



(72) ENGLISH, CHARLES L., JR., US

(72) STAHL, DOUGLAS R., US

(72) HEES, WILLIAM, US

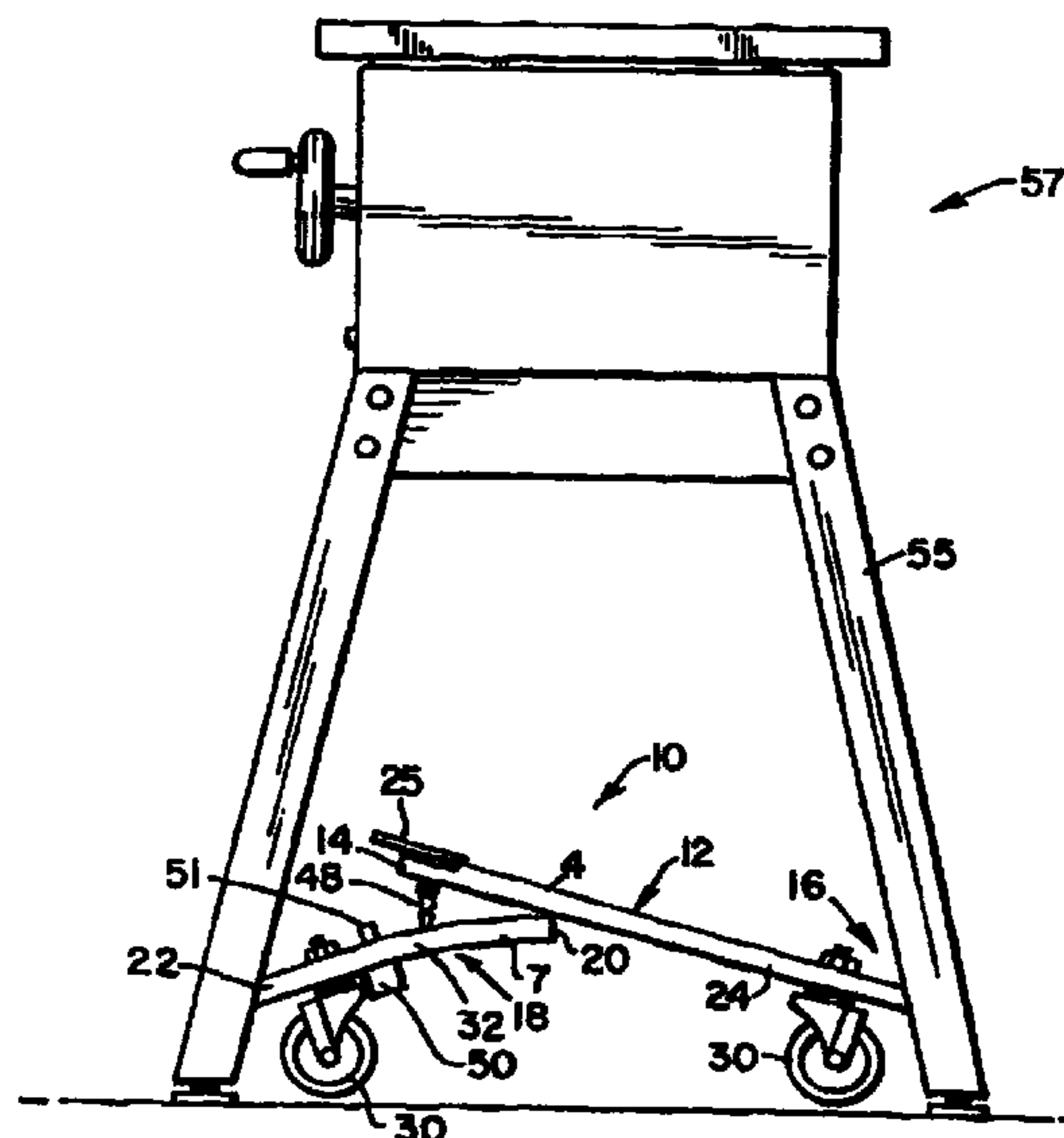
(71) HERCULIFT TECHNOLOGIES, INC., US

(51) Int.Cl.<sup>7</sup> B60P 1/48

(30) 1997/06/23 (880,864) US

(54) **CHARIOT DE LEVAGE DESTINE A DES OUTILS A MOTEUR  
MONTES SUR PIED**

(54) **LIFT DOLLY FOR USE WITH STAND-MOUNTED POWER  
TOOLS**



(57) L'invention concerne un chariot de levage (10) permettant de lever et de déplacer, avec peu d'efforts, des outils à moteur (57) montés sur pieds. Le chariot comporte deux plates-formes (1, 18) et un système de roues présentant au moins trois roulettes (30) qui s'étendent en dessous des plates-formes. Le chariot est conçu de sorte qu'une pression du pied exercée par l'opérateur sur un mécanisme de verrouillage ou de blocage (25) entraîne le système de roues de force et vers le bas par rapport au pied (55), soulevant ainsi légèrement l'outil et le pied du sol pour permettre leur déplacement à l'aide des roulettes. Une autre pression du pied sur le mécanisme de verrouillage ou de blocage dégage le système de roues et permet à l'outil et au pied de revenir se poser fermement sur le sol, par la force de gravité, en vue de l'utilisation.

(57) A lift dolly (10) is provided for lifting and transporting stand-mounted power tools (57) and the like, with little effort. The dolly includes a pair of platforms (1, 18) and a wheel system having at least three castors (30) extending downward from the platforms. The dolly is designed such that stepping onto a latching or locking mechanism (25) by the operator causes the wheel system to be forced downward relative to the stand (55) thereby slightly lifting the power tool and stand off the ground and enabling transport of same via the castors. Another step on the locking or latching mechanism disengages the wheel system and permits gravity to return the stand and tool firmly to the ground for use.

PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION  
International Bureau

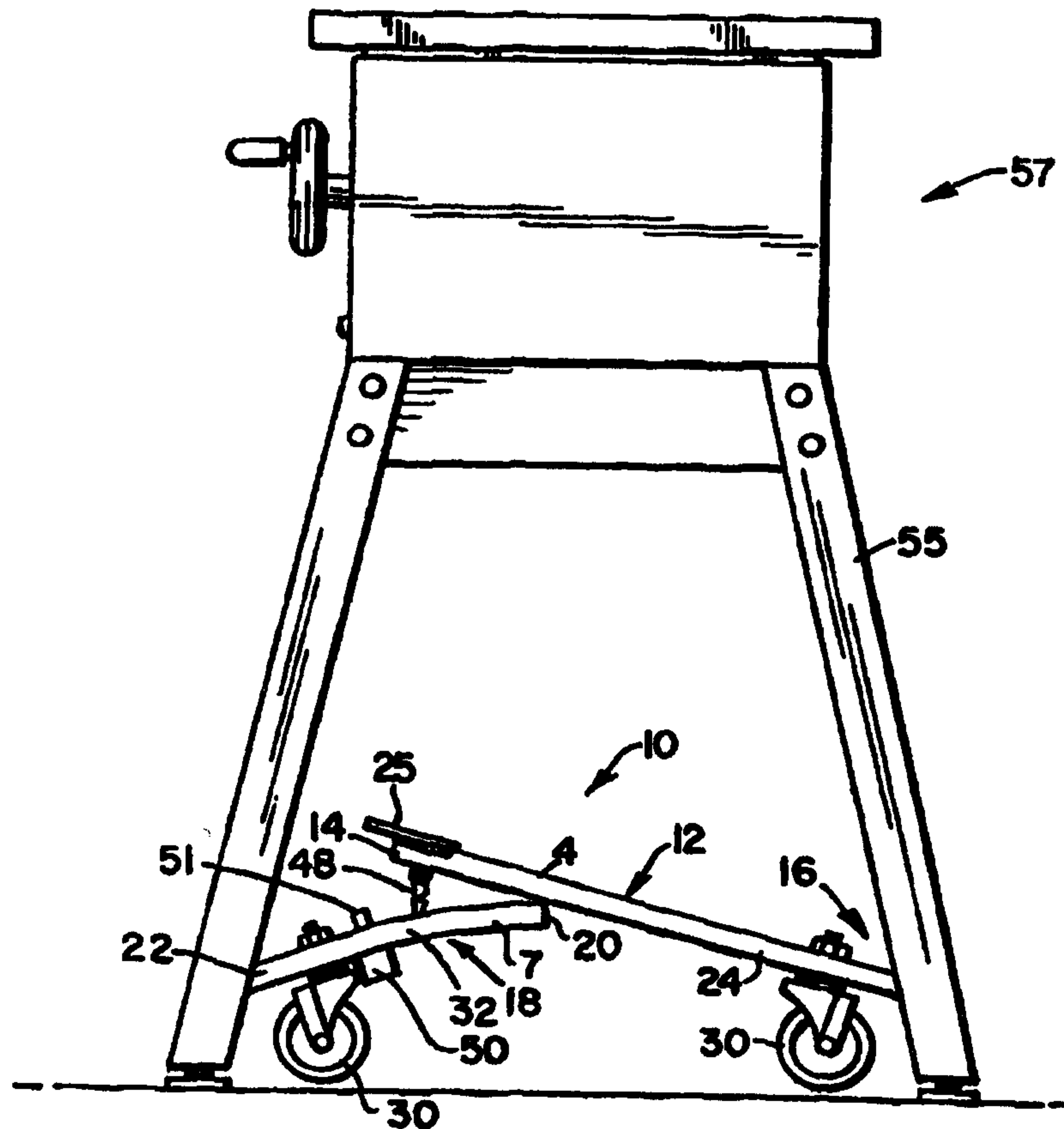
## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification <sup>6</sup> : <b>B60P 1/48</b>	<b>A1</b>	(11) International Publication Number: <b>WO 98/58816</b> (43) International Publication Date: 30 December 1998 (30.12.98)
<p>(21) International Application Number: PCT/US98/13028</p> <p>(22) International Filing Date: 23 June 1998 (23.06.98)</p> <p>(30) Priority Data: 08/880,864 23 June 1997 (23.06.97) US</p> <p>(71) Applicant: HERCULIFT TECHNOLOGIES, INC. [US/US]; 204 S. Main Street, P.O. Box 798, Havana, FL 32333 (US).</p> <p>(72) Inventors: ENGLISH, Charles, L., Jr.; 110 Cherry Avenue, Havana, FL 32333 (US). STAHL, Douglas, R.; Apartment #915, 1555 Delaney Drive, Tallahassee, FL 32308 (US). HEES, William; Route 4, Box 4852, Casa Bianca Road, Monticello, FL 32344 (US).</p> <p>(74) Agents: LINIAK, Thomas, P. et al.; Liniak &amp; Berenato, LLC, Suite 240, 6550 Rock Spring Drive, Bethesda, MD 20817-1132 (US).</p>	<p>(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).</p> <p><b>Published</b> <i>With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i></p>	

(54) Title: LIFT DOLLY FOR USE WITH STAND-MOUNTED POWER TOOLS

## (57) Abstract

A lift dolly (10) is provided for lifting and transporting stand-mounted power tools (57) and the like, with little effort. The dolly includes a pair of platforms (1,18) and a wheel system having at least three castors (30) extending downward from the platforms. The dolly is designed such that stepping onto a latching or locking mechanism (25) by the operator causes the wheel system to be forced downward relative to the stand (55) thereby slightly lifting the power tool and stand off the ground and enabling transport of same via the castors. Another step on the locking or latching mechanism disengages the wheel system and permits gravity to return the stand and tool firmly to the ground for use.



**LIFT DOLLY FOR USE WITH STAND-MOUNTED POWER TOOLS**

This invention relates to a lift dolly which is adapted to lift and transport stand-mounted power tools, and the like. More particularly, this invention relates to such a lift dolly which permits the operator to lift the tool to be transported by simply stepping onto a foot-receiving surface thereby forcing the dolly's wheel system downward relative to the tool and into a position for supporting and transporting the stand-mounted tool.

**BACKGROUND OF THE INVENTION**

Lift dollies are old and well-known in the art. Dollies have been provided which function to lift and move bulky machinery, plate glass, and the like. In such dollies, a hand actuated hydraulic jack typically raises and lowers forks for lifting the machinery after which the dolly and machinery may together be rolled along the floor/ground by way of a pair of wheels mounted on the dolly.

Unfortunately, such dollies, while useful in transporting crates, plate glass, etc., are not adapted to lift and/or transport items such as stand-mounted power tools and the like due to the shape defined by legs of such stands.

In view of the above, it is apparent that there exists a need in the art for a lift dolly capable of lifting and transporting, with little effort, stand-mounted objects, such as power tools. Preferably, such a

dolly should be simplistic, easy to use, and cost-effective to manufacture.

It is a purpose of this invention to fulfill the above-described needs in the art.

5

#### SUMMARY OF THE INVENTION

Generally speaking, this invention fulfills the above-described needs in the art by providing a lift dolly for lifting and transporting stand-mounted power tools and the like. In certain embodiments, the dolly  
10 includes a pair of rigid platforms and a wheel system having at least three, and preferably four, castors extending downwardly therefrom. The dolly is designed such that one step onto a foot receiving surface or member by the operator causes the wheel system to be  
15 forced downward relative to the tool and its stand, and locked in a tool-supporting position so as to slightly lift the power tool and stand off of the ground and enable transport of same. Another step by the operator on the foot-receiving surface disengages (i.e.  
20 unlocks/unlatches) the wheel system and permits gravity to return the stand and tool to the ground for use.

