Aug. 28, 1951 C. L. TREPANIER 2,566,044

BALL AND PADDLE DEVICE

Filed April 12, 1948

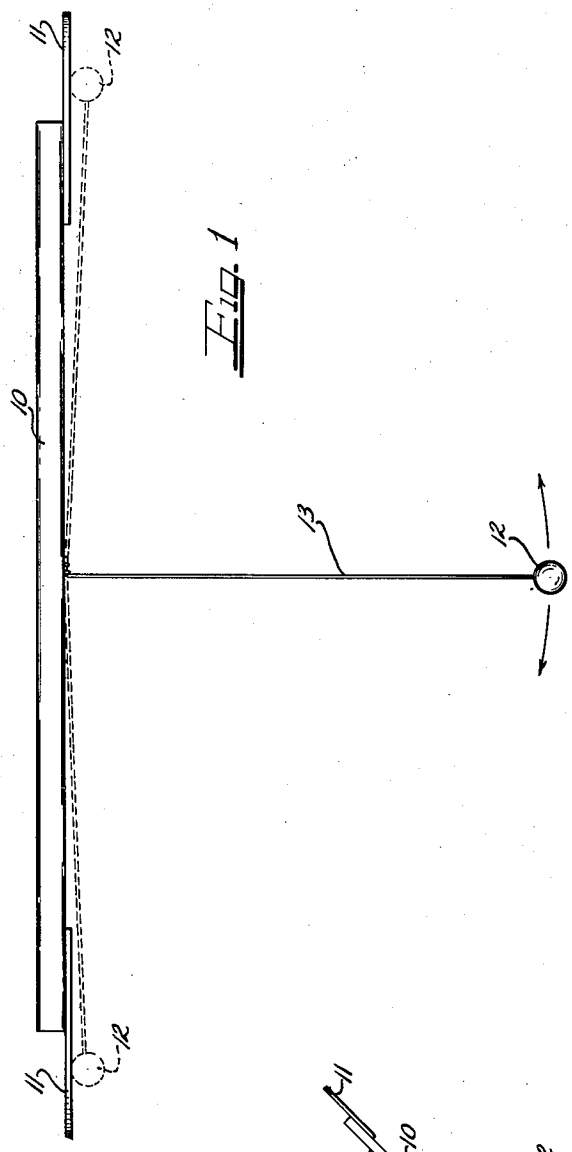


Fig. 1

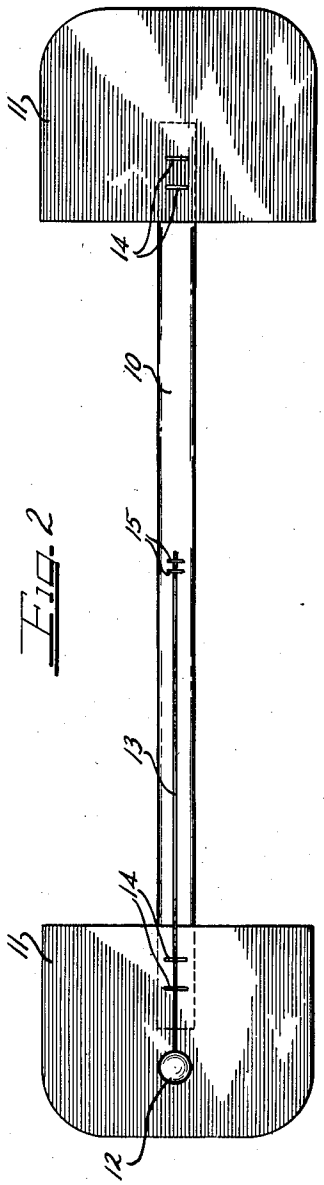


Fig. 2

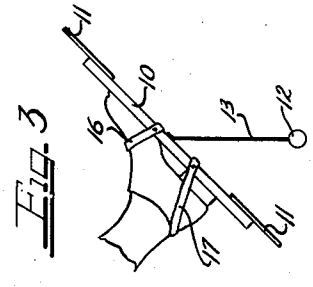


Fig. 3

Inventor

CLIFFORD L. TREPANIER

By The Firm of Charles W. Hills Attys.

