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(54) Title: FOLDABLE EXERCISE APPARATUS

(57) Abstract: A foldable exercise apparatus having a rigid frame back wall, with hinged rigid frame side walls with one of the side walls having a hinged cross brace that is fastenable to the opposing side wall. Also provided is a collapsible bench attachable to the exercise apparatus in its folded state. Further provided are wheels, with each wheel mounted to a respective side wall front end to aid in deploying and folding the side walls. The exercise apparatus rigid frame provides a plurality of exercise equipment apertures to support the storage of exercise equipment, components until needed.



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FOLDABLE EXERCISE APPARATUS

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application claims the benefit of U.S. Patent Application No. 13/755,632, filed 31 January 2013, which is hereby incorporated by reference in its entirety as if fully set forth below.

TECHNICAL FIELD

[0002] The various embodiments of the present invention relate generally to exercise equipment, such as foldable exercise equipment, and methods of using the same.

BACKGROUND

[0003] The present invention relates generally to exercise equipment and, more specifically, to a foldable exercise apparatus comprising a frame having a rigid frame back wall with hinged rigid frame side walls with one of said side walls having a hinged cross brace, which serves as structural support and exercise equipment, such as chin ups and pull ups, that is fastenable to the opposing side wall. Also provided is a foldable bench attachable to the exercise apparatus in its folded state. Further provided are wheels mounted to a respective side wall front end to aid in deploying and folding the side walls.

[0004] Additionally provided are a plurality of exercise equipment receptacles supporting the storage of exercise equipment components until needed. There are other exercise machines which provide for compact storage. While these exercise machines may be suitable for the purposes for which they were designed, they would not be as suitable for the purposes of the present invention as heretofore described.

[0005] It is thus desirable to provide an exercise apparatus having a rigid frame back wall with hinged rigid frame side walls that are pivotal from a folded state to a deployed state incorporating a pivotal overhead brace and side-wall base mounted wheels. It is further desirable to provide a foldable bench that is attachable to the exercise apparatus in its folded state.

SUMMARY

[0006] An embodiment of the present invention can be a foldable exercise apparatus which can comprise a rigid frame back wall, first rigid frame side wall pivotally mounted to the rigid frame back wall, a second rigid frame side wall pivotally mounted to the rigid frame back

wall, and a cross brace having a first end and a second end, the first end hinged to a top portion of the first rigid frame side wall and the second end configured to be fastened to a top portion of the second rigid frame side wall, wherein the cross brace can serve as at least one of a structural support and an exercise component.

[0007] In an embodiment of the present invention, the apparatus can further comprise a first and second footer, each footer can be mounted transversely to an underside of a bottom portion of the rigid frame back wall. An embodiment can comprise a first and second transverse beam, each transverse beam can be mounted at a top portion of the rigid frame back wall. An embodiment can further comprise a first quick release safety lock that can be located at an underside of the first transverse beam, a second quick release safety lock that can be located at an underside of the second transverse beam, and a third quick release safety lock that can be located at the top portion of the second rigid frame side wall and can be configured to engage with the second end of the cross brace. An embodiment can comprise a first and second pivot pin, the first and second pivot pins can extend through the first rigid frame side wall into the first footer and the first transverse beam of the rigid frame back wall, and a third and fourth pivot pin, the third and fourth pivot pins can through the second rigid frame side wall into the second footer and the second transverse beam of the rigid frame back wall. In an embodiment, the first and second rigid frame side walls can fold against the rigid frame back wall for storage.

[0008] In an embodiment, the apparatus can further comprise a first wheel that can be rotatably mounted to a bottom free end of the first rigid frame side wall and a second wheel that can be rotatably mounted to a bottom free end of the second rigid frame side wall. The first and second wheels can help the first rigid frame side wall and the second rigid frame side wall to fold against the rigid frame back wall for storage.

[0009] In an embodiment, the apparatus can further comprise a plurality of storage hooks, the storage hooks can be affixed to upright portions of the first rigid frame side wall and the second rigid frame side wall and the storage hooks can be configured to store exercise equipment until needed. In an embodiment, upright portions of the first rigid frame side wall and the second rigid frame side wall can comprise a plurality of apertures therethrough configured to store the exercise equipment components until needed.

[0010] In an embodiment, the second end of the cross brace can comprise a receptacle for engaging with the top portion of the second rigid frame side wall and the third quick release safety lock can lock within the receptacle of the cross brace.

[0011] An embodiment of the present invention can be an exercise apparatus that can comprise a first guide rail with a first end that can be positioned proximate a bottom portion of the first rigid frame side wall and a second end that can be positioned proximate a top portion of the first rigid frame side wall. In an embodiment, a first side carriage can be slideably coupled to the first guide rail such that the first side carriage can slide along the first guide rail between the first and second ends of the first guide rail. An embodiment can further comprise a second guide rail with a first end that can be positioned proximate a bottom portion of the second rigid frame side wall and a second end that can be positioned proximate a top portion of the second rigid frame side wall and a second side carriage that can be slideably coupled to the second guide rail such that the second side carriage can slide along the second guide rail between the first and second ends of the second guide rail. An embodiment can further comprise an elongated bar that can comprise a first portion, a second portion and a third portion, each portion comprising a first end and a second end. In an embodiment, the first end of the first portion can be proximate the first side carriage and the first end of the second portion can be proximate the second side carriage and wherein the third portion of the elongated bar can be detachably coupled to the second ends of the first and second portions of the elongated bar, respectively.

[0012] In an embodiment, the apparatus can comprise a collapsible bench that can be configured to be selectively positioned as needed to perform a plethora of exercises. In an embodiment, the collapsible bench can comprise a pivotal front leg, a platform having a pair of openings on a distal end of the front leg; and a pivotal rear leg.

[0013] An embodiment can comprise a bench hanger that can be mounted proximate a top portion of the rigid frame back wall and can be configured to engage with the openings in the platform of the collapsible bench for storage when not in use.

[0014] An embodiment can comprise a first elongated member extending from a first side of the first side carriage in a direction opposite the first portion of the elongated bar and a second elongated member extending from a first side of the second side carriage in a direction opposite the second portion of the elongated bar.

[0015] Other aspects and features of embodiments of the present invention will become apparent to those of ordinary skill in the art, upon reviewing the following description of specific, exemplary embodiments of the present invention in concert with the various figures. While features of the present invention may be discussed relative to certain embodiments and figures, all embodiments of the present invention can include one or more of the features discussed in this application. While one or more embodiments may be discussed as having certain advantageous features, one or more of such features may also be used with the other various embodiments of the invention discussed in this application. In similar fashion, while exemplary embodiments may be discussed below as system or method embodiments it is to be understood that such exemplary embodiments can be implemented in various devices, systems, and methods. Thus discussion of one feature with one embodiment does not limit other embodiments from possessing and including that same feature.

BRIEF DESCRIPTION OF THE DRAWINGS

[0016] Fig. 1 is an illustrative perspective view of the foldable exercise apparatus of the present invention.

[0017] Fig. 2 is an illustrative perspective view of the exercise apparatus of the present invention.

[0018] Fig. 3 is an illustrative perspective view of the exercise apparatus of the present invention.

[0019] Fig. 4 is an illustrative perspective view of the folding procedure for the foldable exercise apparatus.

[0020] Fig. 5 is an illustrative perspective view of the folding procedure for the foldable exercise apparatus.

[0021] Fig. 6 is an illustrative perspective view of the collapsible bench of the exercise

apparatus of the present invention.

[0022] Fig. 7 is an illustrative perspective view of the collapsible bench of the exercise apparatus of the present invention.

[0023] Fig. 8 is an illustrative perspective view of the folded exercise apparatus of the present invention.

[0024] Fig. 9 is an illustrative perspective view of the exercise apparatus of the present invention.

[0025] Fig. 10 is an illustrative perspective view of the exercise apparatus of the present invention.

[0026] Fig. 11 is an illustrative perspective view of the exercise apparatus of the present invention.

DETAILED DESCRIPTION

[0027] Referring now to the figures, wherein like reference numerals represent like parts throughout the several views, exemplary embodiments of the present invention will be described in detail. Throughout this description, various components may be identified having specific values or parameters, however, these items are provided as exemplary embodiments. Indeed, the exemplary embodiments do not limit the various aspects and concepts of the present invention as many comparable parameters, sizes, ranges, and/or values may be implemented. The terms "first," "second," "primary," "secondary," "top," "bottom," "distal," "proximal," and the like, do not denote any order, quantity, or importance, but rather are used to distinguish one element from another. Further, the terms "a," "an," and "the" do not denote a limitation of quantity, but rather denote the presence of "at least one" of the referenced item.

[0028] Referring to Fig. 1, shown is an illustrative perspective view of the foldable exercise apparatus of the present invention. The present invention is a foldable exercise apparatus 10 having a hinged cross brace 12, quick release safety locks 14, folding side walls 16, 18, collapsible bench 20, storage hooks 22 and wheels 24 while a plurality of apertures 26 are for storing exercise equipment components until needed.

