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(54) **Title:** PHYSICAL TRAINING AND REHABILITATION DEVICE AND METHODS FOR USING SAME

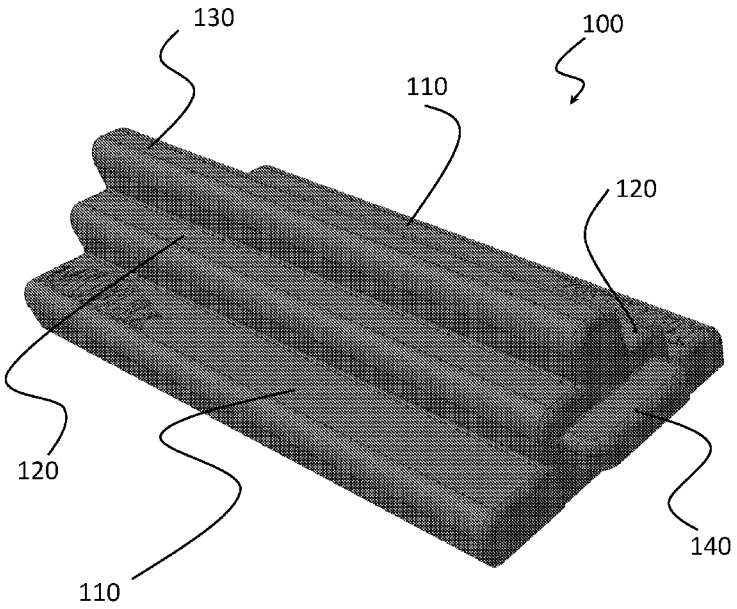

FIG. 1

(57) **Abstract:** In one embodiment, a stepped pyramid structure includes a pair of opposing first steps, a pair of opposing second steps elevated above the pair of first steps, and a crowning portion elevated above the pair of second steps. The stepped pyramid structure can include a pair of extensions extending from opposing sides of the pyramid structure. The stepped pyramid structure is a symmetric structure useful for exercise and training. A method of using a stepped pyramid structure comprises the steps of: user placing pyramid structure about an arm's length away from a wall; user placing one foot on pyramid structure; user placing both hands on wall; user standing straight up with all the user's weight on pyramid structure; and user leaning slightly forward, while user's other foot remains on the floor and the user's hips shoulders, hips and ankle (of foot engaged with pyramid structure) in line with each other.

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[Continued on next page]

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TITLE

Physical Training and Rehabilitation Device and Methods for Using Same

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application claims the benefit of U.S. Provisional Patent Application No. 62/682,995, titled "Physical Training and Rehabilitation Device and Methods" and filed on June 10, 2018, which is expressly incorporated by reference herein in its entirety.

FIELD OF INVENTION

[0002] The present disclosure generally relates to a physical training and rehabilitation device and methods of using same. More specifically, the present disclosure relates to a stepped pyramid apparatus useful in physical training and rehabilitation of the human body, particularly the lower body.

BACKGROUND

[0003] Each year millions of people participate in sporting activities, including both organized sports such as baseball, golf, and the like, and recreational activities such as running and aerobics for both competitive reasons and to maintain physical fitness. Regardless of the goal of the sporting activity, a regular participant of sporting activities bears a relatively high risk of sustaining an injury during of the course of participating in such activities. Such potential injuries range from nagging injuries such as plantar fasciitis (an inflammation of the tissue on the bottom of the foot), Achilles tendon tendonitis, ankle sprains, cramping calves, and hamstring pulls to more serious and potentially debilitating injuries such as knee trauma, hip and back pain,

and falls that can lead to temporary or permanent debilitation and/or surgical procedures such as fusing of bones in the spine or knee, hip, or other joint replacements.

[0004] Therefore, there is a need for apparatus and methods that are useful in training and rehabilitating the human body to both generally strengthen and increase flexibility of certain joints resulting in a reduction or elimination of injuries and rehabilitating such joints after an injury.

SUMMARY

[0005] In one embodiment, a stepped pyramid structure includes a pair of opposing first steps, a pair of opposing second steps elevated above the pair of first steps, and a crowning portion elevated above the pair of second steps. Additionally, the stepped pyramid structure can include a pair of extensions extending from the sides of the pyramid structure. The stepped pyramid structure is generally a symmetric structure useful for exercise and training.

[0006] In another embodiment, a method of using a stepped pyramid structure comprises the steps of: a user placing the pyramid structure about an arm's length away from a wall; the user placing one foot on the pyramid structure; the user placing both hands on wall; the user standing straight up with all the user's weight on the pyramid structure; and user leaning slightly forward, while the user's other foot remains on the floor and the user's hips shoulders, hips and ankle (of the foot that is engaged with the pyramid structure) in line with each other.

BRIEF DESCRIPTION OF THE DRAWINGS

[0007] In the accompanying drawings, structures are illustrated that, together with the detailed description provided below, describe example embodiments of the disclosed systems, methods, and apparatus. Where appropriate, like elements are identified with the same or similar

reference numerals. Elements shown as a single component can be replaced with multiple components. Elements shown as multiple components can be replaced with a single component. The drawings may not be to scale. The proportion of certain elements may be exaggerated for the purpose of illustration.

[0008] FIG. 1 is a schematic perspective view of a physical training and rehabilitation device as disclosed herein.

[0009] FIG. 2 is another schematic perspective view of the physical training and rehabilitation device of FIG. 1.

[0010] FIG. 3 is schematic perspective view showing the underside of the physical training and rehabilitation device of FIG. 1.

[0011] FIG. 4 is a top schematic view of one embodiment of a physical training and rehabilitation device.

[0012] FIG. 5 is a front schematic view of the physical training and rehabilitation device of FIG. 4.

[0013] FIG. 6 is a side schematic view of the physical training and rehabilitation device of FIG. 4.

[0014] FIG. 7 is another side schematic view of the physical training and rehabilitation device of FIG. 4.

[0015] FIG. 8 is a detailed schematic view of treads of the physical training and rehabilitation device of FIG. 4.

[0016] FIG. 9 is a side schematic view of another embodiment of a physical training and rehabilitation device.

[0017] FIG. 10 is a front schematic view of the physical training and rehabilitation device of FIG. 9.

[0018] FIG. 11 is a photograph of a user engaging the a physical training and rehabilitation device as disclosed herein.

[0019] FIG. 12 is a photograph of a user engaging the a physical training and rehabilitation device as disclosed herein.

[0020] FIG. 13 is a photograph of a user engaging the a physical training and rehabilitation device as disclosed herein.

[0021] FIG. 14 is a photograph of a user engaging the a physical training and rehabilitation device as disclosed herein.

[0022] FIG. 15 is a photograph of a user engaging the a physical training and rehabilitation device as disclosed herein.

[0023] FIG. 16 is a photograph of a user engaging the a physical training and rehabilitation device as disclosed herein.

[0024] FIG. 17 is a photograph of a user engaging the a physical training and rehabilitation device as disclosed herein.

[0025] FIG. 18 is a photograph of a user engaging the a physical training and rehabilitation device as disclosed herein.

[0026] FIG. 19 is a photograph of a user engaging the a physical training and rehabilitation device as disclosed herein.

[0027] FIG. 20 is a photograph of a user engaging the a physical training and rehabilitation device as disclosed herein.

[0028] FIG. 21 is a photograph of a user engaging the a physical training and rehabilitation device as disclosed herein.

[0029] FIG. 22 is a photograph of a user engaging the a physical training and rehabilitation device as disclosed herein.

[0030] FIG. 23 is a photograph of a user engaging the a physical training and rehabilitation device as disclosed herein.

[0031] FIG. 24 is a photograph of a user engaging the a physical training and rehabilitation device as disclosed herein.

[0032] FIG. 25 is a photograph of a user engaging the a physical training and rehabilitation device as disclosed herein.

[0033] FIG. 26 is a photograph of a user engaging the a physical training and rehabilitation device as disclosed herein.

[0034] FIG. 27 is a photograph of a user engaging the a physical training and rehabilitation device as disclosed herein.

[0035] FIG. 28 is a photograph of a user engaging the a physical training and rehabilitation device as disclosed herein.

[0036] FIG. 29 is a photograph of a user engaging the a physical training and rehabilitation device as disclosed herein.

[0037] FIG. 30 is a photograph of a user engaging the a physical training and rehabilitation device as disclosed herein.

[0038] FIG. 31 is a photograph of a user engaging the a physical training and rehabilitation device as disclosed herein.

[0039] FIG. 32 is a photograph of a user engaging the a physical training and rehabilitation device as disclosed herein.

[0040] FIG. 33 is a photograph of a user engaging the a physical training and rehabilitation device as disclosed herein.

[0041] FIG. 34 is a photograph of a user engaging the a physical training and rehabilitation device as disclosed herein.

[0042] FIG. 35 is a photograph of a user engaging the a physical training and rehabilitation device as disclosed herein.

DETAILED DESCRIPTION

[0043] The apparatus, systems, arrangements, and methods disclosed in this document are described in detail by way of examples and with reference to the figures. It will be appreciated that modifications to disclosed and described examples, arrangements, configurations, components, elements, apparatus, methods, materials, etc. can be made and may be desired for a specific application. In this disclosure, any identification of specific techniques, arrangements,

method, etc. are either related to a specific example presented or are merely a general description of such a technique, arrangement, method, etc. Identifications of specific details or examples are not intended to be and should not be construed as mandatory or limiting unless specifically designated as such. Selected examples of apparatus, arrangements, and methods for reducing or eliminating injuries for those participating in sporting activities are hereinafter disclosed and described in detail with reference made to FIGS. 1– 35.

[0044] Many injuries commonly experienced by participants in sporting activities can be reduced or even prevented by improving the participant's body alignment through a balance of strength, function, and flexibility of the overall body, and in particular certain joints of the body. The apparatus and methods described herein are a novel performance enhancement device and method of using such device arranged to allow the user to improve strength, function and flexibility of the body generally, and of certain joints specifically, and, thus, reduce the overall risk of injury while participating in sporting activity.

[0045] An exemplary stepped pyramid structure 100 is illustrated in FIGS. 1 through 3. The pyramid structure 100 is a symmetric structure that includes a pair of opposing first steps 110, a pair of opposing second steps 120 elevated above the pair of first steps 110, and a crowning portion 130 elevated above the pair of second steps 120. Additionally, the pyramid structure 100 can include a pair of extensions 140 extending from the sides of the pyramid structure 100. The extensions 140 an be used as handles to assist a user in maneuvering and adjusting the orientation and position of the pyramid structure.

[0046] One embodiment is illustrated in FIGS. 4 through 8. In this embodiment, the body of the pyramid structure 100 is approximately 24 inches in length (with the overall length

approximately 26.84 inches from tip of one extension 140 to the tip of the other extension 140), approximately 12.25 inches in width, and approximately 4.865 inches in height. The first steps 110 are elevated approximately 1.5 inches above the supporting surface, the second steps 120 are elevated approximately 3.243 inches above the supporting surface, and the top of the crowning portion is elevated approximately 4.865 inches above the supporting surface. The edges of the first steps 110, second steps 120, and crowing portion 130 are rounded and include treads 150. As illustrated in FIG. 8, the treads 150 comprise a series nubs that rise approximately 0.024 inches above the step or crowning portion 110, 120, 130.

[0047] Another embodiment of a stepped pyramid structure 100 is illustrated in FIGS. 9 and 10. The body of the pyramid structure 100 is approximately 24 inches in length, approximately 12.25 inches in width, and approximately 4.5 inches in height. The first steps 110 are elevated approximately 1.5 inches above the supporting surface, the second steps 120 are elevated approximately 3 inches above the supporting surface, and the top of the crowning portion is elevated approximately 4.5 inches above the supporting surface. The edges of the first steps 110, second steps 120, and crowing portion 130 are rounded such that the pyramid structure 100 does not include any sharp edges.

[0048] As will be subsequently described, the pyramid structure 100 is designed such that a user can use the pyramid structure 100 to increase muscle flexibility and strength, thus, reduces the risk of injury when the user participates in sporting activities. As will be understood, the more pliable a muscle becomes, the less likely it is to tear or suffer other injury during use. One area of the body that is of particular interest is the ankle joint. It will be understood that increasing the flexibility and strength of the ankle joint not only reduces the probability of injury to the ankle joint, but enhances a person's athletic performance. Increasing flexibility and

strength of the ankle joint allows a person to maintain better alignment of the body during movement of the body.

