The present invention provides a baseball batting stance training mat and assembly. The assembly essentially comprises a stance training mat for placement upon a baseball field or similar other playing field and at least one rearward foot-receiving cuff for removable or breakaway attachment to the stance training mat. The stance training mat essentially comprises two distinct zones, namely, a stance zone and a plate-alignment zone. The plate alignment zone comprises a zone vacancy for receiving a selected lateral half of a home plate. When a left-handed mat and a right-handed mat are used in tandem with one another, the mats form an hourglass-shaped batter’s box type arrangement. Each stance zone may comprise a plurality of foot print indicia. The cuff is removably attached adjacent select rearward foot print indicia and is designed for breakaway from the stance training mat in the event of a cuff-removing force.
BASEBALL BATTING STANCE TRAINING MAT AND ASSEMBLY

BACKGROUND OF THE INVENTION


The present invention relates to a training device for improving a baseball player's skills. More particularly, the present invention relates to a training mat for improving a baseball player's batting stance while positioned within a so-called, "batter's box." The present invention thus provides users with means to improve upon a baseball player's batting skills by developing proper batting stance technique.

The key to being successful as an offensive baseball player is the ability to successfully hit or make proper contact with pitched or positioned baseballs. The ability to successfully hit a baseball begins with proper balance at home plate and thus is critical that baseball players learn the basic batting stance. Once the basic batting stance is mastered, the baseball player typically improves upon the basic batting stance in a manner unique to the player as he or she gains batting experience. It is thus noted that there are many stances from which to choose, but the consensus from most hitting coaches is that the basic parallel stance will provide a novice hitter with the best opportunity to hit the ball.

Typically, the baseball player or hitter should take a parallel stance with the feet shoulder width apart in the middle of the appropriate batter's box adjacent home plate. The hitter should not position himself too close to the plate but close enough so that the head of the bat is able to cover the outside corner. The hitter's weight should be on the balls of his or her feet. As a hitter starts a swing, the hitter typically shifts the hitter's weight to the hitter's back leg turning the hitter's hips rearward. During the swinging action, the hitter typically transfers the hitter's center of gravity in a forward direction, shifting the hitter's weight to the hitter's front or forward leg. As the hitter transfers the hitter's weight, the hitter twists the hitter's hips, torso, and knees while also swinging the bat. It is noted that the described hip action is often considered to be the most important factor, since a significant amount of hitting power will come from the hitter's hips. In order to properly twist a hitter's hips, the hitter should rotate the balls of the hitter's feet. Thus, as the hitter sees the ball approaching him, he shifts the weight from his back leg to his front leg as he "steps into the pitch." He then twists his body, transferring considerable energy to the bat. The hand and the bat initially travel at about 40 mph, but at the point when the bat meets the ball, the hand and the bat will travel in excess of 70 mph. Since the bat is swung at such a high speed, it has been calculated that even 0.01 seconds may make a difference between a home run and a pop out.

It is further noted that parents and coaches are often involved in the process of teaching younger players how to best practice various baseball skills, including batting stance technique. It is also noted, however, that younger baseball players often practice unsupervised. Thus, in an effort to provide players with a means to develop proper batting stance technique, whether supervised or unsupervised, a number of inventors have developed training aids or devices to assist the novice hitter in developing proper batting technique as well as to assist the novice hitter in developing proper batting stance technique. It is thus noted that a variety of different types of batting stance training devices have been developed as a means to aid baseball players in the development of a proper batting stance. Some of the more pertinent prior art relating to batting stance training devices and the like is described hereinafter.

both a left hand and a right hand batter and the batter can be adjusted additionally as to foot and leg positions and distance from home plate.

[0013] U.S. Pat. No. 5,536,004 (‘004 patent), which issued to Wiseman et al., discloses a Batting Training Device. The ‘004 patent teaches a mat marked with first indicia designating home plate and a plurality of second indicia showing sequential segments for the batter to place his or her feet. The Mat may be used alone to achieve a proper batting stance and proper foot positioning in relation to home plate or with at least one measuring means for measuring a point located in the strike zone of the batter identifying the height of a level swing of the bat. This measured specific distance correlates to a proper distance from home plate the batter should distance himself or herself to hit at the batters “power zone” of the bat with a full arm extension of the leading arm. See also U.S. Pat. No. 5,642,880 (‘880 patent), which also issued to Wiseman et al.

[0014] U.S. Pat. No. 6,432,001 (‘001 patent), which issued to Pierce, discloses a Foot Position Trainer Apparatus. The ‘001 patent teaches a foot positioning training apparatus comprising a foot support member formed in the shape of the sole of a shoe. A toe portion is attached to a front edge of the support member and extends upwardly and rearwardly therefrom and defines a space for receiving the toes of a batter’s foot and, more particularly, for receiving the toe portion of a batter’s shoe. The toe portion restricts vertical movement of a batter’s foot when batting a baseball. The apparatus further includes an upstanding wall extending along an outer edge of the support surface between the toe portion and a rear edge for restricting outward lateral movement of a batter’s foot when batting a baseball. See also United States Patent Application No. 2002/0091020, published by Pierce.