[0029]Referring to Fig. 2, shown is an illustrative perspective view of the exercise apparatus of the present invention. The present invention is a foldable exercise apparatus 10 comprising a rigid frame back wall 28 with hinged rigid frame side walls 16, 18 with the first side wall 16 having a hinged cross brace 12, which serves as a structural support and exercise component that is fastenable to the second side wall 18. Also provided is a collapsible bench 20 attachable to the exercise apparatus 10 in its folded state that when detached from the exercise apparatus 10 can be selectively positioned as needed to perform a plethora of exercises provided by the foldable exercise apparatus 10.

[0030]Referring to Fig. 3, shown is an illustrative perspective view of the exercise apparatus of the present invention. The foldable exercise apparatus 10 of the present invention provides a rigid frame back wall 28 having opposing side footers 30 incorporating a pivot pin 32 and back wall transverse beams 34 incorporating a pivot pin 32 having respective side walls 16, 18 supported by a respective pair of upper and lower pivot pins 32. Also provided is a hinged cross brace 12 fastened to the top of the first side wall 16 with a free end 36 having a receptacle 38 for engaging the second side wall 18 and a quick release safety lock 14 for then locking the cross brace 12 to the second side wall 18. The fastened hinged cross brace 12 can lock the positioning of the side walls 16, 18 and also can serve as an exercise component for chin-ups and pull-ups, various other exercises, and the like.

[0031]Referring to Fig. 4, shown is an illustrative perspective view of the folding procedure for the foldable exercise apparatus. To fold the exercise apparatus 10 for storage, the quick release safety lock 14 holding the hinged cross brace 12 can be retracted to its stop position releasing the second side wall 18 which also can have a quick release safety lock 14 that can be disengaged allowing the second side wall 18 to be pivoted out of the way while the hinged cross brace 12 can be moved to its stored position, where then the second side wall 18 can be pivoted to its storage position against the back wall 28.

[0032]Referring to Fig. 5, shown is an illustrative perspective view of the folding procedure for the foldable exercise apparatus. As aforementioned, to fold the exercise apparatus 10 for storage, the quick release safety lock 14 holding the hinged cross brace 12 can be retracted to its stop position releasing the second side wall 18, which also can have a quick release safety

lock 14 that can be disengaged allowing the second side wall 18 to be pivoted out of the way while the hinged cross brace 12 can be moved to its stored position, where then the second side wall 18 can be pivoted to its storage position against the back wall 28. The quick release safety lock 14 for the first side wall 16 can be disengaged from the back wall transverse beam 34 allowing the first side wall 16 to be folded, thereby providing the foldable exercise apparatus 10 of the present invention to be completely folded.

[0033]Referring to Fig. 6, shown is an illustrative perspective view of the collapsible bench of the exercise apparatus of the present invention. Depicted is the collapsible exercise bench 20 of the present invention having a pivotal front leg 40 and rear leg 42 that can fold to a substantially flat state with the front leg 40 having a platform 44 with a pair of openings 46, so that the bench 20 can be attached to bench hangers 48 of the exercise apparatus 10.

[0034]Referring to Fig. 7, shown is an illustrative perspective view of the collapsible bench of the exercise apparatus of the present invention. After the exercise bench 20 is collapsed the front leg platform 40 can have a pair of openings 42 so that the bench 20 can be attached to bench hangers 48 on the exercise apparatus 10.

[0035]Referring to Fig. 8, shown is an illustrative perspective view of the folded exercise apparatus of the present invention. The present invention is a foldable exercise apparatus 10 that can have a hinged cross brace 12, quick release safety locks 14, folding side walls 16, 18, collapsible bench 20, storage hooks 22 and wheels 24, while a plurality of apertures 26 can be for storing exercise equipment components, or other items that may need storage by a user until needed.

[0036]Referring to Fig. 9, shown is an illustrative perspective view of an embodiment of the present invention. An embodiment can comprise hinged cross brace 12 and guide rails 50 which can extend from a bottom portion of the side walls to a top portion of the side walls. Side carriages 52 can be configured to engage with the guide rails 50. Also shown is elongated bar 54 which can comprise a first portion 56, a second portion 58 and a third portion 60. The third portion 60 can be removably attached to the first portion 56 and the second portion 58. Also shown are elongated members 62 which can extend from the side carriages in an opposite direction as the first and second portions of the elongated bar 54.

[0037]Referring to Fig. 10, shown is a detailed illustrative perspective view of an embodiment of the present invention which shows side carriage 52 engaged with guide rails 50 and a second portion 58 of elongated bar 54. Also shown is elongated member 62 coupled to weight plate 64, storage hook 22, and aperture 26.

[0038]Referring to Fig. 11, shown is a detailed front-view perspective of an embodiment of the present invention. Shown is elongated bar 54 which can comprise a first portion 56, a second portion 58, and a third (middle) portion 60. The third portion 60 can be removably attached to the first portion 56 and the second portion 58. Also shown are elongated members 62 which can extend from the side carriage in a direction opposite of the first and second portions of the elongated bar 54. Additionally, elongated members 62 are shown coupled to weight plate 64.

[0039]An embodiment of the present invention can be a foldable exercise apparatus 10 that can comprise a rigid frame back wall 28 and first 16 and second 18 rigid frame side walls. The rigid frame walls can be made of various rigid materials including, but not limited to, steel, iron, carbon fiber, carbon composites, aluminum, and various alloys thereof, and the like. The first 16 and second 18 rigid frame side walls can be mounted to the rigid frame back wall 28. An embodiment of the present invention can further comprise a cross brace 12 having a first end and a second end. The first end can be hinged to a top portion of the first rigid frame side wall and the second end can be hinged to a top portion of the second rigid frame side wall. In an embodiment, the cross brace 12 can serve as a structural support for the exercise apparatus. The cross brace 12 can also serve as an exercise component to allow a user to perform various exercises on the apparatus using the cross brace, including, but not limited to, pull-ups, chin-ups, and the like. In an embodiment of the present invention, the cross brace 12 can serve both as a structural support and an exercise component.

[0040]An embodiment of the present invention can further comprise a first and second footer 30. The footers 30 can be mounted transversely to an underside of a bottom portion of the rigid frame back wall 28. The footers 30 can provide stability and balance to the apparatus. An embodiment can further comprise a first and second transverse beam 34, which can be mounted at a top portion of the rigid frame back wall 28.

[0041]An embodiment of the present invention can comprise assorted locks for engaging various parts of the apparatus to other parts of the apparatus. An embodiment can comprise quick release safety locks 14. In an embodiment, a first quick release safety lock 14 can be located at an underside of the first transverse beam 34 and a second quick release safety lock 14 can be located at an underside of the second transverse beam 34. In an embodiment, a third quick release safety lock 14 can be located at the top portion of the second rigid frame side wall 18, which can engage with the second end of the cross brace 12. Various other locking mechanisms at other locations on the apparatus can be contemplated for the present invention, allowing for versatility of design and application.

[0042]An embodiment of the present invention can comprise pivot pins 32. An embodiment can comprise a first and second pivot pin 32 that can extend through the first rigid frame side wall 16 into the first footer 30 and the first transverse beam 34 of the rigid frame back wall 28. The present invention can further comprise a third and fourth pivot pin 32 which can extend through the second rigid frame side wall 18 into the second footer 30 and the second transverse beam of the rigid frame back wall 28.

[0043]In an embodiment of the present invention, the first 16 and second 18 rigid frame side walls can fold against the rigid frame back wall 28. This can allow for easy storage of the apparatus. The folding mechanism of the present invention can be contemplated for various other apparatuses and is not just limited to exercise equipment.

[0044]An embodiment of the present invention can comprise wheels 24 rotatably mounted to the bottom of the apparatus. For example, an embodiment can comprise a first wheel 24 rotatably mounted to a bottom free end of the first rigid frame side wall 16 and a second wheel 14 rotatably mounted to a bottom free end of the second rigid frame side wall 18. The wheels 24 can allow easy folding of the side walls against the back wall for storage.

[0045]The apparatus can comprise a variety of hooks 22 for storage of various items such as exercise equipment. For example, a plurality hooks 22 can be affixed to upright portions of the first rigid frame side wall 16 and the second rigid frame side wall 18. The hooks 22 can allow for easy storage of items until needed by a user. In an embodiment of the present invention, the upright portions of the first and second rigid frame side walls can comprise a plurality of

apertures 26 therethrough. The apertures 26 can serve to store exercise equipment components, for example, components used for supporting an exercise or weight bar.

[0046] In an embodiment, the second end of the cross brace 12 can comprise a receptacle for engaging with the top portion of the second rigid frame side wall 18. The cross brace 12 can further be coupled to the side wall with a quick release safety lock 14. In an embodiment, the third quick release safety lock can lock within the receptacle of the cross brace 12.

