A collapsible batting cage is provided with a collapsible canopy structure including a collapsible truss framework supporting an overlying canopy and extendable legs depend downwardly from the truss framework. A ball stop is supported by the truss framework, underlies the canopy and is spaced apart therefrom. A ball assembly having a ball is coupled to the collapsible canopy structure so as to present the ball at a batting height and permit contact between the ball and the ball stop when struck.
COLLAPSIBLE BATTLING CAGE

CROSS-REFERENCE TO RELATED APPLICATION

[0001] This application is a non-provisional utility application of currently pending U.S. Provisional Application Ser. No. 61/760,309, filed 4 Feb. 2013.

FIELD OF THE INVENTION

[0002] This invention relates to enclosure structures.
[0003] More particularly, the present invention relates to batting cages.

BACKGROUND OF THE INVENTION

[0004] Enclosures, frequently referred to as batting cages, are well known in the art. These enclosures permit an individual to practice hitting a baseball or softball while limiting the distance or direction the ball can travel. The hit ball is generally stopped using a barrier. Batting cages can be very large enclosures in which the ball is delivered to a batter using a pitching machine, an in which the ball can fly essentially unimpeded, being limited only in specific direction or great ranges. Other batting cages can be smaller, simply being large enough to allow a pitching machine to deliver a ball from the appropriate distance. These types of batting cages are typically provided at amusement parks and similar recreational facilities. While very effective in aiding an individual to practice batting, they can be inconveniently located and expensive to operate and use. Another problem with conventional batting cages is that they are static, requiring the batter to come to them, and cannot be moved to desirable locations at will.
[0005] It would be highly advantageous, therefore, to remedy the foregoing and other deficiencies inherent in the prior art.

[0006] An object of the present invention is to provide a batting cage that is collapsible, portable and easily erected.

SUMMARY OF THE INVENTION

[0007] Briefly, to achieve the desired objects and advantages of the present invention, provided is a collapsible batting cage. The collapsible batting cage includes a collapsible canopy structure, a ball stop and a ball assembly. The collapsible canopy structure includes a collapsible truss framework supporting an overlying canopy and extendable legs depend downwardly from the canopy framework. The ball stop is supported by the truss framework, underlies the canopy, and is spaced apart therefrom. The ball assembly includes a ball and is coupled to the collapsible canopy structure so as to present the ball at a batting height and permit contact between the ball and the ball stop when struck. The ball stop is adjustable to a tension between a loose configuration and a tight configuration.

[0008] In a specific aspect of the present invention, the ball assembly includes a line having an end connected to the ball, and a free end. A holder is carried by the truss structure and receives the line therethrough to allow the ball to hang downwardly from one side of the canopy structure. The free end of the line is removably attachable to the canopy structure, wherein the line can be adjusted through the holder, increasing or decreasing a hanging distance of the ball.

BRIEF DESCRIPTION OF THE DRAWINGS

[0009] Specific objects and advantages of the invention will become readily apparent to those skilled in the art from the following detailed description of a preferred embodiment thereof, taken in conjunction with the drawings in which:
[0010] FIG. 1 is a perspective view of a collapsible batting cage according to the present invention;
[0011] FIG. 2 is a perspective view of a collapsible batting cage according to the present invention with collapsible truss framework shown in broken lines; and
[0012] FIG. 3 is a sectional side view illustrating the collapsible batting cage.

DETAILED DESCRIPTION OF A PREFERRED EMBODIMENT

[0013] Turning now to the drawings in which like reference characters indicate corresponding elements throughout the several views, attention is directed to FIGS. 1 and 2 which illustrates a collapsible batting cage according to the present invention, generally designated 10. Batting cage 10 includes a canopy structure 12, a ball stop 14, and a ball assembly 16. Canopy structure 12 includes a collapsible truss framework 20, generally square or rectangular in shape, and supporting an overlying canopy 22. Extendable legs 24 depend downwardly from corners of truss framework 20 and each have an upper portion 25 coupled to truss framework 20 at a corner thereof and a lower portion 26 telescopically coupled to upper portion 25 for supporting truss framework 20 and canopy 22 above a surface. Canopy structure 12 is movable between a collapsed configuration and an erected configuration. Canopy structure 12 is not described in further detail, but a canopy structure similar to that disclosed in U.S. Pat. Nos. 5,490,533, 5,275,188 and 4,607,656 can be used and are herein incorporated by reference.

