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(54) **TIRE CHOCK**

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B60T 1/04	(2006.01)
B65G 69/00	(2006.01)
B62B 5/04	(2006.01)

(52) **U.S. Cl.**

CPC ***B60P 3/077*** (2013.01); ***B60T 3/00*** (2013.01); *B60T 1/04* (2013.01); *B62B 5/0485* (2013.01); *B65G 69/005* (2013.01)

(58) **Field of Classification Search**

USPC 188/32, 36, 32.36

See application file for complete search history.

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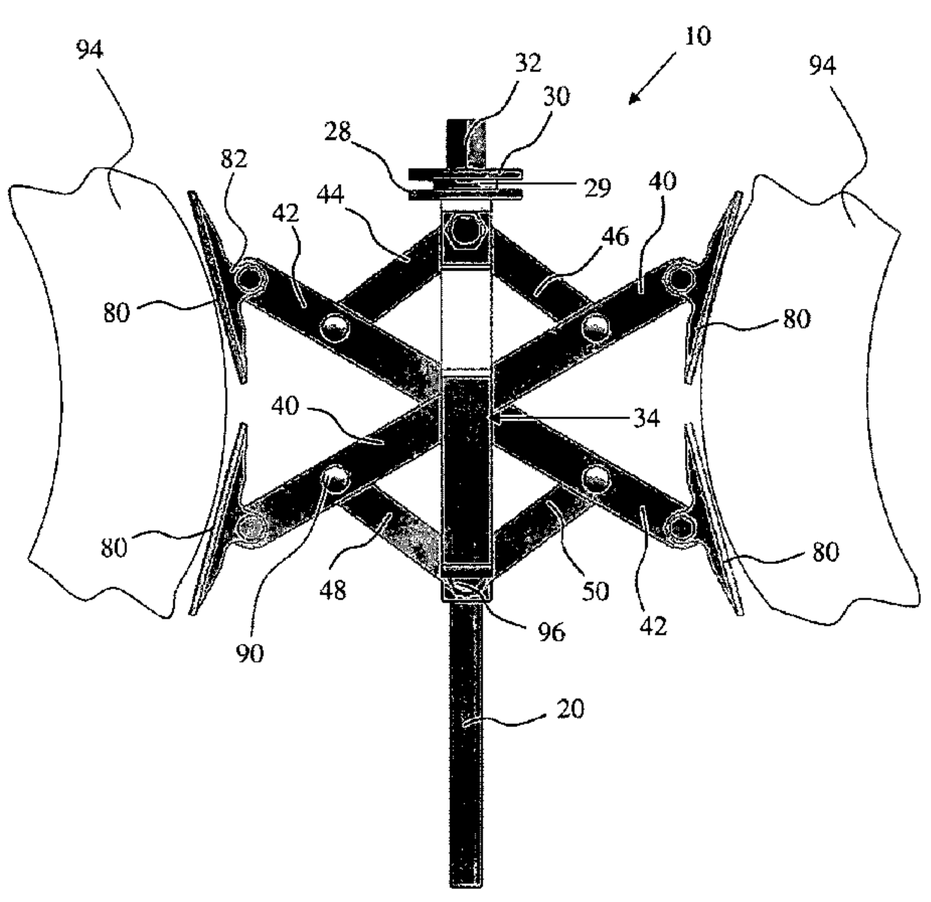
(57) **ABSTRACT**

A tire chock having an at least partially threaded rod; a first trunnion having an aperture therethrough that receives the rod; first and second locking members, one locking member being rotatably fixed relative to the rod, the other locking member being rotatably fixed relative to the first trunnion. A tire chock may alternatively have an at least partially threaded rod; an upper trunnion rotatably attached to the rod; a lower trunnion threadedly attached to the rod, the lower trunnion translating axially relative to the rod upon rotation of the rod relative to the lower trunnion; a pair of linkage arms, the pair of linkage arms forming an X-shape, each linkage arm being connected to the lower trunnion by a drive arm and being connected to the upper trunnion by a support arm, wherein, as the rod is rotated relative to the lower trunnion, the linkage arms expand or contract.

22 Claims, 10 Drawing Sheets



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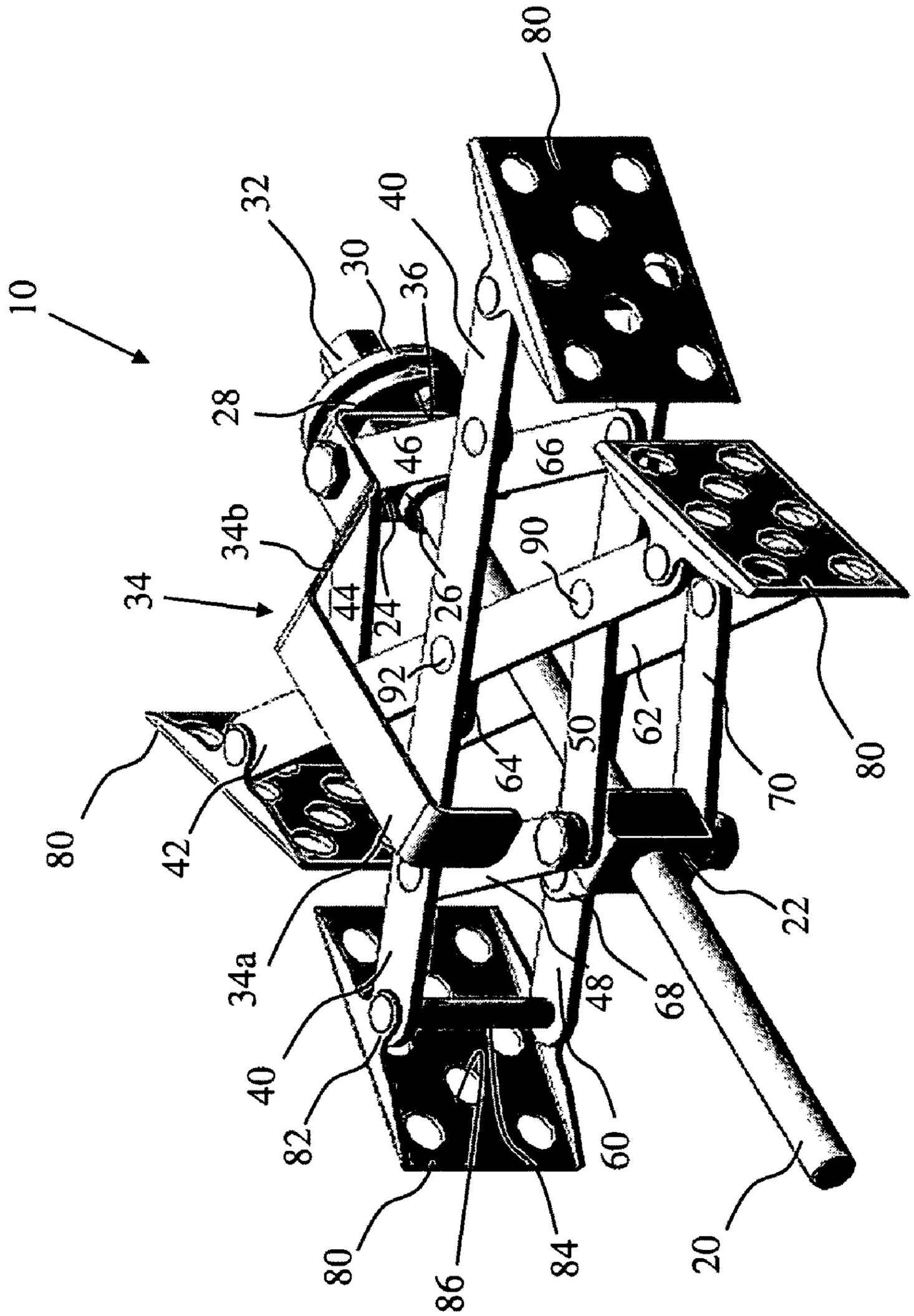
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FIG. 1