[0047] An embodiment of the present invention can comprise a collapsible bench 20. The bench 20 can be configured to allow a user to perform various exercises. The bench 20 can be selectively positioned to be optimally placed such that the user can perform exercises in a range of positions, such as, lying down or sitting up on the bench, or standing on the bench. In an embodiment, the collapsible bench can be configured to be selectively positioned as needed to perform a plethora of exercises.

[0048] In an embodiment, the collapsible bench 20 can comprise a pivotal front leg 40 and a pivotal back leg 42. The collapsible bench 20 can further comprise a platform 44 having openings 46 on a distal end of the front leg 40. The openings 46 can be configured to engage with a bench hanger 48 which can be mounted proximate a top portion of the rigid frame back wall 28 such that the bench can be easily stored when not in use. In some embodiments, the bench hanger 48 can be mounted at various other locations on the apparatus, such as, on one or more of the rigid frame side walls.

[0049] An embodiment of the present invention can comprise an elongated bar 54 coupled to side carriages 52 that can slide along guide rails 50 coupled to the apparatus. A portion of the bar can be removed such that each side carriage 52 can move independently along the guide rails 50. Thus, an embodiment of the present invention can comprise a first guide rail 50 with a first end positioned proximate a bottom portion of the first rigid frame side wall 16. The first guide rail 50 can have a second end positioned proximate a top portion of the first rigid frame side wall 16. An embodiment can further comprise a first side carriage 52 slideably coupled to the first guide rail 50 such that the first side carriage 52 can slide along the first guide rail 50 between the first and second ends of the first guide rail 50. The apparatus can further comprise a second guide rail 50 with a first end positioned proximate a bottom portion of the second rigid frame side wall

16 and a second end positioned proximate a top portion of the second rigid frame side wall 16. A second side carriage 52 can be slideably coupled to the second guide rail 50 such that the second side carriage 52 can slide along the second guide rail 50 between the first and second ends of the second guide rail 50.

[0050] Various types of guide rails can be contemplated for the present invention. The guide rails can comprise a groove with which the side carriages slideably engage. In an embodiment, the apparatus can comprise two guide rails on each side wall, wherein the side carriages are slideably coupled to each guide rail and can vertically slide along the guide rails in a space between the two guide rails.

[0051] In an embodiment of the present invention, the elongated bar 54 can comprise a first portion 56, a second portion 58, and a third portion 60. In an embodiment, the portions can be detachable. In an embodiment, the portions can each comprise a first end and a second end. The first end of the first portion 56 can be proximate the first side carriage 52 and the first end of the second portion 58 can be proximate the second side carriage 52. Thus, the third portion 60 of the elongated bar 54 can be positioned in between the first 56 and second portions 58 of the elongated bar 54. In an embodiment, the third portion 60 can be detachably coupled to the second ends of the first 56 and second portions 58 of the elongated bar 54, respectively.

[0052] When the third, or middle, portion 60 of the elongated bar 54 is removed from the apparatus, it can allow the side carriages 52 to move independently along the guide rails 50. This allows for a user to essentially use the first and second portions of the elongated bar as independently-movable “dumbbells.”

[0053] An embodiment of the present invention can comprise elongated members 62 extending from the side carriages 52 that are configured to hold various types of weights 64. For example, the elongated members 62 can be cylindrical and can be configured to engage with a center opening of a weight plate 64.

[0054] The embodiments of the present invention are not limited to the particular formulations, process steps, and materials disclosed herein as such formulations, process steps, and materials can vary somewhat. Moreover, the terminology employed herein is used for the purpose of describing exemplary embodiments only and the terminology is not intended to be

limiting since the scope of the various embodiments of the present invention will be limited only by the appended claims and equivalents thereof. For example, dimensional, temperature, and pressure parameters can vary depending on the particular materials used.

[0055] Therefore, while embodiments of this disclosure have been described in detail with particular reference to exemplary embodiments, those skilled in the art will understand that variations and modifications can be effected within the scope of the disclosure as defined in the appended claims. Accordingly, the scope of the various embodiments of the present invention should not be limited to the above discussed embodiments, and should only be defined by the following claims and all equivalents.

CLAIMS

What is claimed is:

1. A foldable exercise apparatus comprising:
 - a rigid frame back wall;
 - a first rigid frame side wall pivotally mounted to the rigid frame back wall;
 - a second rigid frame side wall pivotally mounted to the rigid frame back wall; and
 - a cross brace having a first end and a second end, the first end hinged to a top portion of the first rigid frame side wall and the second end capable of fastening to a top portion of the second rigid frame side wall.
 2. The apparatus of Claim 1, further comprising:
 - a first and second footer, each footer mounted transversely to an underside of a bottom portion of the rigid frame back wall;
 - a first and second transverse beam, each transverse beam mounted at a top portion of the rigid frame back wall;
 - a first quick release safety lock located at an underside of the first transverse beam;
 - a second quick release safety lock located at an underside of the second transverse beam;
 - a third quick release safety lock located at the top portion of the second rigid frame side wall and configured to engage with the second end of the cross brace;
 - a first and second pivot pin, the first and second pivot pins extending through the first rigid frame side wall into the first footer and the first transverse beam of the rigid frame back wall; and
 - a third and fourth pivot pin, the third and fourth pivot pins extending through the second rigid frame side wall into the second footer and the second transverse beam of the rigid frame back wall;
- wherein the first and second rigid frame side walls can fold against the rigid frame back wall for storage.

3. The apparatus of Claim 2, further comprising:
a first wheel rotatably mounted to a bottom free end of the first rigid frame side wall; and
a second wheel rotatably mounted to a bottom free end of the second rigid frame side wall;
wherein the first and second wheels assist the first rigid frame side wall and the second rigid frame side wall to fold against the rigid frame back wall.
4. The apparatus of Claim 1 further comprising a plurality of storage hooks, the storage hooks affixed to upright portions of the first rigid frame side wall and the second rigid frame side wall.
5. The apparatus of Claim 4, wherein the upright portions of the first rigid side wall and the second rigid frame side wall comprise a plurality of apertures therethrough.
6. The apparatus of Claim 2, wherein the second end of the cross brace comprises a receptacle for engaging the top portion of the second rigid frame side wall, and wherein the third quick release safety lock is lockable within the receptacle of the cross brace.
7. The apparatus of Claim 1 further comprising:
a first guide rail with a first end positioned proximate a bottom portion of the first rigid frame side wall and a second end positioned proximate a top portion of the first rigid frame side wall;
a first side carriage slideably coupled to the first guide rail such that the first side carriage can slide along the first guide rail between the first and second ends of the first guide rail;
a second guide rail with a first end positioned proximate a bottom portion of the second rigid frame side wall and a second end positioned proximate a top portion of the second rigid frame side wall;
a second side carriage slideably coupled to the second guide rail such that the second side

carriage can slide along the second guide rail between the first and second ends of the second guide rail; and

an elongated bar comprising a first portion, a second portion and a third portion, each portion comprising a first end and a second end;

wherein the first end of the first portion is proximate the first side carriage and the first end of the second portion is proximate the second side carriage; and

wherein the third portion of the elongated bar is detachably coupled to the second ends of the first and second portions of the elongated bar, respectively.

8. The apparatus of Claim 1 further comprising a collapsible bench selectively positionable.

9. The apparatus of Claim 8, wherein the collapsible bench comprises:

a pivotal front leg;

a platform having a pair of openings on a distal end of the front leg; and

a pivotal rear leg.

10. The apparatus of Claim 9 further comprising a bench hanger mounted proximate a top portion of the rigid frame back wall and configured to engage with the openings in the platform of the collapsible bench.

11. An exercise apparatus comprising:

a first guide rail with a first end positioned proximate a bottom portion of a first rigid frame side wall and a second end positioned proximate a top portion of the first rigid frame side wall;

a first side carriage slideably coupled to the first guide rail such that the first side carriage can slide along the first guide rail between the first and second ends of the first guide rail;

a second guide rail with a first end positioned proximate a bottom portion of a second rigid frame side wall and a second end positioned proximate a top portion of the second rigid frame side wall;

a second side carriage slideably coupled to the second guide rail such that the second side carriage can slide along the second guide rail between the first and second ends of the second guide rail; and

an elongated bar comprising a first portion, a second portion and a third portion, each portion comprising a first end and a second end;

wherein the first end of the first portion is proximate the first side carriage and the first end of the second portion is proximate the second side carriage; and

wherein the third portion of the elongated bar is detachably coupled to the second ends of the first and second portions of the elongated bar, respectively.

12. The apparatus of Claim 11 further comprising:

a first elongated member extending from a first side of the first side carriage in a direction opposite the first portion of the elongated bar; and

a second elongated member extending from a first side of the second side carriage in a direction opposite the second portion of the elongated bar.

