Jan. 18, 1966 S. E. SMOAK, JR 3,229,979

HAND ATTACHED BAT WITH PROJECTILE TETHERED THERETO BY A STRAND OF ADJUSTABLE LENGTH

Filed April 30, 1963

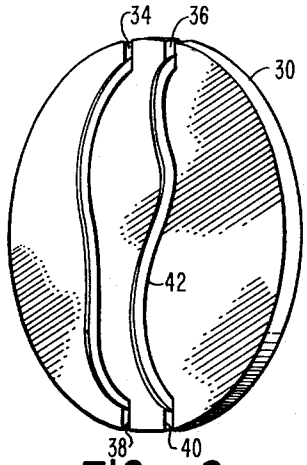


FIG.—2

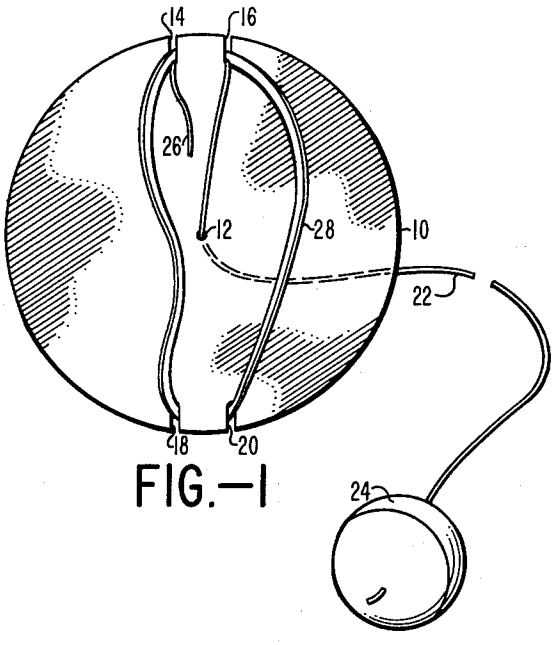


FIG.—1

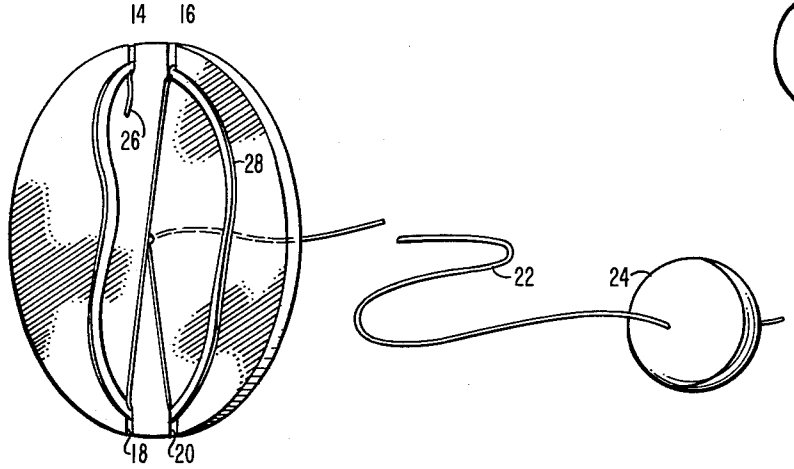


FIG.—3

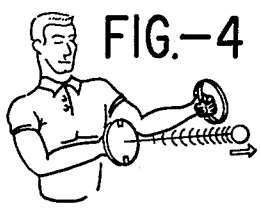


FIG.—4

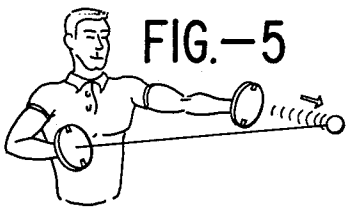


FIG.—5

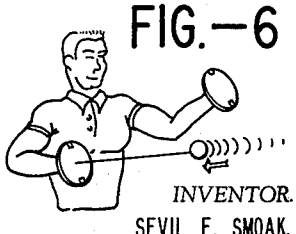


FIG.—6

INVENTOR.
SEVIL E. SMOAK, JR.

BY Harry Kaston

ATTORNEY

United States Patent Office 3,229,979
Patented Jan. 18, 1966

3,229,979

HAND ATTACHED BAT WITH PROJECTILE TETHERED THERETO BY A STRAND OF ADJUSTABLE LENGTH

Sevil E. Smoak, Jr., 3755 S. Chesapeake Ave., 337-E, Los Angeles, Calif.