[0049] In all activities, greater dorsal flexion of the ankle (i.e. the ability of the toe of the foot to flex toward the shin) or longer gastroc/soleus calf muscles can improve physical performance. For example, greater dorsal flexion of the ankle or longer gastroc/soleus calf muscles can improve the ability to increase stride length while running, and longer stride length translates into increased performance. Improved muscle flexibility also reduces the risk of back pain, hip pain, knee pain, ankle pain, muscle pulls, cramping, and injures due to overuse of certain muscles or muscle groups such as Achilles tendonitis and plantar fasciitis.

[0050] Like any mechanical system, a person's structural and functional alignment of the body are important aspects of not only athletic performance, but also for everyday activities such as standing and walking. The better the structural and functional alignment of the body (i.e., alignment of the ankles, knees, hips, spine, and shoulders), the better the performance of the body, both in dynamic movement (such as quick and explosive movements experienced during athletic competition and training) and in everyday controlled movements of the body (such as walking, raising from a seated to a standing position, climbing stairs, etc.). Human movement is the most efficient when the ankle is flexible and capable of performing without undue restrictions. Physical trainers have long known that ankle flexibility is a prime determinant of differentiating performance among top athletes, but it is also known that such ankle flexibility improves the quality of life for all persons, not just athletes. A sedentary lifestyle, dysfunctional movement, trauma, overuse, and age are the most common causes of ankle joint muscle tightness, resulting in pain due to misalignments in a person's posture. When a person's walking gait and pattern are constricted, it can contributor to serious and painful structural problems.

Untreated and ignored, such structural problems can have a serious negative effect on a person's body and overall health.

[0051] Stretching and strengthening of critical joints and muscle groups are a vital part of athletic training and injury rehabilitation. However, many athletes do not spend an appropriate amount of time stretching and strengthening such critical joints and muscle groups. The pyramid structure 100 described herein, allows for novel methods of strengthening, stretching and rehabilitating the foot, ankle, lower leg, and back. In essence, the pyramid structure 100 is designed to increase flexibility and strength to re-align the foot and ankle to their natural position. Re-aligning the foot and ankle to their natural positions in turn restores the body to its most optimal alignment, thus, improving body posture, positioning, and performance. The results of such methods is the relief of persistent foot pain, knee pain, hip pain, and lower back pain caused by improper body balance and dysfunctional movements. As will be understood, in addition to improving athletic performance, such methods can also assist in alleviating issues due to arthritis and osteoporosis.

[0052] With regard to the ankle joint, the methods described herein include dorsiflexion, i.e., when the dorsal (top) aspect of the foot and the anterior (front) aspect of the tibia (shin) move closer together and plantarflexion, i.e., when the dorsal (top) aspect of the foot and the anterior (front) aspect of the tibia (shin) move farther away from each other. Such motion is necessary for proper execution of any basic human movement including walking, squatting, running, and jumping. Even minor tasks such as sitting down in a chair and subsequently standing up from a chair or walking up and down stairs requires adequate dorsiflexion and occasionally plantarflexion of the ankle. There are many issues related to inadequate dorsiflexion and plantarflexion including many lower extremity injuries and foot deformities. As will be

understood, lack of adequate dorsiflexion or plantarflexion can lead to restrictions in daily activity, pain during simple activities, and serious issues such as unexpected falls, particularly for the elderly.

[0053] With regard to athletics, it is clear that ankle flexibility is a key to athletic performance. For example, when sprinting, the ankle joints perform the two primary movements discussed herein, dorsiflexion and plantarflexion. Sprinting is a highly intensive activity, and requires a large range of motion in the hips, knees, and ankles. All three of these joints need to work together efficiently to produce the soundest biomechanics. Olympic sprinters' ankles are dorsiflexed as they explode off the blocks. This helps the foot strike the track in an optimal position to put force into the ground and launch forward. A poor foot strike minimizes the amount of force generated between the foot and the ground, thus reducing speed. In another example of the importance of the ankle is striking a golf ball. In golf, a powerful swing is the result of creating large amounts of ground reaction force. In order to generate proper power with stability and balance, a solid base is critical. An unstable base has the potential to introduce a number of swing faults. Something as simple as limited range of motion in the ankle can be a precursor (or influencer) of characteristics such as loss of posture, over-rotation, or too much lateral motion. A golfer can lose power by not properly transferring weight from the stable or "grounded" back leg to the front leg.

[0054] FIGS. 11 through 35 demonstrate methods of using the pyramid structure 100 for training and rehabilitation. With regard to FIG. 11, a first method of using the pyramid structure 100 is illustrated. The method is a unilateral flex. The method comprises: a user placing the pyramid structure about an arm's length away from a wall or other supportive structure; the user placing one foot on the pyramid structure as illustrated; the user placing both hands on wall; the

user standing straight up with all his or her weight on the pyramid structure; and user leaning slightly forward. The user's other foot remains on the floor. During the method, the user is to keep hips level, while leaning slightly forward, and keep shoulders, hips and ankle (of the foot that is engaged with the pyramid structure) in line with each other. The user holds this position for approximately 30 seconds or more. Once the 30 seconds elapses, the user can switch feet and repeat.

[0055] FIG. 12 illustrates a method for a dorsal flex stretch. The method comprises: a user placing the pyramid structure about an arm's length away from a wall or other supportive structure; the user placing both feet on the pyramid structure; the user placing both hands on a wall; the user standing straight up with all the user's weight on the pyramid structurer; and the user leaning slightly forward. Again, it is important that the user keeps his or her hips level, while leaning slightly forward, the shoulders, hips and ankles should be in line with each other. This position is held for 30 seconds or more. This method can be repeated multiple times.

[0056] FIG. 13 illustrates a method for a plantar flex Stretch. The method comprises: a user placing the pyramid structure about an arm's length away from a wall or other supportive structure; the user placing both heels on the pyramid structure; the user placing both hands on wall; the user standing straight up with all weight on the pyramid structure; and the user leaning slightly backward. It is important for balance and for the user to keep hips level. Again, it is important to keep hips level, while leaning slightly backwards, the shoulders, hips and ankles should be in line with each other. This position is held for 30 seconds. This method can be repeated multiple times.

[0057] FIG. 14 illustrates another method of using the pyramid structure. The method comprises: a user placing the pyramid structure an arm's length away from a wall or other supportive structure; if support is required, the user places one or both hands on the wall; the user places the middle of one foot on the crowing portion of the pyramid structure and the second foot with the toes on the crowning portion and the heel on the first step; the user stands straight up with all the user's weight on the pyramid structure; and the user leans slightly forward through the hips. It is important for balance and to keep the user's hips level. Again, it is important for the user to keep hips level, while leaning slightly forward, the shoulders, hips and ankles should be in line with each other. This position is held for 30 seconds. After the method is complete, the user can switch feet and repeat the method.

[0058] FIGS. 15 and 16 illustrates a method for enhancing a user's gait. The method comprises: the user placing the pyramid structure about an arm's length away from wall or other supportive structure; if support is required, the user places one or both hands on the wall; the user places one foot with the heel of the foot on the crowning portion and the other foot with the toe on the crowning portion as illustrated in FIGS. 15 and 16; the user stands straight up with all the user's weight on the pyramid structure and the user's body straight over the center of the pyramid structure. It is important for balance and to keep the user's hips level. Again, it is important to keep hips level, while leaning slightly forward, the shoulders, hips and ankles should be in line with each other. This position is held for 30 seconds. After the method is complete, the user can switch feet and repeat the method. As will be understood, in this method one of the user's feet is in the dorsal position and the other is in the plantar position. After the method is complete, the user can switch the positon of the user's feet and repeat the method.

[0059] Method of using the pyramid structure can also be directed to improving performance in specific sports. For example, FIGS. 17 and 18 illustrate a method that is directed to improving performance of a baseball swing. The method comprises: the user placing the pyramid structure away from any walls or other obstacles such that the user can freely swing a bat; the user standing straight up with all the user's weight on the pyramid structure and the user's body positioned straight over the center of the pyramid structure; the user's lead foot is in the plantar position and the user's rear foot in the dorsal position; the user keeps hips level, while leaning slightly forward, the shoulders, hips and ankles should be in line with each other. The user establishes the batting position; and the user twists hips towards dorsal leg and swings the bat. This method is repeated a number of times by the user.

[0060] FIG. 19 and 20 illustrate a method that is directed to improving the performance of a golf swing. The method comprises: the user placing the pyramid structure away from any walls or other structures such that the user can freely swing a golf club; the user standing straight up with all the user's weight on the pyramid structure and the user's body straight over the center of pyramid structure; the user's lead foot is in the plantar position and the user's rear foot is in the dorsal position; the user keeps the his or her hips level, while leaning slightly forward, the user's shoulders, hips and ankles should be in line with each other; the user raises the club to the peak of the back swing (as illustrated in FIG. 21); then the user swings the club. This method is repeated a number of times by the user.

[0061] FIG. 21 illustrates a method for a plantar squat exercise. The method includes the user placing the pyramid structure away from any walls or other supportive structure; the user standing straight up with all weight on the pyramid structure and the user's feet in the planar positon with toes on floor; and while keeping body centered over pyramid structure, the user

squats (as illustrated in FIG. 21). This method can be repeated several times, for example, it can be repeated 20 times.

[0062] FIG. 22 illustrates a method for a dorsal squat exercise. The method includes the user placing the pyramid structure away from any walls or other supportive structure; the user standing straight up with all weight on the pyramid structure and the user's feet in the dorsal positon with toes on floor; and while keeping body centered over pyramid structure, the user squats (as illustrated in FIG. 22). This method can be repeated several times, for example, it can be repeated 20 times.

[0063] FIG. 23 illustrates a method for a fontal stance exercise. The method includes the user placing both heels of feet on the floor and both balls of feet on the first step of the pyramid structure, with the toes above or touching the second step of the pyramid structure. The user stands straight with eyes focused forward, and holds the position for ten to fifteen seconds. When completed, the user steps off of the pyramid structure, rests for ten to fifteen seconds, and repeats five to ten times.

[0064] FIG. 24 illustrates a method for a frontal stance hinge exercise. The method includes the user placing both heels on the floor and balls of the feet on the first step, with toes above or touching the second step. The user begins the exercise stands straight with eyes focused forward with weight distributed across all four points of contact of the feet. The user hinges his or her hips backwards and reach down towards the toes (as illustrated in FIG. 24). the users knees are slightly flexed and the eyes remain focused forward. The user then move hips backwards in a rocking pattern, keeping the back straight, then rock the hips forward and again stand straight. This exercise is repeated five to ten times.

[0065] FIGS. 25 and 26 illustrate a frontal stance rotation exercise. The user places both feet on the pyramid structure with heels on the floor, balls of feet on the first step, and toes touching or above the second step. The user stands straight with body weight distributed across all four points of contact of the feet. the user keeps shoulders, hips, and ankles in line with each other. The user rotates his or her body to the left, shifting weight from right to left, creating greater flexion in right ankle, while slightly bending the right knee and rotating the hips, followed by the spine until the arms are perpendicular to the pyramid structure (as illustrated on FIG. 25). This position is held for three to five seconds. The user then repeats these step to his or her left side (as illustrated in FIG. 26). This exercise is repeated to each side five to ten times

[0066] FIGS. 27 and 28 illustrate a frontal stance pull exercise. The user places both feed on the pyramid structure with heels on the floor, balls of feet on the first step and toes touching or above the second step. The user stands straight with body weight distributed evenly among all four points of contact of the feet. The user slightly lowers his or her body by flexing the knees and hips, as extends his or her arms forward (as illustrated in FIG. 27). The user keeps the abdominal muscles engaged and pulls his or her arms towards his or her body, while keeping shoulders, hips, and ankles in line with each other at the start and finish of the pull movement (the completion of the pull movement is illustrated in FIG. 28). The exercise is repeated five to ten times.

[0067] FIGS. 29 and 30 illustrate a frontal stance push exercise. The user places both feed on the pyramid structure with heels on the floor, balls of feet on the first step and toes touching or above the second step. The user stands straight with body weight distributed evenly among all four points of contact of the feet. The user slightly lowers his or her knees and hips, and hold his or her arms in toward the body. While keeping the abdominal muscles engaged, the user pushes

his or her arms away from the body. The user keeps shoulders, hips, and ankles in line with each other at the start and finish of the push (FIG. 29 illustrates the start of the push and FIG. 30 illustrates the end of the push). The exercise is repeated five to ten times.