[0014] With additional reference to FIG. 3, ball stop 14 is sized to be received between legs 24 and substantially underlie the entirety of canopy 22, supported by truss framework 20. Ball stop 14 is preferably netting type material, but can be substantially any pliable fabric, textile, material or plastic sheet. Ball stop 14 is positioned underlying canopy 22 in a generally horizontal orientation. Ball stop 14 can be tightly stretch under and spaced apart from canopy 22, loosely fitted or fitted somewhere in between. The tension of ball stop 14 determines the reaction of the ball when contacting ball stop 14. Stretched tight, ball stop 14 will impart more energy to a ball, resulting in a faster return swing, as will be described presently. When ball stop 14 is fitted in a looser manner, more of the energy from a ball is absorbed by ball stop 14, slowing the return of the ball. It will be understood that ball stop 14 can be coupled at edges thereof to framework 20 by tying, using short lengths of string, cord, straps, and the like, or using fasteners such as clips, snaps, buckles and the like, wherein an element of the fastener is attached to framework 20 and a complemental element of the fastener is coupled to an edge of ball stop 14. In this manner, the tension in ball stop 14 can be adjusted between a loose configuration and a tight configuration. It will also be understood that ball stop 14 can be coupled to a lower edge of canopy 22 by removable fasteners such as clips, Velcro, and the like or permanently fastened such as by stitching and the like. If permanently fastened, the tension of ball stop 14 will not be adjustable. When collapsing batting cage 10, ball stop 14 can be left in position, to remain
in position until batting cage 10 is erected again, or removed and stored separately and replaced when batting cage 10 is erected again.

[0015] Ball assembly 16 includes a line 30 having an end connected to a ball 32, and a free end 34. Ball 32 is preferably a baseball, but can be other types of balls such as a softball or the like which provide similar characteristics to a baseball, softball or like item. Line 30 is supported along truss structure 20 by holders 35 to allow ball 32 to hang downwardly from one side of canopy structure 12. Free end 34 is removable coupled to a portion of canopy structure 12, such as an adjacent leg 24. Free end 34 can be coupled in substantially any manner, such as with a hook, clip or even tied off. Free end 34 is removable coupled to allow line 30 to be adjusted through holders 35, raising or lowering ball 32 and thereby increasing or decreasing a hanging distance of ball 32. Holders 35 can be plastic clips, eye bolts, brackets and the like, which will support line 30 while allowing line 30 to move freely there-through for raising and lowering ball 32. In this manner, the height (batting height) of ball 32 from the ground is adjusted to the height of an individual using collapsible batting cage 10. It should also be noted that the telescoping nature of legs 24 allow the entire batting cage 10 to be lowered for very short individual’s, preventing too much swing of ball 32 on line 30, if desired.

[0016] In use, an individual is positioned adjacent home plate 40 as in a baseball game for batting. Ball 32 hangs above plate 40. A batter swings a bat, contacting ball 32 and driving it in a direction indicated by arrowed line A. Ball 32 swings forwardly toward the center of canopy 12 and upwardly, contacting ball stop 14. Ball 32 rebounds from ball stop 14 and swings back toward plate 40. As ball 32 swings toward plate 40, it acts as a pitched ball, ready to be hit by a batter. The speed with which ball 32 swings toward plate 40 is typically slow, when ball stop 14 is loosely stretched. In this case, ball stop 14 absorbs much of the energy of the batted ball and then allows ball 32 to simply drop back, swinging in an arc from line 30. When ball stop 14 is stretched more tightly, the rebounding ball 32 can have increased speed due to the energy of the batted ball being reapplied to the ball by ball stop 14.