13. The apparatus of Claim 11 further comprising:

a rigid frame back wall; and

a cross brace having a first end and a second end, the first end hinged to a top portion of the first rigid frame side wall and the second end configured to be fastened to a top portion of the second rigid frame side wall, whereby the cross brace can serve as a structural support and an exercise component;

wherein the first and second rigid frame side walls are pivotally mounted to the rigid frame back wall.

14. The apparatus of Claim 13 further comprising:

a first and second footer, each footer mounted transversely to an underside of a bottom portion of the rigid frame back wall;

a first and second transverse beam, each transverse beam mounted at a top portion of the

rigid frame back wall;

a first quick release safety lock located at an underside of the first transverse beam;

a second quick release safety lock located at an underside of the second transverse beam;

a third quick release safety lock located at the top portion of the second rigid frame side wall and configured to engage with the second end of the cross brace;

a first and second pivot pin, the first and second pivot pins extending through the first rigid frame side wall into the first footer and the first transverse beam of the rigid frame back wall; and

a third and fourth pivot pin, the third and fourth pivot pins extending through the second rigid frame side wall into the second footer and the second transverse beam of the rigid frame back wall;

wherein the first and second rigid frame side walls can fold against the rigid frame back wall for storage.

15. The apparatus of Claim 14 further comprising:

a first wheel rotatably mounted to a bottom free end of the first rigid frame side wall; and

a second wheel rotatably mounted to a bottom free end of the second rigid frame side wall;

wherein the first and second wheels help the first rigid frame side wall and the second rigid frame side wall to fold against the rigid frame back wall for storage.

16. The apparatus of Claim 11 further comprising a plurality of storage hooks, the storage hooks affixed to upright portions of the first rigid frame side wall and the second rigid frame side wall, the storage hooks configured to store exercise equipment until needed.

17. The apparatus of Claim 16, wherein the upright portions of the first rigid side wall and the second rigid frame side wall comprise a plurality of apertures therethrough configured to store the exercise equipment components until needed.

18. The apparatus of Claim 13, wherein the second end of the cross brace comprises a receptacle for engaging with the top portion of the second rigid frame side wall and wherein the third quick release safety lock can lock within the receptacle of the cross brace.

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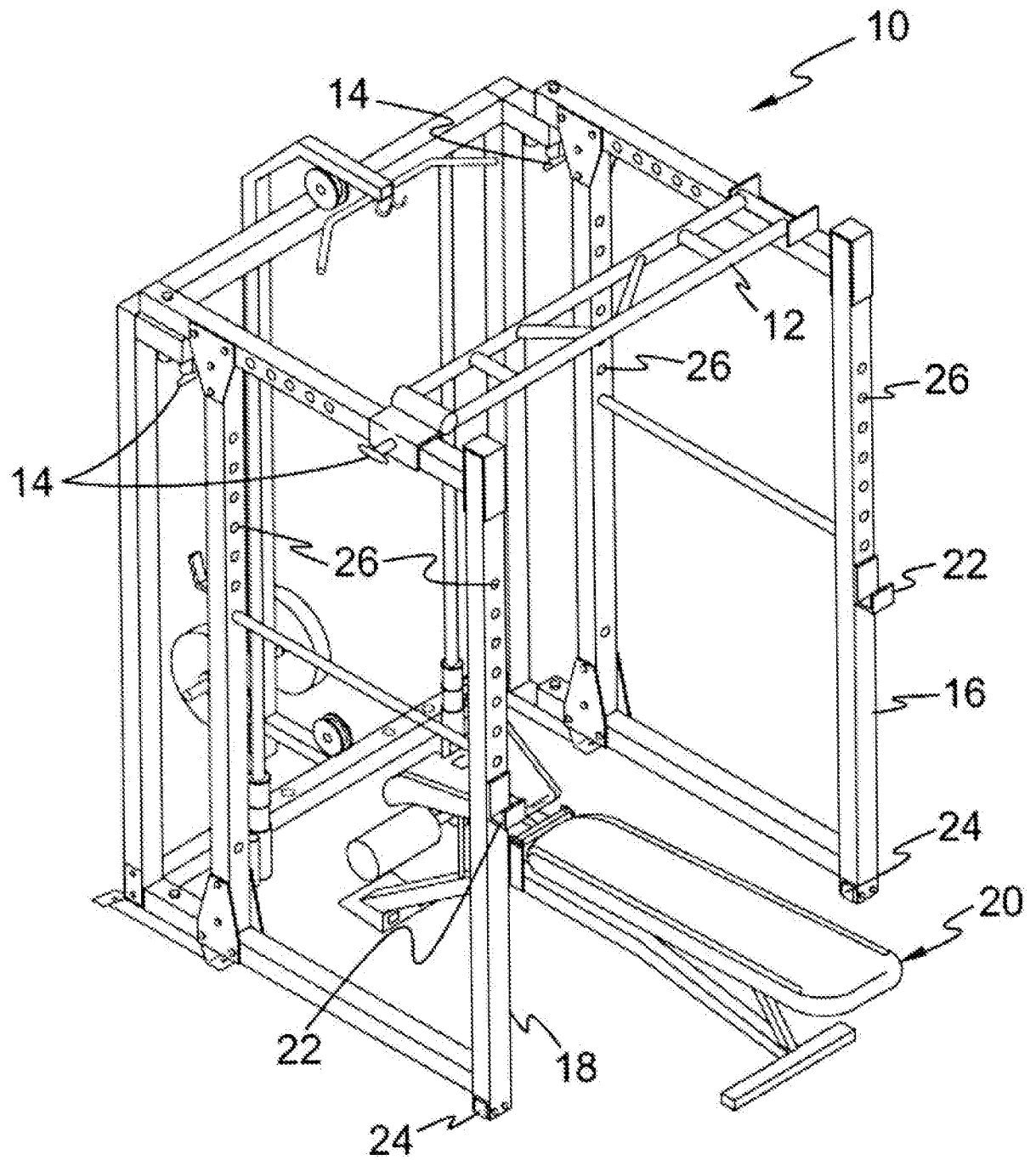


Fig. 1

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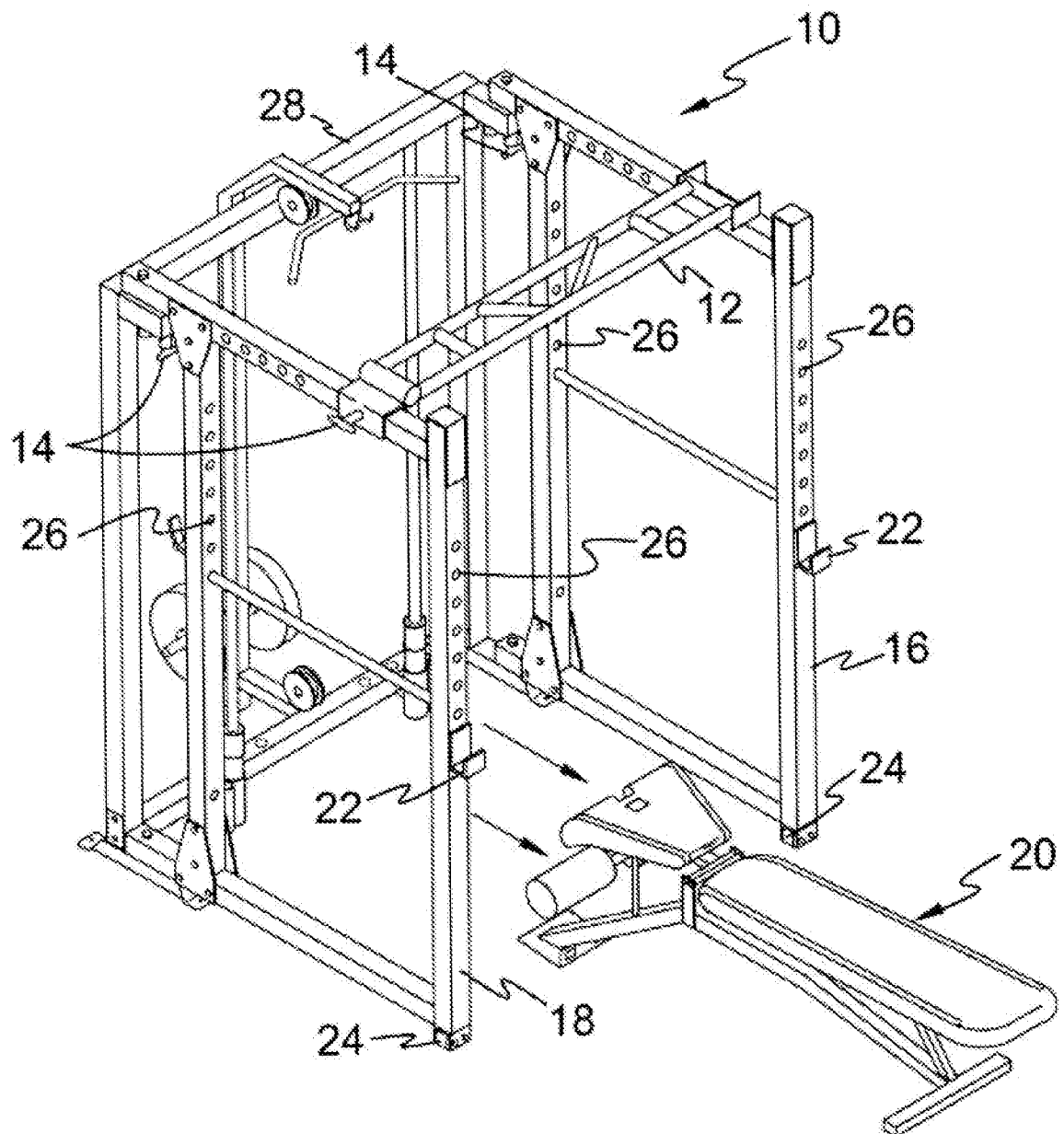