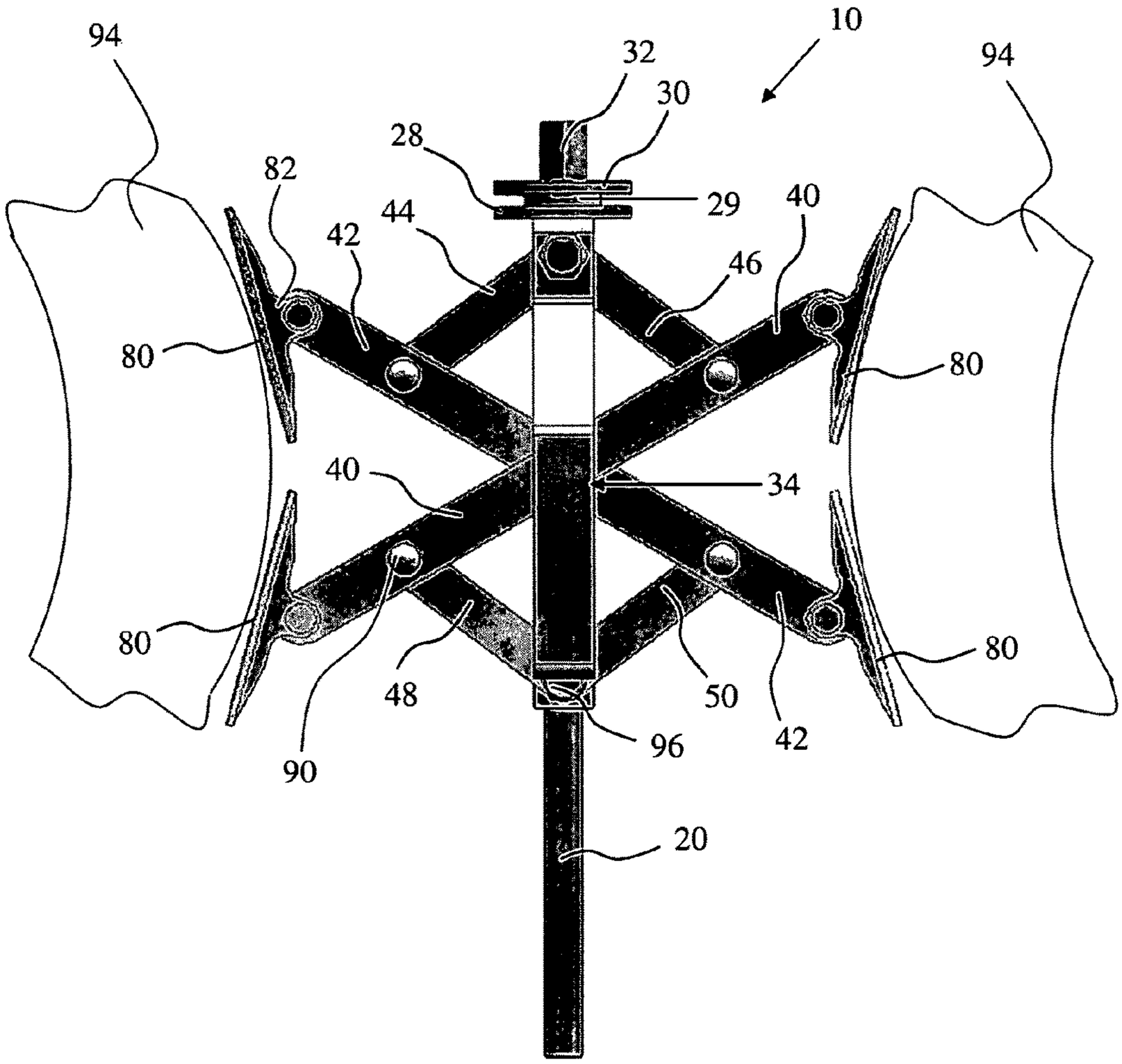


FIG. 2

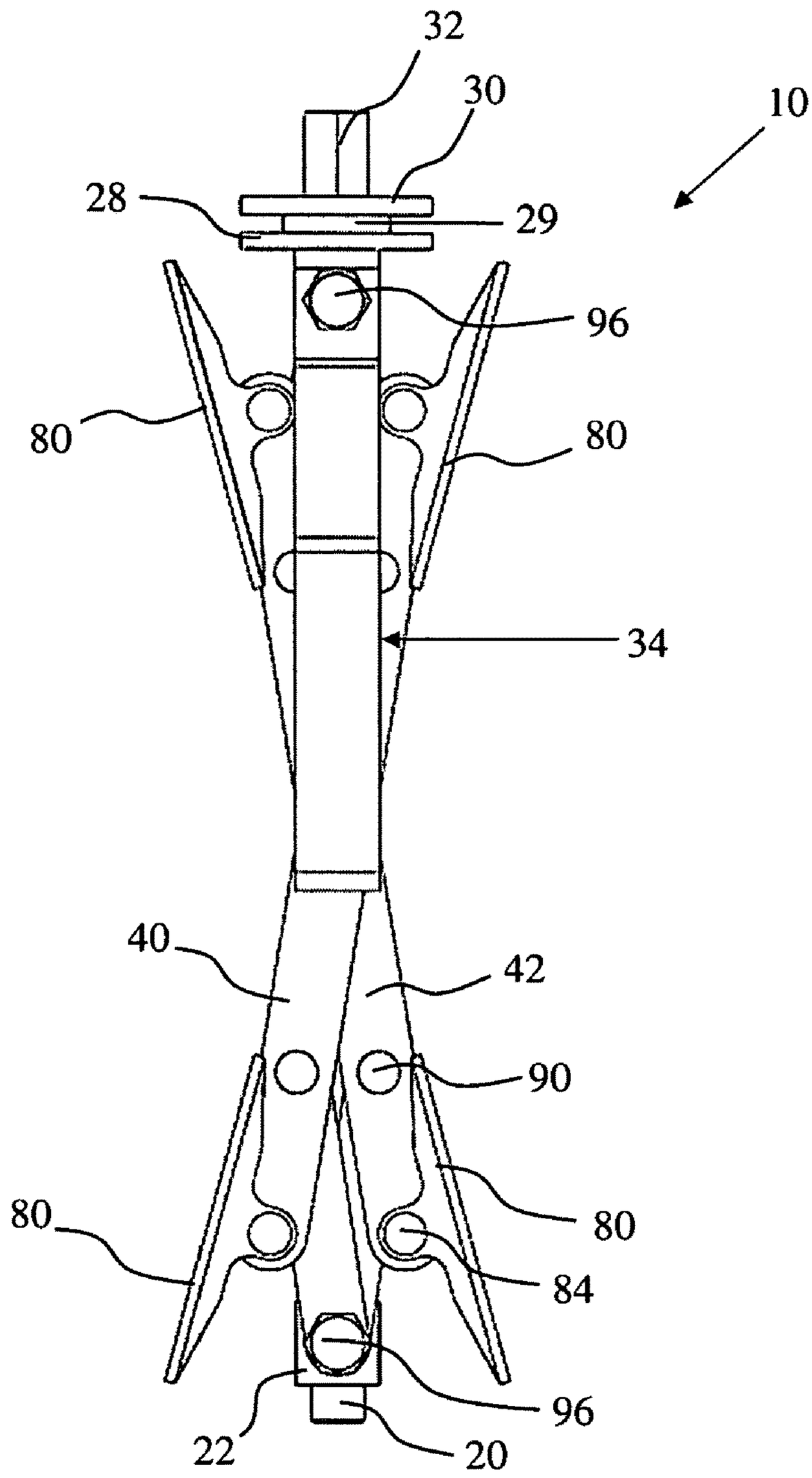


FIG. 3

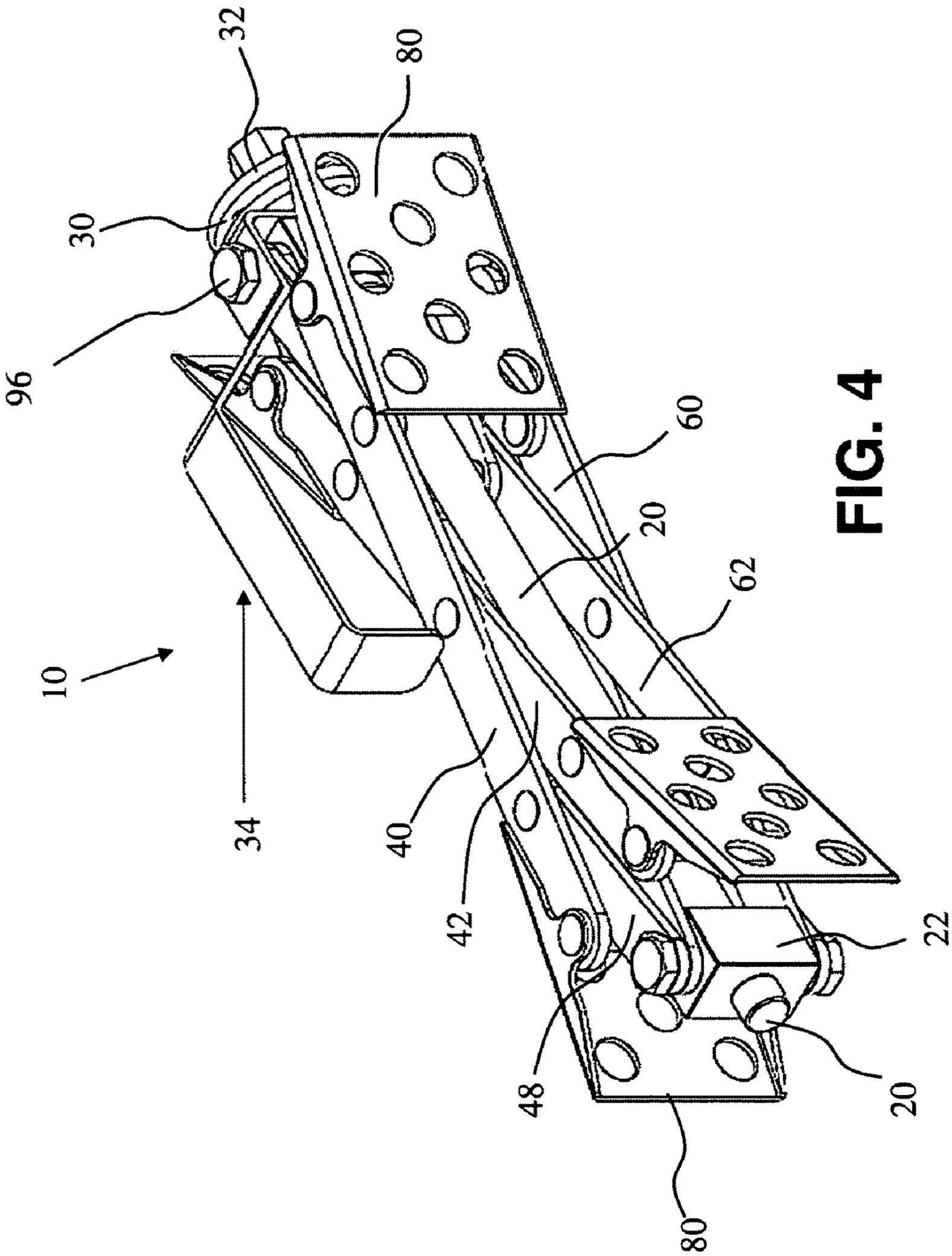


FIG. 4

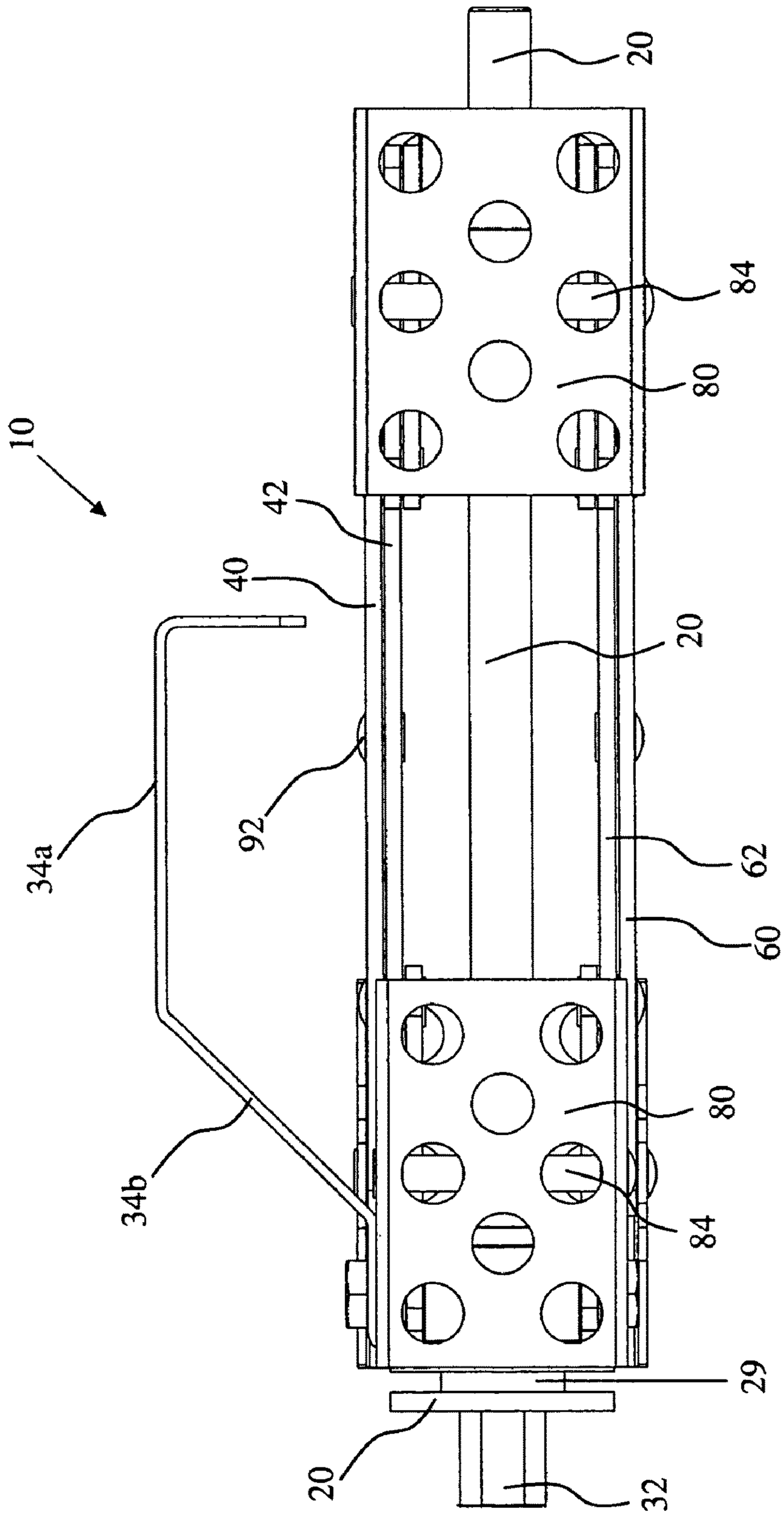


