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(54) **FOAM EXERCISE BENCH**

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(57) **ABSTRACT**

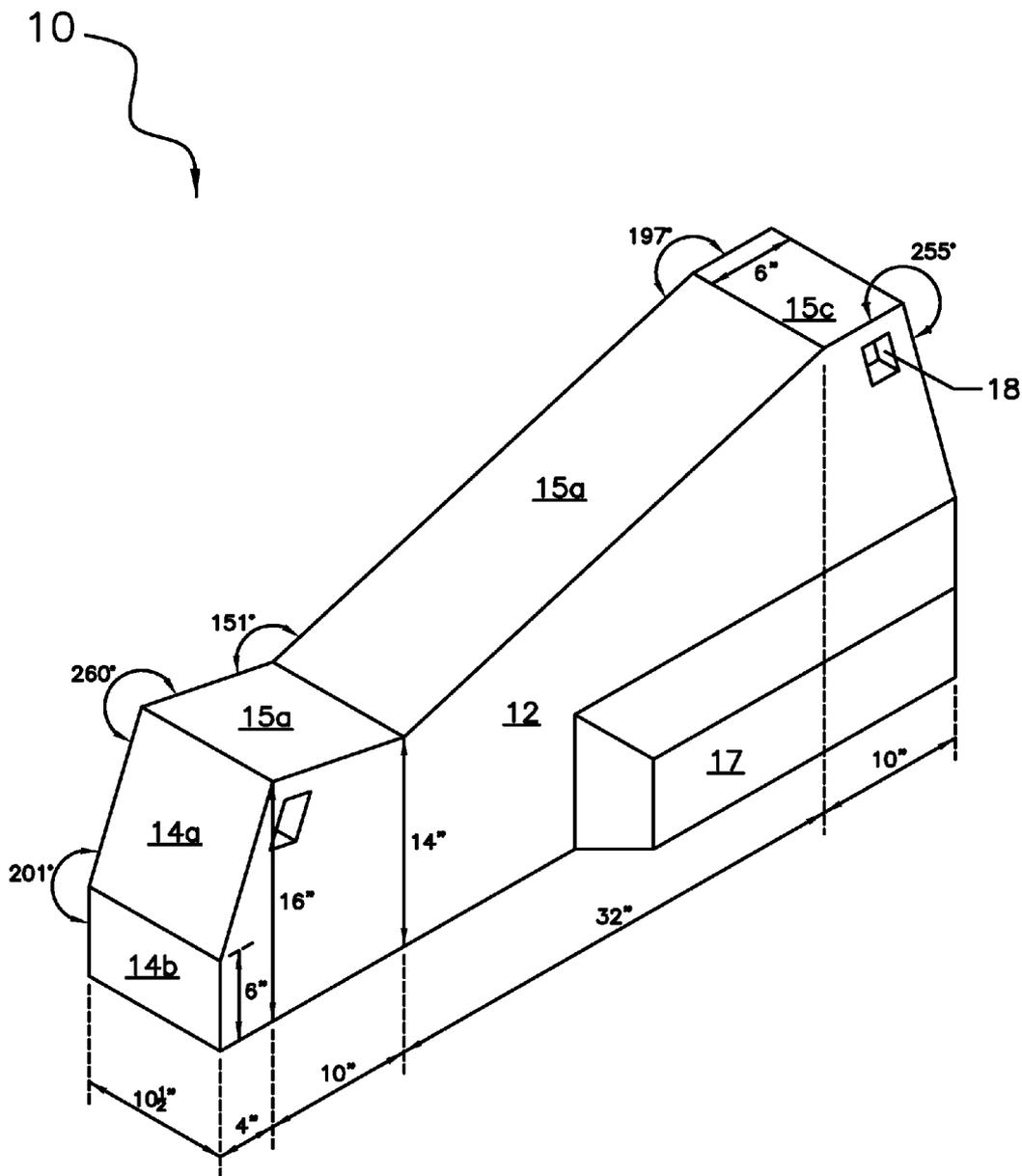
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A foam exercise bench includes a single, elongated foam member, having a left side section, a right side section, a head end, a leg end, a flat bottom surface, and an angled top surface. The top surface forming a leg area, a seat area, an inclined back area and a generally flat area. These areas functioning to receive a user and to allow the same to perform a variety of strength training exercises.

