An exercise product and an exercise system using it has a grid of at least first marks on a surface of the exercise product. The first marks incorporate or are associated with indicia. Preferably, the first marks are first straight lines, the grid further comprises second straight lines orthogonal to and intersecting the first straight lines and the indicia are incorporated into the second straight lines by the second straight lines comprising dashes.
GRID ON AN EXERCISE PRODUCT AND EXERCISE SYSTEM THEREWITH

BACKGROUND OF THE INVENTION

[0001] The invention relates to a grid of marks, preferably straight lines intersecting orthogonally and incorporating or associated with indicia, for use on an exercise product such as a mat, dumbbell, power band, cushion or pillow and a system of exercise therewith to orient the exercise such as weight training/strength training, pilates, posture improvement, dance movement, physical therapy and sports programs.

[0002] The lineless mats used widely by individuals for exercises in homes and gyms offer no guides for orienting the exercises relative to the individuals' bodies. Only an individual's perceptions indicate the relative alignment of body parts, for example. As a result, exercise may be inefficient, because one cannot be certain when one's feet, hips, and/or hands are equidistant apart from each other in comparison with one's knees, hips and shoulders. Nor can one be certain that one's feet, hips, and/or hands remain in an aligned, safe-for-joints position, and not a misaligned position that can cause discomfort in a knee, hip or shoulder joint, for example. Such misalignment can lead to serious injuries requiring surgery.

[0003] A grid of orthogonal lines on a mat is disclosed in Marquez U.S. Pat. No. 6,387,013 of May 14, 2002, for example, which is incorporated by reference to avoid having to repeat its disclosures for use in yoga, for example. Using the mat for other exercises is not substantially described.

[0004] Moreover, these known grid lines are all solid lines and not associated with indicia, let alone sequential indicia. Therefore, it is difficult to know whether one has oriented one's hands behind them one line or two lines apart, for example, because one line looks like another. Further, because the lines are neither identified in sequence, nor with graduations therebetween, it is not as easy to gauge improvement in exercise from time to time as, for example, reaching last week to a line at indicia B and reaching next week in the same exercise to a line at indicia C or, preferably, C plus two graduations. Graduations between lines would also permit the grid lines to be farther apart for orienting and/or aligning larger body parts and/or movements while at the same time providing a measure of the smaller incremental improvements in an improvement that may provide an incentive for continuation.

[0005] The grid of orthogonal lines disclosed in the Marquez US Patent includes orthogonal center lines. Having center lines tends to orient exercises to the center of the mat, which wastes the space on the mat opposite the direction of the exercise in contrast to an even number of grid lines providing an interstice or space between grid lines in the center of the mat, whereby to tend to shift forward exercises back on the mat and vice versa without giving the impression of using the edge of the mat and, thereby, use of the area of the mat more efficiently.

SUMMARY OF THE INVENTION

[0006] Therefore, a grid of marks, preferably straight lines intersecting orthogonally and incorporating and/or associated with indicia that are preferably sequential, is provided on a surface of an exercise product as described above or other equivalents thereof. The indicia of the marks include width, solid versus dashed, straight versus wavy, color and convex or concave protrusion relative to the surface of the exercise product and other equivalent means of differentiating one mark or group of marks from another, as well as sequential indicia like letters and/or numbers associated with the marks.

[0007] The exercise system with the grid applies to weight training/strength training, pilates, posture improvement, dance movement, physical therapy and sports programs is a fitness tool to convert the exercise into a posture improvement sequence that helps one look leaner, stand taller, and glow. More specifically, using the easy alignment of the exercise system helps avoid joint and lower back injuries by constantly coaching alignment of feet and joints.

[0008] The exercise system preferably relates to a workout mat specifically designed to improve the value of one's exercise regimen. It provides a scientifically designed grid to assist correct alignment for each exercise. The discipline provided by this grid improves the effectiveness of each exercise, thereby providing the user greater value from the user's exercise routine, regardless of what the routine is.