Patented Aug. 28, 1951

2,566,044

UNITED STATES PATENT OFFICE

2,566,044

BALL AND PADDLE DEVICE

Clifford L. Trepanier, Melrose Park, Ill., assignor to The Wap-O Company, Chicago, Ill., a co-partnership consisting of Sol Lefkowitz and Clifford L. Trepanier

Application April 12, 1948, Serial No. 20,442

3 Claims. (Cl. 273—97)

1

The present invention relates to improvements in ball and paddle devices, and more particularly to a device adapted for use as a toy, muscular coordination development implement, exerciser, or the like wherein a paddle and a tethered ball are functionally associated.

An important object of the present invention is to provide an improved ball and paddle device in which a tethered ball is so related to a pair of equidistantly disposed paddle members that the ball and the paddles can be so manipulated that the ball will alternately strike the paddles in each complete swinging cycle of the ball.

Another object is to provide an improved ball and paddle device in which a handle having similar paddles at opposite ends thereof is adapted to be manipulated so that a centrally tethered ball will strike the paddles alternately.

A further object of the invention is to provide an improved ball and paddle device which can be manipulated by hand or by foot, and which is especially adapted for developing muscular strength and coordination.

Still another object of the invention is to provide a ball and paddle device which will serve not only as a toy or game appliance but also as an exercising device.

Other objects, features and advantages of the present invention will be readily apparent from the following detail description of certain preferred emboidments thereof taken in conjunction with the accompanying drawing in which:

Figure 1 is a side elevational view of a ball and paddle device according to the present invention;

Figure 2 is a plan view of the ball and paddle device; and

Figure 3 is a reduced scale elevational view of a modification of the device showing the same adapted for application to and manipulation by the foot of a user.

The device of the present invention is of very simple construction and adapted to be manufactured and sold at relatively low cost. It comprises a handle 10 which has at the opposite ends thereof similar paddle members 11 which are adapted to be struck alternately by a ball 12 tethered by means of a flexible fastening 13 to the center of the handle 10 in a plane medial to and perpendicular to the faces of the paddles 11.

The handle 10 and the paddle members 11 may be formed in one piece or in a plurality of pieces as shown. Thus, the handle 10 may comprise a straight wooden bar to which the paddle members 11, formed from wood or pressed board, metal

2

or the like are secured in any appropriate fashion such as by adhesively bonding the same together or by securing the same together by means of suitable fasteners 14 such as staples, or the like or by a combination of adhesive and mechanical means.

The shape of the paddle members 11 is not of particular importance except that they must provide an impact surface at each opposite end of the handle 10 which is of a width substantially greater than the relatively narrow handle 10 and must extend beyond the range of impact of the ball 12.

The ball 12 may be a resilient ball of any preferred construction such as sponge rubber or the like to which the flexible connector 13 is permanently secured in any appropriate fashion.

By preference the flexible element 13 is non-elastic, although an elastic flexible element may be used where desired. It may comprise an appropriate cord, the length of which is so proportioned to the length of the handle 10 and the disposition of the paddle members 11 that from the longitudinal center of the handle 11 the cord and ball assembly will extend into striking range of both of the paddle members. That is, the combined length of the ball and cord assembly is slightly less than half the length of the combined or overall length of the handle 10 and the paddle members 11.

Attachment of the flexible element 13 to the handle 10 may be effected in any appropriate fashion, as for example by means of one or more staples 15 by which the proximate end portion of the flexible element is anchored to the handle, assuming that the handle is formed from wood or other fastener-penetrable material. Where the handle is made from metal other appropriate expedient which will readily suggest itself to any mechanic may be employed.