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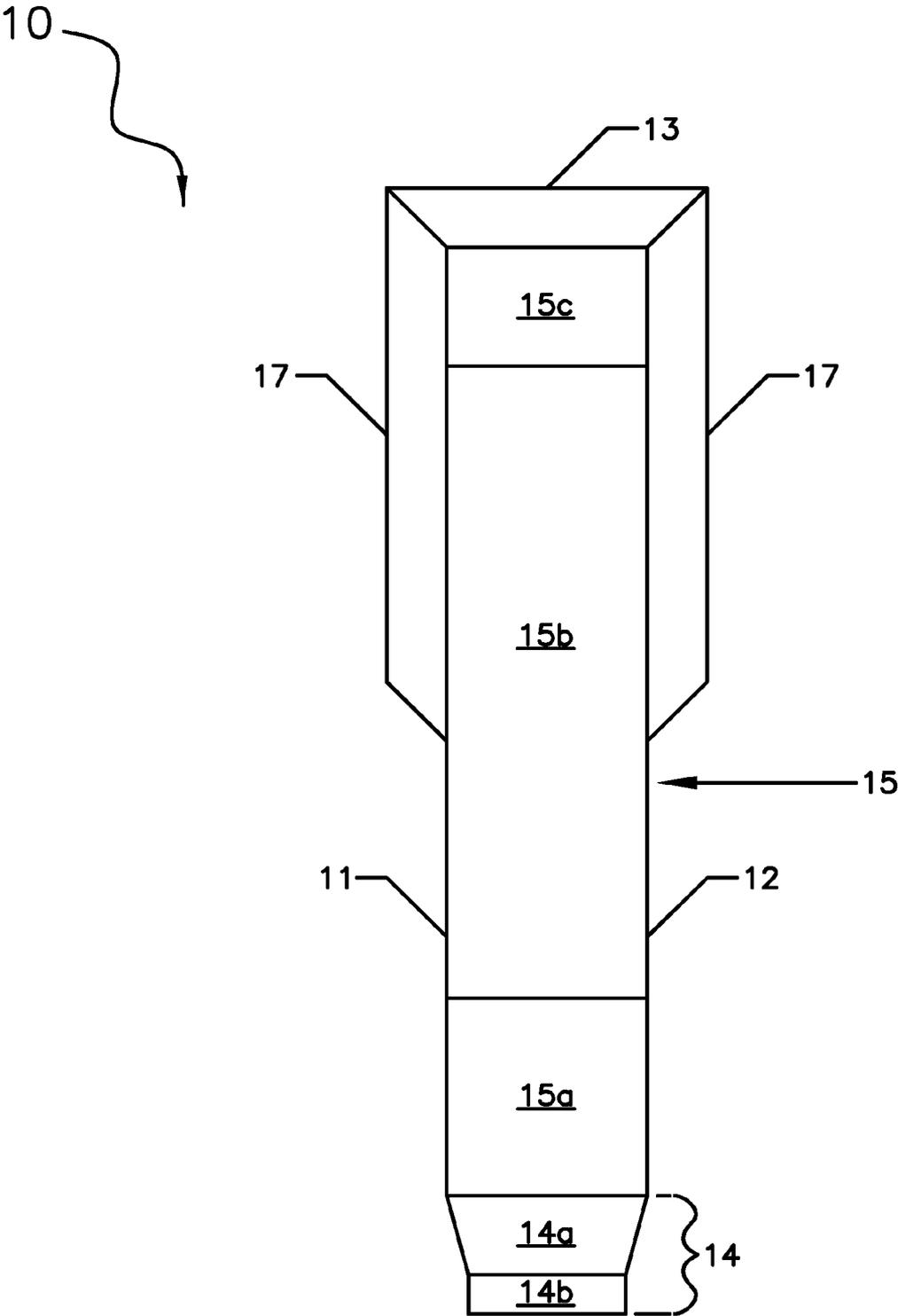