[0015] United States Patent Application Publication No. 2003/0130072, authored by Barth et al., discloses a Baseball Batting Stride Device and System, and Method of Using Same. This publication teaches an apparatus for modifying the stride of a baseball batter’s swing motion, including means of capturing a lower portion of a baseball batter’s foot and means of elastomerically tethering the capturing means to substrate, wherein the batter’s leading toes are allowed to stride in any direction essentially free of substantial distal destabilizing hindrance.

[0016] United States Patent Application Publication No. 2005/0143200 (‘200 Publication) authored by Hedgepath, teaches certain subject matter from which the present disclosures claim a benefit. The ‘200 Publication teaches a certain baseball batting stance training assembly. The assembly of the ‘200 Publication essentially comprises a stance training mat for placement upon a baseball field or similar other playing field and at least one rearward foot-receiving cuff for removable or breakaway attachment to the stance training mat. The stance training mat of the ‘200 Publication essentially comprises at least three distinct zones, namely, left and right mat zones and a home plate zone. The left mat zone and the right mat zone are aligned laterally opposite the home plate zone, which home plate zone comprises a home plate marker or virtual home plate. The left and right mat zones each comprise a plurality of foot print indicia. The cuff is removably attached adjacent rearward foot print indicia and is designed for breakaway from the stance training mat in the event of a net cuff-removing force.

[0017] From a review of the prior art and from a consideration of other disclosures generally known in the relevant art, it will be seen that the prior art does not teach a baseball batting stance training mat comprising a rectangular left or right batters’ box and a plate-alignment zone having a zone vacancy for receiving either the left or right lateral half of a home plate, which structural configuration draws users’ and onlookers’ attention to the center of activity, namely, the home plate for enhancing both users’ batting skills and onlookers’ enthusiasm for the game. The prior art thus perceives a need for a stance training mat of the type heretofore envisioned.

SUMMARY OF THE INVENTION

[0018] Accordingly, it is an object of the present invention to provide a baseball batting stance system or a baseball batting stance training assembly for use in combination with the home plate of a baseball playing field, the baseball batting stance system comprising a substantially planar stance training mat for placement upon the home plate region of the baseball field, and at least one rearward foot-receiving cuff for removable or breakaway attachment to the stance training mat. It is a further object of the present invention to provide a stance training mat constructed from a compliant, low memory material comprising a superior mat surface, an inferior mat surface, and at least two distinct zones. In this last regard, it is a further object of the present invention to provide a stance training mat comprising two distinct zones defined by a stance zone and a plate-alignment zone, which zones collectively enable users thereof to selectively learn or develop proper batting stance technique on either side of a home plate.

[0019] Further, it is an object of the present invention to provide left and right mat zones aligned laterally opposite a home plate zone wherein the left and right mat zones each comprise foot print indicia defined by forward foot markers and rearward foot markers. In this regard, it is an object of the present invention to provide a rearward footprint that comprises structure for receiving a breakaway foot-receiving cuff. It is thus a further object of the present invention to provide a foot-receiving cuff designed to properly position the rearward foot, while providing breakaway attachment means for detaching the cuff from the stance training mat in a breakaway manner so as to prevent unfortunate injury to the user should sufficient cuff-removing forces be present during a batting swing.

[0020] To achieve these and other readily apparent objectives, the present invention provides a batting stance training assembly for improving a user’s batting stance, the baseball training assembly comprising certain rearward foot-retain ing means, a home plate, and a stance training mat. The home plate comprise a medial dividing axis, the medial dividing axis dividing the home plate into first and second lateral home plate halves. The stance training mat, the stance training mat comprises an upper mat surface, a stance zone, and a plate-alignment zone. The stance zone is preferably rectilinearly shaped so as to cover or provide a left or right batters’ box. The plate-alignment zone comprises a zone vacancy sized and shaped for receiving a select home plate half, the select home plate half being selected from the group consisting of the first and second lateral home plate halves.

[0021] The zone vacancy functions to receive the select home plate half. Together, the plate-alignment zone and the
medial dividing axis form a trapezoidally shaped zone adjacent the stance zone. The upper mat surface comprises certain surface indicia, including rearward foot placement indicia and forward foot placement indicia. The rearward foot placement indicia comprise distinct markings, each distinct marking being formed in the shape of a footprint. The foot placement indicia function to guide a user’s feet into stance placement. The rearward foot-retaining means are cooperatively associated with the distinct markings for retaining the user’s rearward foot in superior adjacency to a select distinct marking. The guided user’s feet thus become properly positioned for improving the user’s batting stance.

Other objects of the present invention, as well as particular features, elements, and advantages thereof, will be elucidated or become apparent from the following description and the accompanying drawing figures.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a top perspective view of a single laterally-opposed apertured plate of the present invention positioned adjacent a home plate.

FIG. 2 is a top plan view of two laterally-opposed apertured plate of the present invention positioned adjacent a home plate.

FIG. 3 is a top perspective view of a single bat training mat of the present invention positioned adjacent a first lateral home plate half.

FIG. 4 is a top perspective view of a single bat training mat of the present invention positioned adjacent a second lateral home plate half.

FIG. 5 is a top plan view of a single bat training mat shown in FIG. 3.

FIG. 6 is a perspective view of a foot-receiving cuff of the present invention.

FIG. 7 is a perspective view of the foot-receiving cuff shown in FIG. 6 with a rearward foot received therein.

