and State of Louisiana this 8th day of January, A. D. 1916.

GEORG RUBEL.

Witnesses:
W. VON BEHREN,
ALFRED ROHLI.

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