In the use of the device, the handle 10 is grasped at its center portion, with the paddles 11 facing away from the person manipulating the device, and the handle is then manipulated back and forth in its plane or with a seesaw motion to cause the ball 12 to swing back and forth on its tether and bounce against the paddle members 11. Unless the motions are effected coordinately and rhythmically, and the device is held steady, the ball will miss connection with either or both of the paddles and thus break the rhythmic alternate bouncing action thereof.

As an action toy the device has fascinating appeal both because of the relative though not particularly high order of skill required in its

manipulation and because of the sound impact against the paddles affording a rhythmic pattern of a magnitude and briskness dependent upon the speed with which the ball 12 is caused to swing in its arc as indicated by the directional arrows in Fig. 1 between its impact limits as shown in the dash outline in Fig. 1. Muscular coordination is, of course, required to continue the device in rhythmic animation. Since muscular action is required in manipulating the device, and fair endurance is required to continue the device in rhythmic operation for any extended time, at least a fair amount of exercise value is inherent in use of the device.

In addition to hand operation of the device, it is also readily usable as a foot operated appliance, as shown in Fig. 3. In this use of the device it is especially valuable as an exercising appliance. For this use, the device may be secured to the user's foot in any preferred manner, as for example by means of front and rear attachment straps 16 and 17 which may be of an elastic character so as to draw the handle portion 10 of the device securely to the bottom of the person's foot or shoe. When thus applied, the device is actuated in similar fashion as when the device is held and manipulated by hand. That is, the device is moved in its plane or with a seesaw or combination seesaw and back and forth longitudinal movement to cause the ball 12 to strike the paddles 11.

It will, of course, be understood that various details of construction may be varied through a wide range without departing from the principles of this invention and it is, therefore, not the purpose to limit the patent granted hereon otherwise than necessitated by the scope of the appended claims.

I claim as my invention:

1. In combination in a ball and paddle device, an elongated handle member having a central narrow hand grip portion and having paddle surfaces of substantial area at its opposite ends and with the striking surfaces in a common plane and facing in the same direction, and a resilient ball tethered by a flexible tethering element secured to said hand grip portions centrally intermediate said surfaces and projectable in the same direction as the surfaces, said tethering element and ball being of a total length equal to substantially the distance from said central point of securement to the center of the respective striking surfaces, whereby on animation of the device with a longitudinal back and forth movement or a seesaw movement the ball will be caused to strike and bounce from said paddle surfaces alternately.

2. In combination in a ball and paddle device, an elongated stick-like handle member, a pair of broad paddles secured respectively one to each opposite end portion of the handle member and to the same side of the handle member so that the faces of the paddle members on the opposite side from the handle member face in the same direction, and a resilient ball having a flexible tethering element secured at the opposite end of the tethering element from the ball to said handle member centrally intermediate said paddle members, the length of the tethering element and the ball being equal to substantially the distance from the point of securement to the center of the respective faces of the paddle members so that by manipulation of the paddle member the ball can be swung on its tethering element to strike the paddle surfaces alternately in a rhythmic pattern.

3. A ball and paddle device as defined in claim 1, including means carried by the handle member for attaching the same to the foot of a user for animation, said attaching means comprising a pair of spaced closed one-piece elastic loops fixedly secured at each end to the elongated member intermediate said striking surfaces and adapted to engage the arch and heel portions, respectively, of a person's foot or shoe on the foot.

CLIFFORD L. TREPANIER.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
273,414	Westphal	Mar. 6, 1883
739,184	Keane	Sept. 15, 1903
1,282,016	McHenry	Oct. 15, 1918
1,345,241	Reynolds	June 29, 1920
1,529,600	Lind	Mar. 10, 1925
2,269,357	Dent	Jan. 6, 1942
2,414,063	Rogers	Jan. 7, 1947

FOREIGN PATENTS

Number	Country	Date
19,876	Great Britain	1895