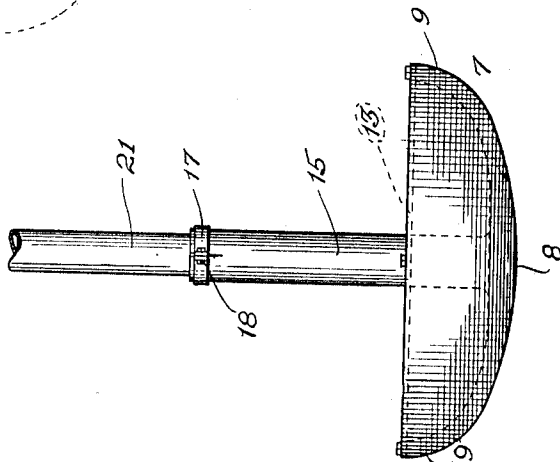
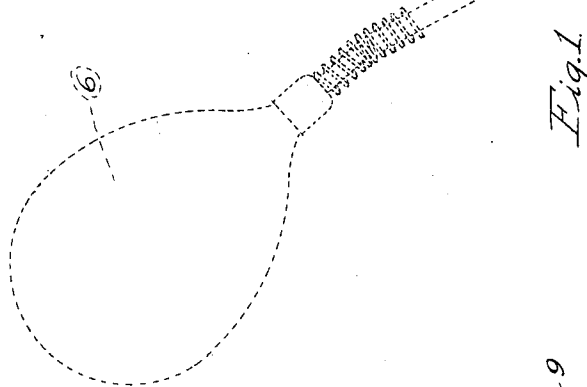
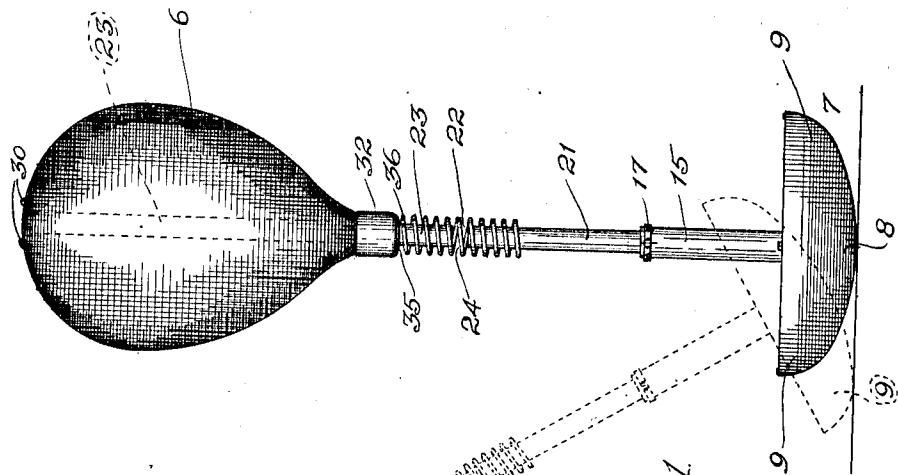


R. B. PATTERSON, JR.
EXERCISER.
APPLICATION FILED APR. 13, 1911.

1,020,367.

Patented Mar. 12, 1912.
2 SHEETS—SHEET 1.



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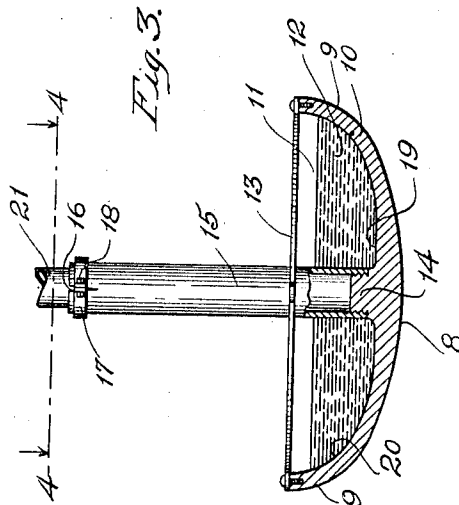
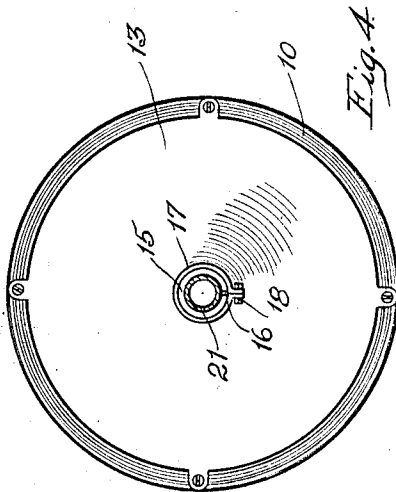
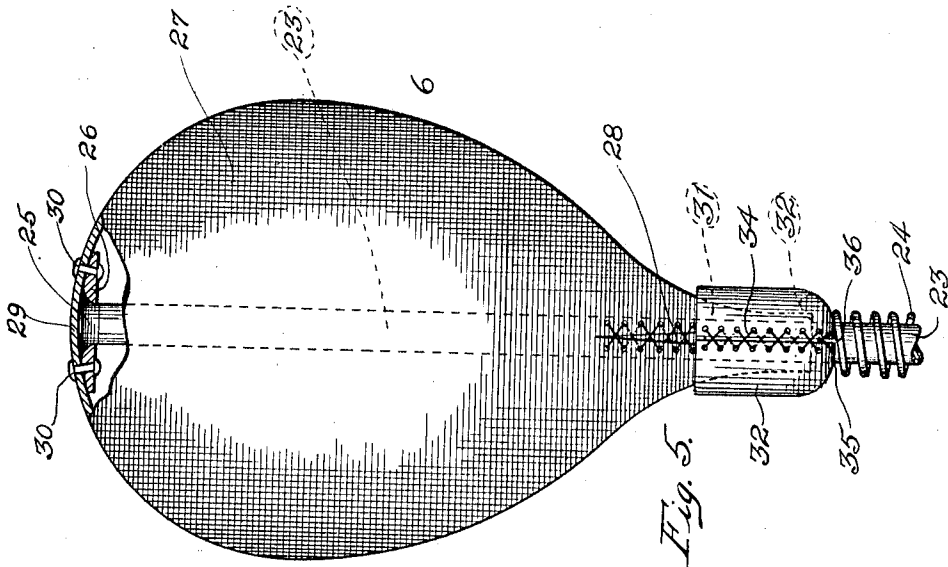
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UNITED STATES PATENT OFFICE.