This invention further fulfills the above-described needs in the art by providing:

a dolly for selectively lifting and transporting a  
25 power tool mounted on a stand, the dolly comprising:

a first platform including a wheel system (e.g. castors) extending downwardly therefrom, and an actuation surface or member for receiving downwardly applied

pressure by an operator in order to lift the stand and tool off of the ground;

a second platform including a wheel system extending downwardly therefrom;

5 connection means for rigidly affixing the first platform to one portion of the stand, and means for rigidly affixing the second platform to another portion of the stand;

10 the actuation surface or member of the first platform being located above at least a portion of the second platform; and

lift means for lifting the stand and power tool off of the ground and enabling transport of same via the wheels, the lift means including a selectively actuated  
15 coupling means (e.g. latch) for selectively coupling the first and second platforms, and being actuated in response to pressure applied downwardly onto the actuation surface or member that forces the wheels downward so that the wheels, as opposed to the stand,  
20 support the power tool on the ground.

#### IN THE DRAWINGS

Figure 1 is a perspective view of the lift dolly according to an embodiment of this invention, in its locked/lifting position.

25 Figure 2 is a perspective view of the Figure 1 dolly in its unlocked/lowering position.

Figure 3 is a right side elevational view of the dolly of Figures 1-2 mounted to a stand which supports a

table saw, the dolly being illustrated in the unlocked position where the stand solely supports the saw.

Figure 4 is a fragmentary right side elevational view of the dolly of Figures 1-3 mounted to the table saw stand of Figure 3, the dolly illustrated in the locked position where the table saw and stand are supported on the ground by the wheels so as to enable transport.

Figure 5 is a front elevational view of the Figure 1-4 dolly mounted to the stand, illustrating the dolly in its unlocked position where the stand contacts the ground.

Figure 6 is a fragmentary front elevational view of the Figure 1-5 dolly mounted to the stand, illustrating the dolly in its locked and lifting position where the stand is lifted from the ground and the stand and saw are supported on the ground primarily by the wheels.

Figure 7 is a perspective view of the latching/locking system used to connect the first and second dolly platforms of Figures 1-6.

Figure 8 is a perspective view of a dolly according to another embodiment of this invention.

Figure 9 is a rear elevational view of part of the Figure 7 latching mechanism, illustrating the attachment of the biasing spring to the male latch member.

25

DETAILED DESCRIPTION OF  
CERTAIN EMBODIMENTS OF THIS INVENTION

Referring now more particularly to the accompanying drawings in which like reference numerals indicate like parts throughout the several views.

Referring to Figures 1-7, it is seen that the lift dolly of the present invention, generally denoted by reference numeral 10, includes first rigid platform 12 having proximal end 14 and distal end 16 and second rigid platform 18 having proximal end 20 and distal end 22. First platform 12 includes generally flat, triangular, and trapezoidal frame portion 24, including rigid elongated members 3-5, that may be open (as illustrated) or closed (e.g. a solid or quasi-solid metal sheet or the like). The wheel system of first platform 12 may include, for example, a first pair of castor stems 28, each having a castor 30 thereon, which extend downwardly from frame 24 proximate distal end 16 of platform 12. Alternatively, other types of known wheels may be used in place of castors 30 to support lift dolly 10.

For example, the wheel system of each platform may simply include a single elongated rotating cylinder [instead of the illustrated castors], so that only two wheels are provided on the entire device. It should be noted, however, that according to this cylinder-inclusive embodiment, the dolly would only be mobile in one direction as opposed to all directions [this is, of course, acceptable in certain embodiments of this invention].

Referring to Figures 1, 2, 7, and 9, platform 12 further includes, as part of the latching mechanism, foot receiving surface or pedal 25 mounted on top of respective ends of members 3 and 4, downwardly extending male portion 48 of the latching mechanism that is

pivotaly mounted below surface 25, mounting member 47 affixed to one of members 3 or 4 (or to plate 25), and pivot axis 49 about which male portion 48 pivots relative to mounting member 47.

5           Second platform 18 is smaller in size than platform 12, and includes generally flat, triangular, and trapezoidal frame portion 32, that includes rigid elongated members 6-9. Frame 32 may be open (as illustrated) or closed. A second pair of castor stems  
10 34, each having a castor 30 thereon, extend downwardly from frame 32 proximate distal end 22 and crossbar 9 thereof.

Platform 18 further includes, as part of the latch/lock assembly, rigid U-shaped member 50 that  
15 projects from the inner vertical surface of crossbar 9, vertically extending projection or cam surface 51 that extends from the upper horizontal surface of crossbar 9, latching aperture or void 52 (see Figure 7) defined in the bottom surface of U-shaped member 50, and locking  
20 crossbar 59 which locks the latching mechanism by fitting into cutout or notch 58 of male member 48. Although the cam surface is defined by projection 51 in the illustrated embodiments, this surface may be defined by other portions of platform 18 or the female portion of  
25 the latching mechanism.

With regard to platforms 12, 18, and frames 24, 32 thereof, the platforms illustrated in Figures 1-8 are open (i.e. they are made up of the frame, which includes a plurality of rigid members connected to one another at  
30 corners of the frame). However, it will be appreciated



by those of skill in the art that platforms 12 and 18 (as well as frames 24 and 32) may be of any of a number of different shapes or designs, provided that the essential function of the dolly is not compromised. For example, 5 each platform may be made up of a planar or arced sheet of rigid material (e.g. sheet metal) that is void of any elongated frame members. Furthermore, it will be appreciated that the illustrated and discussed latching mechanism is exemplary and the invention is not limited 10 thereto. Other known latching mechanisms which permit selective attachment of the platforms may instead be used.

Mounting members (or anchor plates) 38 are attached to the four corners of dolly 10 for the purpose of 15 affixing the dolly to the four legs of the stand 55 which supports an item such as power tool 57 (e.g. table saw). Other power tools such as drills, lathes, etc. may also be mounted on stand 55, as may objects other than power tools. For example, it has further been found that the 20 dolly 10 can be advantageously used in connection with or built into a wide variety of other devices such as tables, workbenches, medical equipment, chairs, engine lifts, filing cabinets, copiers and other office equipment to facilitate lifting and/or transport thereof. 25 Each mounting member 38 is pivotally attached to the corresponding platform and/or frame and is rotatable about a vertical axis so that the platforms may be mounted to different sides of legs of different sized stands 55.

