United States Patent [19]

Knapp

[11] **3,885,691**

[45] **May 27, 1975**

[54] **MOBILE HOME CARRYING TRAILER**

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[73] Assignee: **Knapp Corporation,** Salisbury, N.C.

[22] Filed: **May 16, 1974**

[21] Appl. No.: **470,674**

[52] **U.S. Cl.** ..... **214/512;** 280/34 A; 280/43.18; 280/43.22; 280/43.23

[51] **Int. Cl.** **B60p 1/02**

[58] **Field of Search** ..... 214/500, 512, 515; 280/34 R, 34 A, 46, 43, 43.17, 43.18, 43.22, 43.23, 423 R

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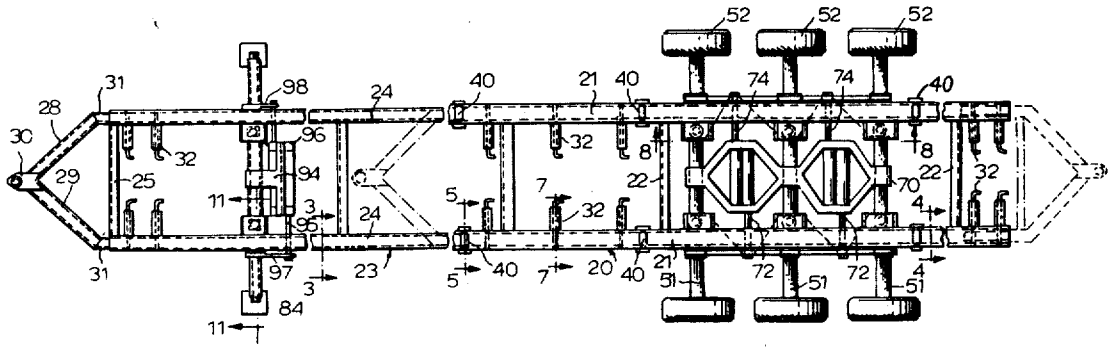
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Primary Examiner—David Schonberg
Assistant Examiner—R. Schrecengost
Attorney, Agent, or Firm—Wenderoth, Lind & Ponack

[57] **ABSTRACT**

A carrier for transporting mobile and modular homes which are constructed without wheels and steel underframe, which carrier has a stationary frame with two parallel longitudinally extending hollow box beams connected together by fixed cross braces, and is mounted on a plurality of wheel axles for both lateral movement in the direction of the length of the axles and for vertical movement relative to the axles. An adjustable frame having two parallel longitudinally extending beams slightly smaller in cross-section than the box beams of the stationary frame is mounted on the stationary frame with the box beams of the adjustable frame slidable into the box beams of the stationary frame. The beams of the adjustable frame are connected by removable cross braces, which are removed as the adjustable frame is telescoped into the stationary frame. Outriggers are provided on the forward end of the adjustable frame, and the adjustable frame is slidable laterally on the outriggers when the outriggers are in the extended position and support the adjustable frame on the ground, and is movable vertically relative to the outriggers when the outriggers are in the extended position.