FIG. 5

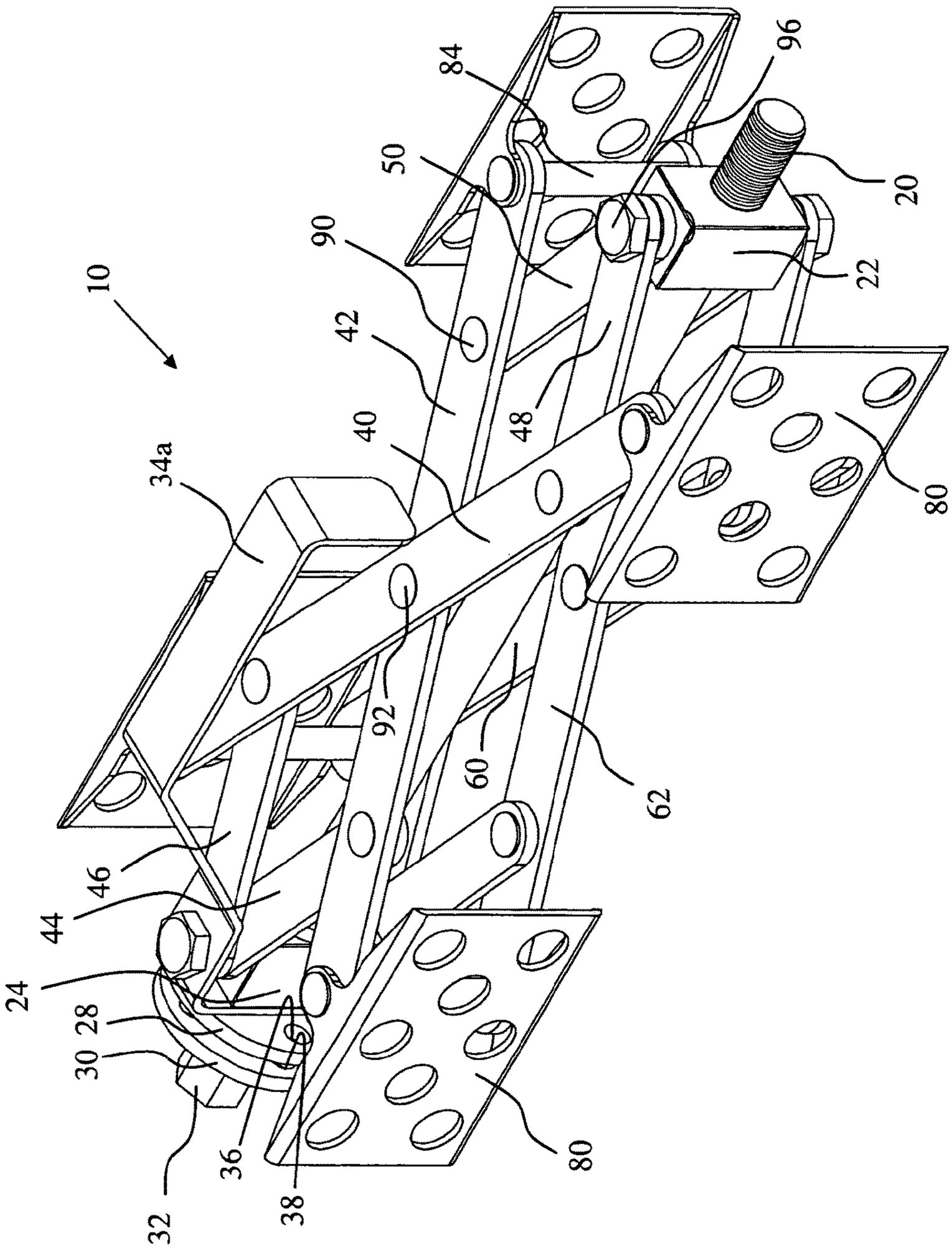


FIG. 6

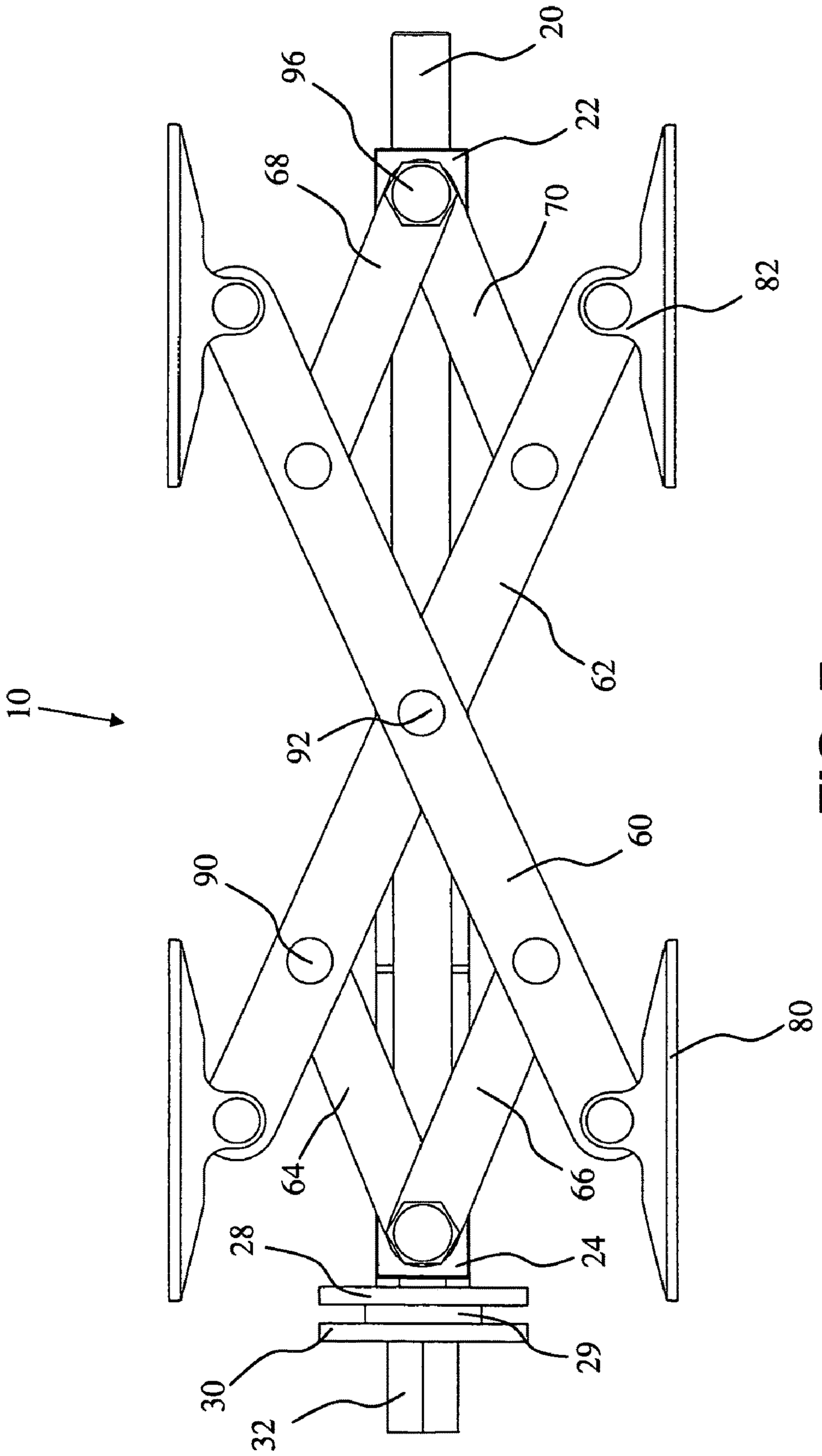


FIG. 7

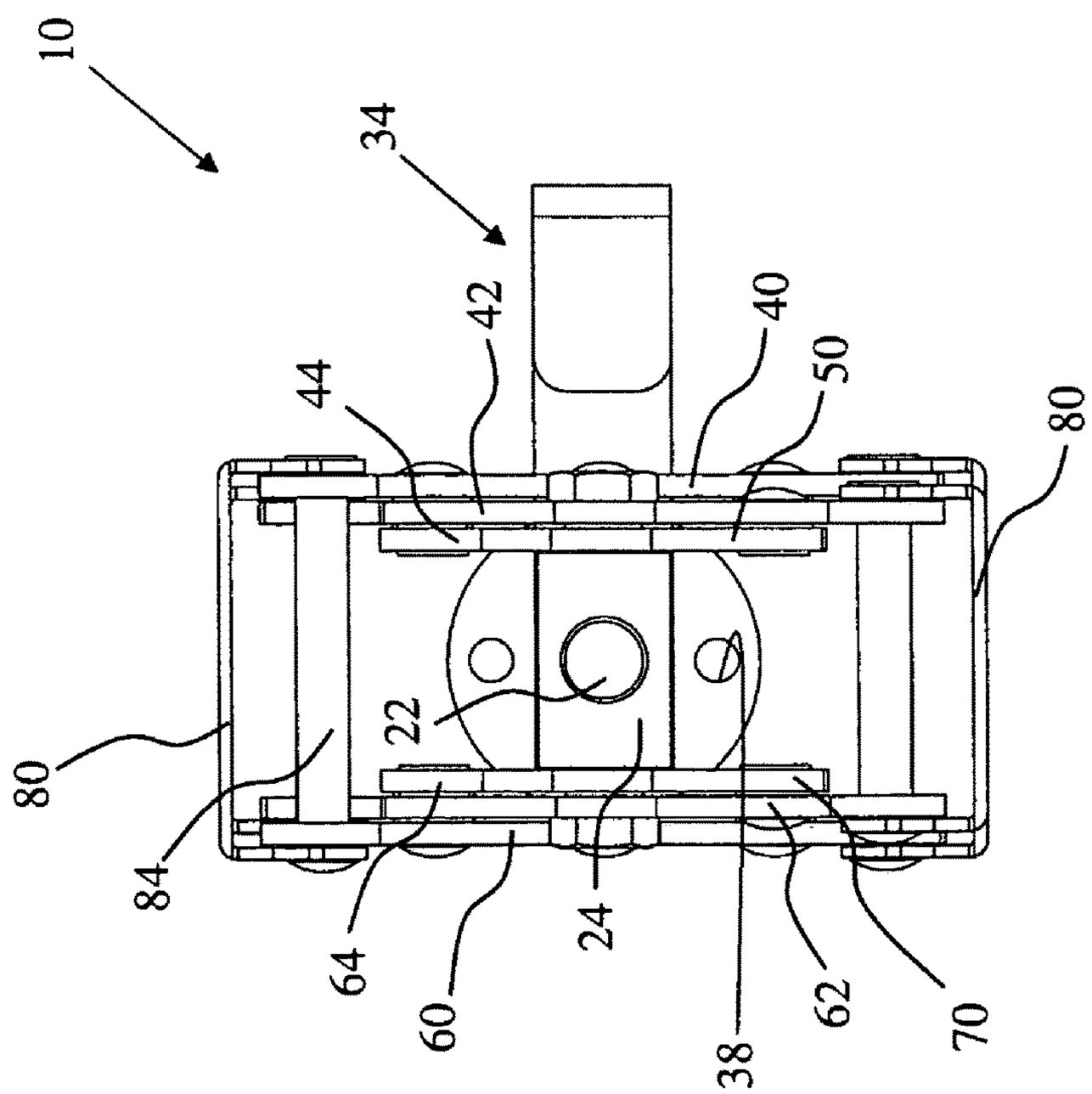


FIG. 8

FIG. 9