[0068] FIGS. 31 through 35 illustrates a multiple phase gait step exercise. In the first phase, the user faces the pyramid structure and places his or her right foot on the pyramid structure with heel on that foot on the floor, balls of that foot on the first step with toes about or touching the second step. The left foot remains in contact with the supporting surface behind the pyramid structure (as illustrated in FIG. 31). The user stands straight with eyes focused forward and holds this position for five to ten seconds. In the second phase, the user moves his or her left foot from the supporting surface to the crowning portion of the pyramid structure (as illustrated in FIG. 32). While doing so, the user shifts his or her weight forward through the hips until correct alignment is achieved. The user stands straight with eyes focused forward and holds this position for five to ten seconds. In the third phase, the user moves his or her left foot forward and rests the left foot on the opposite side of the pyramid structure with the toes engages with the supporting surface, heel on the first step (as illustrated in FIG. 33). The user shifts his or her weight forward until it is centered over the top of the pyramid structure. The user stands straight with eyes focused forward and holds this position for five to ten seconds. In the fourth phase, the user moves his or her left foot forward, off the pyramid structure and onto the supporting surface in front of the pyramid structure (as illustrated in FIG. 34). The user shifts his or her weight forward through the hips until the body is correctly aligned and the weight is evenly distributed between the right and left feet. The user stands straight with eyes focused forward and holds this position for five to ten seconds. In the fifth and final phase, the user moves the right foot forward over the pyramid structure by leaning his or her weight forward (as illustrated in FIG. 35) until

both feet are in contact with the supporting surface in front of the pyramid structure. When competed with phases one through five, the user repeats using the opposite foot for each step. The exercise is repeated five times with each leg.

[0069]

[0070]

[0071]

[0072]

[0073]

[0074]

[0075] The foregoing description of examples has been presented for purposes of illustration and description. It is not intended to be exhaustive or limiting to the forms described. Numerous modifications are possible in light of the above teachings. Some of those modifications have been discussed, and others will be understood by those skilled in the art. The examples were chosen and described in order to best illustrate principles of various examples as are suited to particular uses contemplated. The scope is, of course, not limited to the examples set forth herein, but can be employed in any number of applications and equivalent devices by those of ordinary skill in the art.

I claim:

1. A stepped pyramid structure, comprising:

a pair of opposing first steps, positioned proximate to a supporting surface;

a pair of opposing second steps elevated above the pair of opposing first steps; and

a crowning portion elevated above the pair of opposing second steps.

2. The stepped pyramid structure of claim 1, further comprising a pair of extensions extending from the sides of the pyramid structure proximate to the pair of opposing first steps.

3. A method of using a stepped pyramid structure, comprising the steps of:

a user placing the pyramid structure about an arm's length away from a wall;

the user placing one foot on the pyramid structure;

the user placing both hands on the wall;

the user standing straight up with all the user's weight on the pyramid structure; and

user leaning slightly forward, while the user's other foot remains on the floor and the user's hips shoulders, hips and ankle of the one foot on the pyramid structure.