6 Claims, 12 Drawing Figures



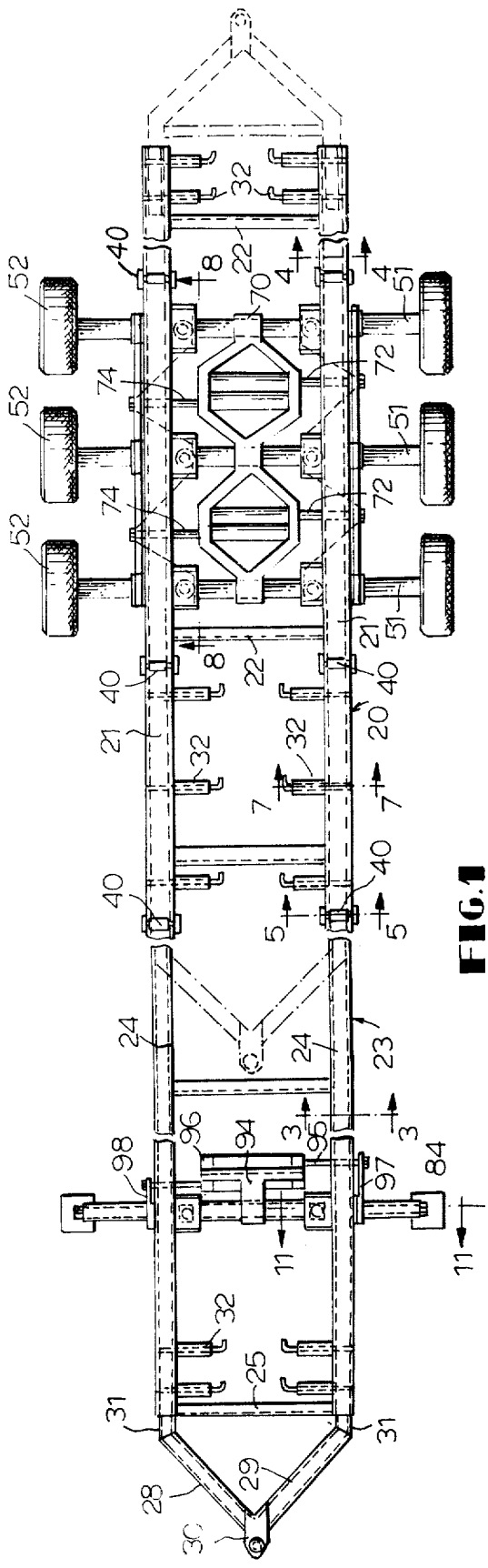


FIG.1

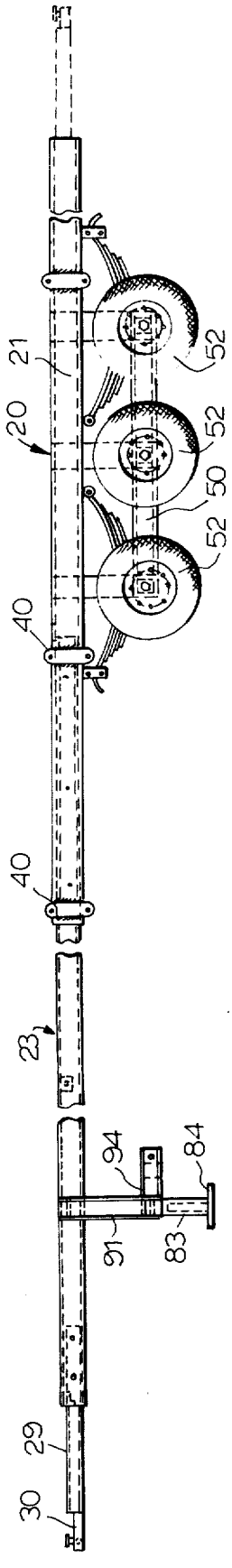


FIG.2

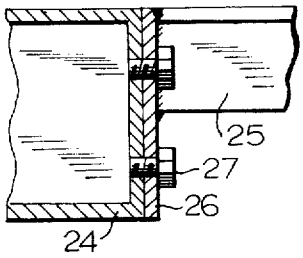


FIG. 3

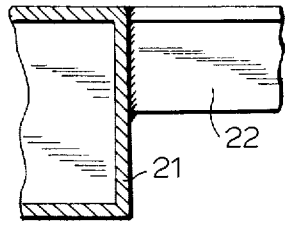


FIG. 4

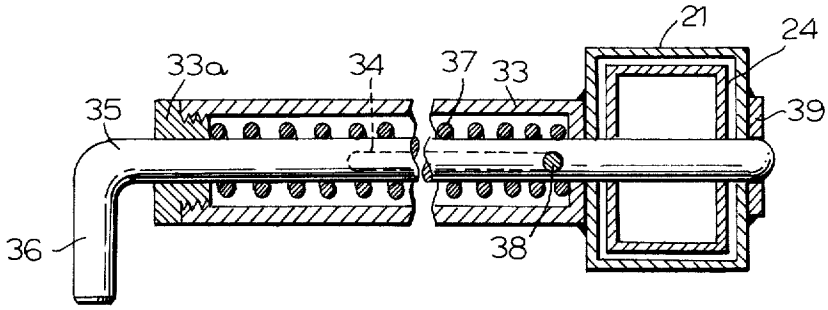


