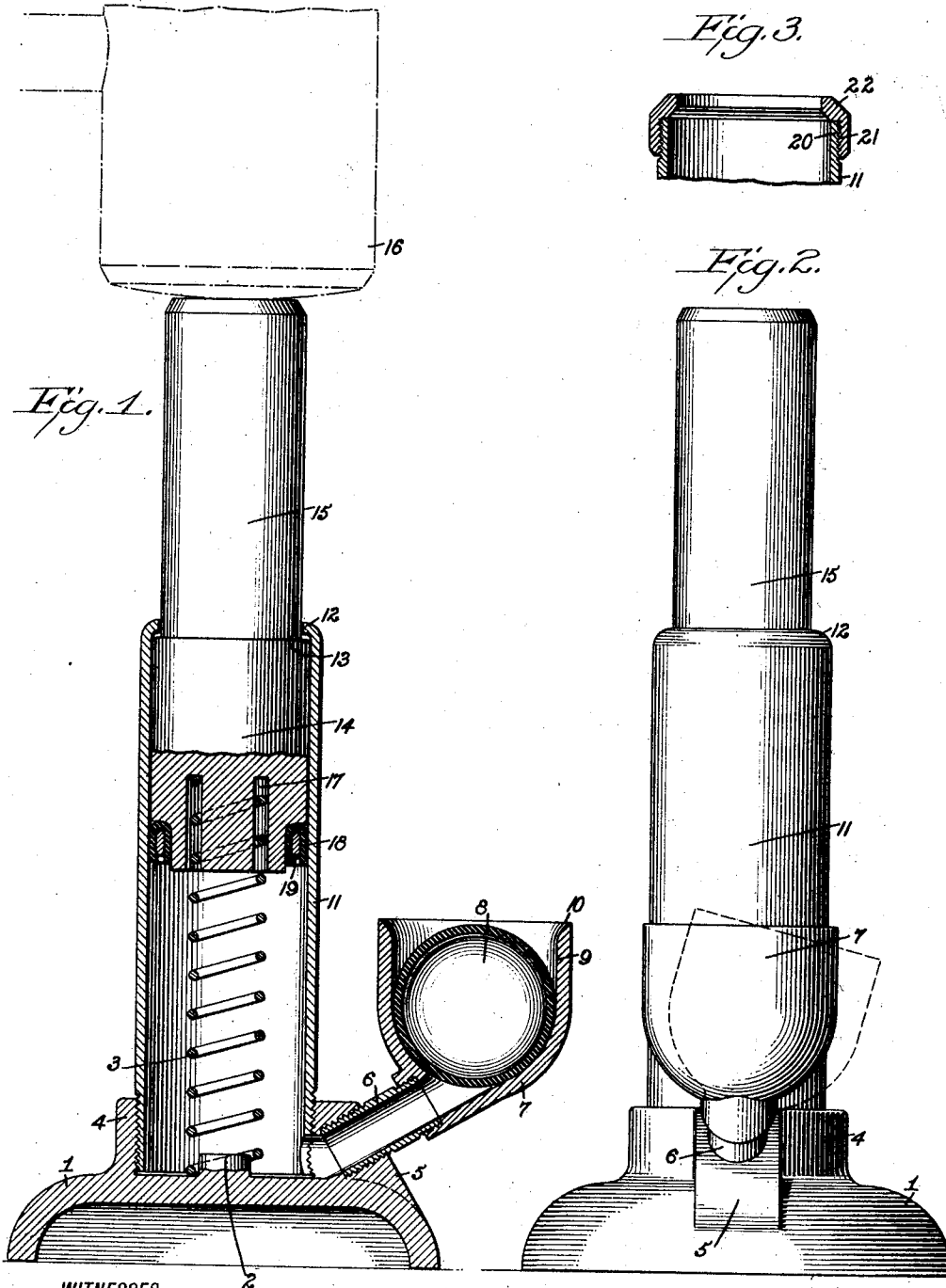


C. P. NEATS.
AMUSEMENT DEVICE.
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WITNESSES

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CLARENCE P. NEATS, OF EAST ORANGE, NEW JERSEY.

AMUSEMENT DEVICE.

1,260,013.

Specification of Letters Patent.

Patented Mar. 19, 1918.

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To all whom it may concern:

Be it known that I, CLARENCE P. NEATS, a citizen of the United States, and a resident of East Orange, in the county of Essex and State of New Jersey, have invented a new and Improved Amusement Device, of which the following is a full, clear, and exact description.

This invention relates to amusement devices and particularly to a projecting device, and has for an object the provision of an improved construction whereby a ball may be projected by air pressure to a distance proportionate to the power exerted by the blow.

Another object in view is to provide a projecting device in which a ball is arranged at a convenient point and means coacting therewith for quickly compressing air beneath the ball so as to cause the same to be projected.

A further object in view is to provide an amusement device which may be moved from place to place and struck by a mallet for causing a quick supply of air under pressure arranged to act on a ball or other projectile for causing the same to be moved through the air.

In the accompanying drawing:

Figure 1 is a longitudinal vertical section through a device embodying the invention.

Fig. 2 is an edge view of the structure shown in Fig. 1.

Fig. 3 is a detail fragmentary sectional view of a slightly modified form of the invention.