FIG. 8 is a fragmentary bottom perspective view of the foot-receiving cuff of the present invention showing a cuff plug.

FIG. 9 is a top plan view of a single apertured plate of the present invention showing a cuff plug.

FIG. 10 is a bottom plan view of a single apertured plate of the present invention.

FIG. 11 is a side view of a foot-receiving cuff of the present invention with certain parts of the cuff plug broken away to show otherwise hidden structure.

FIG. 12 is a fragmentary top perspective view of the stance training mat of the present invention showing a series of apertured plates.

FIG. 13 is a top perspective view of a single apertured plate of the present invention.

FIG. 14 is a bottom perspective view of a single apertured plate of the present invention.

FIG. 15 is a cross-sectional side view of a single preferred apertured plate of the present invention.

FIG. 16 is a fragmentary perspective view of two apertured plates sandwiched together in superior-inferior relation to one another.

FIG. 17 is a cross-sectional side view of a single alternative apertured plate of the present invention.

FIG. 18 is a fragmentary cross-sectional side view of the foot-receiving cuff plug received in an aperture of the alternative apertured plate.

FIG. 19 is a combination depiction depicting (1) a top plan view of two laterally-opposed batting stance training mats of the present invention positioned adjacent a home plate and (2) lateral and longitudinal side views of the top plan view depiction showing varying thicknesses of the mats as compared to the home plate.

FIG. 20 is a combination depiction depicting a fragmentary enlarged plan view of the left most stance training mat shown in FIG. 19 with (1) a lateral side view of the top plan view depiction and (2) a side view of an isolated home plate.

FIG. 21 is a combination depiction depicting a fragmentary enlarged plan view of the fore most structures shown in FIG. 19 with (1) a longitudinal side view of the top plan view depiction and (2) a side view of an isolated home plate.

FIG. 22(a) is the lateral side view of the top plan view depiction shown in FIG. 20 with a layer of artificial turf exploded in superior adjacency thereto.

FIG. 22(b) is the lateral side view of the top plan view depiction shown in FIG. 22(a) with the layer of artificial turf resting thereupon.

FIG. 23(a) is the longitudinal side view of the top plan view depiction shown in FIG. 21 with a layer of artificial turf exploded in superior adjacency thereto.

FIG. 23(b) is the longitudinal side view of the top plan view depiction shown in FIG. 23(a) with the layer of artificial turf resting thereupon.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT(S)

Referring now to the drawings, the preferred embodiment of the present invention generally concerns a baseball batting stance training system or a baseball batting stance training assembly for use in combination with the home plate region of a baseball field. The baseball batting stance training system or assembly is primarily designed so as to enable users thereof to improve one’s batting stance as a means to improve one’s batting skills. In other words, it is contemplated that by developing a proper batting stance, the baseball player will improve the player’s batting skills as earlier described. It is contemplated that the baseball batting stance training assembly of the present invention generally comprises, in combination, certain rearward foot-retaining means; a home plate 11 as illustrated and referenced in FIGS. 1-5, 12, and 19-22(a), and 23(a); and a stance training mat 10 as illustrated and referenced in FIGS. 1-5, 12, and 19-23(b).
[0050] It is contemplated that the home plate 11, whether of a standard, officially recognized and sanctioned size and shape, or whether of an informal non-standard size and shape (i.e., rectangular or having dimensions other than 17 inches wide by 17 inches long), will necessarily or inherently comprise a certain home plate thickness 103 as referenced in FIGS. 20 and 21. Further, the stance training mat 10 of the present invention preferably has a certain mat thickness 104 as referenced in FIGS. 20 and 21. It will be seen from an inspection of the noted figures that the home plate thickness 103 is preferably greater in magnitude than the mat thickness 104 for forming an exposed home plate thickness 105 (when bound by the mat 10). In this regard, it is contemplated that the stance training mat 10 may well function to provide the exposed home plate thickness 105 for enhancing players' ability to sight the home plate 11 as bound by the stance training mat 10 for enhancing athleticism (as, for example, when a player desires to aim a thrown ball towards home plate 11) or for preventing injury (as, for example, when a player desires to slide into home plate 11).

[0051] The rearward foot-retaining means of the present invention may be preferably defined by a rearward foot-receiving cuff assembly 12 as illustrated and referenced in FIGS. 6-12, and 18; and certain hardware cooperatively associated with stance training mat 10 as illustrated and referenced in FIGS. 1-5, and 12. Together, the foot-receiving cuff assembly 12 and the hardware function to selectively retain a user's rearward foot 15 (as depicted in broken lines in FIG. 7) in superior adjacency to certain foot-guiding indicia marked upon the mat surface. The hardware here noted may be defined by at least one, but preferably a series of apertured plates 13 as illustrated and referenced in FIGS. 12-16. An alternative apertured plate 13(a) is illustrated and referenced in FIGS. 17 and 18.