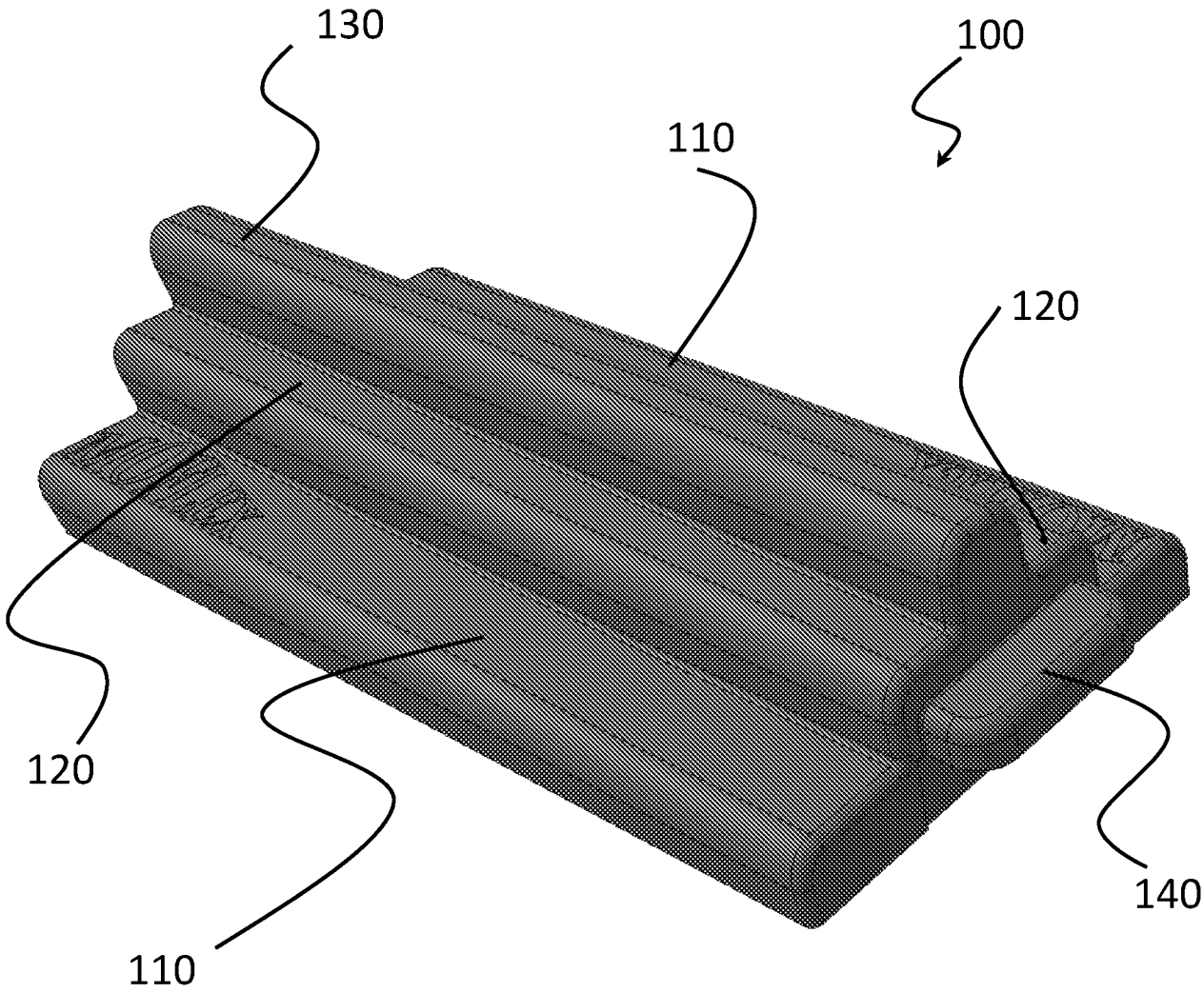

FIG. 1

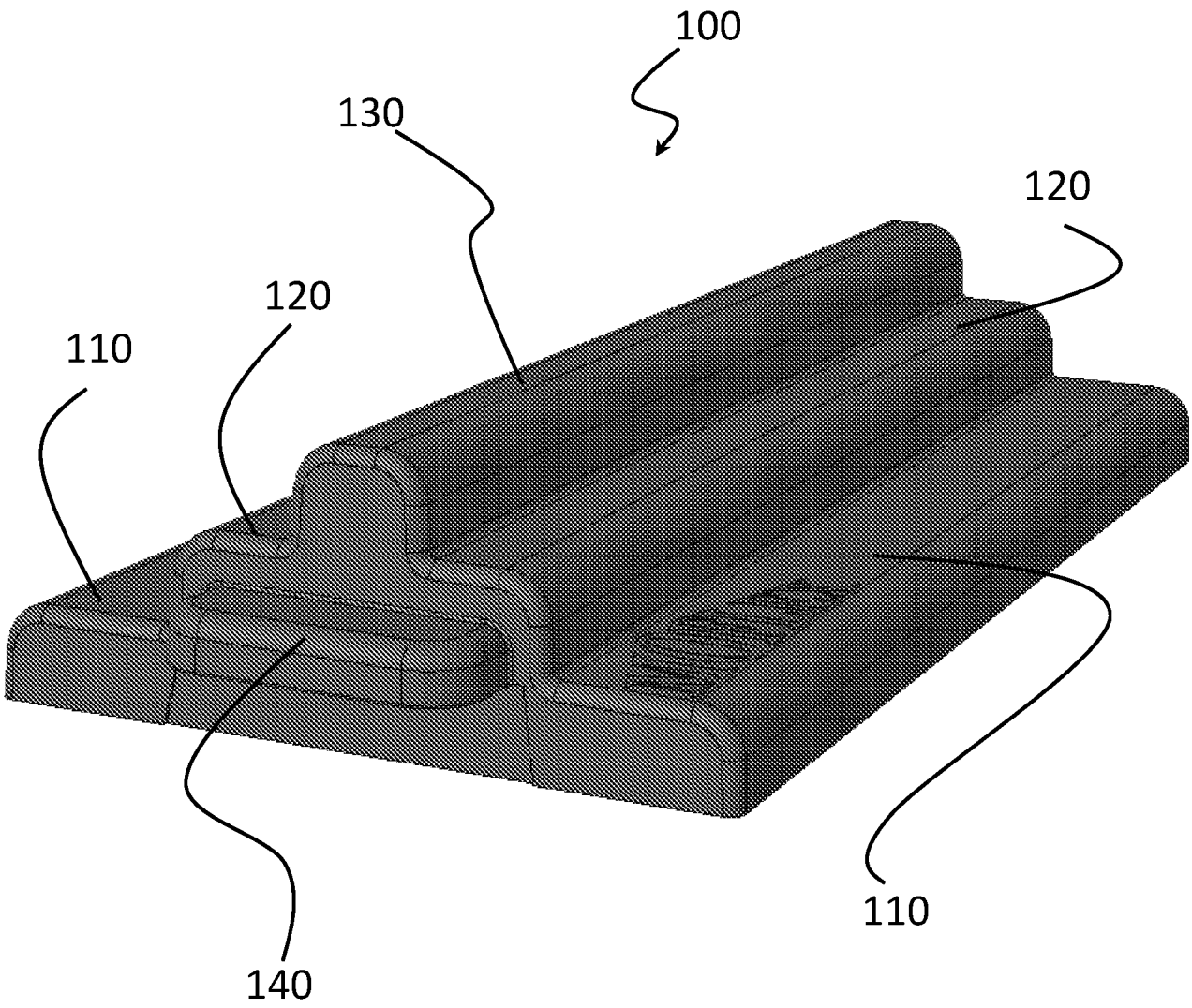

FIG. 2

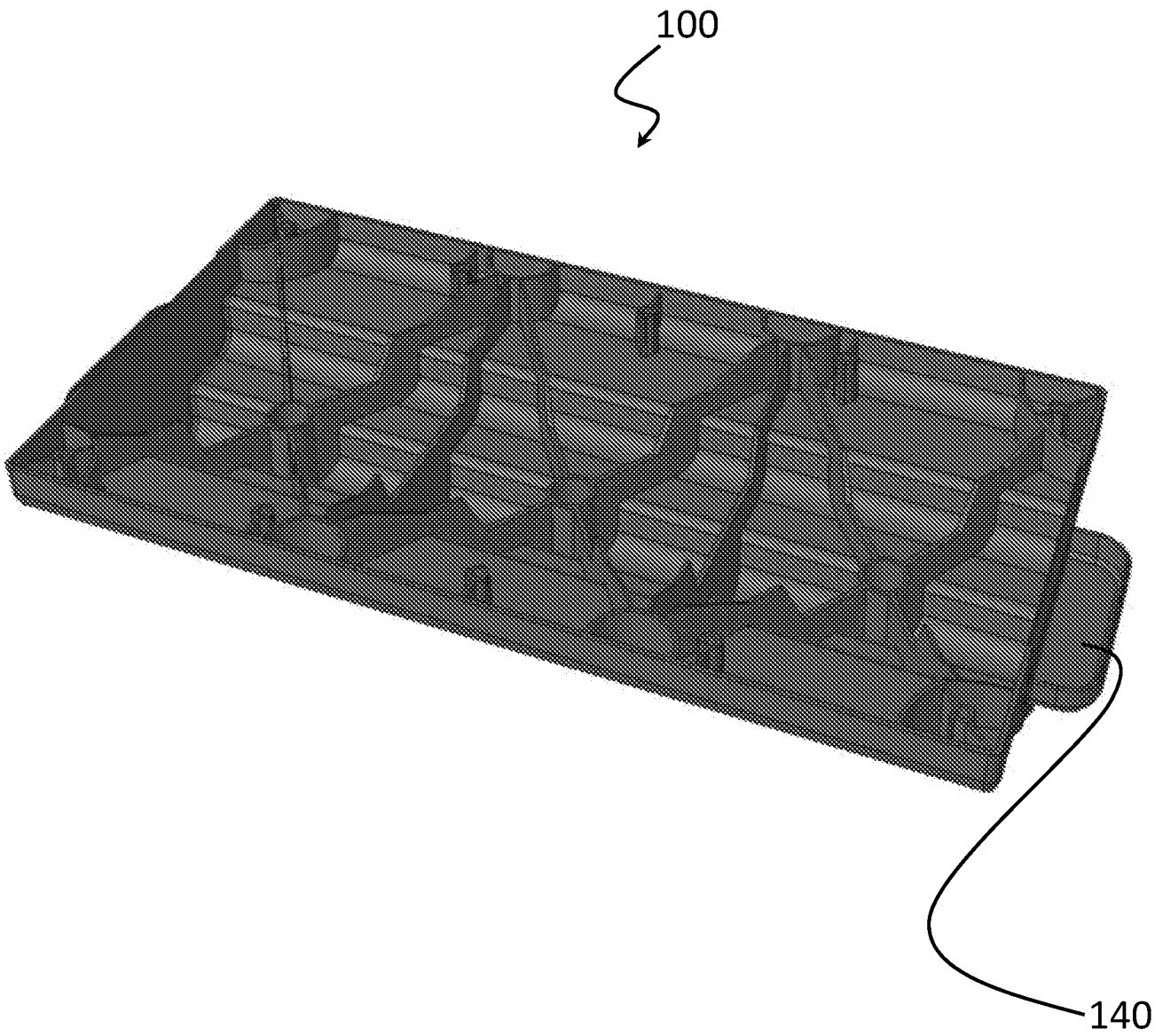

FIG. 3

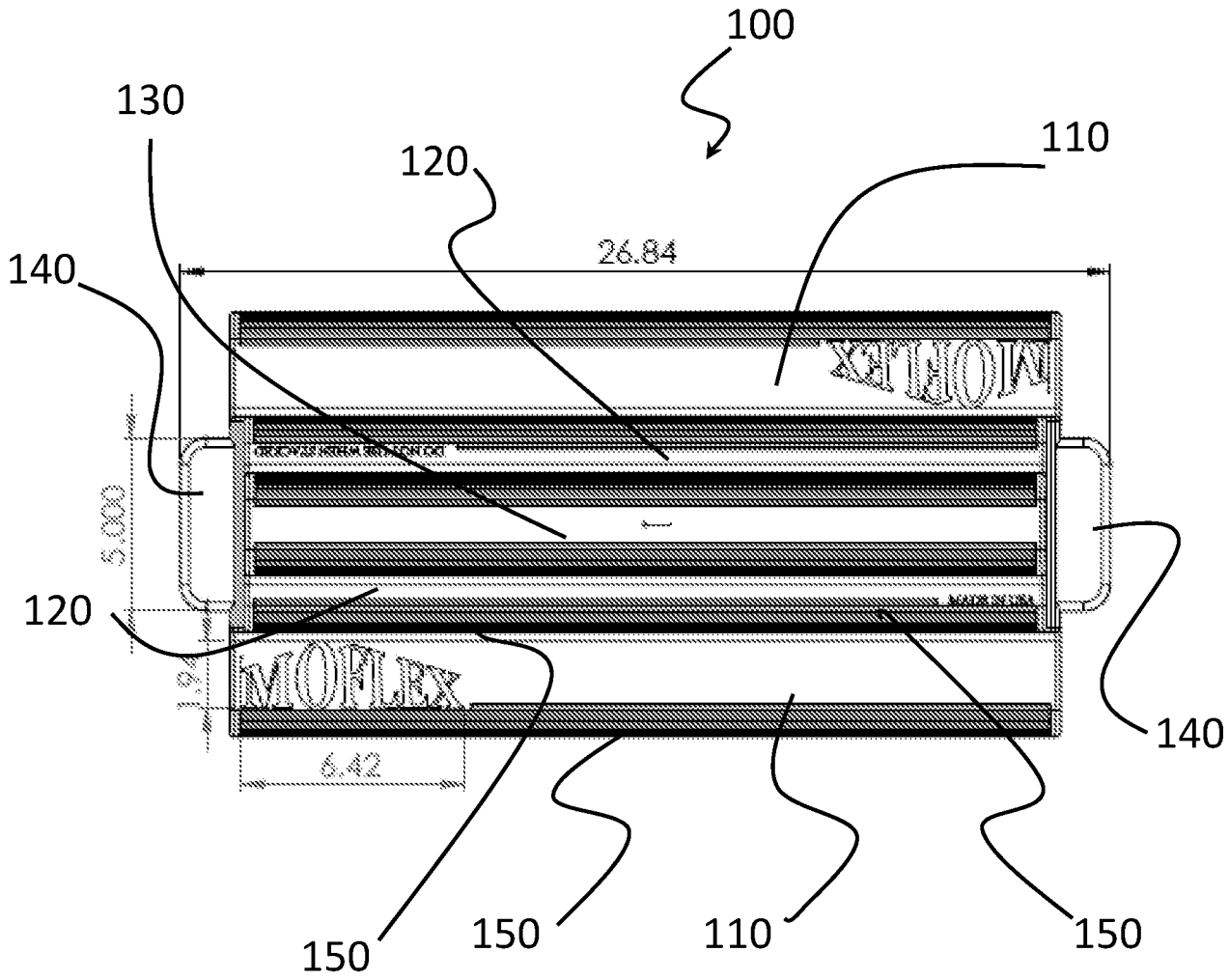

FIG. 4

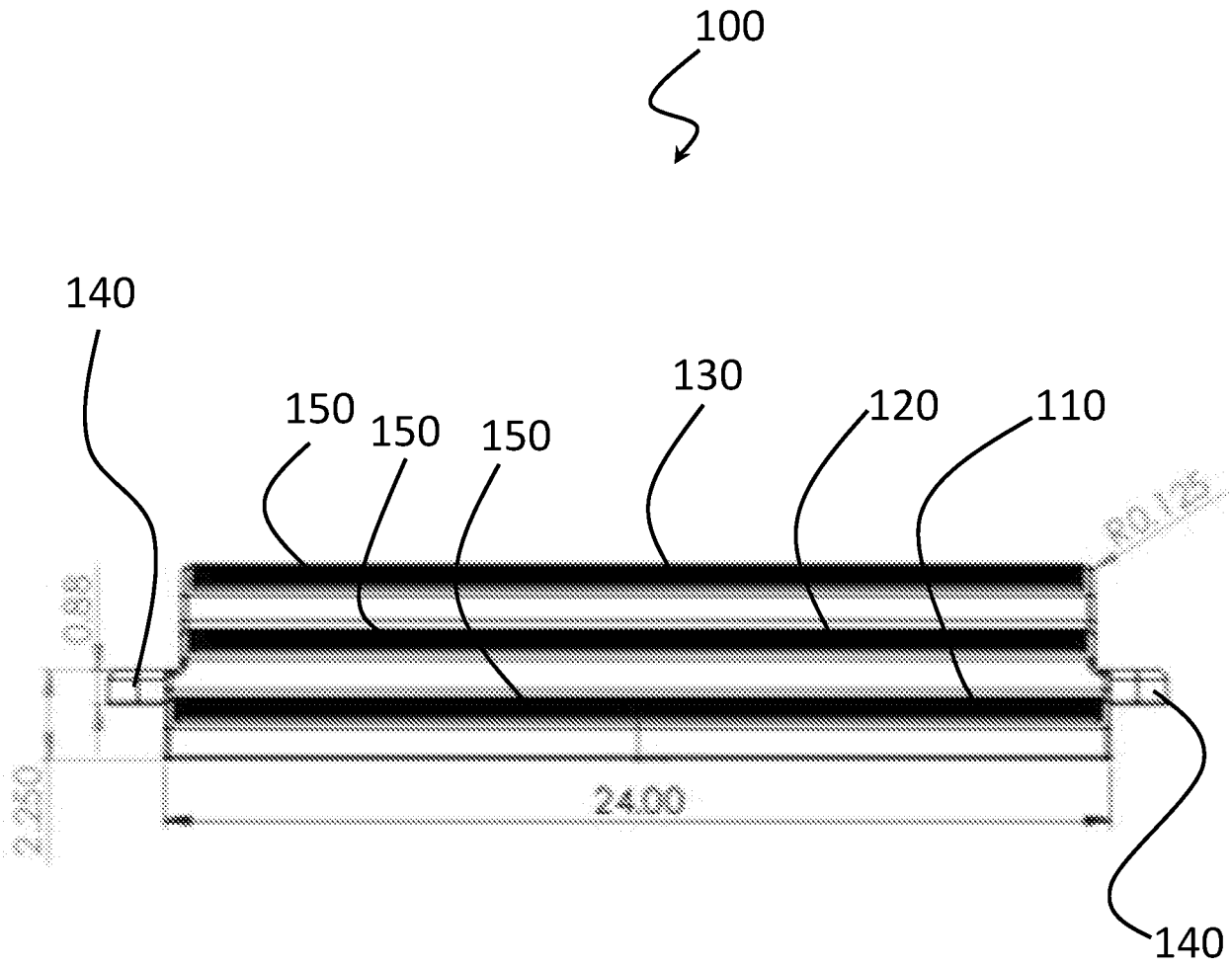

FIG. 5

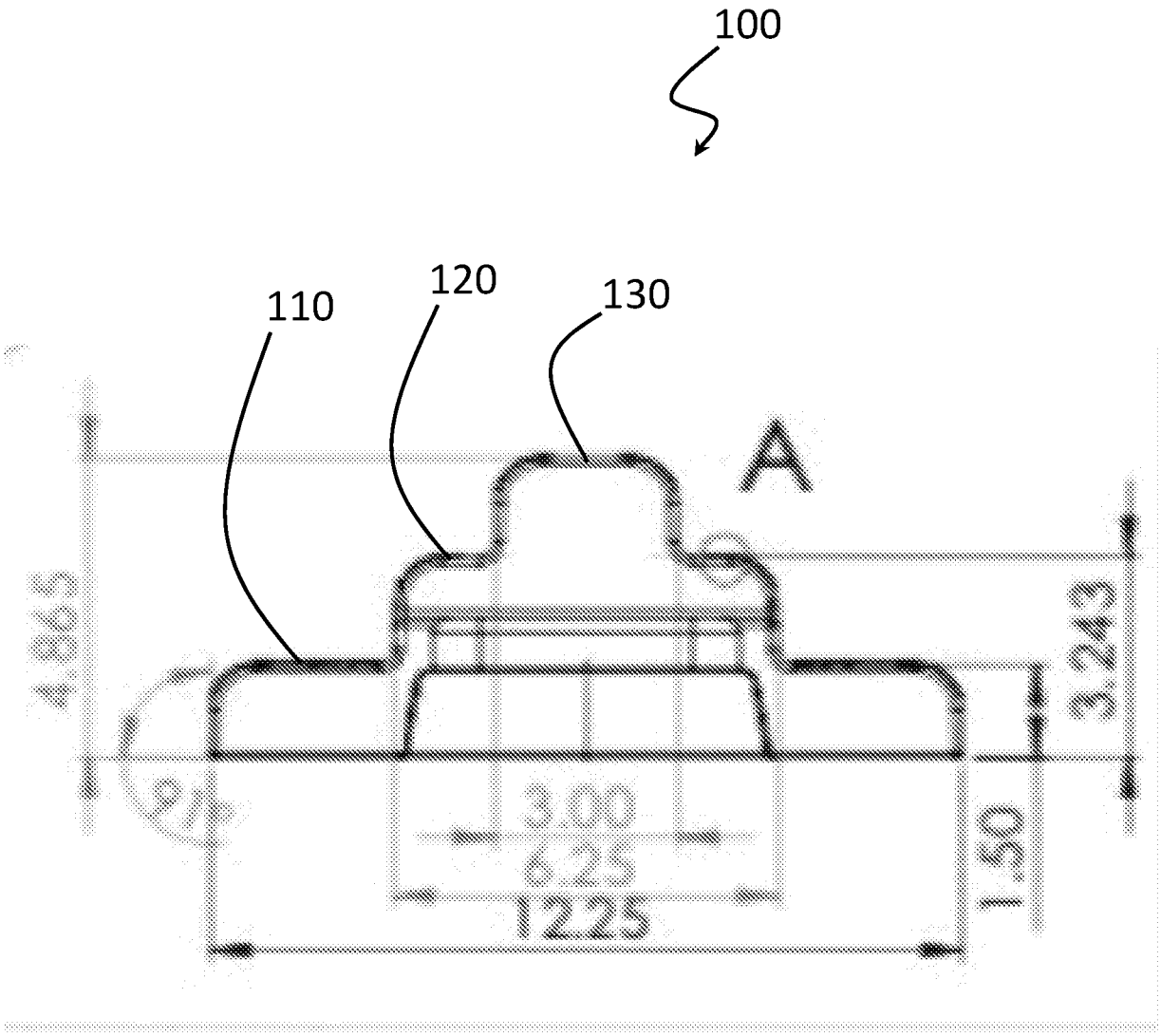

FIG. 6

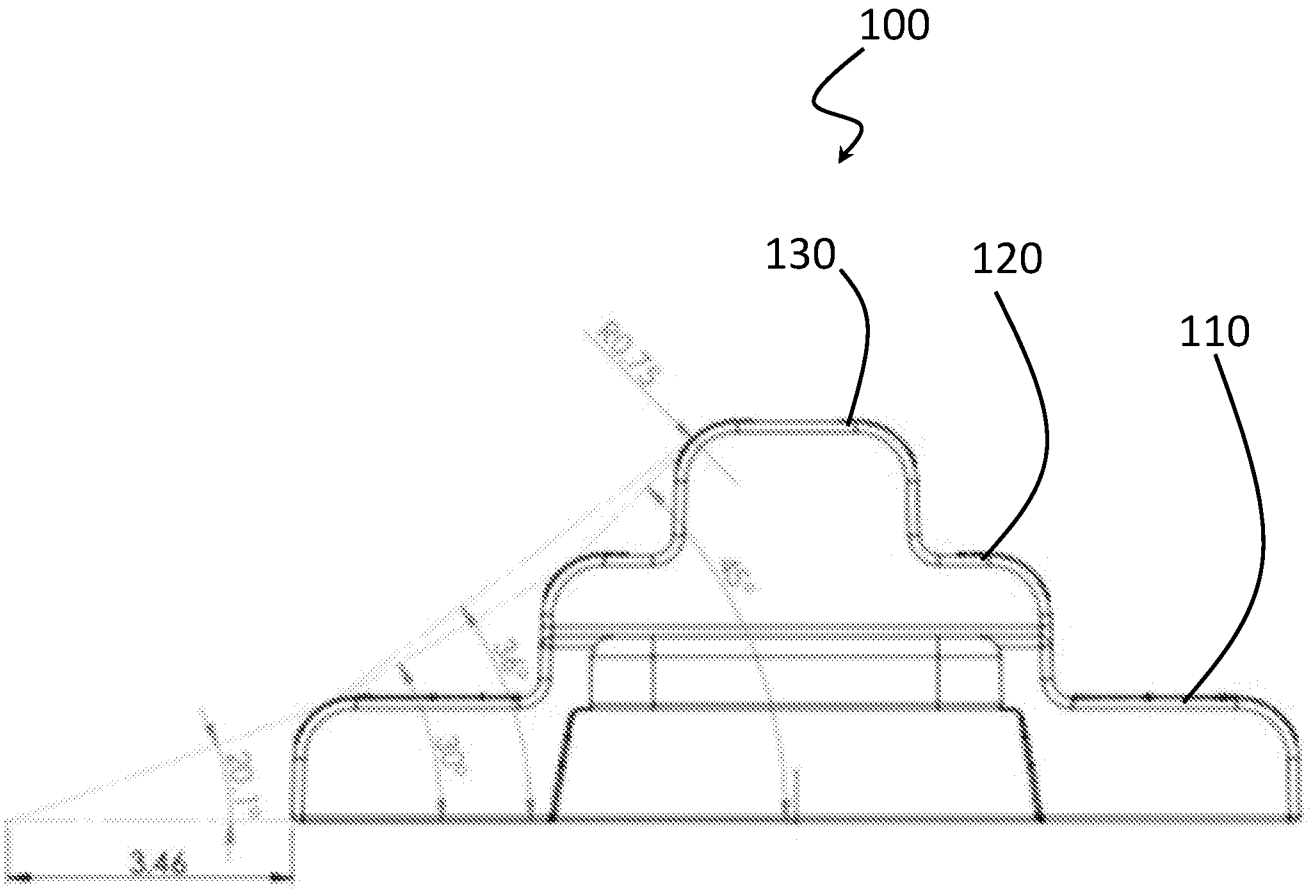

FIG. 7

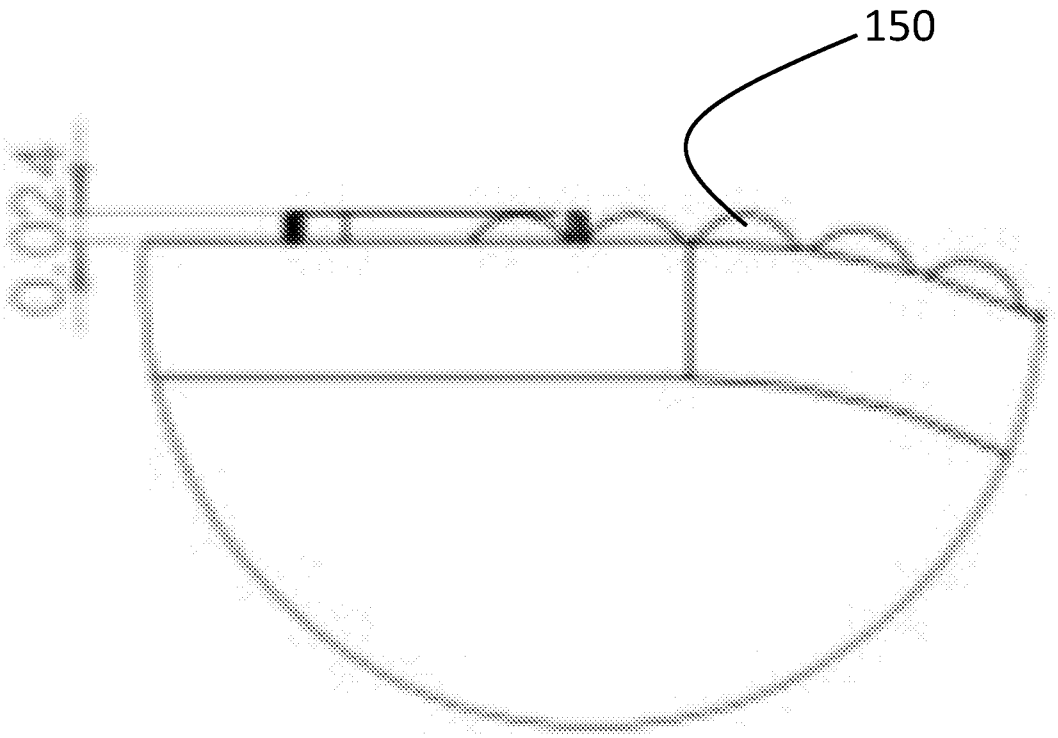

FIG. 8

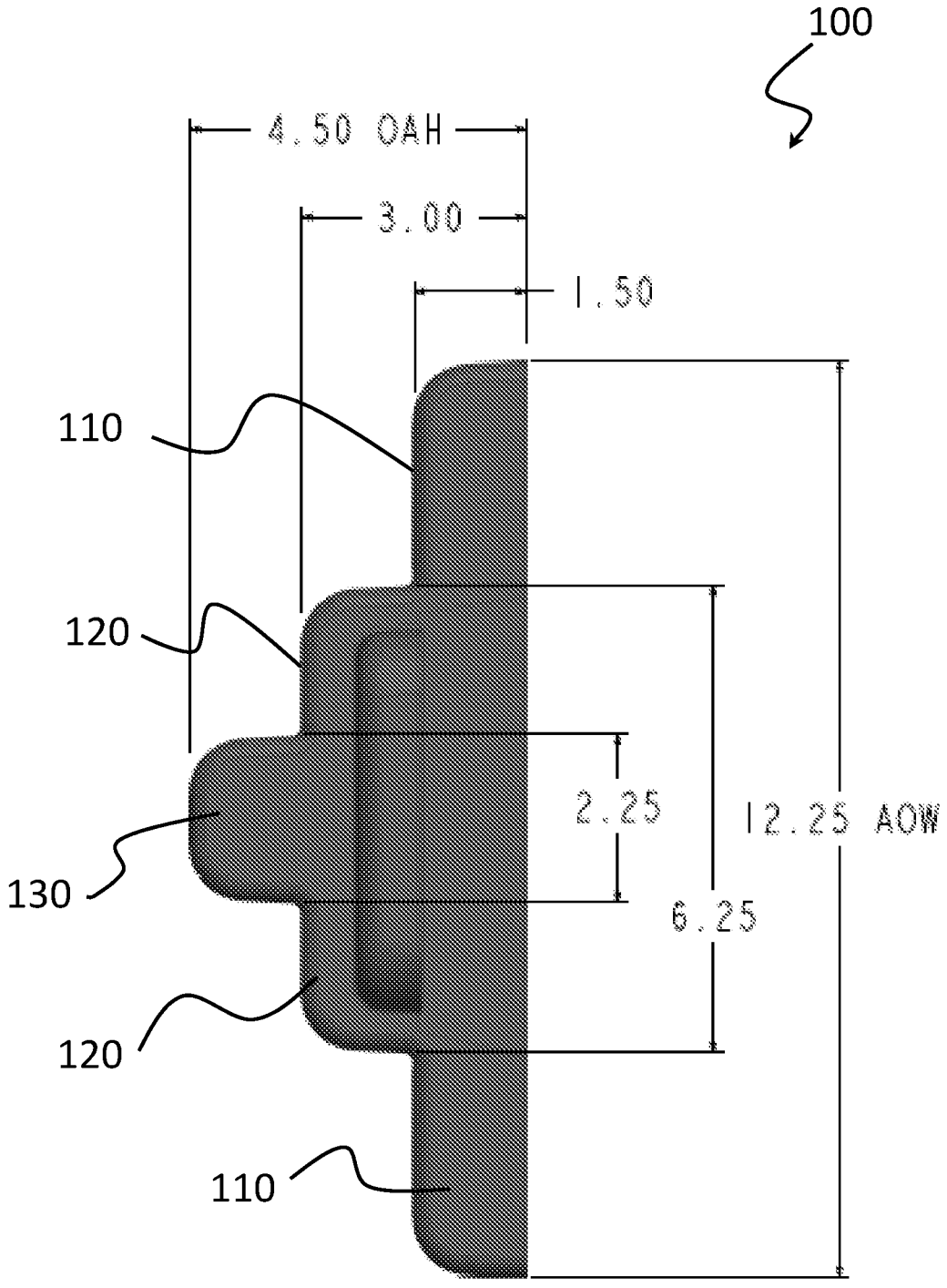

FIG. 9

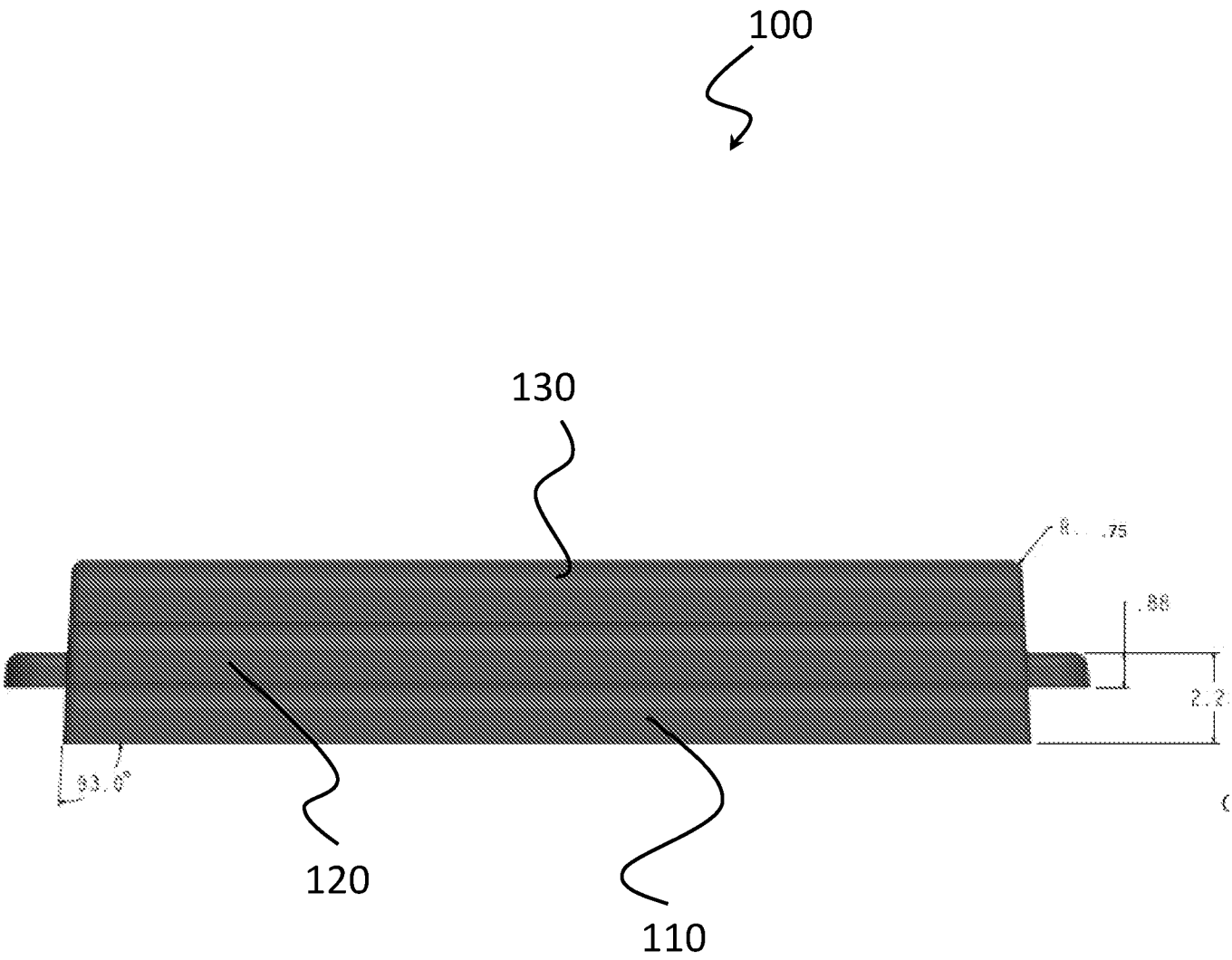

FIG. 10

FIG. 11

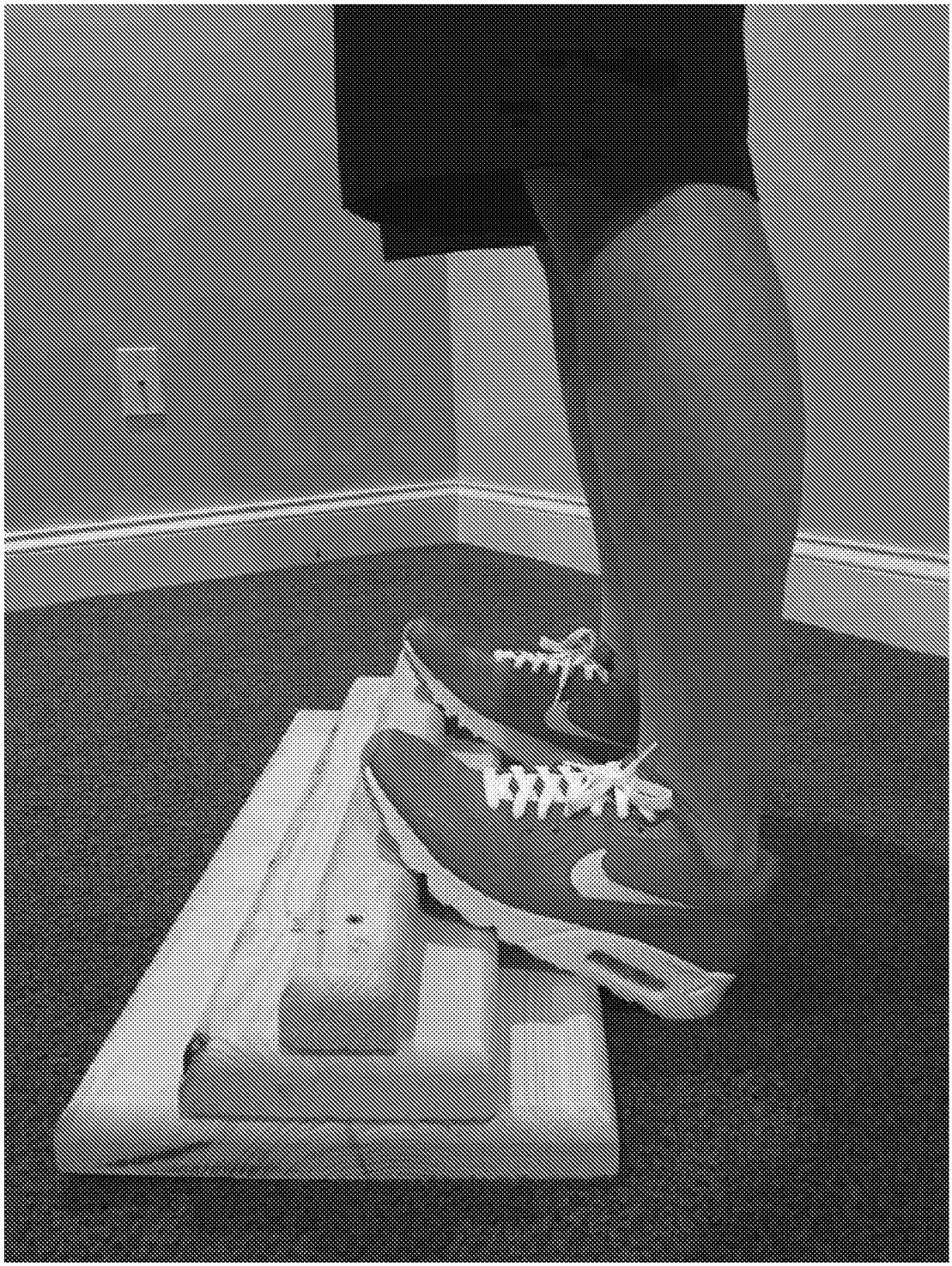

FIG. 12

