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SUPPORTING STRUCTURE AND BALL RELEASABLY SUSPENDED THEREFROM

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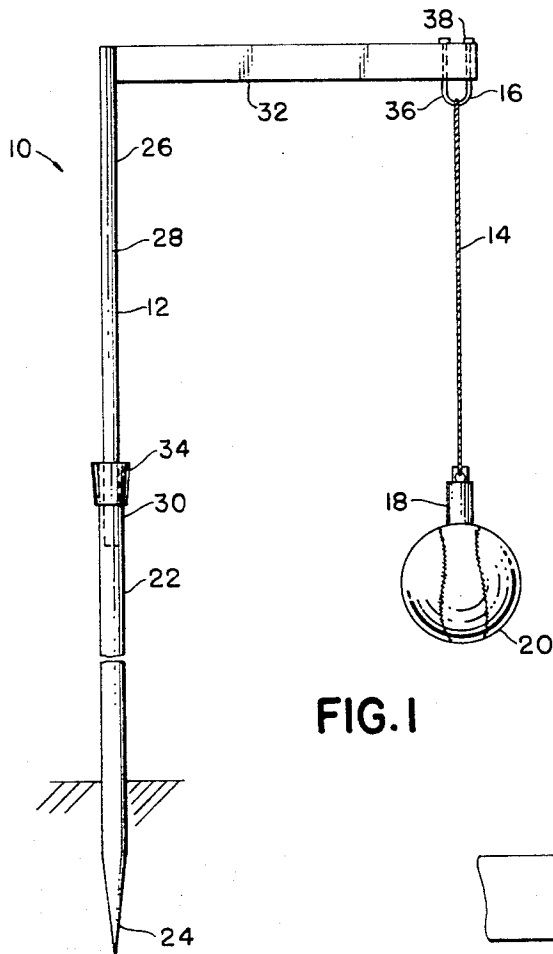


FIG. 1

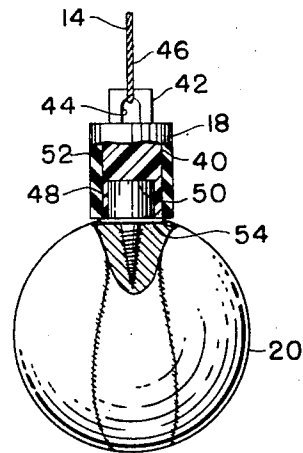


FIG. 2

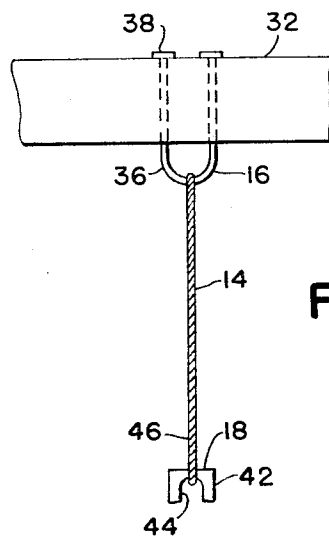
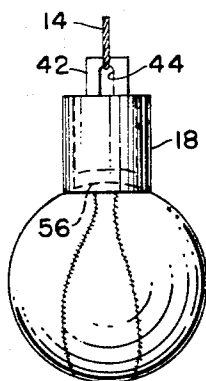


FIG. 3

FIG. 4



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ABSTRACT OF THE DISCLOSURE

Ball supporting structure for batting practice or the like, including an inverted L-shaped member having a vertically extending portion adapted to be secured in the ground in an upright position and a horizontally extending portion to which a linear flexible member is secured which linear flexible member has means for releasably supporting a ball secured to one end thereof is disclosed. The means for releasably supporting a ball from the linear flexible member may be a magnet secured to the linear flexible member cooperable with magnetic means secured to the ball. Alternatively a surface complementary to a portion of the ball surface having a non-drying adhesive thereon is provided on a member secured to the linear flexible member. The linear flexible member is in one modification of the invention of a length substantially equal to the periphery of the horizontally extending portion of the L-shaped member at the point of connection thereto of the linear flexible member. The horizontally extending member extends for a substantial distance on both sides of the point of connection thereto of the linear flexible member in this modification of the invention.

Young children, due to their lack of coordination and lack of ability to focus their eyes on rapidly moving objects find it difficult to strike a ball pitched to them with a bat. Thus, even in organized baseball groups for lower age children, the ball to be put in play by striking with a bat is sometimes placed on a tee or flexible support extending upward from the ground in which position it is struck with a bat instead of being pitched to a batter.