[0052] The foot-receiving cuff 12 comprises certain superior foot-receiving means and an inferior plug 19 as illustrated and referenced in FIGS. 8, 10, 11, and 18. The foot-receiving means may be preferably defined by means for enveloping the metatarsal region 14 of the user's rearward foot 15 as generally depicted in FIG. 7, which means may be defined by certain flap structures or a flap assembly. The flap assembly preferably comprises a foot-engaging first flap 17 and a flap-securing second flap 18 both of which are illustrated and referenced in FIGS. 6-12, and 18. First flap 17 preferably comprises an inferior foot-engaging surface, and a superior second flap-engageing surface. Second flap 18 preferably comprises an inferior first flap-engaging surface. The superior second flap-engaging surface and the inferior first flap-engaging surface each preferably comprise matable fastening means as generally depicted in FIGS. 9 and 10.

[0053] The inferior foot-engaging surface is designed primarily for receiving the metatarsal region 14 of the user's rearward foot 15, and the matable fastening means is designed primarily for removably securing second flap 18 to first flap 17. The matable fastening means may preferably be defined by matable hook and loop fastening means as referenced at 16 in FIGS. 9 and 10. Excellent results have been obtained using VELCRO brand hook and loop fastening means as the preferred matable hook and loop fastening means. It should be further noted that foot-receiving cuff 30 is preferably adjustable by way of the matable fastening means so as to accept variously sized feet. In practice it is important to have a snug fit around the user's rearward foot 15 so the proper batting stance technique will be maintained throughout the batting event.

[0054] As previously indicated, cuff assembly 12 further preferably comprises an interior plug or knob 19 as illustrated and referenced in FIGS. 8, 10, 11, and 18. Plug 19 is matably receivable in certain plug-receiving depressions or apertures 20 formed in the apertures plates 13 as shown and referenced in FIGS. 12, 13, and 15-18. In this regard, it should be understood that plug 19 is preferably sized and shaped to snugly mate with apertures 20 such that, when engaged, cuff assembly 12 is prevented from orthogonal displacement relative to an axis of rotation or aperture axis 100 extending through plug 19 and apertures 20 as referenced in FIGS. 8, 10, 11, and 15-18. It is contemplated that preferred apertured plate 13 differs from alternative apertured plate 13(a) in that a first and a second plate 13 may function to sandwich a mat magnet 21 therebetween as generally illustrated and referenced in FIG. 16, which mat magnet 21 may function to restrain plug 19 (and thus the user's rearward foot 15) from upward axial displacement along axis of rotation 100 provided plug 19 is outfitted with an opposing magnetic end as compared to the magnetic end of the adjacent mat magnet. In this regard, it should be noted that plug 19 may preferably comprise a plug magnet 22 cooperable with mat magnet 21, which plug magnet 22 is illustrated and referenced in FIG. 11. Thus, it will be understood that together, the foot-receiving cuff assembly 12 and the apertured plates 13 and 13(a) may effectively function to selectively retain the user's rearward foot 15 in superior adjacency to certain foot-guiding indicia marked upon the mat surface.

[0055] In this last regard, it will be seen that each of the apertured plates 13 and 13(a) preferably comprises two axially aligned apertures 20 and that the upper mat surface comprises certain superficial or surface indicia, which surface indicia comprises certain forward foot placement indicia and certain rearward foot placement indicia or distinct markings. The forward foot markings or indicia of stance training mat 10 preferably comprise a stride zone arrow 24 as generally illustrated and referenced in FIGS. 1-5. The stride zone arrow 24 is intended to provide a visual reminder to users that for proper batting technique, the user may step toward the pitcher in the stride zone (as indicated by stride zone arrow 24) during the swing. Each rearward distinct marking is preferably formed in the shape of a footprint 23, and which footprints 23 may be preferably coaxially paired (or tiered) and/or provided in parallel series as generally depicted and referenced in FIGS. 1-5.

[0056] It is noted that a basic parallel batting stance enables novice hitters to develop proper stance technique, and thus the footprints 23 each preferably comprise a longitudinal foot placement axis 102 substantially parallel with the forward edge of home plate 11 and orthogonal to a medial home plate dividing axis 101 as generally referenced in FIGS. 3-5 and 19-21. It will be understood from an inspection of the noted figures that the foot placement axes 102 preferably comprise both coaxial foot placement axes and parallel foot placement axes. It should be further understood that by providing footprints 23 having longitudinal foot placement axes 102 or axes through the length of the
overall footprint indicia, the user or batter may properly align his or her rearward foot 15 in a parallel stance adjacent home plate 11.

[0057] Noting that the foot placement indicia are incorporated into the design for guiding a user’s rearward foot 15 into stance placement, the various foot prints 23 are positioned adjacent apertures 20 so as to provide a multiplicity of placement choices for the user depending on the user’s stature or body size. The number of distinct rearward markings in the form and shape of footprints is more a matter of design choice than criticality to the function of stance training mat 10. It is contemplated that footprint indicia are included in the design of stance training mat 10 so as to allow users or players of varying bodily sizes to properly utilize stance training mat 10. In other words, players of larger or smaller size will necessarily have a wider foot stance than players of smaller or smaller size. It will thus be seen that a relatively small size player or batter may properly position himself upon stance training mat 10 such that his rearward foot 15 is placed upon a rearward footprint 23 closer in proximity to home plate 11 than would a larger size player or batter. It will be understood that larger players typically must position themselves further from home plate 11 so that the head of the baseball bat, when swung, covers the far outside edge of home plate 11. Should a smaller size batter position himself too far from home plate 11, the head of an appropriately sized baseball but for that individual may not reach the far outside edge of home plate 11, thus decreasing the likelihood of the batter’s success while at the plate.