FIGURE 1

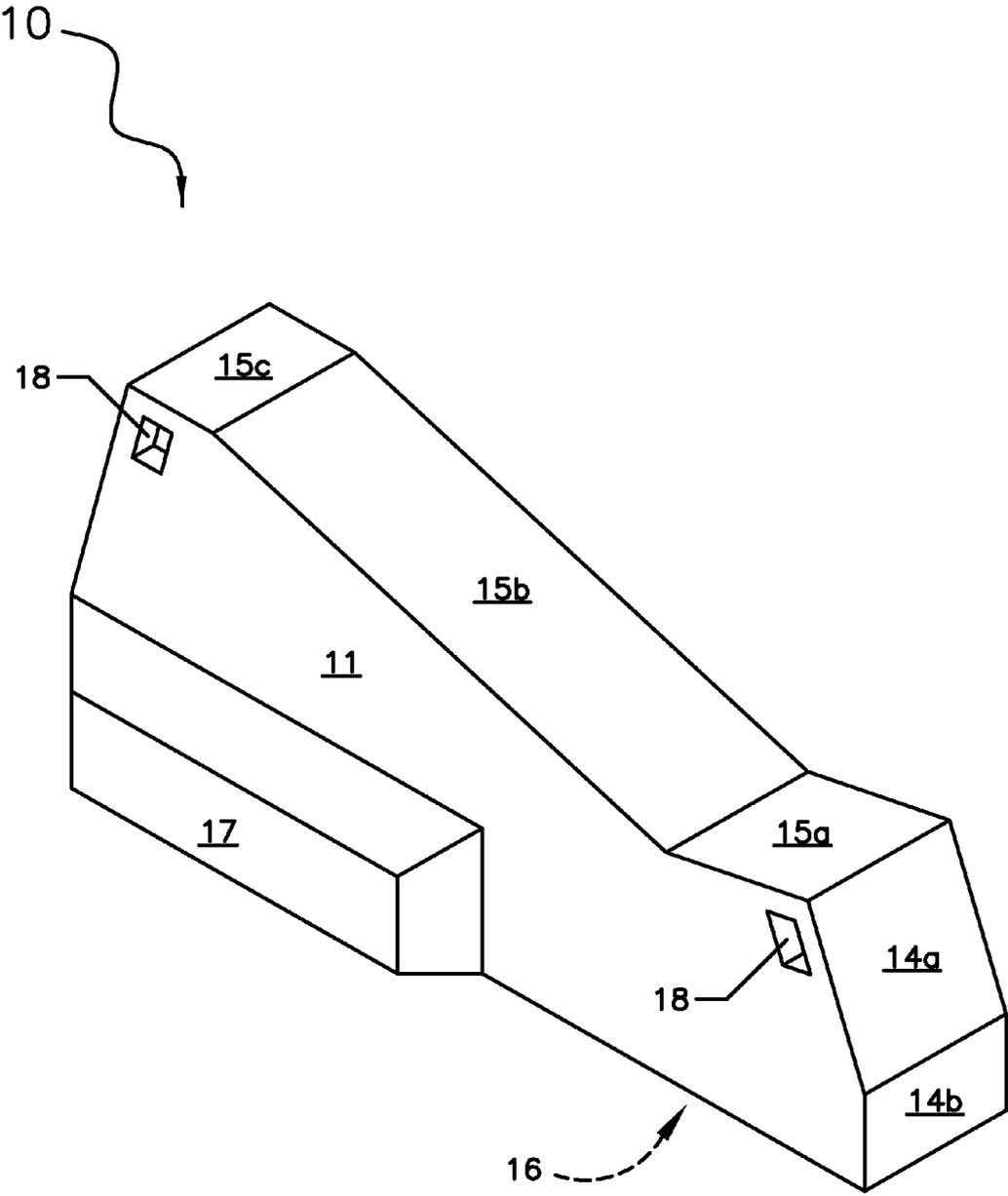


FIGURE 2

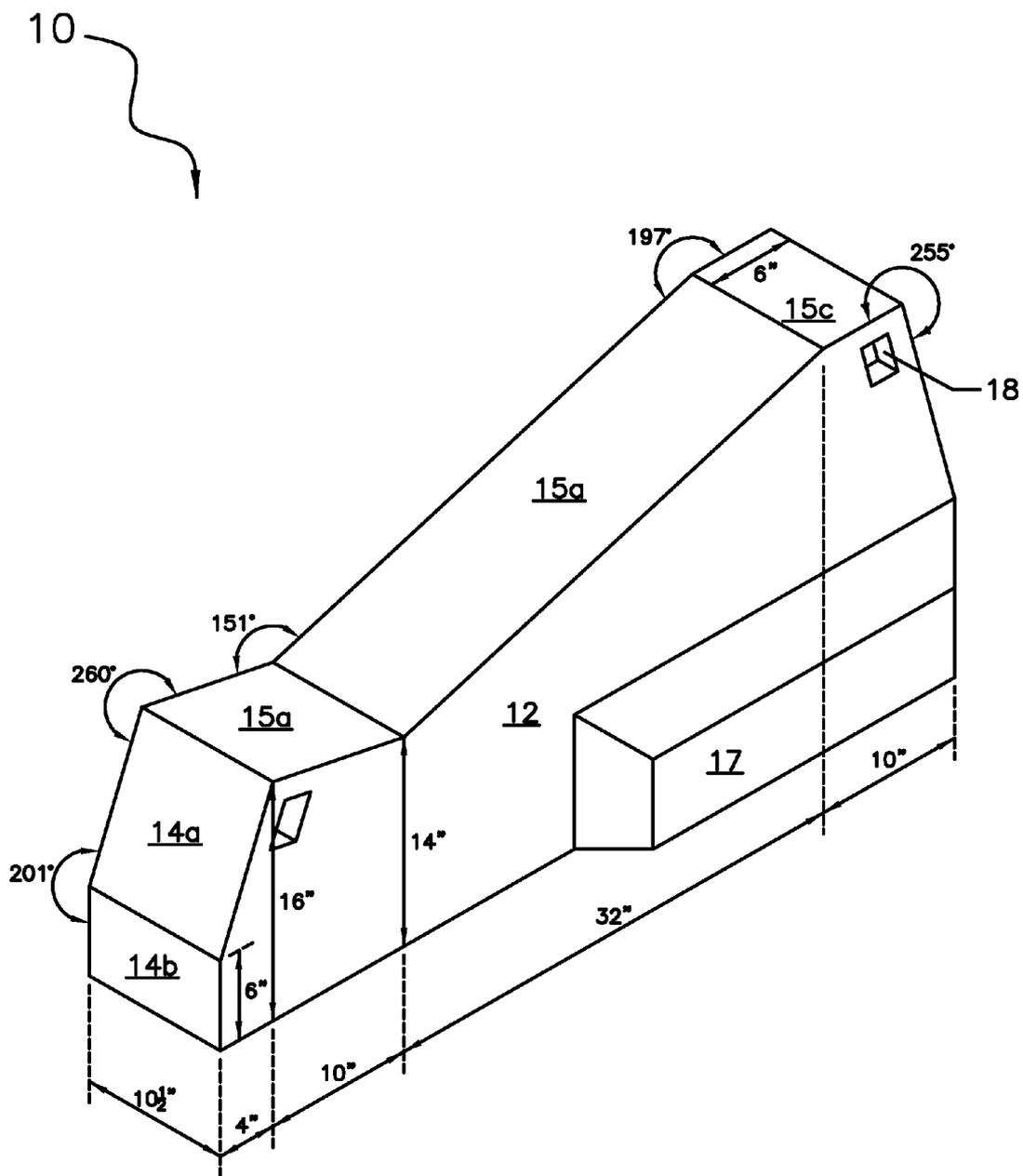


FIGURE 3A

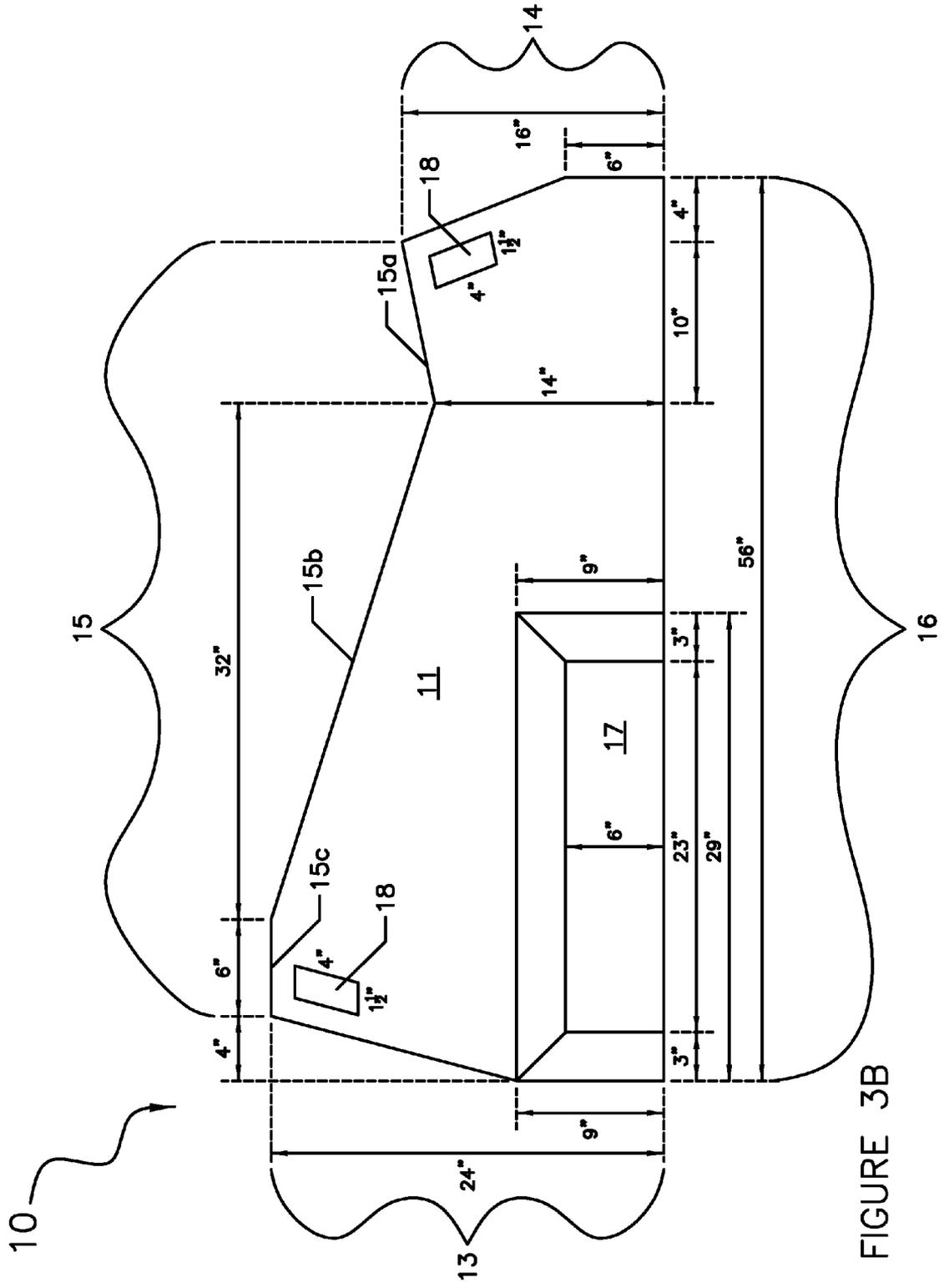


FIGURE 3B

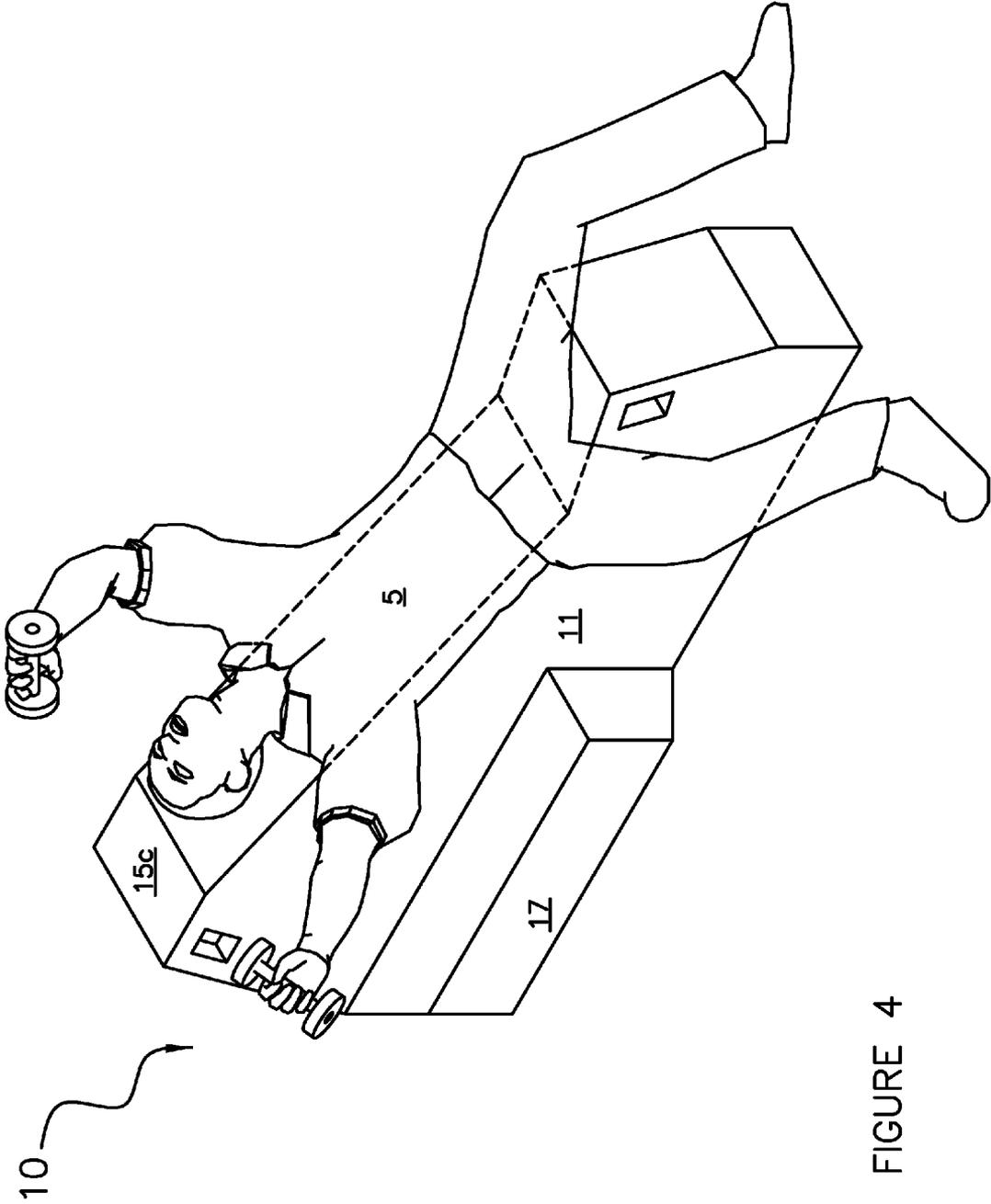


FIGURE 4