Filed Apr. 30, 1963, Ser. No. 276,933
2 Claims. (Cl. 273—97)

This invention relates generally to a training device and more particularly to a two hand coordination developer and exerciser.

Heretofore, toys have been available consisting of a plate-like bat with a ball tethered thereto by an elastic strand. In use the ball is struck by the bat in either a generally upward direction or a downward direction and the elasticity of the strand returns the ball to the vicinity of the bat. In this way the ball can be struck rapidly and rythmically. However, such toys were not suitable for use as coordination developing devices and exercises for training in the sport of boxing because both arms were not used in striking the ball with generally horizontally directed boxing type arm thrusts.

Applicant discovered that if a plate-like bat were held on the fist of each hand but with a single ball tethered to just one of the bats then it was possible to use both arms alternately and in sequence for rapidly and repeatedly striking the ball using boxing type generally horizontally directed arm thrusts. The reason is that if a single ball is used with a single bat, the operator must wait until the ball returns close to the vicinity of the bat before he can strike it using a horizontally directed arm thrust. But if a bat is also attached to the fist of the other hand, the operator can strike the ball with a boxing-like arm thrust while it is still a distance away from him and before the ball has had an opportunity to fall very far. In this way the ball can be struck more rapidly and the arm movements will more closely resemble the arm movements used in working out with a punching bag. In addition, because of the small size of the ball and its speed, eye and hand coordination will be increased. This offers an important advantage in training boxers over the conventional punching bag.

What is needed, therefore, is to provide a two hand coordination developer and exerciser.

An object of this invention is to provide a plate-like bat having a rubber ball tethered thereto by an elastic strand wherein the length of the strand can be quickly and repeatedly varied without injury to the strand.

A further object of this invention is to provide a plate-like bat, having a rubber ball tethered thereto by an elastic strand, provided with a handle, which also serves to releasably hold the elastic strand to the bat.

Still another object of this invention is to provide a new and improved plate-like bat which is simple and economical to make.

These and other objects of this invention will become more apparent when read in the light of the accompanying drawings and specification wherein:

FIG. 1 is a rear view of one plate-like bat showing a ball tethered thereto by an elastic band and showing a rubber band handle portion.

FIG. 2 is a perspective view of another plate-like bat for use on the fist of a hand, but without a ball tethered thereto.

FIG. 3 is a view of the plate-like bat shown in FIG. 1 disclosing the means for adjusting the length of the strand.

FIG. 4 is a perspective view of a person using a boxing-type generally horizontal movement of his right arm to cause a right hand bat to strike a rubber ball tethered thereto.

FIG. 5 is a perspective view of the same person just after he has struck the rubber ball with the left hand bat and showing a rearward movement of the right hand for influencing the path of the ball.

FIG. 6 is a perspective view of the same person striking the ball with another horizontally directed boxing type thrust of his right arm.

Referring now to FIG. 1 of the drawing, a plate-like bat indicated generally by the reference numeral **10** is shown as circular in shape, although it is understood that the shape is not critical. The bat is provided with a centrally disposed hole **12** extending therethrough. In addition, the bat is provided with inwardly extending grooves **14** and **16** on one edge, and grooves **18** and **20** on the diametrically opposed edge for reasons to be described below.

An elastic strand **22** is provided. A ball **24** formed from rubber or some other resilient bouncy material is secured to one end of the strand so that it may impinge on one face of the bat. The opposed end **26** of the strand extends through the hole **12** and is looped around grooves **14** and **16** to secure the strand to the bat **10** as shown in FIG. 1 and to leave free a substantial surface of the impact face so that the ball, as it bounces thereon, will not be interfered with by the strand.

A combined bat handle and strand retaining member, which in the embodiment shown comprises a thick rubber band **28**, is provided. The opposed looped end portions of the rubber band fit into grooves **14** and **16** and **18** and **20** as shown in FIG. 1. In this way, the thick rubber band **28** is held on the bat **10** serving as a handle, and in addition rubber band **28** retains the end **26** of the strand **22** in grooves **14** and **16**.