Fig. 2

3/11

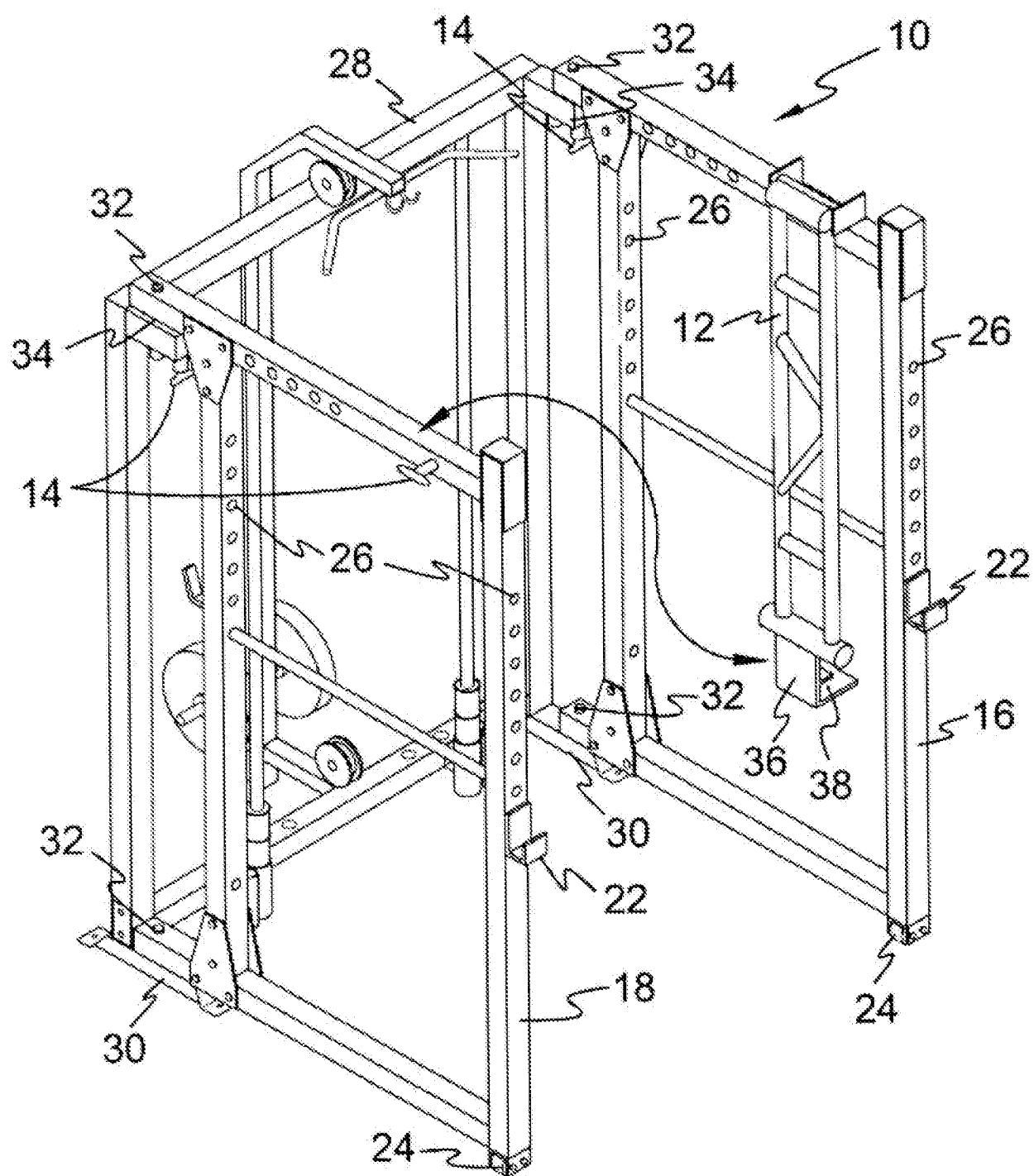


Fig. 3

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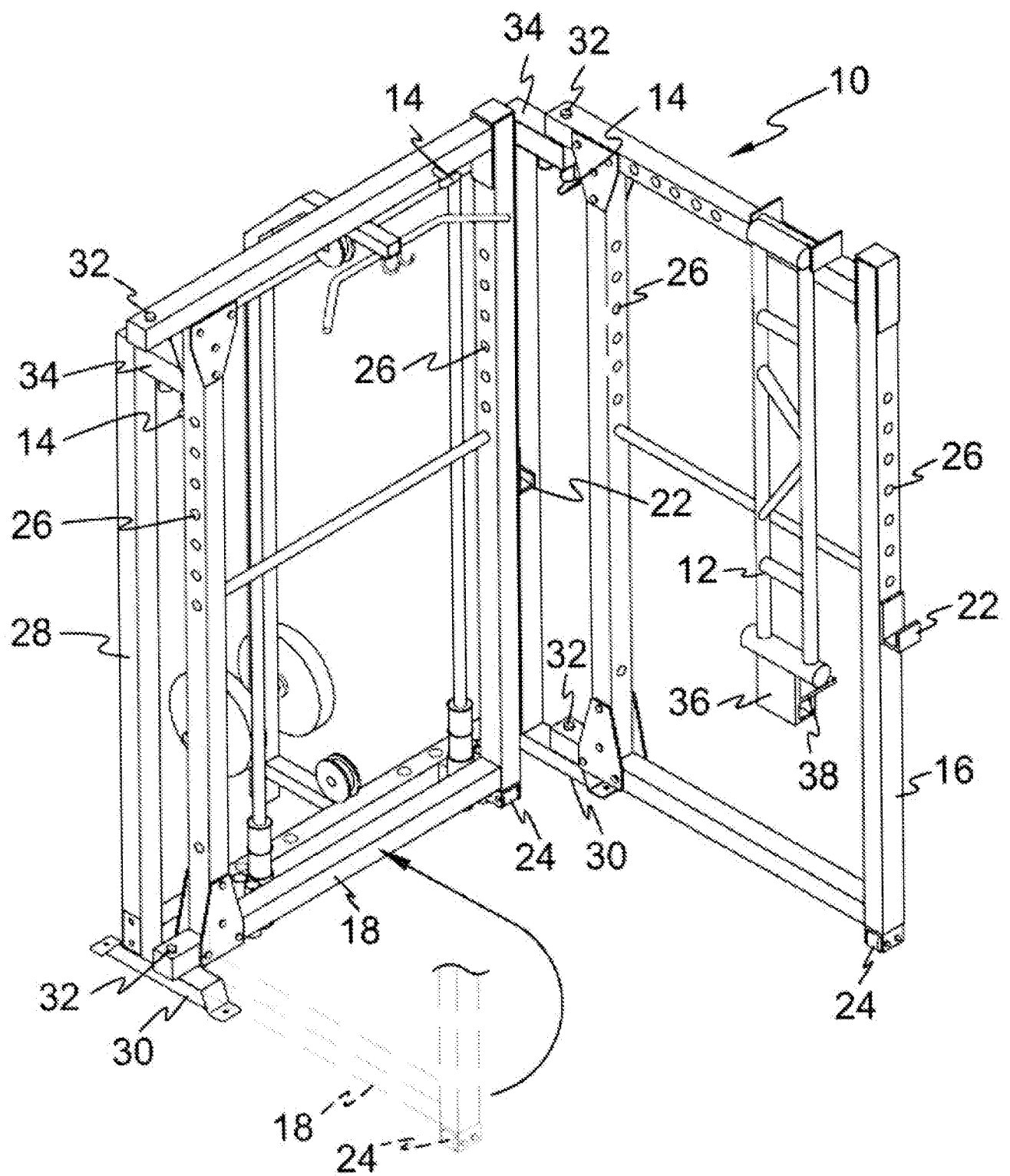