In order to utilize lift dolly 10 to perform its intended function, first platform 12 is positioned proximate an object 55, 57 (e.g. stand-mounted power tool) to be lifted. Each mounting member or anchor plate 38 is secured to a different leg of object 55, 57. This  
5 securement can be accomplished in any appropriate fashion, including insertion of bolts attached to plates 38 through corresponding apertures defined in the legs of stand 55.

10 Once anchor plates 38 of platform 12 are secured to object 55, 57, the weight of the object causes first platform 12 to be oriented so that castors 30 merely rest on the ground without supporting the object (i.e. while the wheels 30 may touch the ground or be slightly raised  
15 therefrom, the stand may not be moved as the legs are the primary tool support, and use of the tool is unaffected). See Figure 3.

Second platform 18 is secured to the other end of object 55, 57 to be lifted in a similar fashion to the  
20 securement of first platform 12 to object 55, 57 (i.e. platform 12 is attached to first and second legs of stand 55, while platform 18 is attached to third and fourth legs of the stand). When second platform 18 is secured, it is oriented with its proximal end 20 terminating  
25 beneath first platform 12. See Figure 3.

In order to lift object 55, 57 off of the ground in order to move it via the dolly, downward pressure is exerted by an operator or user (preferably by the foot of the operator) on foot-receiving surface or platform 25  
30 proximate end 14 of frame 24. When end 14 of platform 12

is pressed downward, spring-biased male portion 48 is inserted through aperture 52 (see Figure 7) of the latch's female portion, with the spring-bias then causing the latching mechanism to lock the two platforms 12 and 18 together as cutout or notch 58 in male 48 receives locking member or crossbar 59 due to the biasing of male 48 toward locking member 59 by spring 71 (see Figure 9).

When crossbar 59 is locked in notch 58, castors 30 of both platforms have been forced downward and are held there contacting the ground in a supporting manner as shown in Figures 4 and 6, thereby lifting stand 55 and tool 57 off of the ground so that they can be wheeled across the ground and transported. As discussed, when rigid platform 12 is forced downward by the operator, elongated members 3 and 4 engage end 20 and crossbar 8 of second platform 18 thereby causing downward movement of frame 32 relative to the stand, and thus castors 30 of platform 18 also become supportive of the stand and tool as shown in Figures 4 and 6. When the first and second platforms are generally horizontal (e.g. see Figures 4 and 6), the stand and tool are lifted off of the ground by all four wheels or castors and are ready for lateral transport on the ground.

It is noted that the first pair of castor stems 28 may be longer than the second pair of castor stems 34 in order to assure level positioning of dolly 10, or alternatively one or both of frames 24 and 32 may be bent or curved to accomplish the same result.

In certain embodiments, platforms 12 and 18 are not secured to one another in any fashion, except via the

legs of the stand, and by latch mechanism 47, 48, 49, 50, 51, 52, and 59 when it is locked. Thus, when dolly 10 is in its passive or non-lifting position (see Figures 2, 3, and 5), the two platforms are not directly connected together in certain embodiments, although the bottom surfaces of members 3 and 4 rest upon the top of crossbar 8 of platform 18, and the legs of stand 55 indirectly couple the platforms.

When the operator presses down on surface 25, male 48 becomes locked within the female portion 50, 52, 59 of the latch mechanism thereby locking the wheels or castors in their supporting position and, at the same time, coupling the two platforms (see Figures 7 and 9 for a detailed view of the latch mechanism). When the wheels are in a supportive position and the latch is locked thereby coupling the platforms together, stand 55 and tool 57 may be rolled along the ground and transported.

In certain alternative embodiments, platforms 12 and 18 may be attached to one another at a location in addition to the latching mechanism (e.g. at bar 8). However, regardless of whether the platforms are additionally attached, they are to be selectively coupled via the latching mechanism.

Figure 9 illustrates the attachment of biasing spring 71 to mounting member 47 and male member 48 of the latching mechanism. Pins 72 are provided for attaching spring 71 to these members so that spring 71 biases member 48 toward crossbar 59 when the center of gravity of member 48 is on the crossbar 59 side of axis 63, and

away from crossbar 59 when the center of gravity of the male member is on the other side of axis 63.

Referring to Figure 7, when it is desired to lower the stand and tool from its lifted position, the operator simply steps on surface 25 in order to release the latch and allow gravity to lower the stand and tool to the ground for use. When the operator steps on surface 25 when the latch is locked, male portion 48 is caused to move further downward through aperture 52 in a manner so that upwardly angled surface 61 of member 48 slides along the inner surface of crossbar 59. The sliding of angled surface 61 of member 48 along crossbar 59 causes male member 48 to pivot about axis 49 in a direction away from crossbar 59 and to the opposite side of axis 63 that extends through each of members 47 and 48 and axis 49.

When male member 48 reaches the other side of axis 63, the spring causes member 48 to be biased in the opposite pivotal direction (i.e. away from crossbar 59 as viewed in Figure 7) so that when the operator lifts his/her foot off of surface 25, stand 55 falls to the ground as male member 48 moves upwardly through aperture 52 and is biased away from crossbar 59. On its way upward away from aperture 52 and crossbar 59 during the release/unlocking process, the side of member 48 opposite cutout 58 contacts projection (or cam surface) 51 which causes member 48 to move back to the crossbar 59 side of axis 63 so that when male member 48 is again pressed downward through aperture 52, the spring will bias member 48 toward crossbar 59 which will come to rest within cutout 58 thereby locking together the platforms of the

dolly with the stand and tool in the raised or lifted position.

Figure 8 illustrates dolly 10 according to another embodiment of this invention. This embodiment is  
5 different than the previously described embodiment(s) in that anchor plates 38 are replaced with crossbar members 81 and 82 which are part of frames 24 and 32, respectively. The two platforms are attached to the four legs of stand 55 by way of crossbars 81-82, and the  
10 mounting apertures 83 defined therein. Bolts are fed through apertures 83 and the stand legs in order to mount the dolly to the stand. Furthermore, all other elongated members (3, 4, 6, 7, and 8) of the frames or platforms are telescopic in this embodiment in order to allow the  
15 dolly to mount onto different sized stands 55 and tools 57. Thus, these telescopic elongated members each include an inner elongated member and an outer elongated member which are axially adjustable relative to one another in order to alter the lengths of members 3, 4, 6,  
20 7, and 8.

Once given the above disclosure, therefore, various other modifications, features, or improvements will become apparent to the skilled artisan. Such other features, modifications, and improvements are thus  
25 considered to be a part of this invention, the scope of which is to be determined by the following claims.