FIG. 7

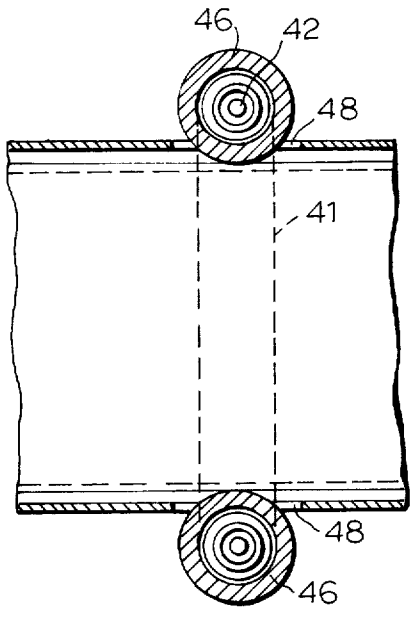


FIG. 6

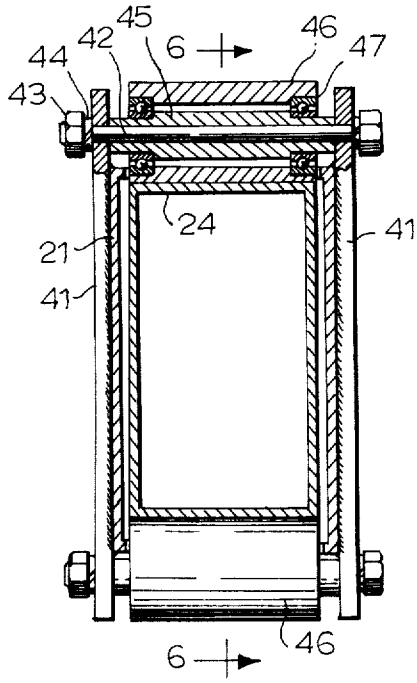


FIG. 5

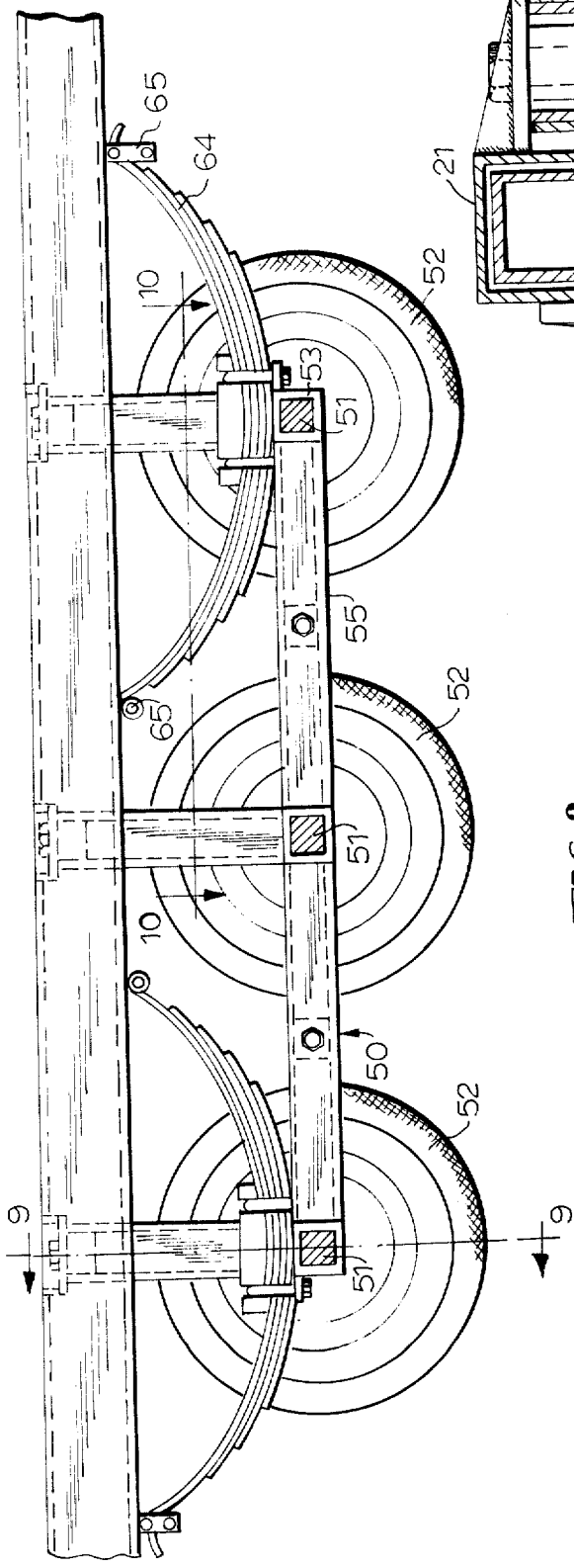

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FIG.8

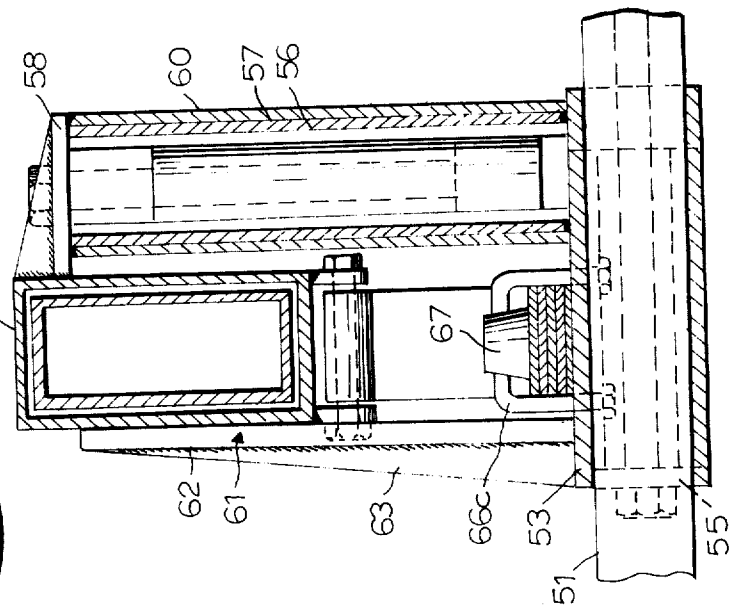