[0058] The footprint indicia may preferably comprise anti-skid or slip-resistant means to further improve the safety features of stance training mat 10. The anti-skid or slip resistant means may be defined by any of a variety of slip-resistance coatings or products such as those utilizing graded aggregates to create more surface area to effectively increase the coefficient of friction between engaging surfaces, namely, the inferior footprint indicia-engaging surfaces of the user’s feet and the foot-engaging surfaces of the foot print indicia.

[0059] The foot-engaged stride zone arrow 24, the foot-engaged rearward footprint 23, foot-receiving cuff assembly 12, and apertures 20 together function to properly align a user’s feet thereby improving the baseball player’s or user’s batting stance. By properly aligning the player’s feet in a basic parallel stance, it is believed that the novice hitter will develop proper stance technique. Further, when a downward force is placed upon stance training mat 10 such as when a player stands or takes a basic parallel stance upon stance training mat 10, the anti-skid means function to keep engaging surfaces in a high friction state thus decreasing skid or slip tendencies as the user stands atop stance training mat 10. Certain anti-skid means may be further located on lower or inferior mat surface for enabling the stance training mat 10 to remain stationary when the user steps atop stance training mat. Further, it is contemplated that certain stakes 33 or similar hardware may function to fasten the mat 10 to a piercable supporting substrate, which stakes are illustrated and referenced in FIGS. 5 and 12.

[0060] It is noted that the home plate 11 may be said to comprise a medial (or left-right half) dividing axis 101 as referenced in FIGS. 1-5. The medial dividing axis 101 essentially may function to divide the home plate 11 into a first lateral home plate half 25 and a second lateral home plate half 26 as further referenced in the noted figures and FIGS. 19-21. Stance training mat 10 of the present invention is designed to receive a select home plate half (as selected from the group consisting of the first and second home plate halves 25 and 26) in a manner much akin to puzzle pieces. Stance training mat 10 is preferably constructed from a compliant, low memory material and comprises an upper mat surface 27 as illustrated and referenced in FIGS. 3, 4, 5, 19, and 21; a plate-orientation zone 28 as illustrated and referenced in FIGS. 1-5 and 19-21; and a plate-alignment zone 29 as illustrated and referenced in FIGS. 19, 20, and 21. It will be seen from an inspection of the noted figures that stance zone 28 is preferably rectangularly shaped and that plate-alignment zone 29 comprises a zone vacancy as generally referenced at 30 in FIGS. 3 and 4.

[0061] The zone vacancy 30 is preferably sized and shaped for receiving a select home plate half, the select home plate half being selected from the group consisting of the first and second lateral home plate halves 25 and 26. When the zone vacancy 30 is positioned adjacent the home plate 11 and receives the select home plate half, the plate-alignment zone 29 and the medial dividing axis 101 are together trapezoidally shaped as may be seen from a general inspection of the noted figures. Should two stance training mats 10 be aligned adjacent home plate 11, with the zone vacancies 30 of each mat 10 receiving the first and second home plate halves 25 and 26, the training mats 10 together may operate to form hourglass-shaped batter’s box 31 as generally illustrated and referenced in FIGS. 1 and 2. It will best be seen from an inspection of the noted figures that the second training mat may be defined as a certain mirror image mat having left-to-right image reversal of the first training mat about the medial dividing axis 101. It is contemplated that the triangular vacancies 32 at the back of the hourglass-shaped batter’s box 31 may well function to center onlookers’ and users’ attentions to the home plate 11 as would arrowheads. It is thus contemplated that the hourglass-shaped batter’s box 31 may effectively function to selectively improve either a left-handed or a right-handed user’s batting stance.

[0062] In this last regard, it is contemplated that the stance training mat 10 may further preferably comprise an indicia-bearing lower mat surface 34 as referenced in FIGS. 1, 2, and 4. The indicia-bearing lower mat surface 34 provides a stance training mat that may be top-to-bottom, left-to-right reversible for enabling users thereof to position the mat for either left-handed hitting use as depicted in FIG. 4 or right-handed hitting use as depicted in FIGS. 3 and 5. When used in combination with a second stance training mat 10, the two mats may be utilized to form batter’s box 31 as previously specified. When used in isolation, the zone vacancy 30 of the stance training mat 10 receive a select home plate half for selectively improving either a left-handed or a right-handed user’s batting stance as the user may elect.

[0063] The upper mat surface 27 and lower mat surface 34 may preferably comprise certain superficial or surface indicia, including rearward foot placement indicia and forward foot placement indicia. The foot placement indicia preferably include footprint-shaped rearward distinct markings and certain arrow stride zone markings for guiding a user’s
feet into stance placement. The rearward foot-retaining means (as may be defined by cuff assembly 12 and a plurality of plug-receiving apertures 20) are cooperatively associated with the distinct markings for retaining the user’s rearward foot in superior adjacency to a select distinct marking. The guided user’s feet are thus properly positioned for improving the user’s batting stance.

