April 8, 1930. H. O. COSTELLO 1,753,309

EXERCISING APPARATUS

Filed Jan. 23, 1928

Fig. 1.

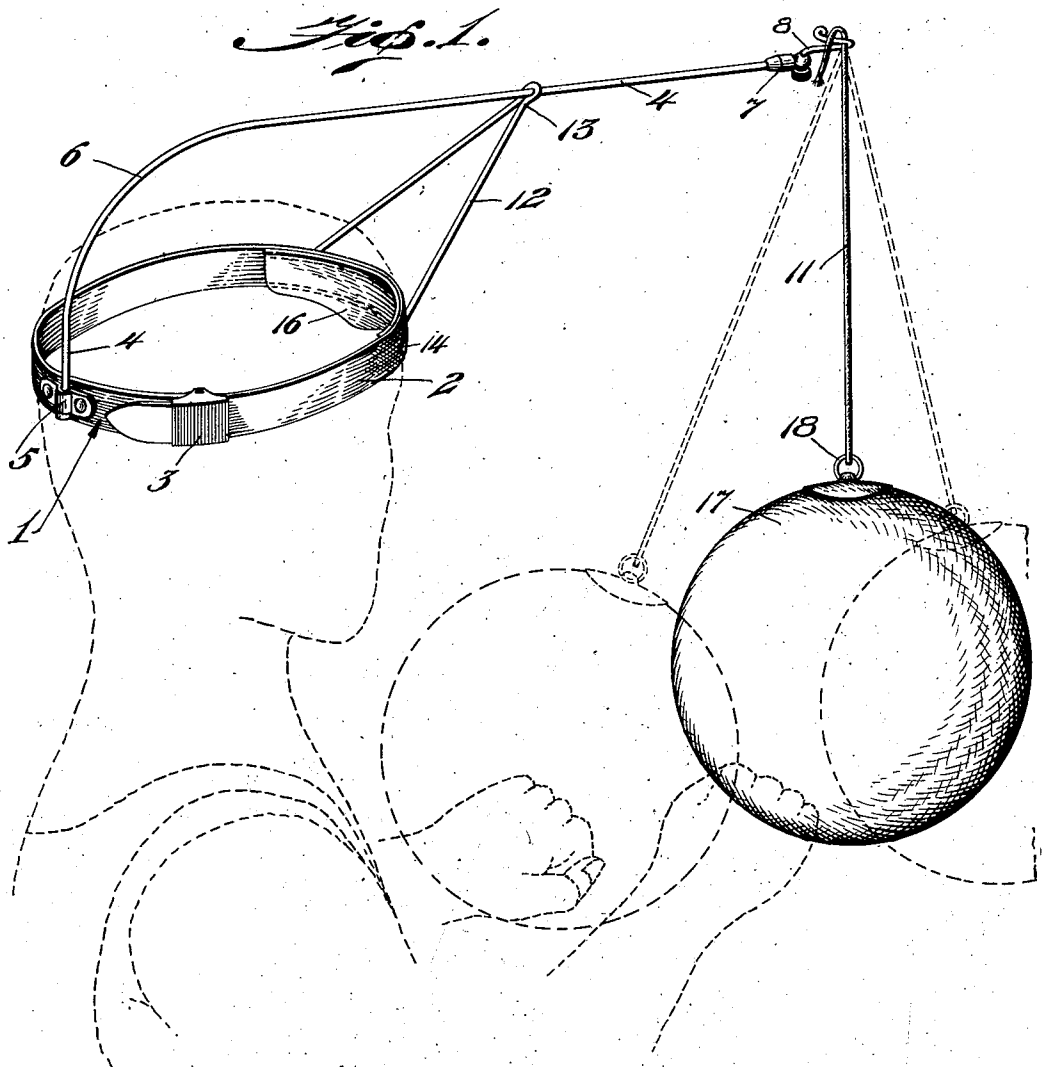


Fig. 2.

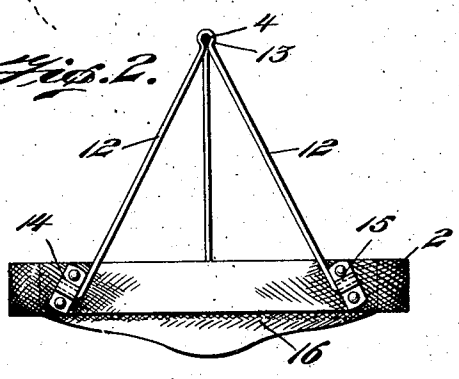
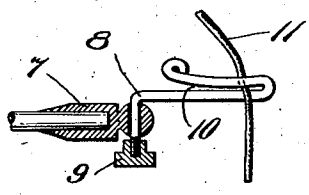


Fig. 3.



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UNITED STATES PATENT OFFICE

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EXERCISING APPARATUS

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This invention relates to an improved exercising apparatus adapted for use both as an exercising device and for the training of athletes in preparation for boxing, foot-ball, soccer, etc.

One object of the present invention is to provide a simple and inexpensive device of this character which may be easily transported from place to place and employed in an ordinary room for acquiring exercise or for training for sports or games without requiring the cumbersome and expensive equipment usually found in gymnasiums or training quarters.

Another object of the invention is the provision of an improved exercising apparatus which is particularly adapted for training athletes in boxing, in catching and passing a ball as in foot-ball and basket-ball, and in pushing or kicking the ball as in soccer.

Another object of the invention is the provision of improved means for resiliently supporting a ball from the head of the user at a point above the eyes in such a manner that the ball when in motion under the impulse of blows delivered by the user will normally move in such a path as to permit an unobstructed view thereof by the user, and will tend to return towards the user along a path extending substantially directly towards the face of the user.