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FIG.9

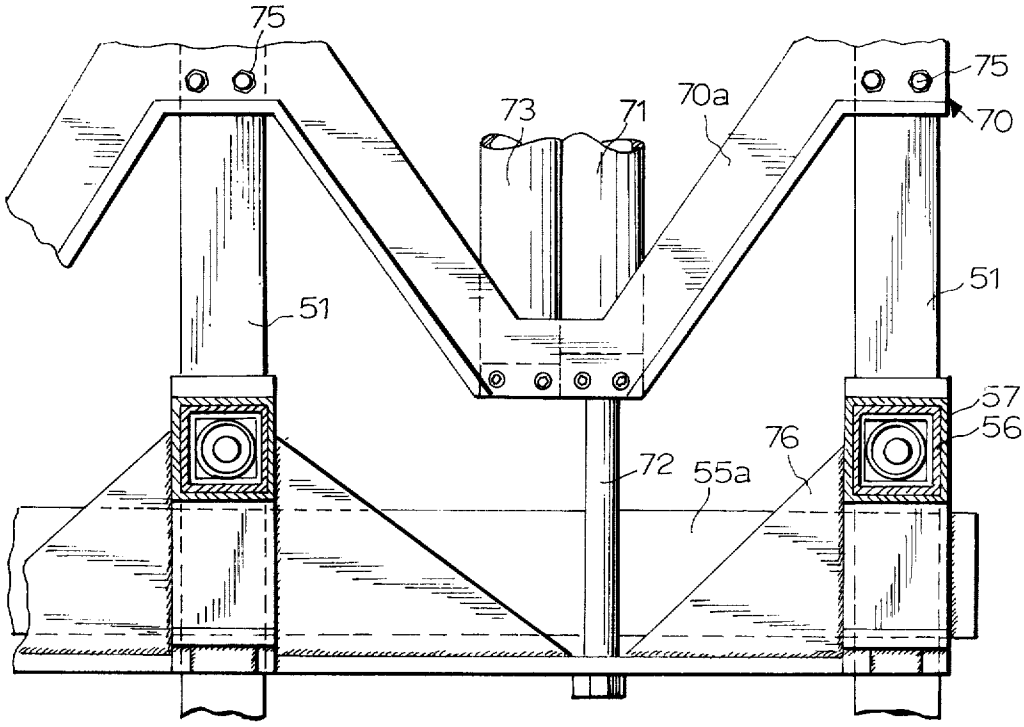

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70a
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76
72
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FIG.10