Fig. 4

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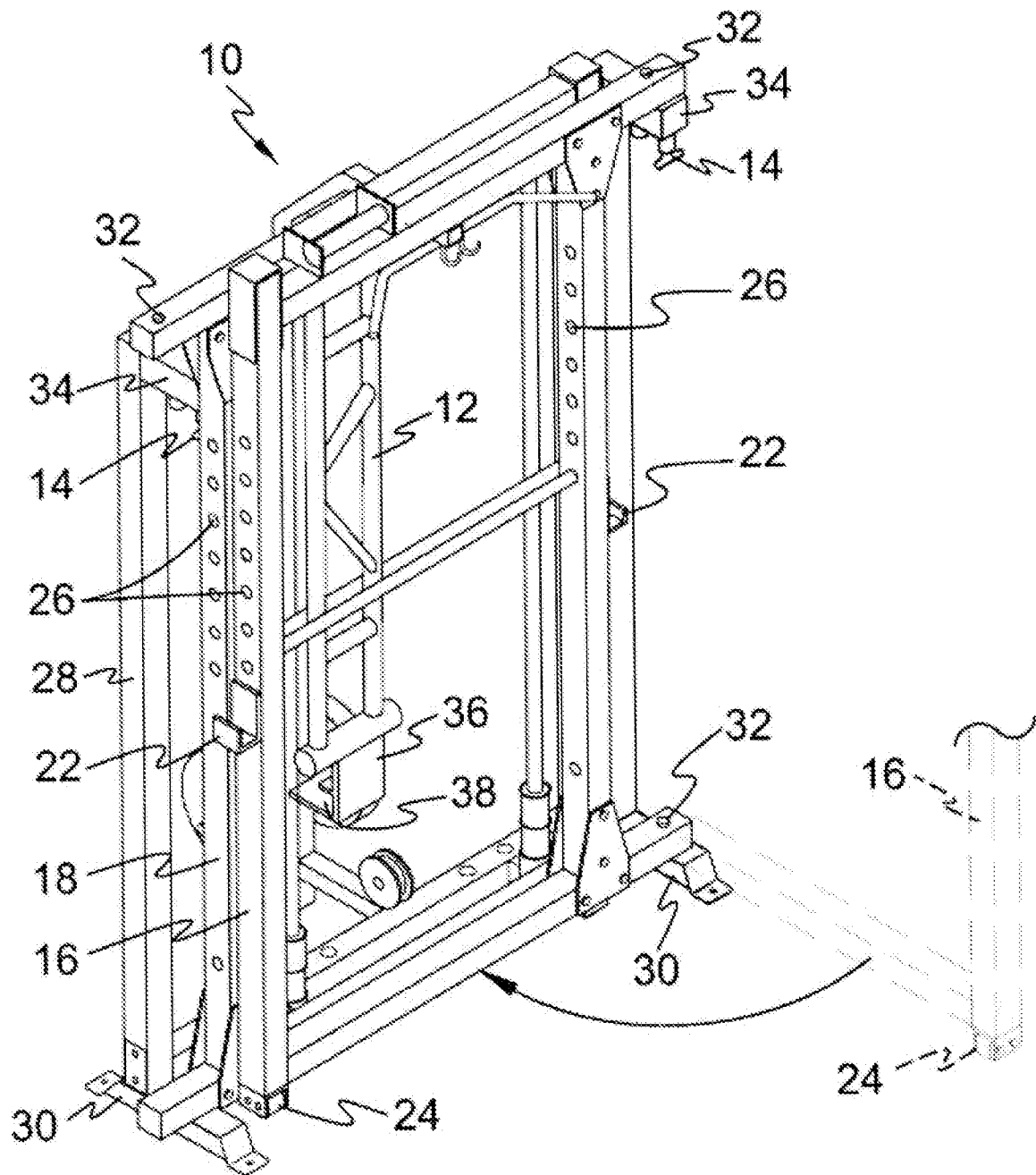


Fig. 5

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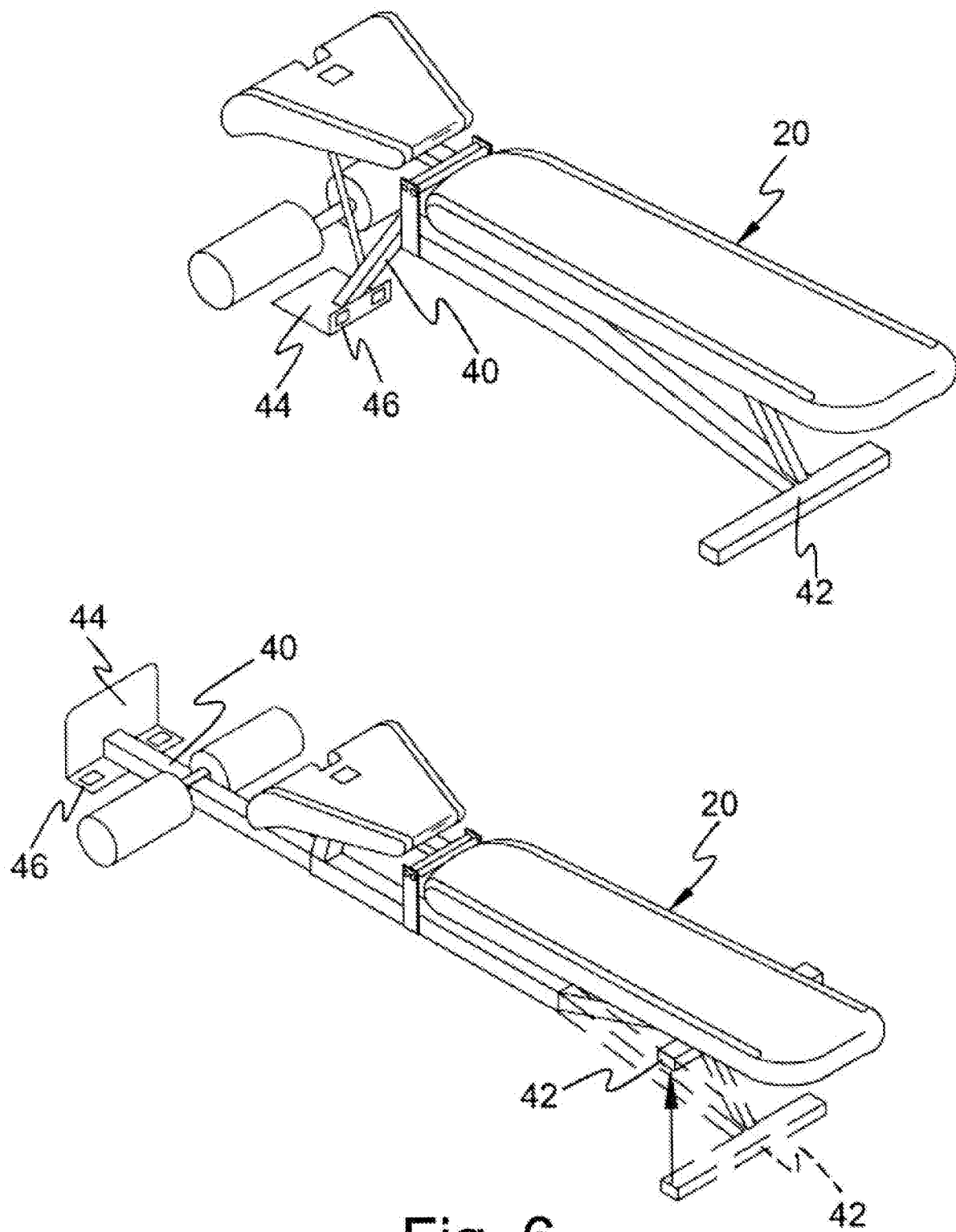