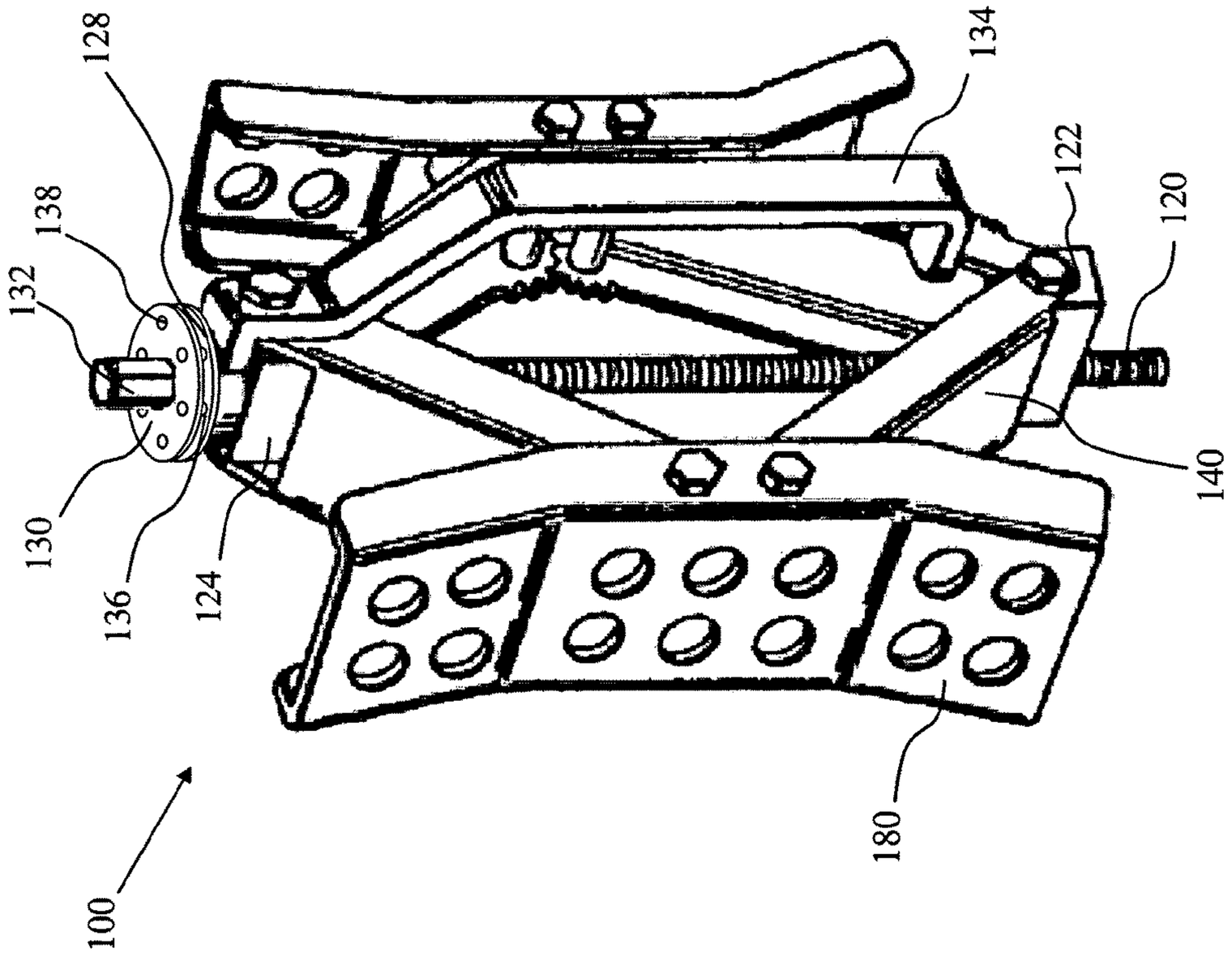
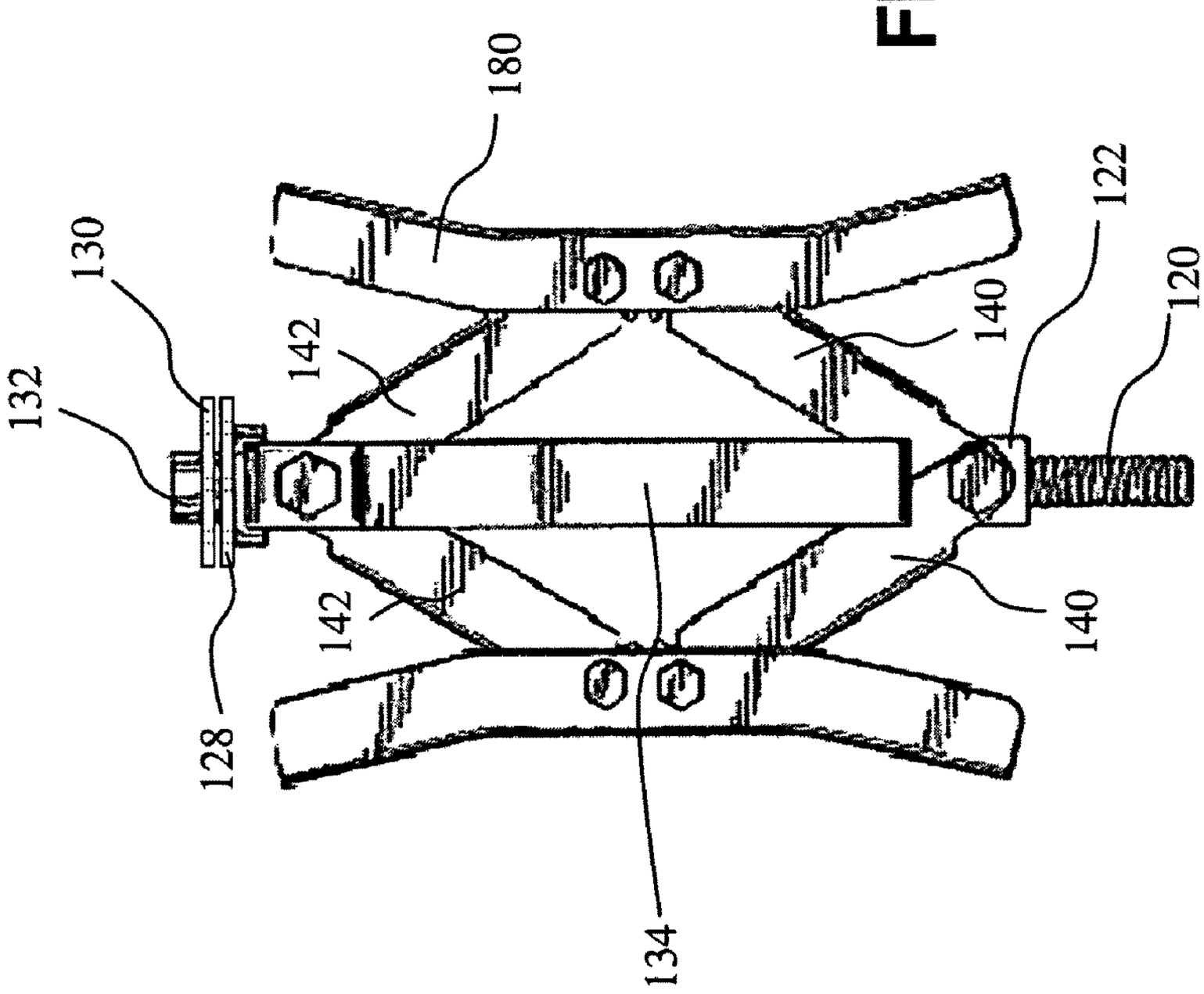


FIG. 10



TIRE CHOCK

Matter enclosed in heavy brackets [ ] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates the additions made by reissue; a claim printed with strikethrough indicates that the claim was canceled, disclaimed, or held invalid by a prior post-patent action or proceeding.

