(No Model.)

A. A. FREEMAN.

RETURN BALL.

No. 589,500. Patented Sept. 7, 1897.

Fig. 1.

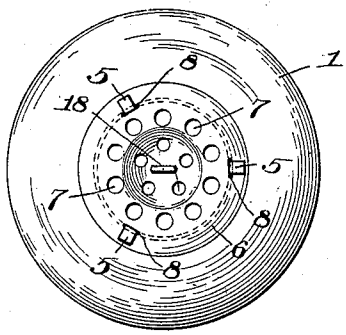


Fig. 2.

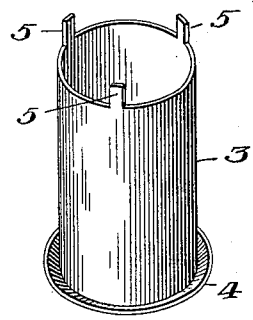


Fig. 3.

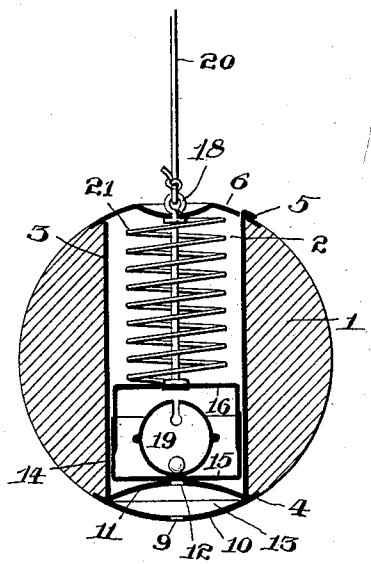
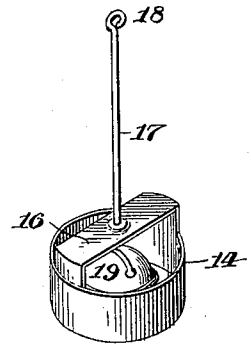


Fig. 4.



Witnesses.

James Lund

Theo. Mungen

Inventor.

Albert A. Freeman

per George E. Buckley

his Attorney.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ALBERT A. FREEMAN, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO JOHN H. SCOTT, OF SAME PLACE.

RETURN-BALL.

SPECIFICATION forming part of Letters Patent No. 589,500, dated September 7, 1897.

Application filed October 15, 1896. Serial No. 609,023. (No model.)

To all whom it may concern:

Be it known that I, ALBERT A. FREEMAN, a citizen of the United States, and a resident of Philadelphia, Pennsylvania, have invented certain new and useful Improvements in Return-Balls, of which the following is a description, reference being had to the annexed drawings, making part hereof.

My invention relates to the toy called a "return-ball," its general form being that which is well known to the trade—to wit, a sphere attached to an elastic band or cord.

The object of my improvements is to produce a toy of the class referred to which while being thrown to and fro will in its transit give forth musical or resonant sounds.

In the drawings, Figure 1 is a plan view of my device; Fig. 2, a detached perspective view of a cylinder designed to be set in and to pass through the middle interior of the ball and provided with a lower flange or check; Fig. 3, a vertical cross-sectional view of my device; Fig. 4, a detached perspective view of the plunger and its rod, showing also a spherical bell and ball in the same form as the ordinary sleigh-bell.

1 is the body of the ball, which may be of rubber, wood, papier-mâché, or other suitable material; 2, a middle cylindrical opening through the ball; 3, a metallic or other cylinder adapted to set through said opening, provided beneath with a flange or check 4 to hold the cylinder from passing too far into or through opening 2.

5 5 5 are flexible ears projecting upward from the upper rim of cylinder 3; 6, a cap the outer rim of which rests upon the ball 1 and it is pierced with openings 7 7 and slots 8 8. These slots are adapted to receive the flexible ears 5 5, which latter project through them and are bent over, (see Figs. 1 and 3,) thus holding the cylinder 3 up in place and securing the cap firmly over the end of said cylinder.

The lower end 10 of cylinder 3 is pierced with an opening 9, and "false bottom" or disk 11 above the true bottom 10 of the cylinder is pierced with opening 12. There is left between the two bottoms a space 13, thus forming a whistle. Air forced through openings 9 and 12 will produce a shrill sound.

14 is a plunger or cage provided with a full bottom 15, adapted by its diameter to nearly fill the circular space in the cylinder 3, whereby as said plunger rises and falls air will be drawn or expelled through the whistle in the bottom of said cylinder.

16 is a yoke across the cage 14, into which is secured the rod 17, the upper end of which, after passing freely through an opening in the center of cap 6, terminates in a ring 18, to which is attached the elastic band 20.

21 is a weak spiral spring setting around rod 17 and above it sets against cap 6 and beneath rests upon yoke 16.

19 is a bell of the ordinary sleigh-bell form in construction provided with the interior rolling ball or knocker. This bell may be set rigidly in cage 14 or may be allowed to roll around freely therein, as shown. By holding the rear end of the elastic and throwing the ball the weight of the latter will draw rod 17 and its plunger or cage 14 up, compress spring 21, and draw air through the whistle in the lower end of cylinder 3. As the ball returns this action will be reversed. In the meantime the sleigh-bell will be fulfilling the objects of its creation by making itself heard in the world.

The sphere 1 is simply a block, and this block may be made of any form suitable to the taste of the manufacturer or the demands of the trade. The sides of the interior space 2 simply serve as a guide to the plunger in its reciprocation. My device forms a musical return-ball. The bottom 10 forms a cap to the lower opening of the block.

What I claim as new is—

A musical return-block consisting of the combination of block 1 provided with an interior space 2; guide 3; cap 6; plunger 14; rod 17 attached thereto and piercing said cap, the outer end of said rod being adapted to be attached to a cord; bell 19 set in said plunger; double bottom or whistle 10, 11, pierced with openings 9, 12; spring 21 arranged between said plunger and one of the caps, substantially as and for the purposes described.

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses.

ALBERT A. FREEMAN.

Witnesses:

GEORGE E. BUCKLEY,

THEO. MUNGEN.