Referring to the accompanying drawing by numerals, 1 indicates a base which may be of any material, as for instance, cast material, said base being formed with a lug 2 for centering the spring 3 and with an upstanding internally threaded collar 4 merging into lug 5. Lug 5 is provided with a threaded opening for receiving one end of the pipe 6 which is threaded therein and also into a cup or container 7, which cup is intended to receive a projectile, as for instance, the rubber ball 8. In order to allow the ball to move directly out of the cup the walls 9 are formed straight, or, rather, the interior of the cup is tubular for a short distance, merging into a curved bottom and a curved discharge mouth 10.

The threaded upstanding collar 4 accommodates a tubular member 11 which is threaded therein, said tubular member being of any

desired length and formed with the upper end turned over at 12 for engaging the shoulder 13 of the piston 14. The piston 14 is made from any suitable material, as for instance, wood, and is preferably formed integral with the rod 15 which receives the blow of the mallet or hammer 16 when the device is in use. The piston 14 is provided with an annular socket 17 for accommodating the upper end of spring 3 whereby when the piston 14 is forced downwardly the spring will be compressed or nested in the socket 17. A washer 18 is provided, said washer being held in place by any suitable means, as for instance, ring 19, whereby when a person strikes the piston rod 15 by the mallet or hammer 16 the piston 14 will be moved downwardly quickly against the action of spring 3 and, consequently will compress the air in the tube 11 and in pipe 6. It will be understood that the pressure will vary with the force of the blow and the speed thereof. If the piston is forced down quickly to the bottom of the tube 11 a very high pressure will be produced in pipe 6 and beneath the projectile or ball 8, whereupon the projectile or ball will be forced out of the cup 7 and projected to an appreciable distance.

If the parts are arranged as shown in Fig. 1 the ball will be projected directly upwardly, but if the cup is arranged at an angle, as shown in dotted lines in Fig. 2, the ball will be projected upwardly at an angle from the vertical. Preferably the ball 6 is of such a size as to snugly fit the cup and, in fact, stick to a certain extent therein by reason of the pressure against the walls of the cup so as to give the piston 14 a chance to compress the air in back of the ball. Also, the ball is preferably hollow in order to produce reasonable lightness and a structure which may be pressed with considerable force into the cup and which may be discharged therefrom more or less easily.

In Figs. 1 and 2 the upper end of the tubular member 11 is turned over for preventing the accidental removal of the piston 14 and associated parts, while in Fig. 3 the upper end of the tubular member 11 is provided with threads 20 for accommodating the threaded portion 21 of a collar 22, which collar acts as an overhanging member for preventing the accidental removal of the piston 14. This structure is preferably used in devices of considerable size while the toy

shown in Fig. 1 is preferably designed for small children and by reason of the structure is substantially fool-proof.

What I claim is:

- 5 1. An amusement device comprising a projectile receiving container, a tube acting as a cylinder, means for providing a communication between the bottom of the container and the tube, said means supporting
10 the container, a piston arranged in said tube, said piston being formed with a projection extending to a point exteriorly of the tube whereby when the piston is forced
15 downwardly quickly the air in the tube and at the bottom of the container will be compressed for forcing a projectile from said container, and a spring in said cylinder to act on said piston and move the piston back to its normally raised position.
- 20 2. An amusement device comprising a base, a tubular member connected with said base, a piston arranged in said tubular member, a spring normally holding said piston in an elevated position, a projectile receiving
25 container, an adjustable means forming a passageway between the bottom of the container and the bottom of the tubular member, said adjustable means acting as a support for the container whereby the con-
30 tainer may be supported in different positions causing the projectile to move therefrom at different angles.
3. An amusement device comprising a container for receiving a ball, a tubular
35 member extending from said container, a base formed with an upstanding sleeve, the interior of the sleeve being in communication with said tubular member, a cylinder connected with said tube and held in place
40 by said sleeve, a piston arranged in said cylinder with a rod extending therefrom, and a spring engaging said piston and said base whereby when said rod and piston are

45 moved quickly downwardly air will be compressed beneath said ball for projecting the ball from the container and said spring will be compressed preparatory to automatically returning the piston and rod so released.

4. An amusement device of the character described, comprising a container and a
50 tube or cylinder arranged normally substantially parallel, a tubular member connecting the bottom of said tube and said container, said tubular member being formed with threads whereby the same is connected
55 with the container and at the same time permits an adjustment of the container so as to be pointed at different angles with respect to said tube, means for compressing the air in said tube, and a spring for moving the
60 parts back to their former position.

5. An amusement device, comprising a base, a tubular member connected with said base, a container in communication with the bottom of the tubular member, said con-
65 tainer being adjustably positioned so as to point in a plurality of directions, a piston arranged in said tube, said piston being adapted to compress the air in the tube for projecting an article in said container, and
70 a spring acting on said piston for returning the piston to its normal position when moved therefrom.

6. An amusement device, comprising a tubular member, a container for receiving a
75 ball, hollow means connecting the bottom of said tube and said container, a piston arranged in said tubular member, said piston being formed with an annular socket, and a spring with one end extending into said
80 socket for resiliently holding said piston in a given position, said socket accommodating said spring when the spring is compressed.

CLARENCE P. NEATS.

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