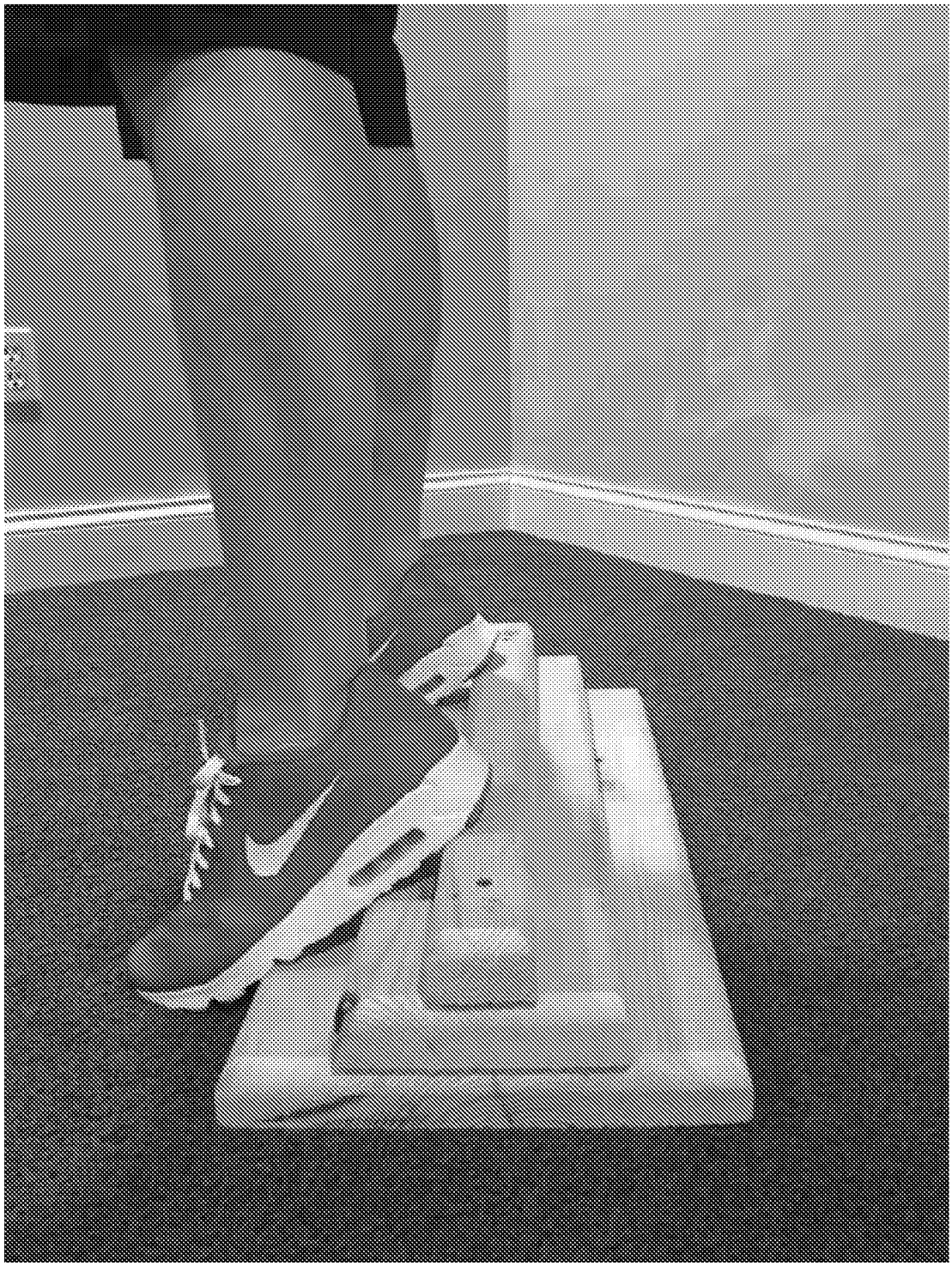

FIG. 13

FIG. 14

FIG. 15

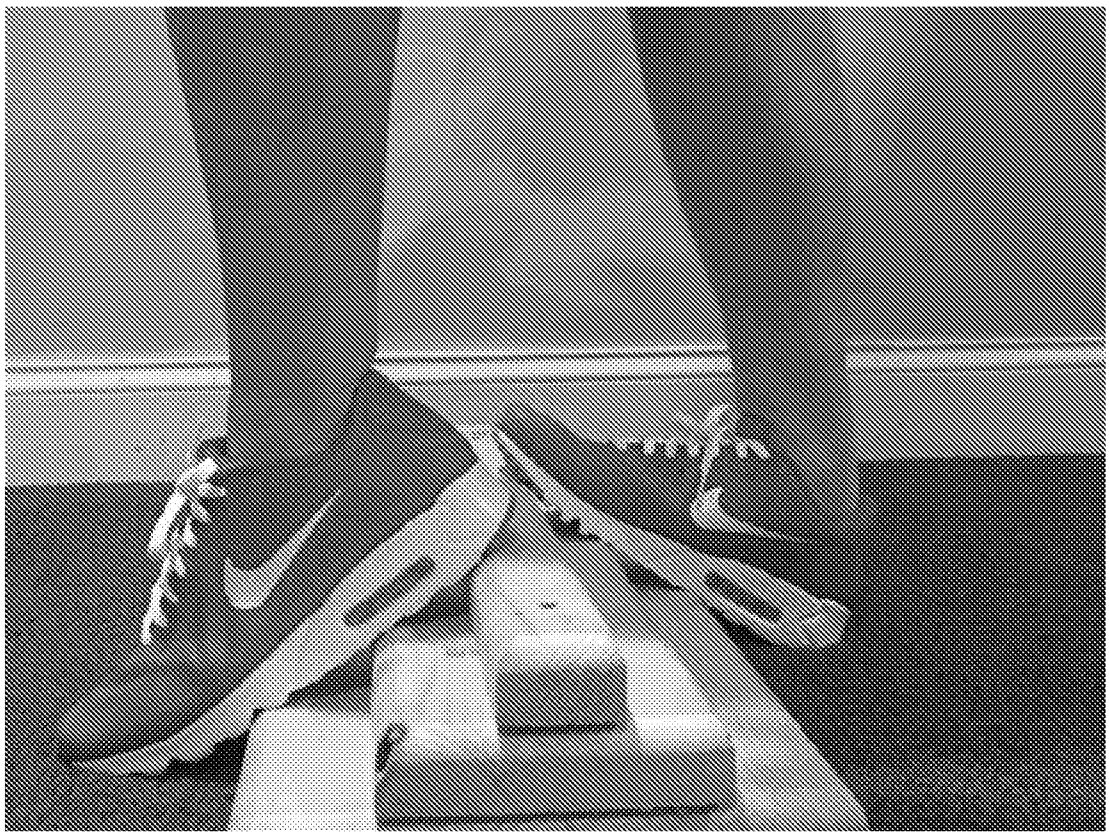

FIG. 16

FIG. 17

FIG. 18

FIG. 19

FIG. 20

FIG. 21

FIG. 22

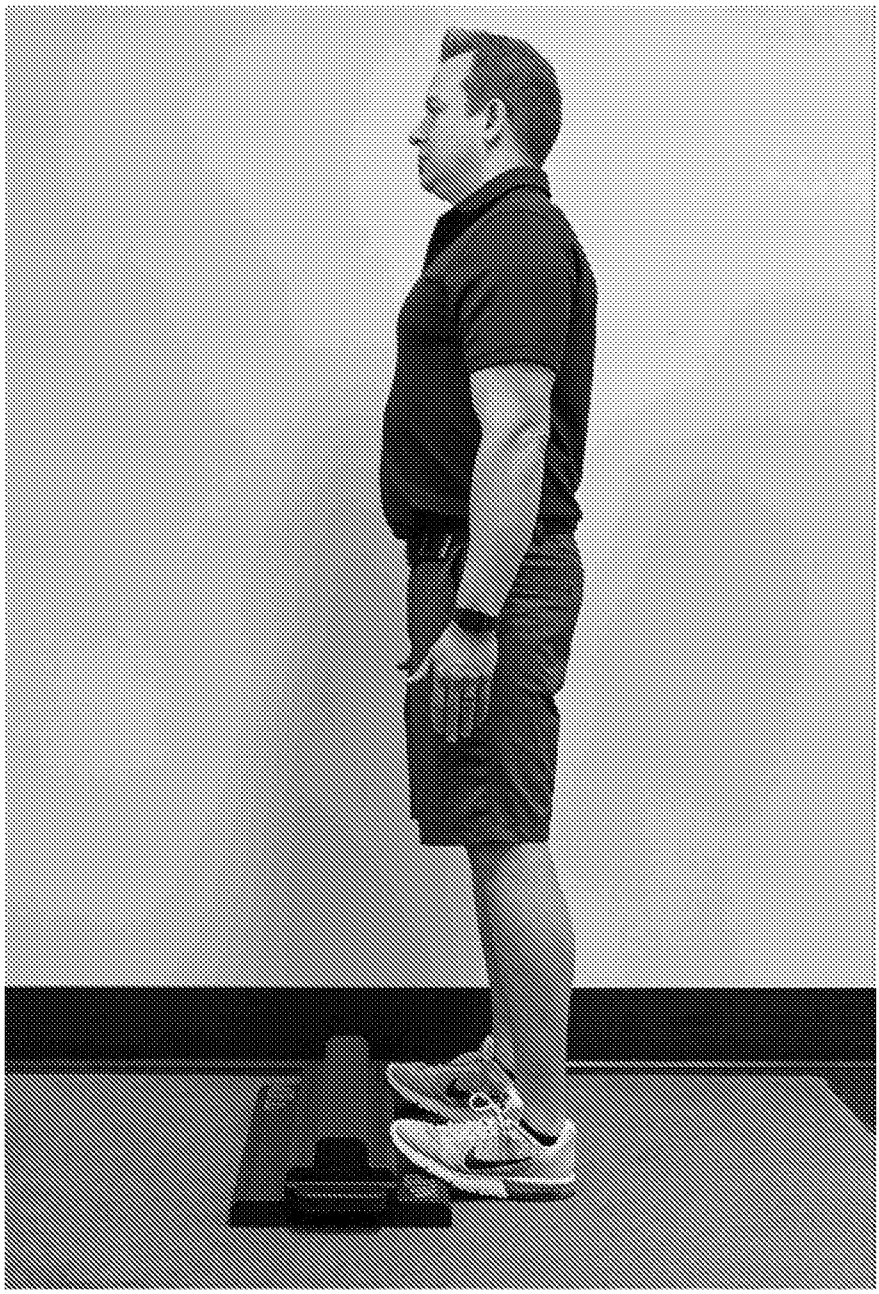

FIG. 23

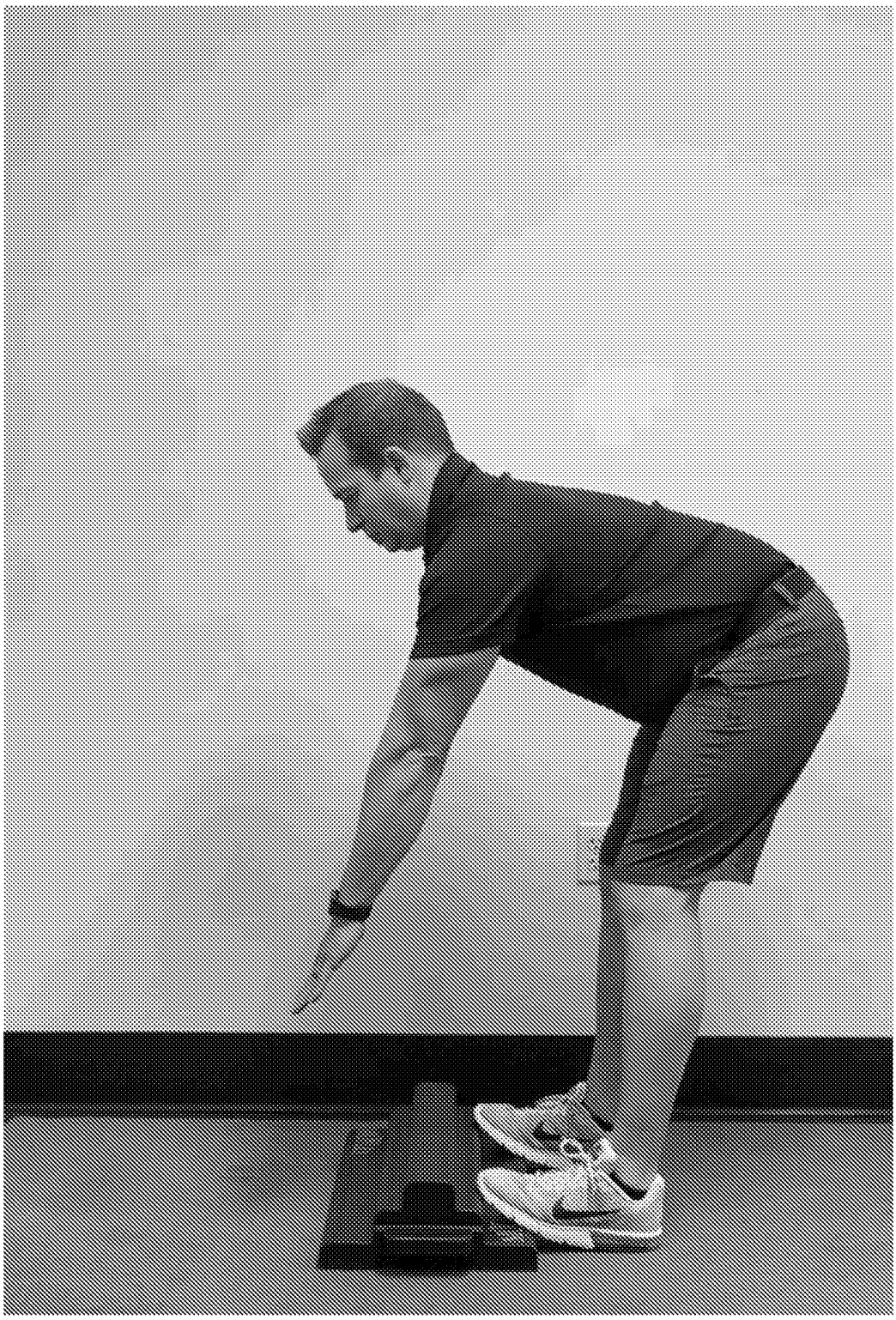

FIG. 24

FIG. 25

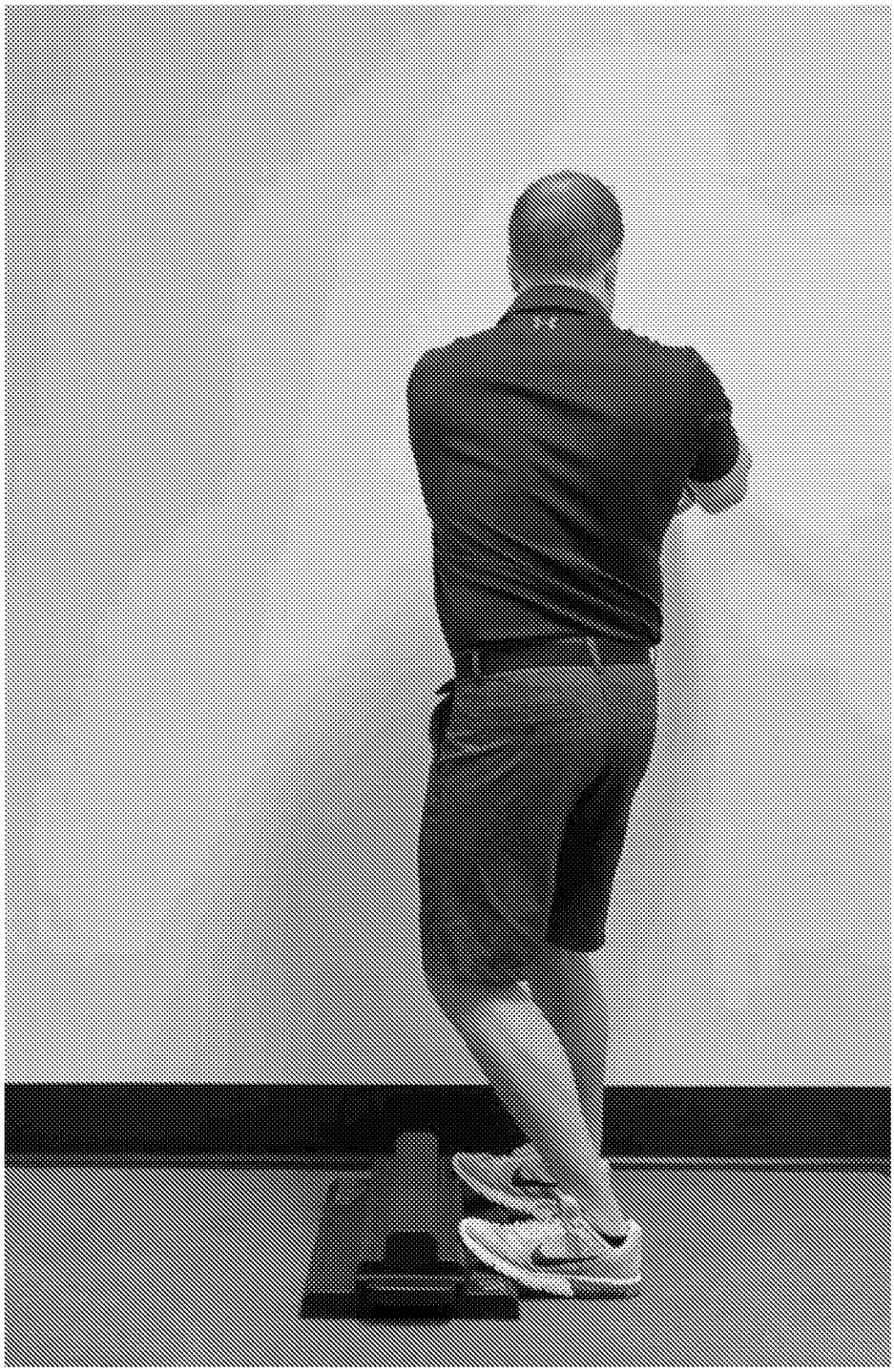

FIG. 26

FIG. 27

FIG. 28

FIG. 29

FIG. 30

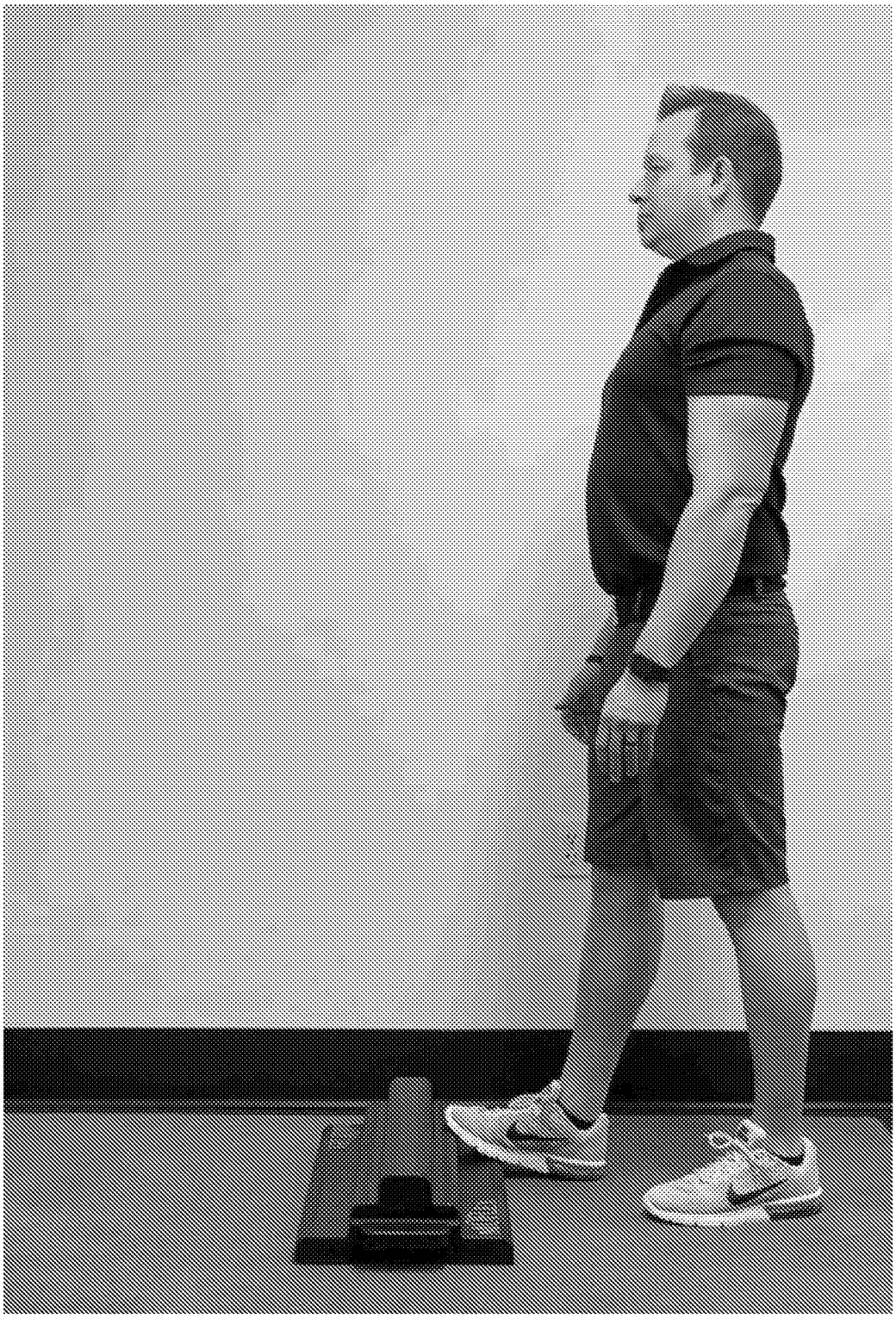

FIG. 31

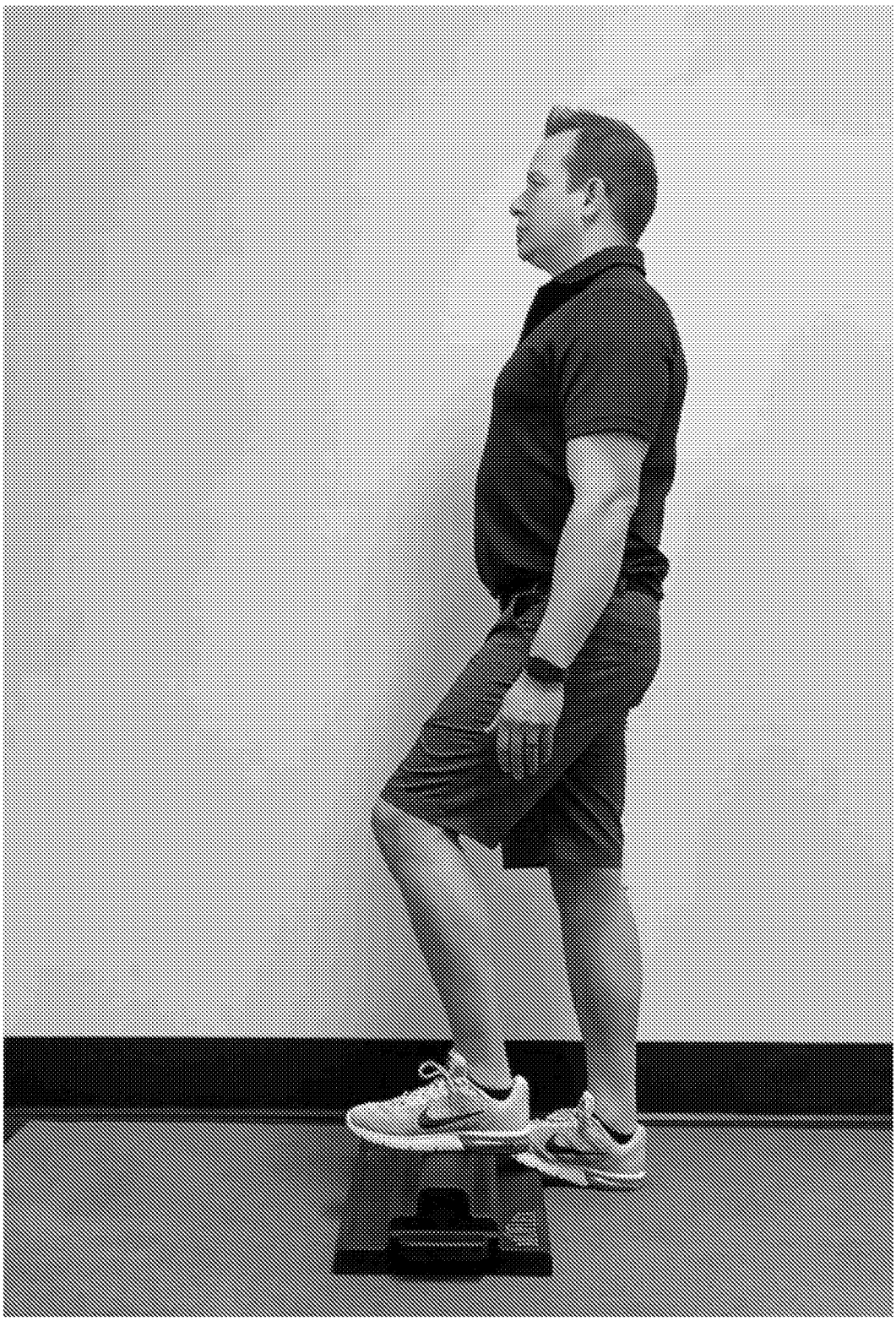

FIG. 32

FIG. 33

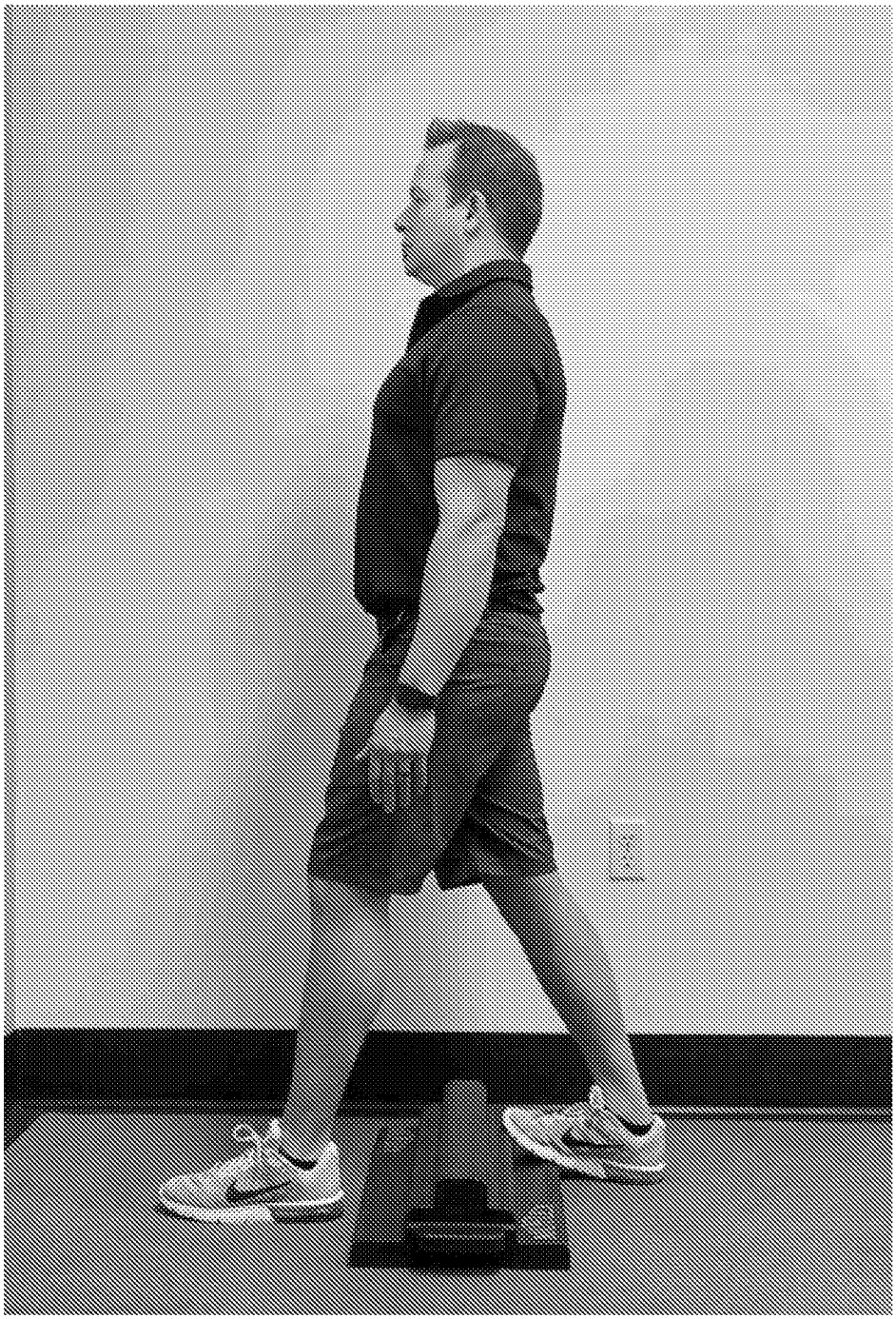

FIG. 34

FIG. 35

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2019/036427