## I CLAIM:

1           1.    A dolly for selectively lifting and  
2 transporting a power tool mounted on a stand, the dolly  
3 comprising:  
4           a first platform including a wheel system  
5 extending downwardly therefrom, said first platform  
6 further including an actuation surface or member for  
7 receiving downwardly applied pressure in order to lift  
8 the stand and tool off of the ground;  
9           a second platform including a wheel system  
10 extending downwardly therefrom;  
11           connection means for rigidly affixing said  
12 first platform to one portion of the stand, and for  
13 rigidly affixing said second platform to another portion  
14 of the stand;  
15           said actuation surface or member of said first  
16 platform being located above at least a portion of said  
17 second platform; and  
18           lift means for moving the dolly from a passive  
19 position to a lift position thereby lifting the stand and  
20 power tool off of the ground and enabling the power tool  
21 to be moved on the ground via said wheel systems, said  
22 lift means including a selectively actuated coupling  
23 means for selectively coupling said first and second  
24 platforms, and being actuated in response to downwardly  
25 applied pressure being applied to said actuation surface  
26 or member that forces said wheels downward so that said  
27 wheel systems, as opposed to the stand, support the power  
28 tool on the ground.

1           2.    The dolly of claim 1, wherein said connection  
2 means for affixing said first and second platforms to the  
3 stand includes means for affixing said platforms so that  
4 said platforms, when affixed to the stand, are disposed  
5 entirely within the outer periphery of the stand so that  
6 the footprint of the power tool and stand is not enlarged  
7 by the dolly during use of the tool.

1           3.    The dolly of claim 1, further comprising latch  
2 means, operatively associated with said actuation surface  
3 or member, for joining a portion of said first platform  
4 to a portion of said second platform in order to force  
5 said wheel systems downward and lift the stand and tool  
6 off of the ground.

1           4.    The dolly of claim 3, wherein said latch means  
2 includes a male member affixed to one of said platforms  
3 and a corresponding female member affixed to the other of  
4 said platforms for receiving said male member.

1           5.    The dolly of claim 3, wherein said actuation  
2 surface or member includes a foot receiving surface so  
3 that the operator can lift the stand and tool off of the  
4 ground by stepping on said foot receiving surface so that  
5 said latch means joins said first and second platforms  
6 together and causes said wheel systems to be forced  
7 downward relative to the stand so that said wheels  
8 support the stand.



1           6.    The dolly of claim 3, wherein at least part of  
2    said latch means is located on an elongated member  
3    connecting opposite sides of said second platform.

1           7.    The dolly of claim 1, wherein each of said  
2    platforms includes a frame which is one of (i)  
3    triangular-shaped; (ii) rectangular-shaped; and (iii)  
4    trapezoidal-shaped.

5           8.    The dolly of claim 1, wherein said connection  
6    means for affixing said first platform to the stand  
7    includes first and second members pivotally attached to  
8    said first platform.

1           9.    The dolly of claim 8, wherein said first  
2    platform includes a frame having first and second  
3    elongated members, and said first pivotally attached  
4    member is connected to said first elongated member  
5    proximate an end thereof, and said second pivotally  
6    attached member is connected to said second elongated  
7    member proximate an end thereof.

1           10.   The dolly of claim 9, wherein the wheel system  
2    of said first platform includes a pair of wheels and said  
3    wheels of said first platform are attached to said first  
4    and second elongated members, respectively.

1           11.   The dolly of claim 1, wherein said first  
2    platform includes first and second rigid elongated  
3    members connected by a crossbar member, and said second  
4    platform also includes first and second rigid elongated

5 members connected by another crossbar member, and wherein  
6 said first and second rigid elongated members of said  
7 first platform contact the top of said another crossbar  
8 member of said second platform when the dolly is in its  
9 lifting position so as to lift the stand and tool.

1 12. The dolly of claim 1, wherein said first  
2 portion of the stand includes first and second legs of  
3 the stand, and said second portion of the stand includes  
4 third and fourth legs of the stand.

1 13. A method of lifting and transporting an object  
2 mounted on a stand having first, second, third, and  
3 fourth legs, the method comprising the steps of:

4 (a) providing a lift dolly including first and  
5 second rigid members selectively connectable to one  
6 another by way of a latching mechanism;

7 (b) affixing the first rigid member of the  
8 lift dolly to the first and second legs of the stand;

9 (c) affixing the second rigid member of the  
10 lift dolly to the third and fourth legs of the stand so  
11 that when the first and second rigid members of the dolly  
12 are affixed to the stand but are not connected to one  
13 another via the latching mechanism, the stand is the  
14 primary ground support for the object to be lifted; and

15 (d) forcing a part of the first rigid member  
16 downward relative to the stand, said forcing step causing  
17 the latching mechanism to be actuated and couple together  
18 the first and second rigid members and lift the stand and  
19 object from the ground so that a wheel system of the

20 dolly, as opposed to the stand, is the primary ground  
21 support for the object when the latching mechanism is  
22 actuated and couples the first and second rigid members  
23 together, thereby enabling transport of the object.

1 14. The method of claim 13, wherein said forcing  
2 step includes the operator stepping on a foot-receiving  
3 surface or pedal in order to force downward the part of  
4 the first rigid member.

1 15. The method of claim 13, wherein the first and  
2 second rigid members each include a platform having a  
3 plurality of rigid elongated members, and the latching  
4 mechanism includes a male portion mounted to the first  
5 rigid member and a female portion mounted to the second  
6 rigid member.

1 16. A power tool device which may be selectively  
2 transported from one location to another along the  
3 ground, the power tool device comprising:  
4 a stand having first, second, third, and fourth  
5 elongated legs;  
6 a power driven tool mounted on said stand;  
7 a lift dolly affixed to said stand, said lift  
8 dolly including a wheel system, and being able to define  
9 each of a passive and a lifting position, said passive  
10 position being defined as when said stand is the primary  
11 ground support for said tool, and said lifting position  
12 being defined when the stand and tool are lifted off of

13 the ground and said dolly is the primary ground support  
14 for said tool;

15 said dolly including a first rigid member  
16 affixed to said first and second legs of said stand, a  
17 second rigid member directly affixed only to said third  
18 and fourth legs of said stand, and a selectively actuated  
19 connection means defining a first state and a second  
20 state, said dolly being in said passive position when  
21 said selectively actuated connection means is in its  
22 first state and in said lifting position when said  
23 connection means is in its second state;

24 actuation means for moving said connection  
25 means from its first state to its second state in  
26 response to pressure being downwardly applied to said  
27 first rigid member thereby lifting said stand and tool  
28 off of the ground and enabling transport of same via said  
29 wheel system; and

30 deactuation means for moving said connection  
31 means from its second state to its first state in  
32 response to another downwardly applied pressure being  
33 applied to said first rigid member thereby causing said  
34 dolly to shift from said lifting state to said passive  
35 state so that said tool can be used.