[0017] To enhance safety and prevent injury should the ball break away from line 30, canopy structure 12 can be fitted with sidewalls and a back wall made of netting suspended from canopy 22. The netting is suspended from canopy 22 to maintain the collapsibility of canopy structure 12. This netting will allow airflow through canopy structure 12 to help provide a cool environment, while providing a barrier to a batted ball 32 should line 30 part during use.

[0018] By employing a collapsible canopy 12, batting cage 10 can be folded up and easily stored or moved. Thus, collapsible batting cage 10 can be used for recreational or instructional purpose substantially anywhere such as a ball park, a park, a back yard and the like. When recreation or instruction is finished, collapsible batting cage 10 can be collapsed and stored easily.

[0019] Various changes and modifications to the embodiments herein chosen for purposes of illustration will readily occur to those skilled in the art. To the extent that such modifications and variations do not depart from the spirit of the invention, they are intended to be included within the scope thereof, which is assessed only by a fair interpretation of the following claims.

Having fully described the invention in such clear and concise terms as to enable those skilled in the art to understand and practice the same, the invention claimed is:

1. A collapsible batting cage comprising:
   a collapsible canopy structure including a collapsible truss framework supporting an overlying canopy and extendable legs depend downwardly from the truss framework;
   a ball stop supported by the truss framework and underlying the canopy spaced apart therefrom; and
   a ball assembly having a ball, the ball assembly coupled to the collapsible canopy structure so as to present the ball at a batting height and permit contact between the ball and the ball stop when struck.

2. A collapsible batting cage as claimed in claim 1 wherein each extendable leg includes an upper portion coupled to the truss framework and a lower portion telescopically coupled to the upper portion.

3. A collapsible batting cage as claimed in claim 1 wherein the ball stop is sized to underlie the entirety of the canopy.

4. A collapsible batting cage as claimed in claim 3 wherein the ball stop is one of a net material, a pliable fabric, a textile material and a plastic sheet.

5. A collapsible batting cage as claimed in claim 1 wherein the ball stop is adjustable to a tension between a loose configuration and a tight configuration.

6. A collapsible batting cage as claimed in claim 1 wherein the ball assembly comprises:
   a line having an end connected to the ball, and a free end;
   a holder carried by the truss structure, the holder receives the line therethrough to allow the ball to hang downwardly from one side of the canopy structure; and
   the free end of the line being removably attachable to the canopy structure, wherein the line can be adjusted through the holder, increasing or decreasing a hanging distance of the ball.

7. A collapsible batting cage as claimed in claim 1 further including sidewalls and a back wall made of netting suspended from the canopy.

8. A collapsible batting cage comprising:
   a collapsible canopy structure including a collapsible truss framework supporting an overlying canopy and extendable legs depend downwardly from the truss framework;
   a ball stop supported by the truss framework and underlying the canopy spaced apart therefrom; and
   a ball assembly including a line having an end connected to a ball and a free end, a holder carried by the truss structure, the holder receiving the line therethrough to allow the ball to hang downwardly from one side of the canopy structure, and the free end of the line being removably attachable to the canopy structure, wherein the line can be adjusted through the holder, increasing or decreasing a hanging distance of the ball.

9. A collapsible batting cage as claimed in claim 8 wherein each extendable leg includes an upper portion coupled to the truss framework and a lower portion telescopically coupled to the upper portion.

10. A collapsible batting cage as claimed in claim 8 wherein the ball stop is sized to underlie the entirety of the canopy.

11. A collapsible batting cage as claimed in claim 10 wherein the ball stop is one of a net material, a pliable fabric, a textile material and a plastic sheet.

12. A collapsible batting cage as claimed in claim 8 wherein the ball stop is adjustable to a tension between a loose configuration and a tight configuration.

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