Further, since striking the ball with a bat is considerably preferred by most children to pitching the ball for someone else to strike, it is desirable to provide means for practicing striking a ball with a bat which does not require a second person to pitch the ball to the batter. Also, a second person is not always available when it is desired to practice batting.

It is therefore one of the purposes of the present invention to provide an improved batting practice device.

Another object is to provide a batting practice device which is capable of releasably supporting a ball with uniform force substantially without regard to the size or condition of the ball.

Another object is to provide a batting practice device including ball supporting structure which is not dangerous even if directly struck during batting practice.

Another object is to provide a batting practice device including an overhead support, a linear flexible member one end of which is connected to the overhead support, means for releasably supporting a ball with a substantially constant force secured to the other end of the linear member and a ball adapted to be releasably supported by the ball supporting means.

Another object is to provide structure as set forth above wherein the means for releasably supporting a ball comprises a magnet.

Another object is to provide structure as set forth above wherein the means for releasably supporting a ball is a member coated with non-drying adhesive.

Another object is to provide structure as set forth

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above wherein the means for releasably supporting a ball is provided with a coating of soft resilient material.

Another object is to provide structure as set forth above wherein the overhead support extends across the upper end of the linear member and continues for a considerable distance in two directions beyond the end of the linear member and has an outer cross sectional periphery at the linear member substantially equal to the length of the linear member.

Another object is to provide a batting practice device which is simple in construction, economical to manufacture, and efficient in use.

Other objects and features of the invention will become apparent as the description proceeds, especially when taken in conjunction with the accompanying drawing illustrating a preferred embodiment of the invention, wherein:

FIGURE 1 is a broken elevation view of a batting practice device constructed in accordance with the invention.

FIGURE 2 is an enlarged view of the ball supporting structure and ball of the batting practice device illustrated in FIGURE 1 with the ball supporting structure and ball partially broken away.

FIGURE 3 is a view of modified ball supporting structure for use in a batting practice device constructed in accordance with the invention.

FIGURE 4 is a partial elevation view of a modification of the batting practice device illustrated in FIGURE 1.

With particular reference to the figures of the drawing, one embodiment of the present invention will now be considered in detail.

As shown best in FIGURE 1, the batting practice device 10 includes the overhead support 12, the linear flexible member 14, means 16 for securing the upper end of the linear flexible member 14 to the overhead support 12 and ball supporting means 18 secured to the other end of the flexible linear member. The batting practice device 10 further includes the ball 20 adapted to be releasably secured to the ball supporting means 18.

In operation, the overhead support 12 is adjusted vertically to position the ball supporting means 18 at a height to support the ball 20 releasably secured thereto for striking with a bat or the like. The ball 20 may then be struck with a bat without the necessity of the ball 20 being pitched.

More specifically, the overhead support 12 illustrated in FIGURE 1 includes a hollow cylindrical member 22 having a pointed lower end and an inverted L-shaped member 26 having a vertically extending portion 28 adapted to be telescoped in the end 30 of the hollow cylindrical member 22 and a horizontally extending portion 32. Coupling means 34 is provided between the hollow cylindrical member 22 and the L-shaped member 26 for adjusting the vertical position of the L-shaped member 26 relative to the hollow cylindrical member 22.

The flexible linear member 14 may be a metal cable, rope or a linear plastic member as desired. The flexible linear member 14 as shown in FIGURE 1 is secured to the overhead support 12 by the U-shaped member 36 extending through the free end of the horizontal portion 32 of the L-shaped member 26 and secured thereto by means of the nuts 38.

The ball supporting means 18 includes the plastic case 40 having a supporting tab 42 thereon with opening 44 therein through which the lower end 46 of the flexible linear member 14 is passed to secure the linear member 14 to the ball supporting means 18. The ball supporting means 18 further includes the magnet 48 inserted in recess 50 in the end thereof.

A foam rubber cover 52 is provided over the plastic case. The foam rubber cover 52 prevents injury to a per-

son practicing batting should the case 40 accidentally be hit sufficiently to swing the case 42 about the overhead support 12 with considerable force.

The ball 20 which may be a plastic ball or a normal baseball is provided with a metal insert 54 in the form of a screw as illustrated in FIGURE 2 having a flat top. The metal insert 54 is attracted by the magnet 48 with a predetermined force just sufficient to releasably retain the ball 20 in engagement with the ball supporting means 18. Thus, the securing of the ball 20 to the ball supporting means 18 is substantially without regard to dirt or other foreign matter on the ball 20 and is always with a substantially constant magnetic force. Swinging of the ball supporting means 18 after the ball is hit is thus minimized and the effect of the ball supporting means 18 on the flight of the ball 20 on being struck by a bat is similarly minimized.