TECHNICAL FIELD

The present invention relates generally to wheel or tire chocks for recreational vehicles and trailers. More specifically, the present application relates to wheel or tire chocks that are lockable in an engaged position to prevent theft, and chocks that have an improved linkage and engagement position.

BACKGROUND OF THE INVENTION

Tire chocks are used to prevent a vehicle or trailer at rest from inadvertently rolling or moving. Tire chocks function by retarding the movement of the wheel, such that the wheel is effectively locked in place. One of the problems with current tire chocks is that they are susceptible to being stolen, as the tire chock can be removed by any person possessing an appropriately-sized wrench. Another problem with existing tire chocks is that the linkage assembly in the components is complicated and expensive to manufacture.

As such, there is a need for an improved tire chock that addresses one or more problems of the prior art. Accordingly, embodiments of the present invention are hereby submitted.

BRIEF SUMMARY

In one embodiment, a tire chock may comprise an at least partially threaded rod; a first trunnion having an aperture therethrough that receives the rod; first and second locking members, one locking member being rotatably fixed relative to the rod, the other locking member being rotatably fixed relative to the first trunnion.

In a second embodiment, a tire chock may alternatively comprise an at least partially threaded rod; an upper trunnion rotatably attached to the rod; a lower trunnion threadedly attached to the rod, the lower trunnion translating axially relative to the rod upon rotation of the rod relative to the lower trunnion; a pair of linkage arms, the pair of linkage arms forming an X-shape, each linkage arm being connected to the lower trunnion by a drive arm and being connected to the upper trunnion by a support arm, wherein, as the rod is rotated relative to the lower trunnion, the linkage arms expand or contract.

BRIEF SUMMARY OF THE DRAWINGS

FIG. **1** is a perspective view of an embodiment of a tire chock in an expanded or engaged position.

FIG. **2** is a side view of the tire chock of FIG. **1** in an expanded position.

FIG. **3** is a side view of the tire chock of FIG. **1** in a collapsed position.

FIG. **4** is a perspective view of the tire chock of FIG. **1** in a collapsed position.

FIG. **5** is a side elevational view of the tire chock of FIG. **1**.

FIG. **6** is a second perspective view of the tire chock of FIG. **1**.

FIG. **7** is bottom view of the tire chock of FIG. **1**.

FIG. **8** is an end view of the tire chock of FIG. **1**.

FIG. **9** is a perspective view of a second embodiment of a tire chock.

FIG. **10** is a top plan view of the tire chock of FIG. **9**.

DETAILED DESCRIPTION OF A PREFERRED EMBODIMENT

A preferred embodiment of a tire chock, generally identified by reference numeral **10**, is illustrated in FIGS. **1-8**. Tire chock **10** may comprise a longitudinally extending threaded bar or rod **20**; a lower trunnion **22**; an upper trunnion **24**; one or more locking members or washers **28**, **30**; upper nut **32**; handle **34**; linkage arms **40**, **42**, **60**, **62**; a plurality of linkage supports **44**, **46**, **48**, **50**, **64**, **66**, **68**, **70**; and tire contact pads **80**.

As illustrated in FIG. **1**, an at least partially threaded rod **20** may extend through tire chock **10**. Lower trunnion **22** may be threadedly connected to threaded rod **20** such that as the threaded rod **20** is rotated relative to lower trunnion **22**, the trunnion **22** translates axially relative to the threaded rod **20**. Tire chock **10** may additionally comprise upper trunnion **24** that is rotatably connected to the threaded bar **20**. Upper trunnion **24** may overlie a non-threaded portion of the threaded bar **20** or may not comprise threads, such that as the threaded rod **20** rotates relative to upper trunnion **24**, the upper trunnion **24** does not translate relative to the threaded rod **20**. Upper trunnion **24** may be associated with washer **26** to provide spacing between threaded portion of threaded bar **20** and non-threaded portion of threaded bar **20**. As illustrated in FIG. **1**, handle **34** may be attached to upper trunnion **24**. Handle **34** may have portion **34**d that includes an aperture therethrough, such that threaded bar **20** extends through handle portion **34**d. As illustrated in FIG. **1**, handle portion **34**d may be located adjacent to an upper surface of trunnion **24** on one side, and locking member **28** on the other side.

Tire chock **10** may further comprise at least two locking members, such as washers or disks **28**, **30**. Washers **28**, **30** may have apertures therethrough that receive threaded rod **20**. In one embodiment, lower washer **28** may be fixed relative to upper trunnion **24** and handle portion **34**d. Any manner known in the art for fixing washer **28** relative to trunnion **24** and handle **34** may be used. For example, washer **28** may be glued or welded to handle **34** or trunnion **24**, or may be formed monolithically with handle **34** or trunnion **24**.

One or more spacer washers **29** may also be located between lower washer **28** and upper washer **30**. Upper washer **30** may be fixed relative to threaded rod **20** and upper nut **32**. Similarly to washer **28**, any manner known in the art for fixing washer **30** relative to nut **32** or threaded rod **20** may be used. For example, washer **30** may be glued or welded to nut **32** or threaded rod **20**, or may be formed monolithically with nut **32** or threaded rod **20**. In such a configuration, nut **32**, upper washer **30**, and threaded rod **20** are all in a fixed relationship relative to each other, such that as a user rotates nut **32**, upper washer **30** and threaded rod **20** also rotate. Washer **28** would not rotate relative to nut **32**, upper washer **30**, and threaded rod **20**.

As illustrated in FIGS. **1** and **8**, lower washer **28** and upper washer **30** may comprise a plurality of apertures **36**, **38** therethrough. Since lower washer **28** may be fixed relative to upper trunnion **24** and handle **34**; and upper

washer **30** may be fixed relative to threaded rod **20** and nut **32**, tire chock **10** is able to be locked in any position by aligning aperture **36** in lower washer **28** with aperture **38** in upper washer **30** and inserting a lock or pin through both apertures **36**, **38**. After the shaft of a lock or the like is inserted through apertures **36**, **38**, the threaded rod **20** is unable to be rotated relative to lower washer **28**, handle **34**, and thus upper trunnion **24**. In use, a user may position the chock **10** between two tires **94**, expand chock **10** by actuation/rotation of nut **32** by wrench or similar tool into a desired position, as illustrated in FIG. **2**. The user may then align apertures **36**, **38** and insert a lock therethrough. As the chock **10** may be frictionally secured between the respective tires **94**, and the nut **32** is unable to be rotated to collapse the chock **10**, the chock **10** may be locked in place until the lock is removed.

A second embodiment of chock **110** having a locking mechanism is illustrated in FIGS. **9-10**. Chock **110** may comprise threaded rod **120**; lower translating trunnion **122**; upper trunnion **124**; lower locking member **128**; upper locking member **130**; nut **132**; handle **134**; a pair of lower driver arms **140** rotatably connected on one end to trunnion **122** and rotatably connected on the other end to tire contact pads **180**; and upper support arms **142** rotatably connected on one end to upper trunnion **124** and rotatably connected on the other end to tire contact pads **180**. Lower trunnion **122** may be threadedly connected to threaded rod **120** such that trunnion **122** translates axially relative to the rod **120** when the rod **120** is rotated relative to trunnion **122**. The axial translation of trunnion **122** causes the chock **110** to expand or contract.