When stance training mat 10 is used in conjunction with an existing baseball field and particularly in combination with a home plate region, it is contemplated that the baseball field essentially comprises a substantially planar home plate region; a marked left field foul line; and a marked right field foul line. The home plate region typically comprises a substantially planar home plate region surface. Home plate region surface is typically skinned or devoid of grass or similar type turf, exposing a clay or similar other earthen surface. Although the preferred embodiment of the present invention is designed for use in combination with a typically marked baseball field, it should be noted that the preferred embodiment of the present invention might also be utilized on other similar playing field surfaces. For example, either impromptu or planned baseball games are often played upon unmarked open grassy spaces or alternatively, in indoor gymnasiums. Stance training mat 10 may quite easily be utilized in these scenarios.

In a typical marked baseball field scenario, however, the home plate region essentially comprises a marked left batter box, a marked right batter box, and a marked catcher box. It is contemplated that batter’s box 31 may be sized and shaped to cover a left batter box and a right batter box. Stance training mat 10 is preferably substantially planar in design when in an unfurled state. As earlier mentioned stance training mat 10 is preferably constructed from a compliant, low memory material such as sponge vinyl. Preferably, stance training mat 10 may be rolled for storage and/or transport and unfurled for use upon home plate regions. Further stance training mat 10 must be highly resistant to punctures or tears from spikes, cleats or other foot wear having puncture-enabled structure. It is further contemplated that stance training mat 10 be constructed so as to satisfy other harsh conditions. For example, the materials used should be resistant to environmental conditions such as exposure to rain or sunlight, as well as storage conditions having wide range temperature fluctuations, such as may be seen in storage areas lacking in temperature control means. It should be further noted that when contemplated for high traffic or frequent use, the manufacturer should construct stance training mat from a thicker, heavier duty grade of material so as to withstand the likely wear and tear associated with high traffic or frequent use.

For purposes of this disclosure, it should be understood that the term “compliant” is meant to refer to the ability to readily conform to an underlying substrate such as a home plate region surface or similar other playing field surface. Further, it should be understood that the term “low memory” is meant to refer to the ability to rapidly comply with an underlying substrate when unconstrained from a prior condition, such as when a mat is unfurled or unfurled from a rolled or furled state. It will thus be seen that a mat constructed from sponge vinyl or other similar materials, which are highly “compliant,” and of “low memory,” may readily conform to an underlying substrate such as a home plate region surface and may rapidly comply to a new underlying substrate when unconstrained from a prior condition, such as a rolled or furled state.

It is further contemplated that the stance training mat of the present invention may be used in combination with a tee-ball assembly. Tee-ball assemblies are often utilized to teach novice hitters proper hitting technique and thus it is contemplated that tee-ball assembly may be utilized in combination with the preferred embodiment of the present invention so as to develop proper stance technique as well as hitting technique in novice or beginner hitters.

Further, it is contemplated that a layer of artificial turf 50 may be used in combination with the mat 10 as generally depicted in FIGS. 22(a) through 23(b). It is contemplated that the layer of artificial turf 50 may be removably placed upon mat 10 sized and shaped to match the top plan configuration of mat 10 and preferably has a thickness equal to the exposed home plate thickness 105 such that when artificial turf 50 rests upon mat 10, the top (roughly planar) surface of home plate 11 is coplanar with the top (roughly planar) surface of artificial turf as comparatively depicted in FIGS. 22(a) through 23(b).

While the above description contains much specificity, this specificity should not be construed as limitations on the scope of the invention, but rather as an exemplification of the invention. For example, it is contemplated that the present invention essentially discloses a batting stance training mat for improving a user’s batting stance. The training mat essentially comprises an upper mat surface, a stance zone, and a plate-alignment zone. The plate-alignment zone comprises a zone vacancy, which zone vacancy is sized and shaped for receiving a select home plate half; the select home plate half being selected from the group consisting of first and second lateral home plate halves, the lateral home plate halves being divided by a medial dividing axis.

The zone vacancy receives the select home plate half, and the plate-alignment zone and the medial dividing axis are thus preferably trapezoidally shaped for drawing the users’ or onlookers’ attentions to the home plate 11. The upper mat surface comprises surface indicia, including rearward foot placement indicia and forward foot placement indicia. The rearward foot placement indicia comprise distinct markings, each of which are formed in the shape of a footprint. The foot placement indicia function to guide a user’s feet into stance placement, and the guided user’s feet may be properly positioned adjacent the home plate for improving the user’s batting stance.

The mat may be cooperate with certain rearward foot-retaining means, which means are cooperatively associated with the footprint-shaped distinct markings for retaining a user’s rearward foot in superior adjacency to a select distinct marking. The rearward foot-retaining means may be definable by a cuff assembly and a plurality of plug-receiving apertures. The cuff assembly comprises certain foot-receiving means and a plug, the plug being sized and shaped to be snugly received in each plug-receiving aperture formed in or otherwise associated with the mat. The plug-receiving apertures each have an aperture axis for preventing the cuff assembly as donned upon the user’s rearward foot from orthogonal displacement relative to the aperture axes. The distinct markings each have a longitudinal foot placement axis orthogonal to the medial dividing axis of the home plate. The foot placement axes may preferably comprise
coaxial foot placement axes and parallel foot placement axes for accommodating user’s of varying statures.