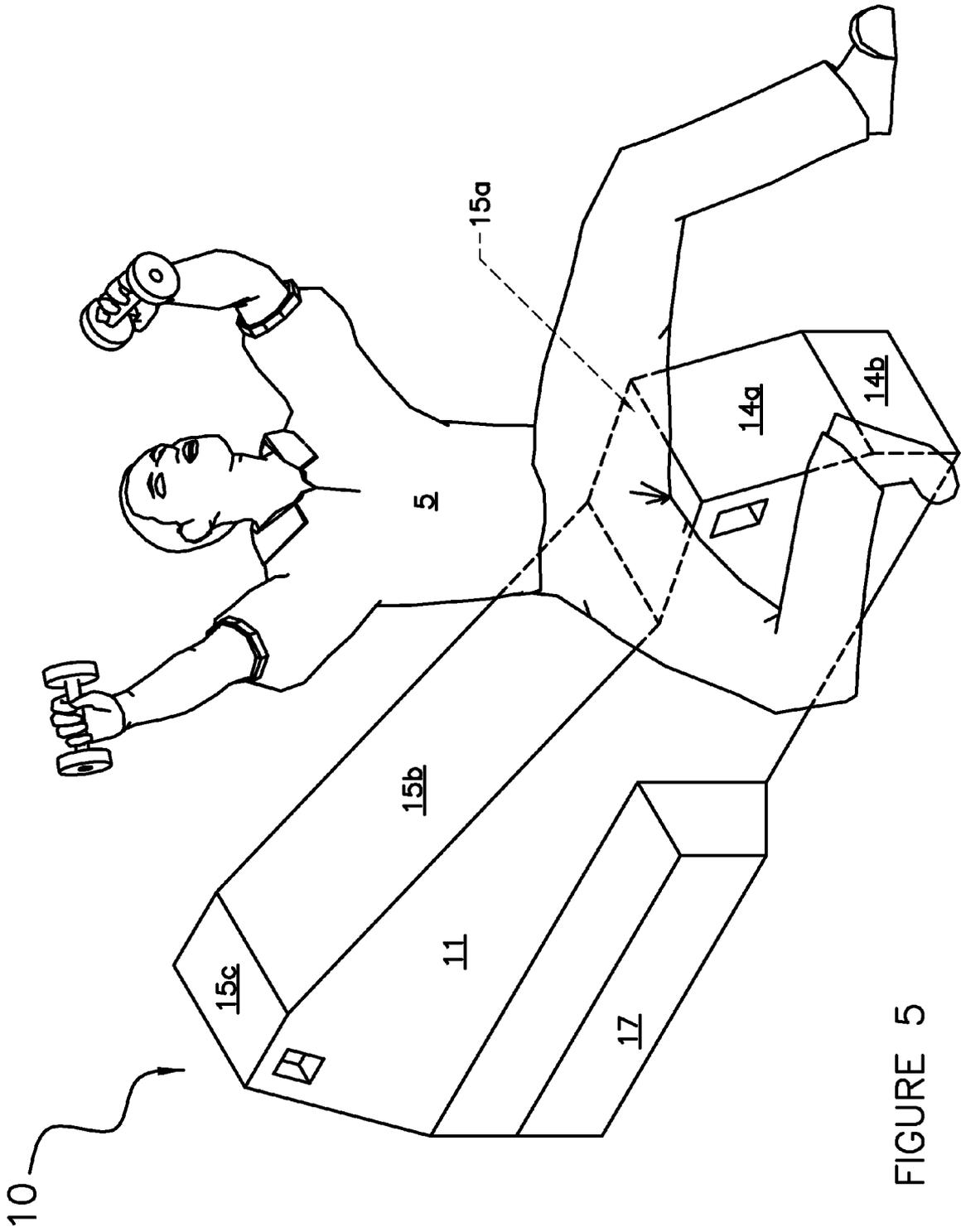


FIGURE 5

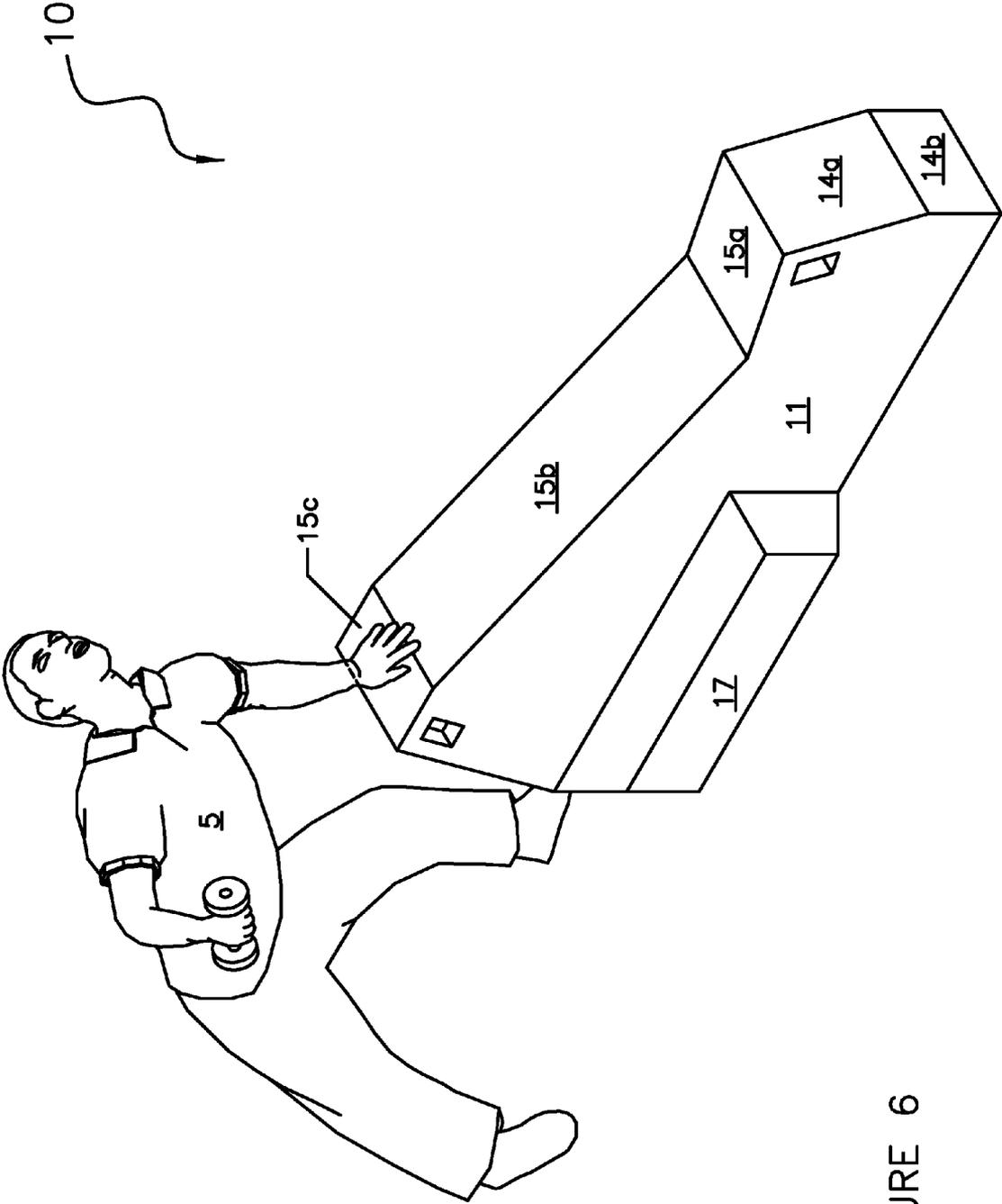


FIGURE 6

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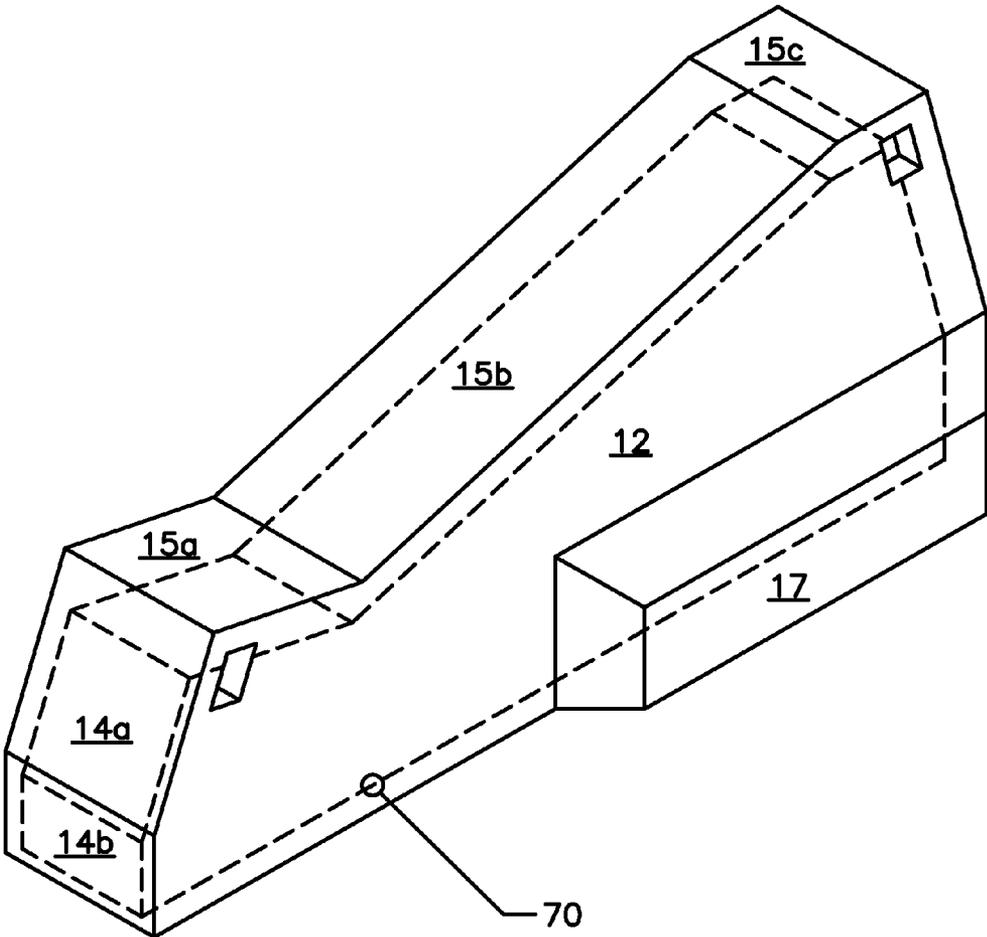


FIGURE 7

FOAM EXERCISE BENCH

TECHNICAL FIELD

[0001] The present invention relates generally to the field of physical exercise equipment, and more particularly to an improved exercise bench of the type used to perform strength training exercises utilizing hand and ankle weights, dumbbells and other such free weight devices.

BACKGROUND

[0002] The statements in this section merely provide background information related to the present disclosure and may not constitute prior art.