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - A63B 23/08; A61H 1/02; A63B 21/068; A63B 22/04; A63B 23/04; A63B 23/10 (2019.01)

CPC - A63B 23/08; A61H 1/0266; A63B 21/00047; A63B 21/00178; A63B 23/0458; A63B 2023/006 (2019.05)

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

See Search History document

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

USPC - 482/51; 482/52; 482/79; 482/142; 482/907 (keyword delimited)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

See Search History document

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	US 5,512,026 A (WILKINSON) 30 April 1996 (30.04.1996) entire document	1, 2 --- 3
X --- Y	MOFLEXLLC. MOFLEX FEET FIRST ACADEMY. Instagram. 31 March 2018. [retrieved on 29 July 2019]. Retrieved from internet: <URL: https://www.instagram.com/p/BhApoS2Fms3/>. entire image. See pg 6 of the ISA/237	1, 2 --- 3
Y	HEALTHFXTORONTO. Slant Board Calves. YouTube. 19 May 2015 [retrieved on 01 August 2019]. Retrieved from internet: <URL: https://www.youtube.com/watch?v=tuq_651zJCg>. entire video	3
A	US 2,500,425 A (MORRIS) 14 March 1950 (14.03.1950) entire document	1-3
A	US 5,772,559 A (SITHOLE) 30 June 1998 (30.06.1998) entire document	1-3
A	US 5,275,579 A (WILKINSON) 04 January 1994 (04.01.1994) entire document	1-3

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

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"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
01 August 2019	27 AUG 2019

Name and mailing address of the ISA/US	Authorized officer
Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, VA 22313-1450 Facsimile No. 571-273-8300	Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774