[0072] The stance training mat may further comprise an indicia-bearing lower mat surface for enabling top-to-bottom, left-to-right mat reversibility. The zone vacancy may thus operate to receive either the first or second lateral home plate half for selectively improving either a left-handed or a right-handed user’s batting stance. The stance training mat is thus usable in combination with a second batting stance training mat, the zone vacancies for receiving the first and second home plate halves inclusively. When used in tandem, two stance training mats may together function to form an hourglass-shaped batter’s box for selectively improving either a left-handed or a right-handed user’s batting stance.

[0073] The batting stance training mat of the present invention is thought to essentially comprise a stance zone, a plate-alignment zone, and certain foot-guiding means (as may be defined by certain surface indicia as previously specified and/or certain foot-retaining means as previously specified). In this regard, it is contemplated that the zone vacancy of the plate-alignment zone, being sized and shaped for receiving a select home plate half, and so receiving the select home plate half, provides a batting stance training mat comprising certain trapezoidally shaped home plate-focusing structure when viewed in tandem with the medial dividing axis of a home plate. The foot-guiding means of the training mat effectively function to guide a user’s feet into stance placement, the guided user’s feet being properly positioned adjacent a home plate for improving the user’s batting stance.

[0074] Further, it is contemplated that the baseball training mat of the present invention may be essentially described as one for selective placement adjacent a home plate comprising a plate-alignment zone having a zone vacancy sized and shaped for receiving a select home plate half. Accordingly, although the invention has been described by reference to at least one preferred embodiment with certain contemplated alternative embodiments, it is not intended that the novel assembly be limited thereby, but that modifications thereof are intended to be included as falling within the broad scope and spirit of the foregoing disclosure, the following claims and the appended drawings.

1 claim:
1. A batting stance training assembly for improving a user’s batting stance, the baseball training assembly comprising, in combination:
   rearward foot-retaining means;
   a home plate, the home plate comprising a medial dividing axis, the medial dividing axis dividing the home plate into first and second lateral home plate halves; and
   a stance training mat, the stance training mat comprising an upper mat surface, a stance zone, and a plate-alignment zone, the stance zone being rectangularly shaped, the plate-alignment zone comprising a zone vacancy, the zone vacancy being sized and shaped for receiving a select home plate half, the select home plate half being selected from the group consisting of first and second lateral home plate halves, the zone vacancy receiving the select home plate half, the plate-alignment zone and the medial dividing axis being trapezoidally shaped, the upper mat surface comprising surface indicia, the surface indicia comprising rearward foot placement indicia and forward foot placement indicia, the rearward foot placement indicia comprising distinct markings, each distinct marking being formed in the shape of a footprint, the foot placement indicia for guiding a user’s feet into stance placement, the rearward foot-retaining means being cooperatively associated with the distinct markings for retaining the user’s rearward foot in superior adjacency to a select distinct marking, the guided user’s feet being properly positioned for improving the user’s batting stance.
2. The batting stance training assembly of claim 1 wherein the distinct markings each have a longitudinal foot placement axis, the foot placement axes being orthogonal to the medial dividing axis.
3. The batting stance training assembly of claim 2 wherein the foot placement axes comprise coaxial foot placement axes and parallel foot placement axes, the foot placement axes for accommodating users of varying stature.
4. The batting stance training assembly of claim 1 wherein the rearward foot-retaining means are defined by a cuff assembly and a plurality of mat-honed plug-receiving apertures, the cuff assembly comprising foot-receiving means and a plug, the plug being sized and shaped to be snugly received in each plug-receiving aperture, the plug-receiving apertures each having an aperture axis, the snugly received plug for preventing orthogonal cuff assembly displacement relative to the aperture axes.
5. The batting stance training assembly of claim 1 comprising two stance training mats, the zone vacancies receiving the first and second home plate halves, the baseball training mats forming an hourglass-shaped batter’s box, the batter’s box for selectively improving either a left-handed or a right-handed user’s batting stance.
6. The batting stance training assembly of claim 1 wherein the stance training mat comprises an indicia-bearing lower mat surface, the stance training mat being top-to-bottom, left-to-right reversible, the zone vacancy receiving the select home plate half, the baseball training system for selectively improving either a left-handed or a right-handed user’s batting stance.
7. The batting stance training assembly of claim 1 wherein the home plate has a home plate thickness and the stance training mat has a mat thickness, the home plate thickness being greater in magnitude than the mat thickness for forming an exposed home plate thickness, the exposed home plate thickness for enhancing players’ ability to sight the home plate as bound by the stance training mat.
8. A batting stance training mat, the stance training mat for improving a user’s batting stance, the stance training mat comprising:
   an upper mat surface, a stance zone, and a plate-alignment zone, the plate-alignment zone comprising a zone vacancy, the zone vacancy being sized and shaped for receiving a select home plate half, the select home plate half being selected from the group consisting of first and second lateral home plate halves, the lateral home plate halves being divided by a medial dividing axis, the zone vacancy receiving the select home plate half, the plate-alignment zone and the medial dividing axis being trapezoidally shaped, the upper mat surface comprising rearward foot placement indicia, the rearward foot placement indicia comprising distinct footprint-
shaped markings, the rearward foot placement indicia for guiding a user’s rearward foot into stance placement, the guided user’s rearward foot being properly positioned adjacent a home plate for improving the user’s batting stance.