RICHARD B. PATTERSON, JR., OF CHICAGO, ILLINOIS.

EXERCISER.

1,020,367.

Specification of Letters Patent.

Patented Mar. 12, 1912.

Application filed April 13, 1911. Serial No. 620,938.

To all whom it may concern:

Be it known that I, RICHARD B. PATTERSON, Jr., a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Exercisers, of which the following is a specification.

This invention relates to a form of exerciser intended in general to take the place of the ordinary punching bag, although as will hereinafter appear, the device of the present invention has a number of advantages over the ordinary suspended bag.

The ordinary punching bag must be permanently secured to a suitable frame or housing which occupies considerable room, is expensive to make, difficult to transport from place to place and limited to use in comparatively large rooms. The striking of the bag against the roof of the housing makes considerable noise, and for this reason the ordinary punching bag is objectionable for use in many locations.

The main object of this invention is to provide an exerciser which shall be self-contained, the bag portion as it may be termed, being suitably attached to a comparatively heavy base which may be set on the floor wherever desired.

Other objects of the invention are to provide a form of exerciser which will give a peculiar rebounding action, the exact action being adjustable to a certain extent according to the wishes of the person using the device; to provide means for adjusting the height of the bag portion according to the wishes of the user; to provide an exerciser the base portion of which may be changed from time to time as desired, each base portion being properly shaped to give a certain "speed" of the rebound; to provide a bag portion of such form that it will maintain its shape under comparatively severe usage; to provide means for lacing the bag portion onto the stiffening rod in a comparatively simple manner; and in other ways and manners to generally provide a form of exerciser to meet all of the above as well as other requirements.

Other objects and uses will appear from a detailed description of the invention which consists in the features of construction and combination of parts hereinafter described and claimed.

Referring now to the drawings, Figure 1 shows a side view of the device showing its

normal position by means of the full lines, and showing it in thrown position by means of dotted lines; Fig. 2 shows an enlarged detail side view of the base portion; Fig. 3 shows a cross section of the base portion; Fig. 4 shows a section taken on the line 4-4 of Fig. 3 looking in the direction of the arrows; and Fig. 5 shows an enlarged side view of the bag portion, a part of the top thereof being cut away.

In the embodiment of my invention, I provide a base member having its lower surface rounded or curved in a peculiar manner and of such form and weight that the entire structure will tend to assume an upright position after it has been tilted over by delivering a blow on the bag portion. The bag portion is supported on an upright column or rod suitably attached to the base member and the height of which may be adjusted from time to time according to the wishes of the user. When desired, the upright support may be broken and the two portions thereof joined together by means of a spring or the like, so that a peculiar movement of the bag portion results when it is struck a blow. When desired, the base portion may be made hollow and partly filled with some heavy liquid in which case a still further change in the speed and rebound of the bag will occur when the same is struck.

Referring now to the drawings, the device comprises a bag member 6 suitably supported by a base member 7, so that as blows are delivered on the bag the same may tilt to one side. In the particular construction illustrated, the base is made very heavy with respect to the bag, and is of such form that it normally returns to the upright position illustrated by full lines in Fig. 1.