[0003] There are many known exercise benches which enable individuals to exercise and develop body musculature. With specific regard to the home gym sector, the majority of available exercise benches comprise a platform such as a bench or seat, for example, that is suspended above the ground by a plurality of legs. These benches typically include either a support means for receiving free weights or incorporate some form of resistance training system therein.

[0004] Although useful for their intended purpose, these benches can be intimidating to beginners which can become confused by the complexity of such equipment. Moreover, owing to the sturdy construction, these benches are extremely heavy and cannot be easily moved by the user. This is especially true for the elderly, or other such individuals who have physical limitations. In addition to the above, these conventional benches typically have minimal padding that is adhered to the rigid seat and back portions. In this regard, it is not uncommon for individuals to injure their back, due to the inflexible nature of the seating platform.

[0005] Accordingly, there remains a need for an exercise bench that can fully support individuals in performing strength training exercises, that is lightweight, and that does not suffer from the drawbacks of the devices described above.

SUMMARY OF THE INVENTION

[0006] The present invention is directed to a foam exercise bench. One embodiment of the present invention can include a single, elongated foam member, having a left side section, a right side section, a head end, a leg end, a flat bottom surface, and an angled top surface. The top surface forming a leg area, a seat area, an inclined back area and a generally flat area. These areas functioning to receive a user and to allow the same to perform a variety of strength training exercises.

[0007] Another embodiment of the present invention can include a plurality of handles, and a pair of opposing lateral support elements. Said support elements functioning to prevent a lateral movement of the device during operation.

[0008] Yet another embodiment of the present invention can be the bench being constructed from a single block of high density EVA foam having a density and hardness suitable for use by an average size human adult, without deleteriously affecting the shape of the bench.

[0009] This summary is provided merely to introduce certain concepts and not to identify key or essential features of the claimed subject matter.

BRIEF DESCRIPTION OF THE DRAWINGS

[0010] Presently preferred embodiments are shown in the drawings. It should be appreciated, however, that the invention is not limited to the precise arrangements and instrumentalities shown.

[0011] FIG. 1 is a top view of a foam exercise bench that is useful for understanding the inventive concepts disclosed herein.

[0012] FIG. 2 is a perspective view of the foam exercise bench in accordance with one embodiment of the invention.

[0013] FIG. 3A is a detailed perspective view of the foam exercise bench in accordance with one embodiment of the invention.

[0014] FIG. 3B is a detailed side view of the foam exercise bench in accordance with one embodiment of the invention.

[0015] FIG. 4 is a perspective view of the foam exercise bench in operation, in accordance with one embodiment of the invention.

[0016] FIG. 5 is another perspective view of the foam exercise bench in operation, in accordance with one embodiment of the invention.

[0017] FIG. 6 is yet another perspective view of the foam exercise bench in operation, in accordance with one embodiment of the invention.

[0018] FIG. 7 is a perspective view of the foam exercise bench, in accordance with another embodiment of the invention.

DETAILED DESCRIPTION OF THE INVENTION

[0019] While the specification concludes with claims defining the features of the invention that are regarded as novel, it is believed that the invention will be better understood from a consideration of the description in conjunction with the drawings. As required, detailed embodiments of the present invention are disclosed herein; however, it is to be understood that the disclosed embodiments are merely exemplary of the invention which can be embodied in various forms. Therefore, specific structural and functional details disclosed herein are not to be interpreted as limiting, but merely as a basis for the claims and as a representative basis for teaching one skilled in the art to variously employ the inventive arrangements in virtually any appropriately detailed structure. Further, the terms and phrases used herein are not intended to be limiting but rather to provide an understandable description of the invention.

[0020] Identical reference numerals are used for like elements of the invention or elements of like function. For the sake of clarity, only those reference numerals are shown in the individual figures which are necessary for the description of the respective figure. For purposes of this description, the terms "upper," "bottom," "right," "left," "front," "vertical," "horizontal," and derivatives thereof shall relate to the invention as oriented in FIG. 1.

[0021] FIGS. 1 and 2 illustrate one embodiment of a foam exercise bench 10 that is useful for understanding the inventive concepts disclosed herein. As shown, the bench 10 can include a single elongated generally rectangular member having a left side section 11, a right side section 12, a head end 13, a leg end 14, a top surface 15 and a flat bottom surface 16.

[0022] In one embodiment, the bench 10 can be constructed from a single block of high density foam having a suitable weight bearing capacity/hardness for supporting an average user weighing approximately 200 pounds along with another

200 pounds of weights, without deleteriously impacting the shape of the bench itself. One suitable example can include high density Ethylene Vinyl Acetate (EVA) Foam having hardness rating of between approximately 50 and 90 degrees. Of course, any number of other lightweight dense foam materials having any number of different hardness degrees and weight supporting capacities can also be utilized herein. Several examples including polyurethane, closed cell foam, Supreem foam, and/or latex rubber foam, for example.

[0023] As shown best in FIG. 2, the top surface of the foam bench 10 can include a plurality of sections for positioning and supporting a user in an ergonomically friendly position during a strength training activity. In this regard, the top surface can include a seat section 15a, an inclined back section 15b, and a generally flat surface section 15c. The leg end 14 can preferably include an angled section 14a for receiving the upper portion of a users' legs, that transitions into a generally vertical section 14b.

[0024] In one embodiment, the bench 10 can also include a pair of elongated lateral support elements 17 that are disposed along each of the bench sides 11 and 12 at a location adjacent to the bottom surface 16. The supports 17 functioning to broaden the surface area of the bench 10 making contact with the ground, so as to provide additional stability to users. The bench 10 can also include a plurality of handles 18 for facilitating gripping and movement of the bench itself. In one preferred embodiment, the handles 18 can be formed by the absence of material such as recesses/indentations within the bench surfaces. While this is not required in all embodiments, such a construction technique can function to lower the weight of the bench and substantially decrease manufacturing costs. Of course, other embodiments incorporating other types, shapes and forms of handles are also contemplated.