9. The batting stance training mat of claim 8 wherein the rearward foot-retaining means are cooperative with the footprint-shaped markings for retaining the user’s rearward foot in superior adjacency to a select footprint-shaped marking.

10. The batting stance training mat of claim 9 wherein the rearward foot-retaining means are defined by a cuff assembly and a plurality of plug-receiving apertures, the cuff assembly comprising foot-receiving means and a plug, the plug being sized and shaped to be snugly received in each plug-receiving aperture, the plug-receiving apertures each having an aperture axis, the snugly received plug for preventing orthogonal cuff assembly displacement relative to the aperture axes.

11. The batting stance training mat of claim 8 wherein the footprint-shaped markings each have a longitudinal foot placement axis, the foot placement axes being orthogonal to the medial dividing axis.

12. The batting stance training mat of claim 11 wherein the foot placement axes comprise coaxial foot placement axes and parallel foot placement axes, the foot placement axes for accommodating users of varying stature.

13. The batting stance training mat of claim 8 comprising an indicia-bearing lower mat surface, the training mat being top-to-bottom, left-to-right reversible, the zone vacancy receiving the select home plate half, the training mat for selectively improving either a left-handed or a right-handed user’s batting stance.

14. The batting stance training mat of claim 13 usable in combination with a second batting stance training mat, the zone vacancies receiving the first and second home plate halves, the training mat thus forming a hourglass-shaped batter’s box, the batter’s box for selectively improving either a left-handed or a right-handed user’s batting stance.

15. The batting stance training assembly of claim 8 wherein the select home plate half has a plate thickness and the stance training mat has a mat thickness, the plate thickness being greater in magnitude than the mat thickness for forming an exposed home plate thickness, the exposed home plate thickness for enhancing players’ ability to sight the select home plate half as bound by the stance training mat.

16. A batting stance training mat, the stance training mat for improving a user’s batting stance, the stance training mat comprising:

17. The batting stance training mat of claim 16 wherein the foot-guiding means are defined by surface indicia, the surface indicia being formed upon an upper mat surface and comprising rearward foot placement indicia, the rearward foot placement indicia comprising distinct markings, each distinct marking being formed in the shape of a footprint.

18. The batting stance training mat of claim 17 cooperative with rearward foot-retaining means, the rearward foot-retaining means being cooperative with the distinct markings for retaining a user’s rearward foot in superior adjacency to a select distinct marking.

19. The batting stance training mat of claim 18 wherein the rearward foot-retaining means are defined by a cuff assembly and a plurality of plug-receiving apertures, the cuff assembly comprising foot-receiving means and a plug, the plug being sized and shaped to be snugly received in each plug-receiving aperture, the plug-receiving apertures each having an aperture axis, the snugly received plug for preventing orthogonal cuff assembly displacement relative to the aperture axes.

20. The batting stance training mat of claim 16 wherein the distinct markings each have a longitudinal foot placement axis, the foot placement axes being orthogonal to the medial dividing axis.

21. The batting stance training mat of claim 20 wherein the foot placement axes comprise coaxial foot placement axes and parallel foot placement axes, the foot placement axes for accommodating users of varying stature.

22. The batting stance training mat of claim 16 comprising an indicia-bearing lower mat surface, the training mat being top-to-bottom, left-to-right reversible, the zone vacancy receiving the select home plate half, the training mat for selectively improving either a left-handed or a right-handed user’s batting stance.

23. The batting stance training mat of claim 16 usable in combination with a second mirror image mat, the mirror image mat having left-to-right image reversal of the training mat about the medial dividing axis, the zone vacancies receiving the first and second home plate halves, the training mat and the mirror image mat thus forming a hourglass-shaped batter’s box, the batter’s box for selectively improving either a left-handed or a right-handed user’s batting stance.

24. The batting stance training assembly of claim 16 wherein the select home plate half has a plate thickness and the stance training mat has a mat thickness, the plate thickness being greater in magnitude than the mat thickness for forming an exposed home plate thickness, the exposed home plate thickness for enhancing players’ ability to sight the select home plate half as bound by the stance training mat.

25. A baseball training mat, the baseball training mat for selective placement adjacent a home plate, the baseball training mat comprising a plate-alignment zone, the plate-alignment zone comprising a zone vacancy, the zone vacancy being sized and shaped for receiving a select home plate half, the select home plate half being selected from the group consisting of first and second lateral home plate halves, the lateral home plate halves being divided by a medial dividing axis, the zone vacancy receiving the select home plate half, the plate-alignment zone and the medial dividing axis being trapezoidally shaped, the foot-guiding means for guiding a user’s feet into stance placement, the guided user’s feet being properly positioned adjacent a home plate for improving the user’s batting stance.

26. The baseball training mat of claim 25 usable in combination with a second mirror image mat, the mirror image mat having left-to-right image reversal of the training mat.
mat about the medial dividing axis, the zone vacancies receiving the first and second home plate halves, the training mat and the mirror image mat thus forming a left-right sided training assembly, the training assembly for selectively training left-handed and right-handed batters.

27. The baseball training mat of claim 25 wherein the home plate has a home plate thickness and the stance training mat has a mat thickness, the home plate thickness being greater in magnitude than the mat thickness for forming an exposed home plate thickness, the exposed home plate thickness for enhancing players' ability to sight the home plate as bound by the stance training mat.

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