It will be seen that the restoring tendency, and, consequently, the quickness with which the device tends to resume the upright position will depend largely upon the curvature of the bottom of the base. In the construction illustrated, the base is nearly flat in its central portion 8, its edges 9 being curved much more rapidly. For this reason, when the bag is struck a blow, it will be thrown over into dotted line position of Fig. 1, and will then start to return to normal position. The first part of this return movement will be comparatively slow, owing to the sharp curvature of the portion 9, but as soon as the device is nearly upright, it will suddenly swing into straight up position, thus re-

turning with a blow similar to that which would be given in a boxing match. The reason why the bag will suddenly swing into upright position when the comparatively flat portion 8 comes into contact with the floor is that then a comparatively small lowering of the center of gravity of the base will mean a considerable swing of the bag to one side. In other words, at this point, a comparatively small movement of the base will mean a comparatively large angular movement of the bag. It will, of course, be understood that I do not in any way restrict myself to the exact curve of bottom shown, but that I contemplate within the scope of my invention any curvature desired, such curvature depending upon the weight and size of the base as compared with the bag.

Referring now to Figs. 2 and 3 particularly, I will describe more in detail the form of base illustrated. The same comprises a dish shaped casting 10, the hollow interior 11 of which is adapted to receive a heavy liquid 12, as, for example, mercury. A cover 13 closes the base to prevent leakage of the liquid. The base casting is provided with a boss 14 to which may be secured an upright pipe member 15, the upper end 16 of which is split so that a clamping action may be secured by means of a sleeve 17 and bolt 18.

The central portion 19 of the inner surface of the casting is practically flat, while its outer portions 20 have a curvature similar to that of the outside of the base. One of the objects of forming the base in this peculiar manner, that is, making it hollow and partly filling it with a heavy liquid, is to obtain a somewhat irregular rebound after a blow has been struck on the bag. Also the liquid will tend to "kill" the rebound to a certain extent by splashing around inside of the hollow base, and thus dissipating the rebound energy. I have found that by the use of a hollow base of this form, a peculiar returning movement takes place, and that the bag will generally rebound in an unexpected direction. The rebound will be with a somewhat irregular motion, so that considerable skill is needed to meet the bag, and the device thus serves to give excellent training to the user.

The upright stem comprises a pipe member 21 which sets into the pipe 16, and the vertical elevation of which may be adjusted after the sleeve 17 has been loosened. This pipe is broken at the point 22, its upper portion 23 continuing on up to the top of the bag. A spring 24 connects the upper and lower parts together, and thus permits the bag to deflect over, as shown in the dotted line position when it is struck a blow. By the use of this spring joint, a still more irregular movement of the bag is secured.

Referring now particularly to Fig. 5, I will describe the bag portion. The upper portion 23 of the pipe is carried up substantially the full height of the bag, and has its upper end 25 flanged out to provide a collar against which a leather washer or the like 26 may press, and which collar will prevent the leather washer from sliding off endwise from the pipe. The preferred form of bag comprises a leather shell 27 having its lower end 28 split and laced together, and having its upper portion 29 secured to the washer 26 as by means of rivets 30. Any suitable stuffing may be used inside the leather shell.

I have provided special means for preventing the lower end of the bag from drawing up on the pipe 23. To this end, its lower portion is drawn in close to the pipe in the form of a neck 31 which lies substantially parallel to the pipe for some distance from the extreme end 32 of the bag. By tightly lacing this neck portion, the bag will be held securely on the pipe. I then provide a leather collar 33 which surrounds the neck, and is filled with suitable stuffing, and may be laced up tight around the neck by laces 34. The lower edge 35 of this collar may extend down so as to meet the upper end 36 of the spring which will thus hold the collar securely in position.

I claim:

1. In an exerciser, the combination with a bag element, of a hollow base member therefor, having its lower surface of suitable curvature and being of suitable mass to normally restore the bag member to upright position when the base member stands on a substantially level floor, and a suitable liquid within the base member, substantially as described.

2. In an exerciser, the combination with a bag element of a rod extending through the same substantially to the top thereof, and having its upper end outwardly flanged, a suitable washer on the rod and engaging the flange, and a suitable connection between the washer and the upper portion of the bag element, substantially as described.

3. In an exerciser of the class described, a bag member comprising a longitudinal stiffening rod, a shell surrounding the same and formed of suitable material, suitable packing within the shell, means for securing the upper end of the shell to the upper end of the stiffening rod, and means for preventing longitudinal movement of the lower end of the shell on the rod, substantially as described.

4. In an exerciser of the class described, the combination of a shell of suitable material having its upper end completely inclosed, a longitudinal stiffening rod extending upwardly within the shell to the upper end thereof, suitable packing within the

5 shell and surrounding the rod, means for drawing the lower end of the shell in tightly against the rod, and means for holding the said lower end against downward displacement on the rod, substantially as described.

10 5. In an exerciser, the combination of a bag element, a hollow base member therefor having its lower surface of such curvature and being of such mass as to tend to restore the bag element into upright position, a spring jointed connection between the bag

element and the base member, and liquid within the base member, whereby the base member tends to restore the bag element into upright position, and the liquid in the base and the spring jointed connection give the bag element a characteristic restoring motion, substantially as described.

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