Fig. 6

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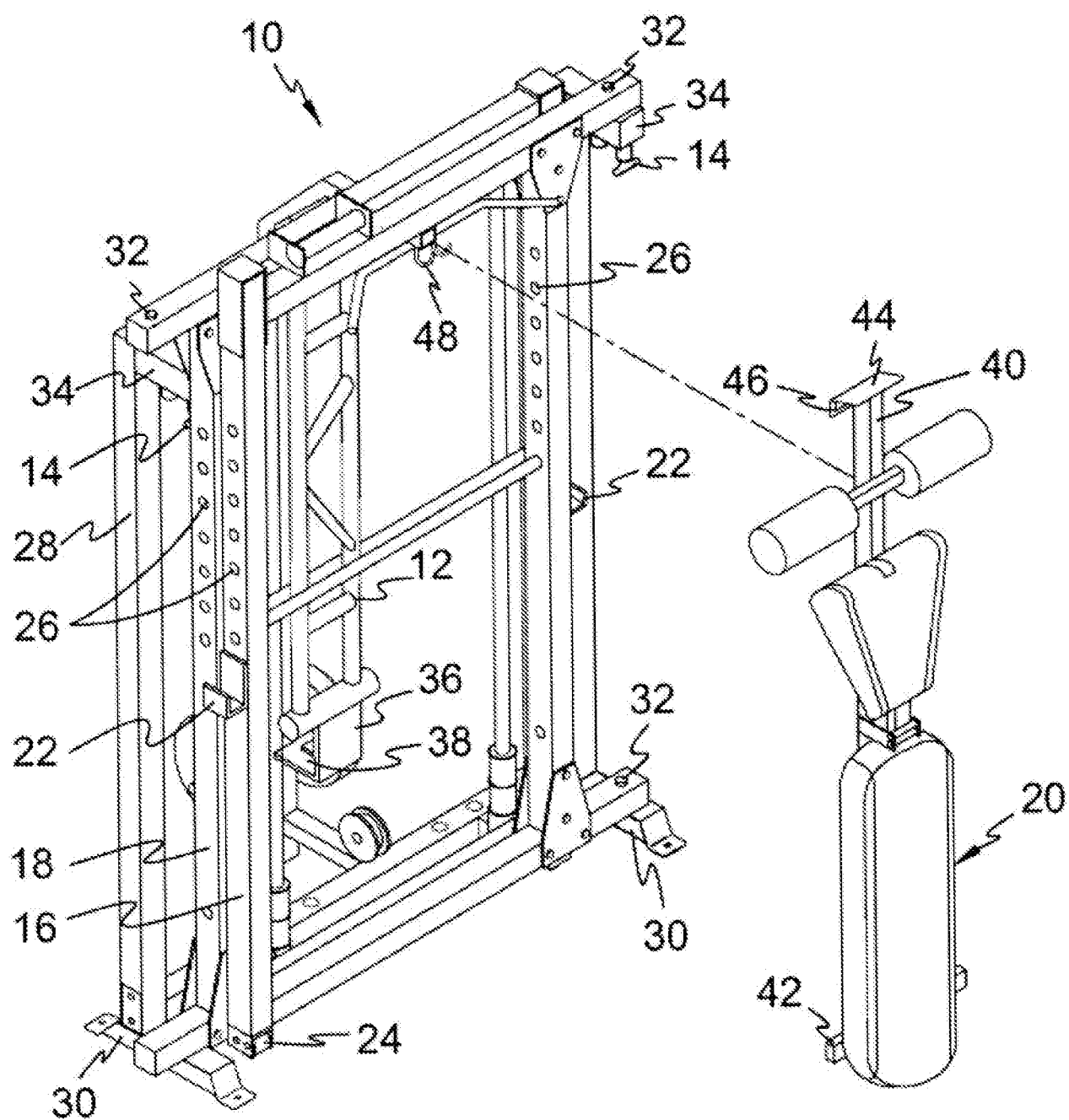


Fig. 7

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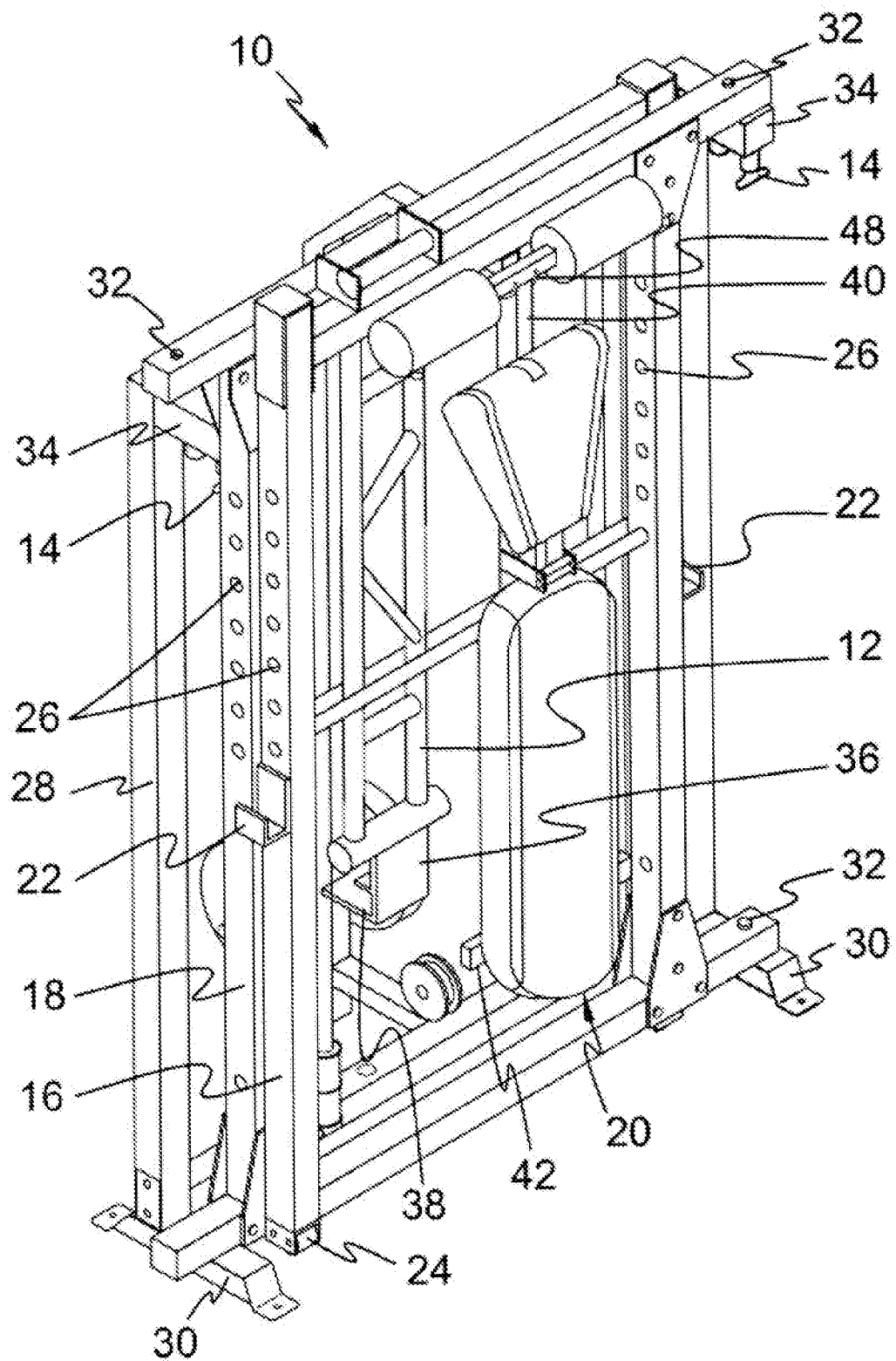


Fig. 8

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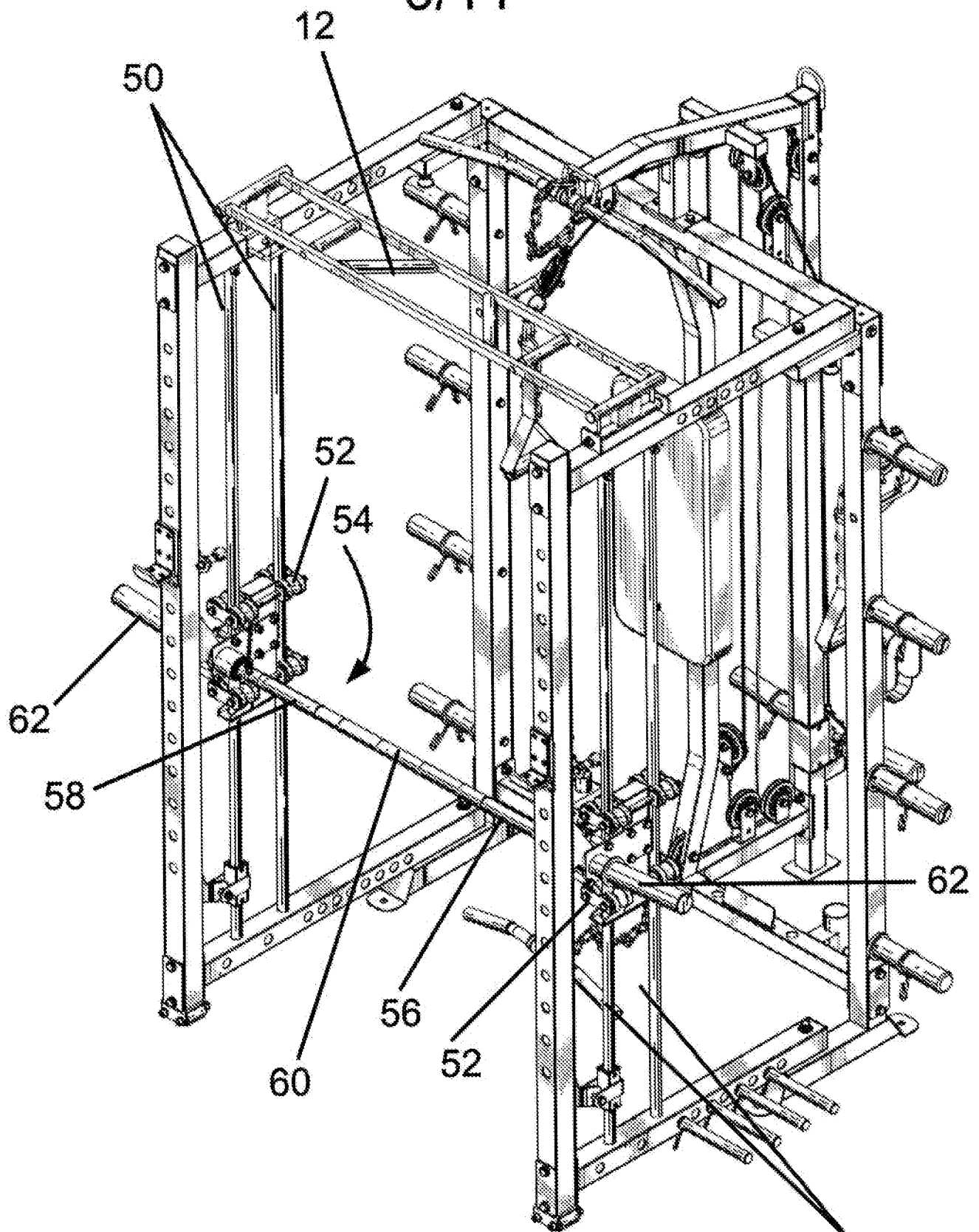