[0009] The exercise system is suitable for all exercises, whether standing, sitting, prone, supine or on a side. When starting a standing exercise, for example, one place one's toes on a dashed line of a preferred embodiment of the grid with outsides of the feet on solid lines about shoulder width apart. A squat can then be performed while making sure one's knees do not project beyond one's toes and, by doing so, one gently pushes one's pelvis back as though going into a seat. Alternatively, a lunge can be directed along the solid line at one foot out to a dashed line of selected, for example, associated sequential numerical indicia further out than the dashed line on which the toes were placed. A plank can be performed by kneeling on intersections of dashed line and solid lines, placing palms on a dashed line forward along the solid lines the knees are on and assuming a push-up position by raising the knees with the toes rearward along the solid lines the knees were on. Alternate legs are then raised and the toes returned to the same solid lines they were raised from. Of course, a push-up could also have been performed from the push-up position, the alignment of the lines between hands and knees or toes helping to develop opposite sides of the body evenly. These core exercises of the lower back and abs are of prime importance.

[0010] For lateral movements, the outsides of the feet can be placed along dashed lines of the preferred embodiment and one then moved along a solid line to a farther dashed line in a side lunge. By noting a sequential, e.g., numerical indicia associated with the farther dashed line, repetitions can be kept uniform to the same farther dashed line can be kept uniform and improvement in performance (longer side lung to a farther dashed line of a succeeding indicia) over time can noted for encouragement.

[0011] For side leg raises, a lower side of the body can be aligned along a solid line of the preferred embodiment and a forearm aligned with an orthogonal dashed line under a shoulder to raise the shoulder with the upper arm. The upper leg can then be raised parallel to the solid line the body is along.
DESCRIPTION OF THE DRAWING

[0012] A preferred embodiment of the grid on a surface of a mat and exercises therewith that illustrate but do not limit the invention is shown in the drawing, wherein:

[0013] FIG. 1 is a top/front/left-side perspective view of a grid on a surface of a mat;

[0014] FIG. 2 is a top/front/right-side perspective view of a grid on a surface of a mat;

[0015] FIG. 3 is a top/right-side photographic view of a lunge exercise on the mat;

[0016] FIG. 4 is a top/front/right-side photographic view of a ballet stretch using the mat;

[0017] FIG. 5 is a top/front photographic view of core elasticity evaluation session using the mat;

[0018] FIG. 6 is a top/left-side photographic view of a weighted plie squat using the mat;

[0019] FIG. 7 is a photographic view of the mat in a rolled, portable condition;

[0020] FIGS. 8a and 8b are photographic views of use of the mat and other like mats in a class;

[0021] FIG. 9a is a top/right-side photographic view of a push-up on the mat; and

[0022] FIG. 10 is a top/right-side photographic view of a leg lift on the mat and a like mat.

DESCRIPTION OF THE PREFERRED EMBODIMENT

[0023] In the FIGS., a mat 100 (all reference characters are shown in FIG. 1) is preferably a sheet of rubber-like, soft, water-resistant, resilient material 6 feet long by 2 feet wide by ¼ inch thick. One 6 foot by 2 foot surface of the mat that will be the top for exercise use has a grid of straight, orthogonal lengthwise lines 12 and widthwise lines 14. Although the mat and the grid are substantially co-extensive in the preferred embodiment, in other embodiments (not shown) the grid may be non-orthogonal or substantially less extensive than the surface of mat or other exercise product it is on.

[0024] The widthwise lines 14 are dashed so as to incorporate an indicia distinguishing them from the lengthwise lines 12. In other embodiments (not shown) the incorporated indicia may be respective colors or widths of the orthogonal lines or, preferably, convexities or concavities relative to the surface of the exercise product the grid is on for non-visual, tactile distinction.

[0025] The lines are ¼ inch wide, except a center line 12a of the lengthwise lines 12, which is ½ inch wide. The center line has graduation marks 16 along one side at the same repetition rate as the dashes of the widthwise lines, whereby both the lengthwise and widthwise lines are graduated. In other embodiments (not shown) only one or none of the lines may be graduated.

[0026] In addition, there are pairs of sequential indicia A, B, C, D, E at and defining opposite ends of the lengthwise lines 12 and pairs of sequential indicia 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10 at and defining opposite ends of the widthwise lines 14 to be associated therewith. The indicia at the opposite ends are oppositely oriented longitudinally. The combination of the graduations and sequential indicia, particularly, makes it possible to evaluate (mark) the success of an exercise on the mat, e.g. stretching from line 5 to line 7 and incremental improvement therein, e.g. next stretching from line 5 to line 7 and two graduations on centerline 12a.

[0027] Although there are an odd number of lengthwise lines, whereby to have the centerline 12a, there are an even number of ten widthwise lines 14, whereby to have an interspace or space in the lengthwise center of the grid and, in this case where the grid extends substantially all over the mat, the mat. Because the lines may be used to orient and/or align the starting point of an exercise, this tends to shift or bias the starting point towards the rearward end of the mat relative to a forward exercise, whereby to use the rest of the mat more efficiently. Other embodiments (not shown) may have the center interspace lengthwise as well.