A further object of the invention is the provision of an improved form of helmet, or head-piece for supporting an inflated ball in proper position for its manipulation by the wearer.

Other objects and advantages of the invention relate to various improved details of construction and novel methods of operation as will be more fully set forth in the detailed description to follow.

Referring to the drawings:

Fig. 1 is a perspective view of the improved apparatus, illustrating the position of the parts when carried by the head of the user, and indicating diagrammatically the manner in which the same may be manipulated by the user,

Fig. 2 is a front elevational view of the head-piece illustrating the supporting brace and showing the means by which the same is secured to the head-band, and,

Fig. 3 is a detail view of a form of swivel which may be employed for attaching the ball to the supporting arm.

Referring to the drawings wherein like reference characters designate corresponding parts throughout the several views, 1 indicates generally a helmet or head-piece which in the embodiment illustrated comprises a band 2 formed of suitable material such as leather or the like, and capable of being secured in a plurality of adjusted positions by a buckle or other fastening means 3 to fit the head of the user. A supporting arm 4 has one end attached to that portion of the band 2 which is located at the back of the head by means of an attaching clip 5, the arm 4 being curved upwardly and forwardly as at 6 above the head of the user and extending forwardly to terminate in a swivel holding bracket 7 which is normally located in front of and slightly above the face of the user. A swivel 8 is pivotally supported in an opening formed in the bracket 7 and is held against accidental removel therefrom by a nut 9 threaded upon one end of the swivel. The opposite end of the swivel member 8 is bent back upon itself to provide a restricted opening 10 which is adapted to receive a resilient member or elastic cord 11 to hold the same in any one of a plurality of adjusted positions intermediate the ends of said cord and thus regulate the effective length of the cord 11.

A supporting brace 12, which may be of any desired construction, supports the arm 4 intermediate its ends, and, in the embodiment illustrated herewith, comprises a rod having a portion 13 bent to closely engage the arm 4, the ends of the rod being secured to the band 2 by clips 14 and 15.

The band 2 may be provided upon the inner side thereof with a pad 16 adapted to cover the inner ends of the attaching devices employed for securing the clips 14 and 15 to the band, and to serve as a protection for the head of the user, and a similar pad may be secured to the inner face of the band opposite the clip 5 if desired.

An inflated ball 17 is secured to the elastic cord 11 in any suitable or desired manner, as, for example, by means of a ring 18, the elasticity of the cord 11 being such as to permit the ball to move outwardly to a considerable extent under the impact of a blow and cause the same to return rapidly towards the face of the user after it has reached the limit of its outward movement. It is of course to be understood that the cord 11 may be any elastic member such as a suitable spring or the like, but I prefer to employ an elastic cord of sufficient strength to properly control the movement of the ball.

By providing means for regulating the length of the elastic member 11, as shown, it is possible to secure the member 11 to the swivel at any desired point intermediate the ends of the elastic member 11, whereby the ball is caused to rebound more or less rapidly when struck by the user, in general the shorter the length of the cord 11 between the swivel 8 and the ball 17 the more rapid will be the movement of the ball in rebounding after being struck.

By regulating the effective length of the elastic cord 11 between the point of attachment to the swivel 8 and the ball 17 the ball may be made to rebound with greater or less rapidity as may be desired.

The apparatus, it will be seen, possesses the advantage of being entirely noiseless when in use as contradistinguished from the usual frame supported punching bag.

It will be seen that the apparatus shown and described provides a novel form of punching bag or exercising device, which is capable of use as a punching bag either in a gymnasium or in any ordinary room, and is adapted to combine shadow boxing with exercise and training in pnuching the bag since the wearer may move about at will while using the apparatus. The apparatus is excellently adapted, moreover, for training the eye of the user in accurate hitting, since the ball, being carried by the user, is capable of moving at more and different angles than the usual stationary punching bag, and thus requires accurate hitting to keep the same in motion. The structure is well adapted also for training foot-ball, basket-ball, soccer and hand-ball players for accuracy either in hitting or in catching the ball, since an elastic cord of any suitable and desired length may be used and the ball may be thrown as well as struck, if desired, the cord insuring the return of the ball to the user in all cases. It is to be understood that the embodiment of the invention shown and described is to be taken as illustrative of one form which the invention may assume in practice, rather than as limiting the invention to the precise structural arrangement of parts as shown and described. I am aware that various changes may be made in the form, proportion and arrangement of the elements shown and described without departing from the spirit and scope of the invention as set forth in the appended claims.

What I claim is:

1. An exercising apparatus comprising a frame having a band to be secured to the head of the user and provided with an arm extending to a point forwardly of and above the user, and an inflated ball resiliently supported from said forwardly extending arm.

2. In a device of the character described, a supporting frame having a band to be secured to a part of the body of the user, an arm carried by said frame and extending to a point forwardly of and above the head of the user, and a ball resiliently and pivotally supported from the forwardly extending portion of said arm.

3. An exercising device comprising a frame having a band to be secured to the head of the user and provided with a projecting arm located above the head of the user and extending to a point forwardly thereof, a punching bag supported from said forwardly extending arm in position to be returned towards and in a direction substantially directly towards the face of the user after being struck by the user.

4. An exercising apparatus comprising a supporting frame having a band secured to the head of the user and provided with an upwardly and forwardly projecting arm extending to a point forwardly of and above the eyes of the user, a longitudinally extensible elastic cord having one end secured to said forwardly projecting arm, and a punching ball secured to the other end of said longitudinally extensible elastic cord, whereby upon the ball being struck by the user part of the force of the blow will be expended in stretching said elastic cord in a direction longitudinally thereof and the energy thus stored in the elastic cord utilized to effect the return of the ball substantially directly towards the face of the user.

In testimony whereof I have affixed my signature.

HENRY O. COSTELLO.