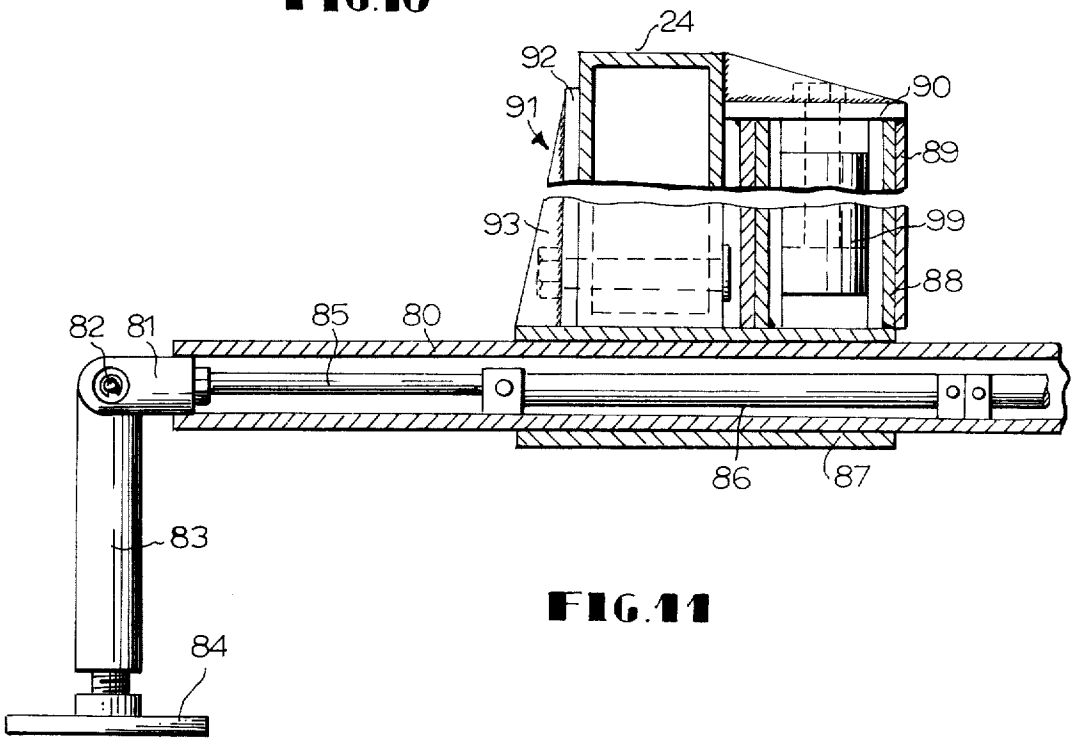
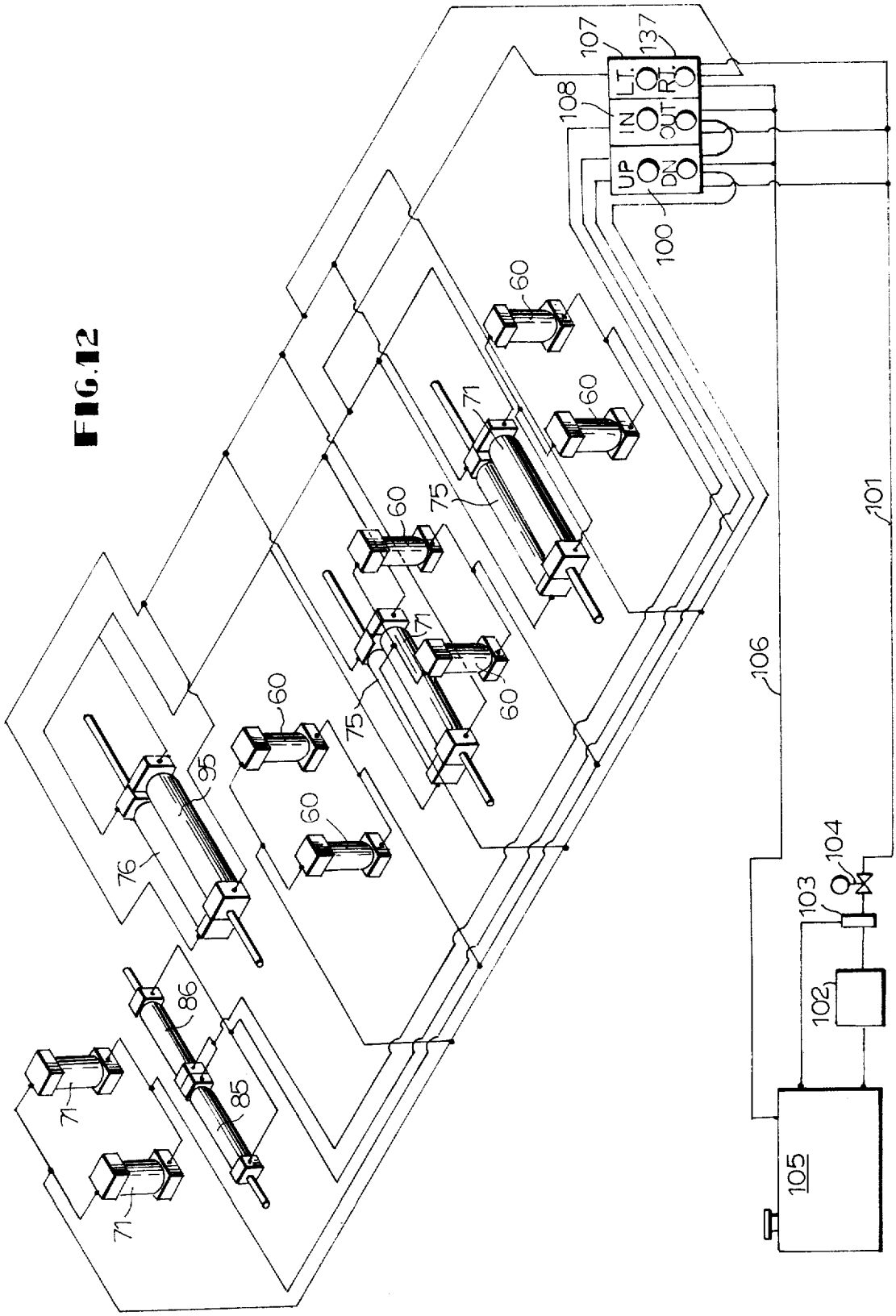