A second plate-like bat **30** is provided so a bat may be attached to the fist of both hands, see FIG. 2. Bat **30** may be identical in structure to bat **10** except that the ball and elastic strand need not be attached to it. Consequently, bat **30** is provided with diametrically opposed pairs of grooves on its opposed edges. These grooves comprise grooves **34** and **36**, and grooves **38** and **40**. In addition, a rubber band handle **42** is shown attached to the bat with its opposed end portions in these grooves.

Although bats **10** and **30** are shown with a rubber band handle, it is apparent that the handle could be constructed differently.

With the structure shown in FIG. 1, the length of the elastic strand can be varied as desired to accommodate variations in the size and strength of the user. To vary the length of the strand it is only necessary to draw a sufficient length of strand through hole **12** and loop it around the grooves **18** and **20**, as shown in FIG. 3. A further decrease in the length of strand **22** is possible by drawing more of the strand through hole **12** and looping it around grooves **14** and **16**.

If the width of the grooves is comparable to the width of the strand, the strand loops will remain in the grooves without additional support. However, if the width of the grooves is much greater than the width of the strands, the opposed ends or loops of the rubber band handle when mounted in the grooves would cover the strand loops and hold them in place.

In use, ball **24** is struck by the bat **10** to which it is attached and which in the example shown in FIG. 4 happens to be held in the right hand, causing the ball to rebound. It is noted that the arm thrust is directed generally horizontally and the arm movement is a boxing type blow.

Before the ball under the influence of strand **22** has returned to bat **10**, it impacts and is struck again by bat **30**, which in the example shown in FIG. 5 happens to be held in the left hand, causing the ball to again rebound. At the same time the right hand holding bat **10** has been moved

rearwardly, a short distance, both to influence the path of the ball so it moves to where it can be struck by bat **30** and to increase the force of contact between bat **30** and the ball **24**.

In FIG. 6 after being struck by bat **30**, the ball has returned and has again impacted on and struck by bat **10**. It is apparent from the series of actions shown in FIGS. 4, 5, and 6 that the ball **24** can be hit rapidly and repeatedly by sequential boxing type blows from the bats held in both hands of the operator so that it impacts on and rebounds alternately from bat **10** and bat **30**. Furthermore, it is apparent that there is a necessary cooperation between the bats because a suitable rearward movement of the hand holding the bat to which the ball is tethered is necessary both to control the path of the ball enough so it can move into a position where it can be struck by bat **30**, and to exert a pull on the ball through the strand in order to increase the force of contact between bat **30** and ball **24**, so that the ball may impinge on bat **30** with the proper force.

The invention may be embodied in other forms without departing from the spirit or essential characteristics thereof as set forth in the claims and the present embodiment is therefore to be considered as illustrative and not restrictive and it is intended to include all changes which come within the scope and range of the claims.

I claim:

1. An apparatus of the class described comprising a circular plate, said plate provided with a centrally disposed hole formed therein, pairs of inwardly extending grooves formed on diametrically opposed edges of the plate, an elastic strand extending through said hole, one end of said strand secured to a rubber ball, the opposite end of said strand adapted to be looped around the pair of grooves on one edge of the plate, other portions of the strand adjacent said opposite end adapted to be looped around the pair of grooves on the opposite edge of the plate when it is desired to shorten the strand, and a rubber band handle, the opposed ends of said rubber band handle fitting into the pairs of grooves on opposed edges of the plate both to hold said rubber band handle to said plate and to cover and retain any strand loops in said pairs of grooves.

2. An apparatus of the class described comprising a plate, said plate provided with a hole formed therein, pairs of grooves formed on the opposed edges of the plate, an elastic strand extending through said hole, one end of said strand secured to a bounceable member, the opposite end of said strand adapted to be looped around one pair of grooves, other portions of the strand adjacent said opposite end adapted to be looped around the pair of grooves on the opposite edge of the plate when it is desired to shorten the strand, and a combined handle and strand retaining member, said combined member having opposed loop like portions adapted to fit into the pairs of grooves on opposed edges of the plate both to hold said combined handle and strand retaining member to said plate and to cover and retain said strand loops in said pairs of grooves.

References Cited by the Examiner

UNITED STATES PATENTS

286,570	10/1883	Sweeten	273—97

FOREIGN PATENTS

757,603	10/1933	France.
414,017	7/1934	Great Britain.

DELBERT B. LOWE, *Primary Examiner.*