In use of the batting practice device 10 the overhead support 12 is first rigidly supported by driving the end 24 of the cylindrical member 22 into the ground or the like member 26 is then adjusted to position the ball 20 at a predetermined height in accordance with the height of the batter. The ball 20 is positioned beneath the ball supporting means 18 with the metal insert 54 adjacent the magnet 48. If the metal insert is extremely dirty, it may be cleaned by merely rubbing the metal insert with a convenient cloth or the like.

The ball is thus supported by the predetermined magnetic force of attraction of the magnet 48 for the metal insert 54 and may be struck with a bat. On being struck with a bat the ball 20 substantially immediately releases from the ball supporting means 18 so that the direction of flight of the ball 20 is not effected by the ball supporting means 18 and the ball supporting means 18 will swing only slightly.

A modified ball supporting means 18 is illustrated in FIGURE 3. In the ball supporting means of FIGURE 3 the magnet insert 48 is replaced with a pad 56 having a non-drying adhesive material on the bottom thereof which is contoured to the curvature of the ball to be supported thereby. The ball may be maintained on the ball supporting means 18 by a substantially constant force provided by the non-drying adhesive on the pad 56.

A modification of the overhead support 12 is illustrated in FIGURE 4. In FIGURE 4 the horizontally extending portion 32 of the L-shaped member 26 extends in two directions from the upper end of the flexible linear member 14. In addition the horizontally extending portion 32 of the L-shaped member is rectangular and is provided with an outer periphery at the linear member 14 which is substantially equal in length to the length of the linear member 14. Thus with the modified structure of FIGURE 4 even if the ball supporting means 18 is hit directly with a bat it will not strike the batter on swinging about the overhead support 32 since on winding about the portion 32 of the member 26 it will be at the height of the overhead support which will be above the head of the batter.

While one embodiment of the present invention and modifications thereof have been disclosed in detail, it will be understood that other embodiments and modifications are contemplated by the inventor. It is the intention to include all such modifications and embodiments as are defined by the appended claims within the scope of the invention.

What I claim as my invention is:

1. A batting practice device comprising an overhead supporting member, a linear flexible member secured at one end to the overhead supporting member having a length which is approximately equal to the outer periphery of the overhead supporting member at the point of con-

nection of the linear member with the overhead supporting member, said supporting member extending a substantial distance in two directions from said point of connection of the linear member with the overhead supporting member, means for releasably supporting a ball with substantially the same force over a wide range of ball conditions and size, and means for securing the ball supporting means to the other end of the flexible linear member and a ball operably associated with the ball supporting means and means secured to the ball specifically adapting the ball to be supported by the ball supporting means.

2. Structure as set forth in claim 1 wherein the ball supporting means includes a magnet and the means adapting the ball to be supported by the ball supporting means includes a magnetic member secured to the ball.

3. Structure as set forth in claim 1 wherein the ball supporting means includes a pad having a non-drying adhesive thereon for receiving the ball.

4. Structure as set forth in claim 1 and further including a soft covering on the ball supporting means for preventing injury on swinging of the ball supporting means about the overhead supporting member.

5. A batting practice device comprising an inverted L-shaped member having a vertical portion adapted to be secured in a fixed position on the ground and a horizontally extending portion, a flexible linear member, means securing one end of the flexible linear member to the horizontally extending portion of the L-shaped member, a case secured to the other end of the flexible linear member, a magnet inserted in the case, a soft resilient cover on the case, a ball and an insert in the ball of magnetic material positioned adjacent the magnet, whereby the ball is releasably supported with a substantially constant force.

6. A batting practice device comprising a hollow cylindrical member having a pointed lower end for driving into the ground, an inverted L-shaped member having a vertical portion and a horizontally extending portion the vertical portion of which is telescoped into the hollow cylindrical member, means for securing the vertical portion of the L-shaped member at a predetermined height relative to the cylindrical member, a flexible linear member one end of which terminates adjacent the free end of the horizontally extending portion of the L-shaped member, means securing the one end of the linear member to the free end of the horizontally extending portion of the L-shaped member, a plastic case secured to the other end of the linear member, a magnet inserted in the plastic case, a foam rubber cover on the plastic case, a ball and an insert in the ball of magnetic material positioned adjacent the magnet whereby the ball is releasably supported.

7. Structure as set forth in claim 6 wherein the horizontally extending portion of the L-shaped member extends in two directions from the one end of the linear member and has a total periphery at the linear member which is substantially equal to the length of the linear member.

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