1 17. The power tool device of claim 16, wherein said  
2 connection means includes latching mechanism having a  
3 male portion mounted to said first rigid member and a  
4 female portion mounted to said second rigid member.

1           18. A lift dolly adapted to lift and enable  
2 transport of an object, the lift dolly comprising:  
3           a first rigid platform adapted to be rigidly  
4 affixed to one part of the object;  
5           a second rigid platform adapted to be rigidly  
6 affixed to another portion of the object;  
7           latch means for selectively coupling said first  
8 platform to said second platform;  
9           lift means for lifting the object off of the  
10 ground by applying downward pressure to said first  
11 platform which causes said latch means to couple together  
12 said first and second platforms; and  
13           lowering means for lowering the object to the  
14 ground by applying additional downward pressure to said  
15 first platform which causes said latch means to decouple  
16 said first and second platforms.

1           19. The dolly of claim 1, wherein each of said  
2 wheel systems includes a pair of castor wheels.

1           20. A latch mechanism for selectively coupling  
2 first and second rigid members, the latch mechanism  
3 comprising:  
4           said first rigid member including a male member  
5 pivotally mounted thereto, the male member capable of  
6 being biased in first and second different directions,  
7 and including a first surface having a notch defined  
8 therein and a second surface opposite said first surface;  
9           said second rigid member including a female  
10 portion mounted thereto, said female portion having each

WO 98/58816

11 of a crossbar member for engagement with said notch, and  
12 a cam surface;

13 actuation means for securing the first and  
14 second rigid members to one another via the latch  
15 mechanism by directing said male member through an  
16 aperture defined in said female portion when said male  
17 member is biased in said first direction toward said  
18 crossbar, so that said crossbar comes to rest within said  
19 notch thereby securing said first and second rigid  
20 members together; and

21 deactuation means for decoupling said first and  
22 second rigid members by directing said male member  
23 further through said aperture so as to cause said male  
24 member to become biased in said second direction and  
25 thereafter directing said male member rearwardly out of  
26 and away from said aperture so that said second surface  
27 of said male member contacts said cam surface thereby  
28 causing said male member to again become biased in said  
29 first direction toward said crossbar so that said notch  
30 will become engaged with said crossbar when said male  
31 member is again directed through said aperture in said  
32 female portion.