As illustrated in FIGS. **9-10**, lower locking member **128** and upper locking member **130** may comprise a plurality of apertures **136**, **138** therethrough. Since lower locking member **128** may be fixed relative to upper trunnion **124** and handle **134**; and upper washer **130** may be fixed relative to threaded rod **120** and nut **132**, tire chock **110** is able to be locked in any position by aligning aperture **136** in lower locking member **128** with aperture **138** in upper locking member **130** and inserting a lock or pin through both apertures **136**, **138**. After the shaft of a lock or the like is inserted through apertures **136**, **138**, the threaded rod **120** is unable to be rotated relative to lower locking member **128**, handle **134**, and thus upper trunnion **124**. In use, a user may position the chock **110** between two tires **94**, and expand chock **110** by actuation/rotation of nut **132** by wrench or similar tool into a desired position. The user may then align apertures **136**, **138** and insert a lock therethrough. As the chock **110** may be frictionally secured between the respective tires, and the nut **132** is unable to be rotated to collapse the chock **110**, the chock **110** may be locked in place until the lock is removed.

In another aspect of an improved tire chock, as illustrated in FIGS. **1-8**, a tire chock may comprise threaded rod **20**; lower trunnion **22** that threadedly receives threaded rod **20** and which translates relative to thread rod **20** upon rotation of threaded rod **20** relative to trunnion **22**; and upper trunnion **24** that is rotatable relative to threaded rod **20** but does not translate when threaded rod **20** is rotated relative to upper trunnion **24**. Chock **10** may further comprise linkage arms **40**, **42**, **60**, **62**. Each linkage arm end may be attached at an end thereof to a tire engaging pad **80**.

As illustrated in the Figures, linkage arms **40** and **42** may be located on one side of the threaded rod **20**, and linkage arms **60** and **62** may similarly configured as linkage arms **40** and **42** yet located on a side opposite from linkage arms **40** and **42**. Linkage arms **40** and **42** may be rotatably connected at a center point by a rivet **92**. Linkage arm **40** may also be connected on one end to a left lower tire contact pad **80** and connected on the opposite end to a right upper contact pad **80**. Linkage arm **42** may be similarly connected on one end to left upper tire contact pad **80** and connected on the opposite end to right lower tire contact pad **80**. In such a formation, linkage arms **40** and **42** form an "X" shape.

As illustrated in FIGS. **1** and **2**, linkage arm **40** may be rotatably connected on its lower portion to mobile trunnion **22** via a drive arm **48** extending from a bolt or other connector **96** associated with mobile trunnion **22** to a rivet **90** located between center point rivet **92** and tire pad connecting bolt **84**. Similarly, linkage arm **42** may be connected on its lower portion to mobile trunnion **22** via drive arm **50** extending from a bolt or other connector **96** associated with mobile trunnion **22** to a rivet **90** located between center point rivet **92** and tire pad connecting bolt **84**. The drive arm connections to both the mobile trunnion **22** and to the linkage arms **40**, **42** may be rotatable.

To aid in stabilizing linkage arms **40** and **42**, each arm **40**, **42** may also be connected on its upper portion to upper stationary trunnion **24**. As illustrated, linkage arm **40** may be connected to upper trunnion **24** via support arm **46** extending from a bolt or other connector **96** associated with upper trunnion **24** to a rivet **90** located between center point rivet **92** and tire pad connecting bolt **84**. Similarly, linkage arm **42** may be connected to upper trunnion **24** via support arm **44** extending from a bolt or other connector **96** associated with upper trunnion **24** to a rivet **90** located between center point rivet **92** and tire pad connecting bolt **84**.

Linkage arms **60** and **62**, drive arms **68**, **70**, and support arms **64**, **66** may be attached in a similar manner on the opposite side of threaded bar **20** and trunnions **22**, **24**, forming a mirror image of linkage arms **40**, **42**, drive arms **48**, **50**, and support arms **44**, **46**, as described below.

Linkage arms **60** and **62** may be rotatably connected at a center point by a rivet **92**. Linkage arm **60** may also be connected on one end to a left lower tire contact pad **80** and connected on the opposite end to a right upper contact pad **80**. Linkage arm **62** may be similarly connected on one end to left upper tire contact pad **80** and connected on the opposite end to right lower tire contact pad **80**. In such a formation, linkage arms **40** and **42** form an "X" shape.

As illustrated in FIGS. **1** and **2**, linkage arm **60** may be rotatably connected on its lower portion to mobile trunnion **22** via a drive arm **68** extending from a bolt or other connector **96** associated with mobile trunnion **22** to a rivet **90** located between center point rivet **92** and tire pad connecting bolt **84**. Similarly, linkage arm **62** may be connected on its lower portion to mobile trunnion **22** via drive arm **70** extending from a bolt or other connector **96** associated with mobile trunnion **22** to a rivet **90** located between center point rivet **92** and tire pad connecting bolt **84**. The drive arm connections to both the mobile trunnion **22** and to the linkage arms **60**, **62** may be rotatable.

To aid in stabilizing linkage arms **60** and **62**, each arm **60**, **62** may also be connected on its upper portion to upper stationary trunnion **24**. As illustrated, linkage arm **60** may be connected to upper trunnion **24** via support arm **66** extending from a bolt or other connector **96** associated with upper trunnion **24** to a rivet **90** located between center point rivet **92** and tire pad connecting bolt **84**. Similarly, linkage arm **62** may be connected to upper trunnion **24** via support arm **64** extending from a bolt or other connector **96** associated with upper trunnion **24** to a rivet **90** located between center point rivet **92** and tire pad connecting bolt **84**.

As illustrated in FIGS. **1-8**, the ends of linkage arms **40**, **42**, **60**, **62** may be connected to tire contact pads **80**. In the embodiment illustrated in FIGS. **1-8**, linkage arms **40** and **60** may be connected to the left lower contact pad **80** and the right upper contact pad **80**. Similarly, linkage arms **42** and **62** may be connected to the right lower contact pad **80** and left upper contact pad **80**.

Tire contact pads **80** may each include two mounting flanges **82** that include an aperture (not numbered) that receive bolts or other fasteners **84**. To connect the respective tire contact pad **80** to chock **10**, the apertures in mounting flanges **82** are aligned with corresponding apertures in the respective linkage arms **40**, **60** or **42**, **62** and the bolt or fastener **84** is inserted through each aperture. A nut or other fastener may be used to secure the bolt **84** in place. When attached to chock **10**, the tire contact pads may be rotatable relative to the associated linkage arms **40**, **60** or **42**, **62**.

It is contemplated that the chock **10** as illustrated in FIGS. **1-8** may 1⅜ inches wide when the chock is in its contracted position. As the chock **10** expands, linkage arms **40**, **42**, **60**, **62** rotate about their center points **92**, such that the lower portions of the linkage arms **40**, **42**, **60**, **62** rotate outward and upward, and the upper portions of the linkage arms **40**, **42**, **60**, **62** rotate outward and downward. In other words, the "X" shapes formed by the linkage arms **40**, **42**, and **60**, **62** goes from taller and narrower to shorter and wider. As tire contact pads **80** may be rotatably connected to the linkage arms **40**, **42**, **60**, **62**, the tire pads **80** rotate to the ideal tire contact position and may accommodate different sizes of tires **94**.

The foregoing disclosure is illustrative of the present invention and is not to be construed as limiting thereof. Although one or more embodiments of the invention have been described, persons of ordinary skill in the art will readily appreciate that numerous modifications could be made without departing from the scope and spirit of the disclosed invention. As such, it should be understood that all such modifications are intended to be included within the scope of this invention. The written description and drawings illustrate the present invention and are not to be construed as limited to the specific embodiments disclosed.

What is claimed is:

[1. A tire chock, comprising:
an at least partially threaded rod;
a first trunnion having an aperture therethrough that receives the rod;
a first support member, having two opposite ends, rotatably connected to the first trunnion and supporting a first contact pad and a second contact pad at respective opposite ends;
a second support member, having two opposite ends, rotatably connected to the first trunnion and supporting a first contact pad and a second contact pad at respective opposite ends;
wherein the first support member and the second support member are both rotatably connected to the first trunnion about a common center point;
a first locking member rotatably fixed relative to the rod; and
a second locking member rotatably fixed relative to the first trunnion.**]**

[2. The tire chock of claim **1**, wherein both the first and second locking members each have at least one aperture therethrough, the apertures being adapted to receive a lock.**]**

[3. The tire chock of claim **1**, further comprising a second trunnion threadedly attached to the threaded rod.**]**

[4. A tire chock, comprising:
an at least partially threaded rod;
an upper trunnion rotatably attached to the rod;
a lower trunnion threadedly attached to the rod, the lower trunnion translating axially relative to the rod upon rotation of the rod relative to the lower trunnion;
a first locking member rotatably fixed relative to the rod;
a second locking member rotatably fixed relative to the upper trunnion; and
a pair of linkage arms, each having two opposite ends, each linkage arm supporting at least one contact pad at each end of each linkage arm, the pair of linkage arms forming an X-shape, each linkage arm being connected to the lower trunnion by a respective drive arm rotatably connected to the lower trunnion and being connected to the upper trunnion by a respective support arm rotatably connected to the upper trunnion, the pair of linkage arms both rotatably connected about a common center point, wherein,
as the rod is rotated relative to the lower trunnion, the linkage assembly formed by the linkage arms expand or contract.**]**

5. A tire chock comprising
an at least partially threaded rod;
a first trunnion having an aperture therethrough that receives the rod;
a first support member, having two opposite ends and a center point therebetween, the first support member supporting a first contact pad and a second contact pad at respective opposite ends;
a second support member, having two opposite ends and a center point therebetween, the second support member supporting a third contact pad and a fourth contact pad at respective opposite ends;
wherein the first support member center point and the second support member center point are rotatably connected to each other and both the first support member and second support member are each rotatably interconnected to the first trunnion about a common center point on the first trunnion;
a first locking member rotatably fixed relative to a rotation of the rod; and
a second locking member rotatably fixed relative to the first trunnion.