24
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80
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84

FIG.11

FIG.12


107
137
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LT.
RT.
IN
OUT
UP
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MOBILE HOME CARRYING TRAILER

INTRODUCTION

This invention relates to a carrier, and more particularly to a carrier for carrying mobile or modular homes or parts of such homes, which homes or parts are made without wheels and a steel underframe, from the fabrication site or retail sales lot to the permanent installation site. The carrier of the present invention can be extended or shortened in length for carrying the mobile or modular homes or for being transported when empty, and can be shifted laterally of its long dimension on the wheels on which it rolls.

BACKGROUND OF THE INVENTION AND PRIOR ART

Mobile homes are so-called because they are usually fabricated on a relatively expensive steel underframe with two or more sets of axles and wheels on which the homes are transported over highways. Either the complete home is built, in which case it is usually limited to twelve feet in width, i.e. "single wide", the maximum width of such homes usually permitted on a road, or the mobile home is built in two halves, i.e. "double wide", each of which halves is usually 12 feet wide and each of which has a permanently attached steel underframe and axles and wheels. Once the mobile or modular home arrives at the permanent site of the home and is placed on the foundation, the wheels and axles are of no further use and the steel underframe is unnecessary.

In the case of modular homes, the parts are commonly transported on simple lumber trailers, Heretofore, since conventional trailers have been used for these modular homes, there have been problems in unloading the modular homes from the trailers at the permanent installation site, where the ground is often uneven, so that it is difficult to match the level of the bottom of the home with a foundation or to match a part of a home on a trailer to a part already in posiition on a foundation. Heavy equipment for handling the modular homes is often not readily available at the permanent installation site.