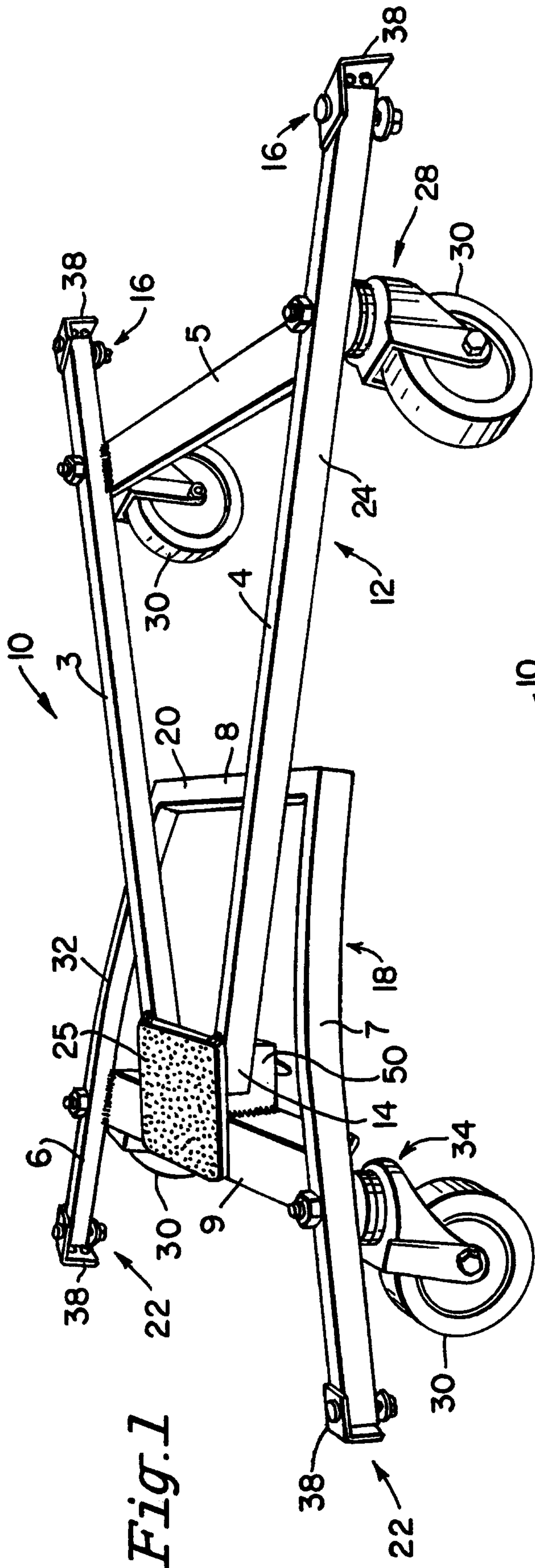


Fig. 1

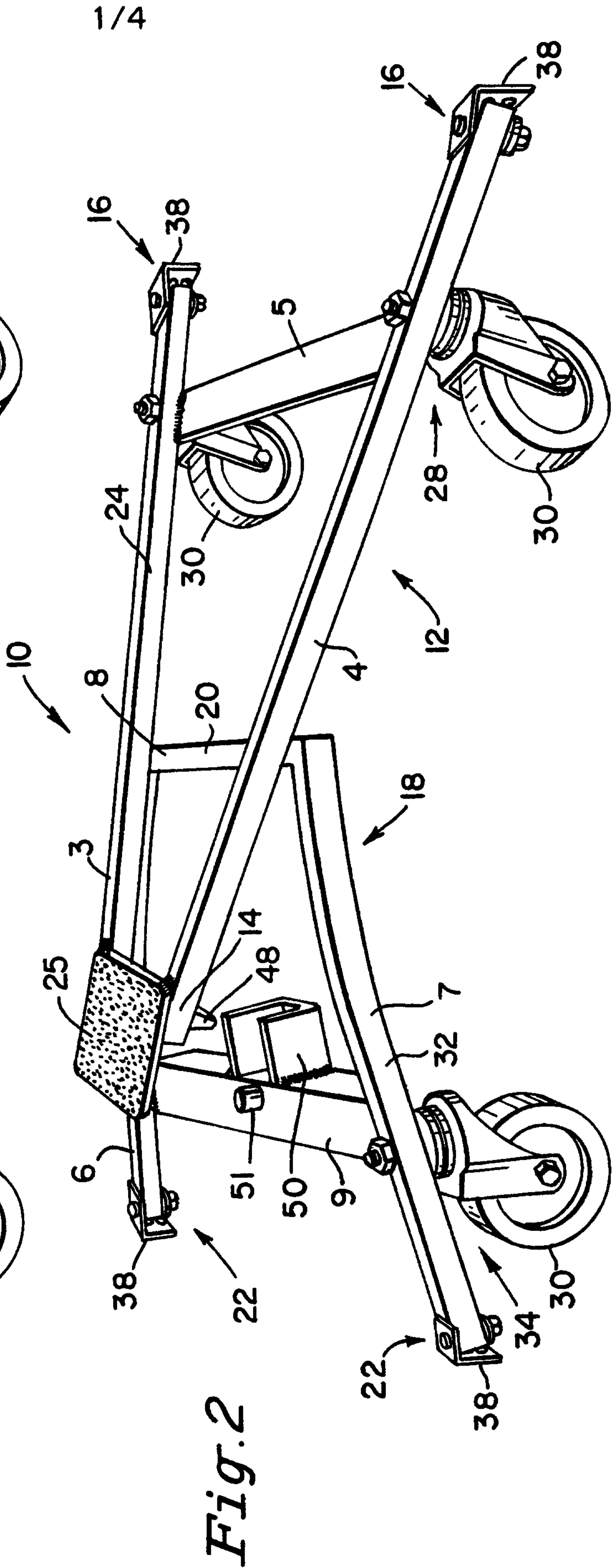


Fig. 2

1/4

Fig.3

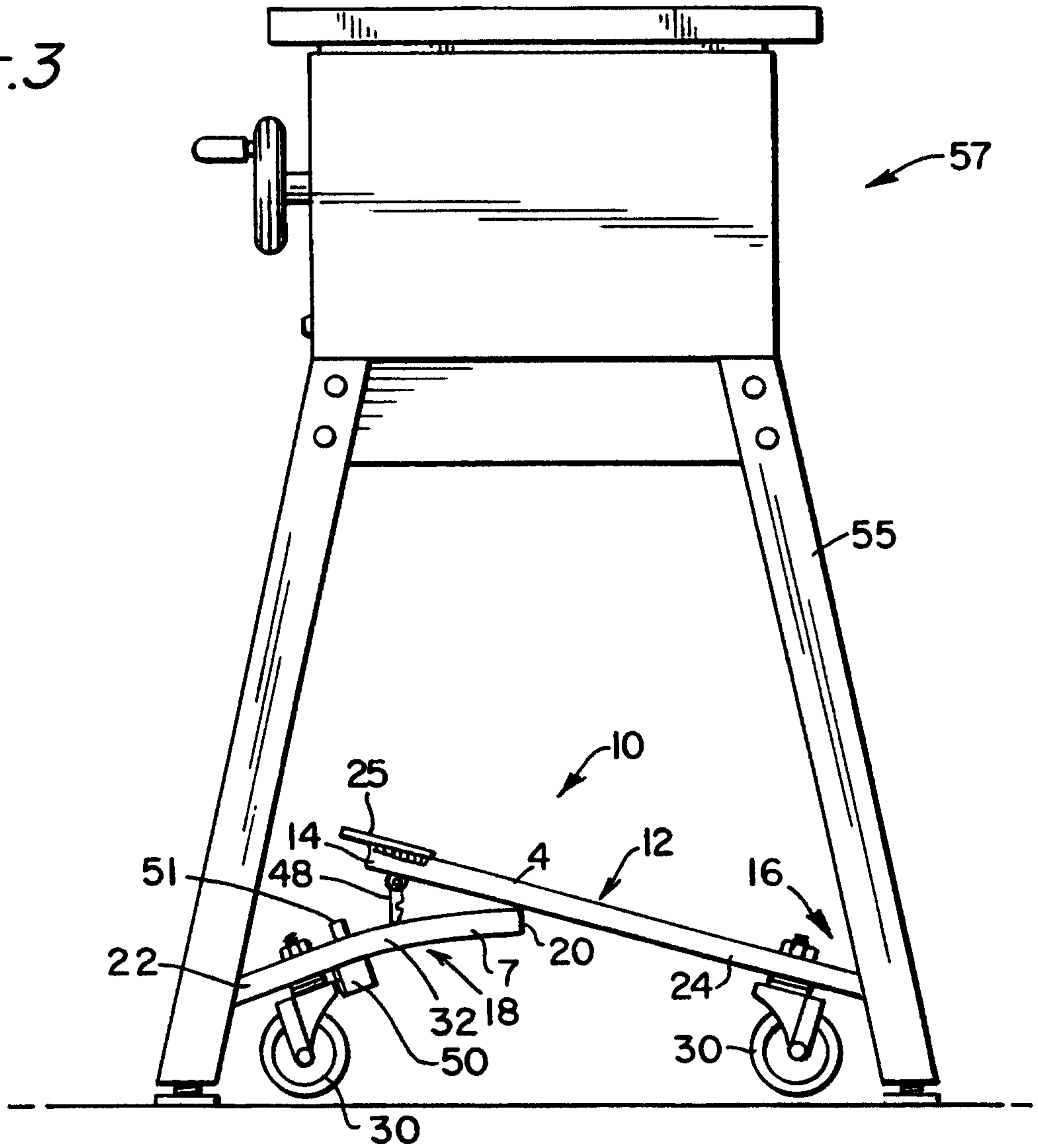
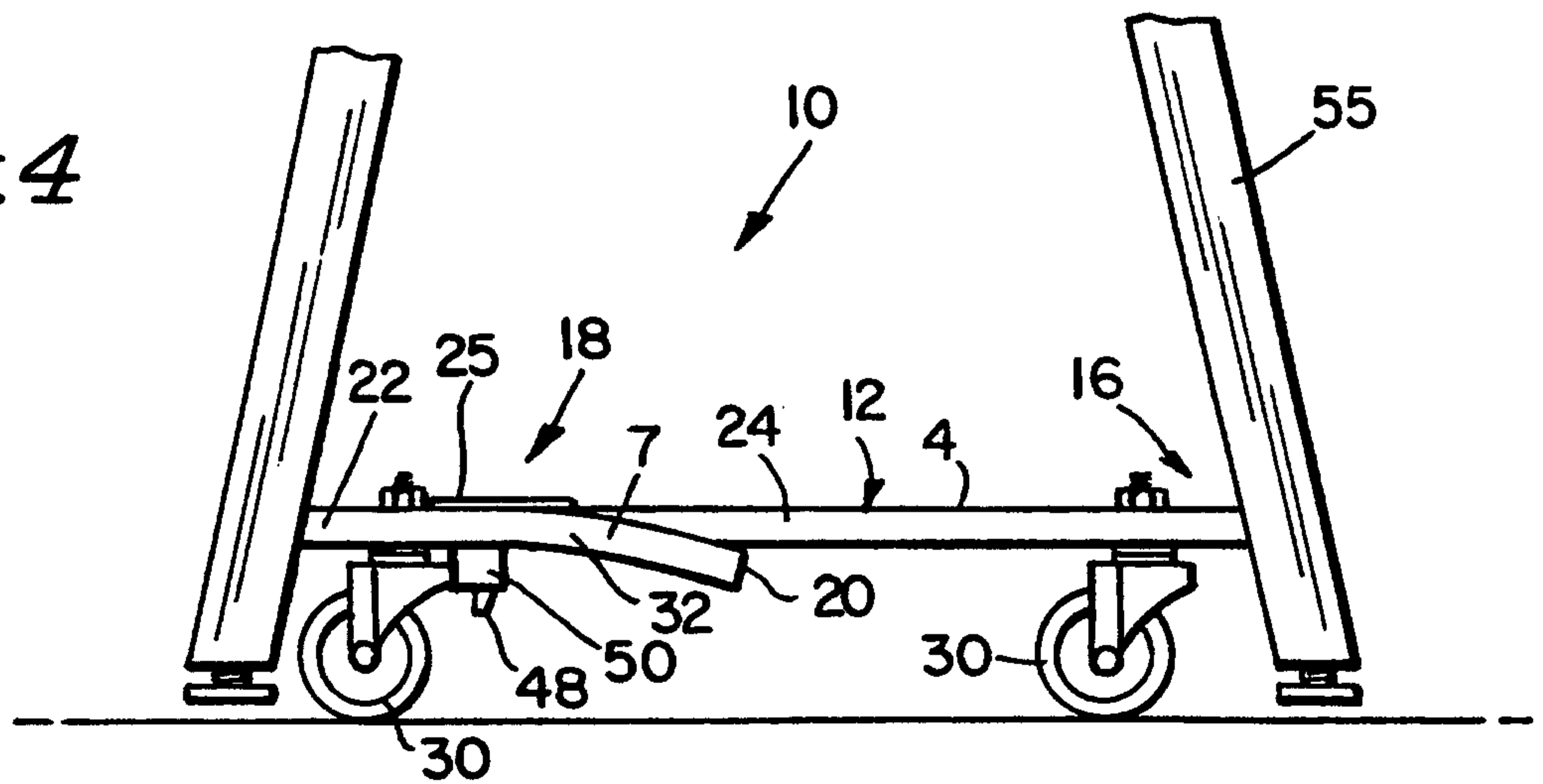