6. The tire chock of claim 5, wherein both the first and second locking members each have at least one aperture therethrough, the apertures being adapted to receive a lock.

7. The tire chock of claim 5, further comprising a second trunnion that is threadedly attached to the threaded rod.

8. The tire chock of claim 5, wherein the first support member and the second support member are rotatably interconnected to the first trunnion about the first trunnion common center point by way of a first upper linkage arm that rotatably interconnects an upper midpoint of the first support member to the first trunnion common center point and by way of a second upper linkage arm that rotatably interconnects an upper midpoint of the second support member to the first trunnion common center point.

9. The tire chock of claim 8, wherein axial movement of the first trunnion along the at least partially threaded rod drives the first upper linkage arm and second upper linkage arm, so as to expand or collapse the first support member's first and second contact pads and to expand or collapse the second support member's third and fourth contact pads.

10. The tire chock of claim 7, further comprising a first lower linkage arm and a second lower linkage arm, the first lower linkage arm rotatably interconnecting a common center point on the second trunnion to a lower midpoint of the second support member, the second lower linkage arm

rotatably interconnecting the second trunnion common center point to a lower midpoint of the first support member.

11. The tire chock of claim 10, wherein rotation of the at least partially threaded rod relative to the second trunnion threadedly attached thereto causes the second trunnion to translate axially along the at least partially threaded rod, and wherein translation of the second trunnion drives the first lower linkage arm and second lower linkage arm to expand or collapse the first support member's first and second contact pads and the second support member's third and fourth contact pads, respectively.

12. The tire chock of claim 11, wherein the first trunnion does not translate relative to the at least partially threaded rod.

13. The tire chock of claim 12, wherein the first support member and the second support members are rotatably connected to the first trunnion common center point by way of a first upper linkage arm that rotatably interconnects an upper midpoint of the first support member to the first trunnion common center point and by way of a second upper linkage arm that rotatably interconnects an upper midpoint of the second support member to the first trunnion common center point.

14. The tire chock of claim 8, wherein any of the first support member, the second support member, the first upper linkage arm, and the second upper linkage arm, comprise at least a pair of first support members, second support members, first upper linkage arms, and second upper linkage arms, respectively.

15. The tire chock of claim 13, wherein the first support member, the second support member, the first upper linkage arm, the second upper linkage arm, the first lower linkage arm, and the second lower linkage arm are each disposed on a first side of the tire chock;

wherein any of the first support member, the second support member, the first upper linkage arm, the second upper linkage arm, the first lower linkage arm, and the second lower linkage arm, comprise at least a second first support member, second support member, first upper linkage arm, second upper linkage arm, first lower linkage arm, and second lower linkage arm, respectively; and

wherein any of the respective at least second first support member, second support member, first upper linkage arm, second upper linkage arm, first lower linkage arm, and second lower linkage arm are disposed on a second side of the tire chock opposite the first side.

16. The tire chock of claim 8, further comprising a second trunnion that is threadedly attached to the threaded rod.

17. The tire chock of claim 16 further comprising a first lower linkage arm and a second lower linkage arm, the first lower linkage arm rotatably interconnecting a common center point on the second trunnion to a lower midpoint of the second support member, the second lower linkage arm rotatably interconnecting the second trunnion common center point to a lower midpoint of the first support member.

18. The tire chock of claim 17, wherein rotation of the at least partially threaded rod relative to the second trunnion threadedly attached thereto causes the second trunnion to translate axially along the at least partially threaded rod, and wherein translation of the second trunnion drives the first lower linkage arm and second lower linkage arm to expand or collapse the first support member's first and second contact pads and the second support member's third and fourth contact pads, respectively.

19. The tire chock of claim 5 further comprising a handle fixed relative to another portion of the tire chock.

20. The tire chock of claim 18 further comprising a handle attached to at least one of the first and second trunnions.

21. A tire chock, comprising:

an at least partially threaded rod having an upper end and a lower end;

an upper trunnion having an aperture therethrough that receives the rod, the upper trunnion disposed about an upper portion of the at least partially threaded rod;

a lower trunnion disposed about a lower portion of the at least partially threaded rod;

a pair of linkage arms, each having an upper end and a lower end, the upper end and lower end being opposite from each other, wherein

the linkage arms are rotatable about a common center point and form an x-shape, and

each upper end having an upper contact pad pivotally attached thereto and each lower end having a lower contact pad pivotally attached thereto;

a respective lower arm connected to each linkage arm between the common center point and the respective lower end, each lower arm rotatably connected to the lower trunnion;

a respective upper arm connected to each linkage arm between the common center point and the respective upper end, each upper arm rotatably connected to the upper trunnion;

a first locking member rotatably fixed relative to the threaded rod; and

a second locking member rotatably fixed relative to the upper trunnion,

wherein as the rod is rotated relative to the lower trunnion and the upper trunnion, at least the lower trunnion translates axially relative to the rod to expand or contract the contact pads relative to the at least partially threaded rod.

22. The tire chock of claim 21, wherein each upper contact pad and each lower contact pad includes a fastener that pivotally attaches the contact pad to the linkage arm.

23. The tire chock assembly of claim 21, wherein the linkage arms are pivotably attached at the common center point.

24. The tire chock of claim 21 further comprising a handle attached to at least one of the upper and lower trunnions.

25. The tire chock assembly of claim 21 further comprising

a second pair of linkage arms each having an upper end and a lower end, the upper end and lower end being opposite from each other, wherein the linkage arms are rotatable about a common center point and form an x-shape;

each upper end pivotally attached to the upper contact pad and each lower end pivotally attached to the lower contact pad; and

a second respective lower arm connected to each second linkage arm between the common center point and a respective lower end, each second lower arm ratably connected to the lower trunnion, a respective second upper arm connected to each second linkage arm between the common center point and a respective upper end, each second upper arm rotatably connected to the upper trunnion, wherein the second pair of linkage arms are spaced from the pair of linkage arms by the upper and lower trunnion.

26. The tire chock of claim 25, wherein the pair of linkage arms are pivotally attached at the common center point by a fastener and wherein the second pair of linkage arms is attached by a second fastener.

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UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF CORRECTION

PATENT NO. : RE46,876 E
APPLICATION NO. : 14/613875
DATED : May 29, 2018
INVENTOR(S) : Garceau

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In the Specification

As Column 1, at Line 10 (approx.) and before the heading "TECHNICAL FIELD," please insert, the following:
--*CROSS REFERENCE TO RELATED APPLICATIONS*
NOTICE: More than one reissue application has been filed for the reissue of U.S. Patent No. 8,365,875 B2. The reissue applications are U.S. Reissue Patent Application Serial No. 15/988,731, filed on May 24, 2018, now abandoned, which is a continuation reissue application of U.S. Reissue Patent Application Serial No. 14/613,875 (the present application), filed on February 4, 2015, now U.S. Reissue Patent No. RE46,876 E, issued May 29, 2018, which is a reissue application of U.S. Patent Application Serial No. 12/328,810, filed on December 5, 2008, now U.S. Patent No. 8,365,875 B2, issued February 5, 2013.--

Signed and Sealed this
Twenty-third Day of March, 2021

Drew Hirshfeld
Performing the Functions and Duties of the
Under Secretary of Commerce for Intellectual Property and
Director of the United States Patent and Trademark Office