[0025] As will be described below, the bench 10 is intended to provide a stable and comfortable platform on which users can perform a wide variety of exercises alone or in conjunction with free weights. In this regard, it is preferred that the bench 10 be narrow enough to allow a user to straddle the top surface 15 with their legs (See FIG. 5) while also remaining wide enough to provide ample support to the users' upper and lower body while lying on the bench in an inclined position (See FIG. 4).

[0026] While the dimensions of the elements are not critical, FIGS. 3A and 3B illustrate one non-limiting embodiment of the foam bench 10 with a listing of the preferred dimensions and relative angles. In this regard, the bench 10 can include an overall length of 56 inches spanning between the head end 13 and the leg end 14. The bench can include an overall width of 10.5 inches which spans from the side wall 11 to the opposing side wall 12. The top section 15c can include a length of approximately 6 inches and a height (i.e., distance from the planar bottom 16) of approximately 24 inches. The top section 15c can connect with the back section 15b at a relative angle of approximately 197 degrees, and the back section can include a length of approximately 32 inches. The back section 15b can connect with the seat section 15a at a relative angle of approximately 151 degrees at a height of 14 inches. The seat section 15a can include a length of approximately 10 inches and can connect to the leg portion 14a at a height of approximately 16 inches and a relative angle of approximately 260 degrees.

[0027] Although described above as utilizing particular dimensions and relative angles, this is for illustrative purposes only, as any number of other dimensions and angles are

also contemplated. To this end, the foam bench can be constructed with scaled dimensions to accommodate both adults and children of any weight and girth. Accordingly, the below figures illustrate one embodiment of the bench 10 in operation to perform various strength training exercises.

[0028] In this regard, FIG. 4 illustrates the bench in operation wherein user 5 can lie in an inclined position on top of the bench to perform any number of upper body strengthening exercises such as chest and shoulder presses, abdominal crunches and the like. Likewise, FIG. 5 illustrates the user 5 sitting upright in the seat 15b, so as to perform upright exercises such as overhead presses, for example. Finally, FIG. 6 illustrates the user 5 performing standing hand and leg exercises utilizing the flat surface section 15c of the bench 10.

[0029] FIG. 7 illustrates an alternate embodiment of the foam bench 10 that further includes an internal skeletal frame 70 located within the main body. As shown, the frame 70 can preferably be offset from the outside surface of the bench by at least 8-10 inches so as to ensure the user can not feel the frame. In this manner, the frame 70 can preferably constructed from a sturdy material such as lightweight metal or plastic, for example, and can function to provide additional rigidity to the bench.

[0030] As to a further description of the manner and use of the present invention, the same should be apparent from the above description. Accordingly, no further discussion relating to the manner of usage and operation will be provided.

[0031] The terminology used herein is for the purpose of describing particular embodiments only and is not intended to be limiting of the invention. As used herein, the singular forms "a," "an," and "the" are intended to include the plural forms as well, unless the context clearly indicates otherwise. It will be further understood that the terms "comprises" and/or "comprising," when used in this specification, specify the presence of stated features, integers, steps, operations, elements, and/or components, but do not preclude the presence or addition of one or more other features, integers, steps, operations, elements, components, and/or groups thereof.

[0032] The corresponding structures, materials, acts, and equivalents of all means or step plus function elements in the claims below are intended to include any structure, material, or act for performing the function in combination with other claimed elements as specifically claimed. The description of the present invention has been presented for purposes of illustration and description, but is not intended to be exhaustive or limited to the invention in the form disclosed. Many modifications and variations will be apparent to those of ordinary skill in the art without departing from the scope and spirit of the invention. The embodiment was chosen and described in order to best explain the principles of the invention and the practical application, and to enable others of ordinary skill in the art to understand the invention for various embodiments with various modifications as are suited to the particular use contemplated.

What is claimed is:

1. A foam exercise bench, comprising:

a single elongated generally rectangular body having a left side section, a right side section, a head end, a leg end, a flat bottom surface, and a top surface,

said top surface including a seat section and an inclined back section for receiving and supporting a human user in each of a seated position and an inclined position,

said body being constructed from a lightweight dense foam material having a hardness and weight supporting capacity that is suitable for supporting a weight of the human user.

2. The bench of claim 1, wherein said foam material includes a solid block of high density Ethylene Vinyl Acetate foam having a hardness rating of between approximately 50 and 90 degrees.

3. The foam exercise bench of claim 1, wherein said top surface further includes a flat surface section that is interposed between the inclined back section and the head end, said flat section functioning as a support for assisting users to perform a standing exercise routine.

4. The foam exercise bench of claim 1, wherein said leg end comprises:

an angled leg section that is connected to the seat section of the top surface at a first end, and a vertical leg section at a second end,

said angled leg section functioning to receive an upper portion of the users legs, and said vertical leg section functioning to receive a lower portion of the users legs.

5. The foam exercise bench of claim 1, further comprising: a pair of elongated horizontally oriented support members that are disposed along the left side section and the right side section adjacent to the bottom surface, said support members functioning to provide lateral stability to the bench to prevent tipping and movement during operation thereof.

6. The foam exercise bench of claim 1, further comprising: a plurality of handles disposed along the bench body.

7. The foam exercise bench of claim 6, wherein each of said handles are formed by as recesses and indentations that are defined by an absence of body material.

8. The bench of claim 1, wherein said foam material includes at least one of polyurethane, closed cell foam, Supreem foam and latex rubber foam.

9. The foam exercise bench of claim 1, further comprising: a lightweight frame that is disposed within the bench body.

10. The foam exercise bench of claim 1, wherein said frame is constructed from plastic and is positioned between approximately 8 and 10 inches from a bench body surface.

11. The foam exercise bench of claim 1, wherein said bench body includes a width of approximately 10.5 inches, and an overall length of approximately 56 inches.

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