Fig.4





3/4

Fig. 5

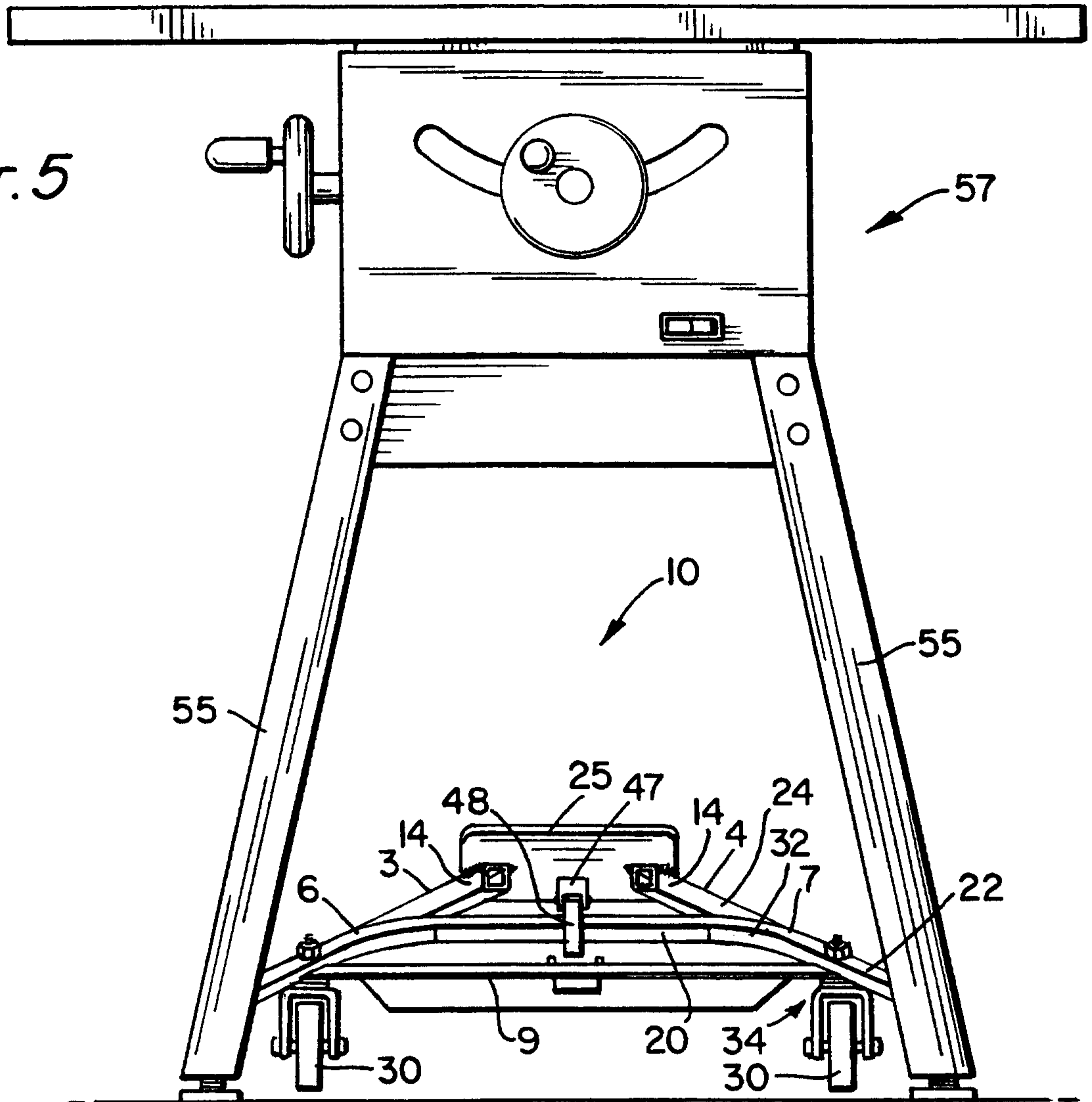


Fig. 6