[0028] FIG. 2 shows a lunge exercise to 100 from a position that should be 2B on the grid, but has shifted, thereby showing that alignment should be corrected on the next repetition, whereby to balance the exercise between opposite sides of the body more exactly.

[0029] FIG. 3 shows a cobra position exercise wherein line C is used for pelvic positioning, lines 2B and 2D are used for feet positions and lines 10A and 10E are used for hand positioning to achieve balancing of the exercise between opposite sides of the body.

[0030] FIG. 4 shows a ballet stretch exercise using grid coordinate lines 6B toward 6C.

[0031] FIG. 5 shows a core (lower back and abs) elasticity exercise from sitting centerline C and bending forward to slide the hands with outsides along lines B and D as many graduations along centerline C as comfortably possible, whereby increasing graduations after repetitions over time may be noted.

[0032] FIG. 6 shows a weighted plie squat using line D in combination with lines 2 and 9 to fix the posture of the exercise.

[0033] FIG. 7 shows the portability of a mat with the grid, the mat being rolled up.

[0034] FIGS. 8a and 8b show examples of use of such mats in a class or group setting. Due to differences in heights of members of the class or group, each member can readily find coordinates on his/her mat for his/her individual ability and comfort, because the lines of the grid have distinct, discrete and sequential incorporated and associated indicia. Thereby, the class can perform exercises in unison, as shown, even though each member’s exercise is sized to fit that member. The grids on the respective mats for the members allow the grids to be positioned so that an instructor (trainer) can see each member of the class or group.

[0035] FIG. 9a shows a push-up exercise using lines 1A and 1E for feet and space 10 E/D and space 10 A/B for the hands. The indicia associated with the grid permit the person to return to these exact coordinates every time a push-up work out is repeated, as is also the case with other exercises.

[0036] FIG. 10 shows side leg raises as described above.

[0037] Still other embodiments (not shown) may have other grid arrangements, e.g. adding or substituting diagonal
or wavy lines, and orientations, e.g. diagonally relative to the mat and/or on only one widthwise side of it. Still other equivalent variations and combinations as may occur to those in the art are considered as within the scope of the following claims.

[0038] Therefore, the foregoing is considered as illustrative only of the principles of the invention and, as numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly, all suitable modifications and equivalents may be resorted to as falling within the scope of the invention.

1. In an exercise product, the improvement comprising:

a grid of at least first marks on a surface of the exercise product, the marks incorporating or being associated with indicia.

2. The exercise product claim 1, wherein the first marks are first straight lines, the grid further comprises second straight lines orthogonal to and intersecting the first straight lines and the indicia are incorporated into the second straight lines by the second straight lines comprising dashes.

3. The exercise product of claim 2, and further comprising sequential indicia associated with at least one of the first and second straight lines.

4. The exercise product of claim 3, wherein the sequential indicia are at opposite ends of the first and second straight lines.

5. The exercise product of claim 2, and further comprising graduations along at least one of the lines.

6. The exercise product of claim 4, and further comprising graduations along at least one of the lines.

7. The exercise product of claim 2, wherein the exercise product is a mat.

8. The exercise product of claim 4, wherein the exercise product is a mat.

9. The exercise product of claim 6, wherein the exercise product is a mat.

10. The exercise product of claim 6, wherein the dashes and graduations are of the same interval.

11. The exercise product claim 1, wherein the first marks are first straight lines, the grid further comprises second straight lines orthogonal to and intersecting the first straight lines, the lines having convex or concave projection from the surface of the exercise product.

12. The exercise product of claim 10, wherein at least one of the first and second straight lines has convex or concave projection from the surface of the exercise product.

13. The exercise product according to claim 12, wherein there are an even number of at least one of the first and second straight lines in the grid.

14. An exercise system comprising exercising on an exercise product according to claim 1.

15. An exercise system comprising exercising on an exercise product according to claim 2.

16. An exercise system comprising exercising on an exercise product according to claim 4.

17. An exercise system comprising exercising on an exercise product according to claim 6.

18. An exercise system comprising exercising on an exercise product according to claim 1.

19. An exercise system comprising exercising on an exercise product according to claim 10.

20. An exercise system comprising exercising on an exercise product according to claim 12.

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