Fig. 9

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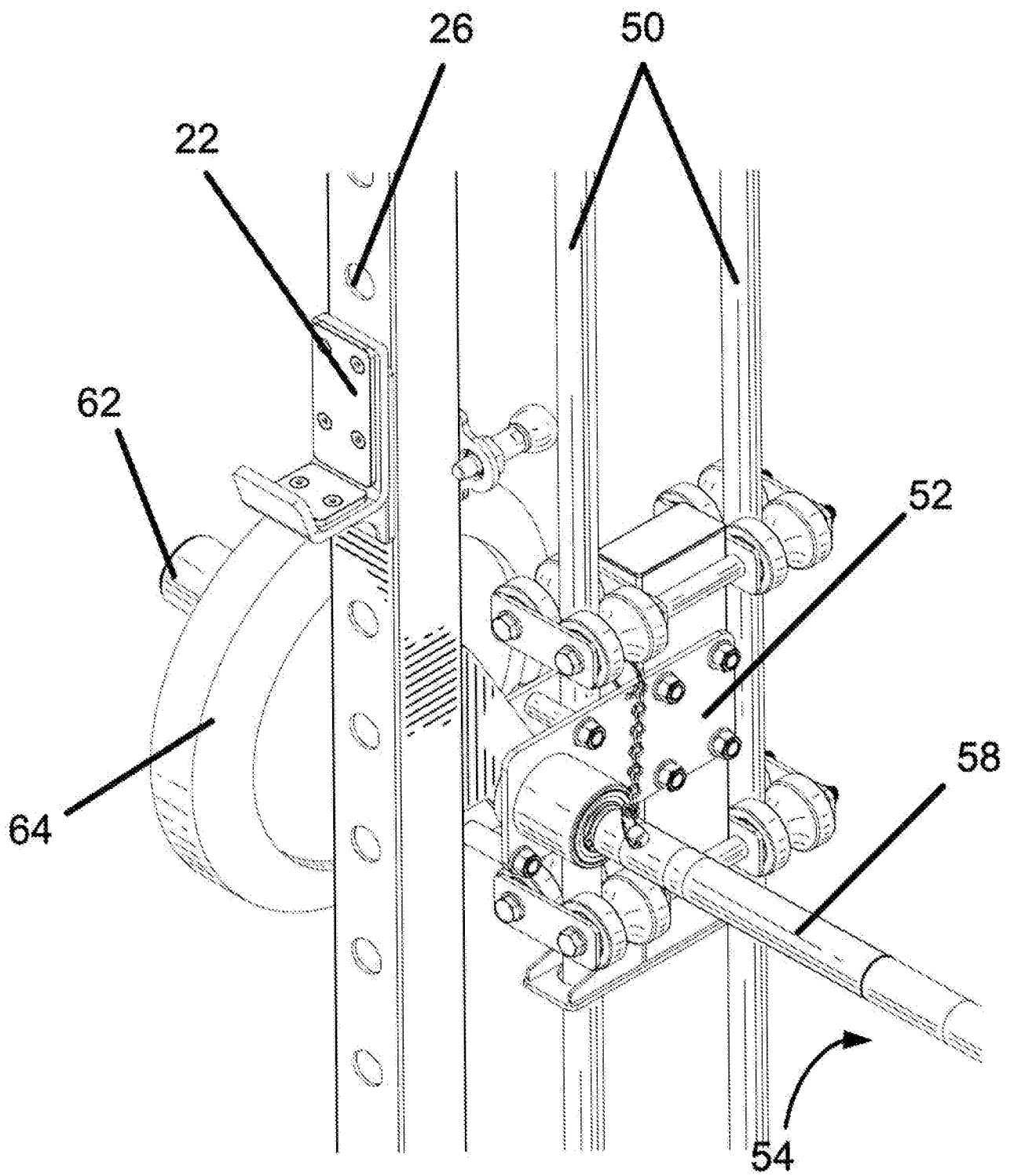


Fig. 10

11/11

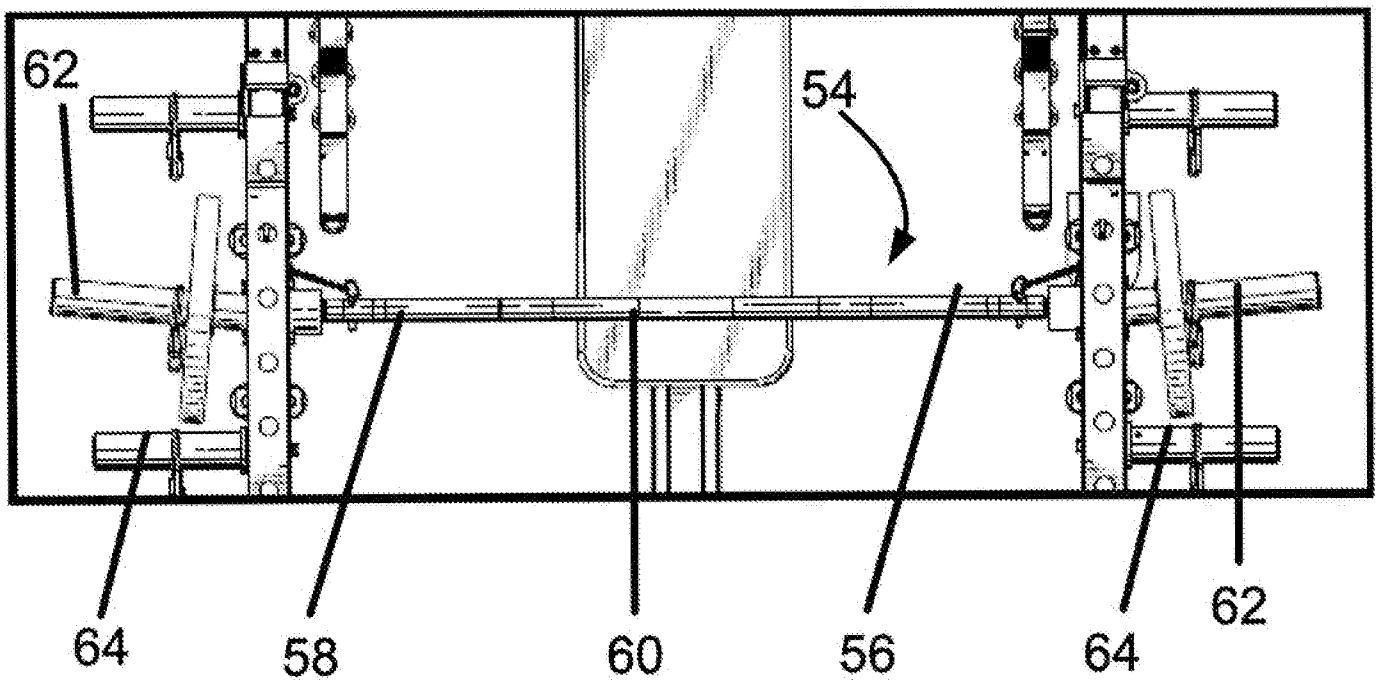


Fig. 11