Although elimination of the steel underframes, wheels and axles in mobile and modular home construction would greatly reduce the manufacturer's cost, there has heretofore been no known vehicle by which such a wheeless mobile or modular home could easily be transported and delivered to the home site and from which the vehicle the home could be placed on a foundation.

Prior to the present invention, the methods of placing double wide mobile homes or parts of modular homes together caused frequent and, in many cases, substantial damage to the walls, floor or roof where the two halves rubbed longitudinally against each other due to the pushing and pulling by the towing vehicle, and the manual jacking, levering, and scooting of one section relative to the other. The carrier of the present invention will, it is believed, eliminate this type of damage and the cost thereof, by making it possible to place the two halves of a double wide mobile home or parts of a modular home together on the foundation gently and with precision.

In the case of modular homes, the simple lumber trailers are commonly transported back to the point of fabrication of the homes in the same condition as they are used for hauling the modular homes. Since the modular homes or the parts thereof are often quite long, this involves trailing rather lengthy trailers over the roads while they are empty.

OBJECTS AND BRIEF SUMMARY OF THE INVENTION

It is an object of the present invention to provide a carrier for mobile or modular homes or a part thereof which can be extended for use in transporting various lengths of homes from the point of fabrication or retail sales lot to the permanent installation site, and can be collapsed or telescoped in for being trailed in the empty condition back to the retail sales lot or to the point of fabrication of the homes.

It is a further object of the invention to provide such a carrier in which the carrier body is mounted on the wheels for movement both up and down relative to the wheel axles, as well as in the direction of the wheel axles, i.e. transversely to the length of the carrier frame to aid in perfect matching of parts to be assembled on the foundation.

The objects are achieved by a carrier having a stationary frame with two parallel and longitudinally extending hollow box beams connected together by fixed cross braces, and mounted on a plurality of wheel axles for both lateral movement in the direction of the length of the axles, and for vertical movement relative to the axles. The wheels on which the carrier rests and moves are mounted at the ends of the axles. An adjustable frame comprised of two longitudinally extending box means slightly smaller in cross-section than the box beams of the stationary frame is mounted on the stationary frame with the box beams of the adjustable frame slidable into the box beams of the stationary frame. The beams of the adjustable frame are connected by removable cross braces, which are removed as the adjustable frame is telescoped into the stationary frame. Outriggers are provided on the forward end of the adjustable frame, and the adjustable frame is slidable laterally on the outriggers when the outriggers are in the extended position and support the adjustable frame on the ground, and is movable vertically relative to the outriggers when the outriggers are in the extended position.

BRIEF DESCRIPTION OF THE FIGURES

The invention will now be described in connection with the accompanying drawings, in which:

FIG. **1** is a top plan view of the carrier for transporting mobile and modular homes according to the present invention;

FIG. **2** is a side elevation view of the carrier of FIG. **1**;

FIG. **3** is a partial sectional view, on an enlarged scale, taken on line **3—3** of FIG. **1**;

FIG. **4** is a view similar to FIG. **3**, taken on line **4—4** of FIG. **1**;

FIG. **5** is a transverse sectional view on an enlarged scale taken on line **5—5** of FIG. **1**;

FIG. **6** is a partial sectional view taken on lines **6—6** of FIG. **5**;

FIG. **7** is a sectional view, on an enlarged scale taken on line **7—7** of FIG. **1**;

FIG. **8** is a partial sectional elevation view on an enlarged scale, taken on line **8—8** of FIG **1**;

FIG. **9** is a partial sectional view taken on line **9—9** of FIG. **8**;

FIG. 10 is a partial sectional plan view, on an enlarged scale, taken on line 10—10 of FIG. 8;

FIG. 11 is a partial transverse sectional view on an enlarged scale, taken on line 11—11 of FIG. 1; and

FIG. 12 is a schematic view of the hydraulic system of the carrier of the present invention.

DETAILED DESCRIPTION OF THE INVENTION

The carrier for transporting mobile or modular homes constructed without steel underframes and wheels according to the present invention comprises a stationary frame **20**, which has two parallel and longitudinally extending hollow box beams **21** generally rectangular in cross-section with the greater dimension in the vertical direction. These longitudinal beams **21** are joined by fixed cross braces **22** secured to the sides of the longitudinal beams **21**, for example by welding, as shown in FIG. **4**. In FIGS. **1** and **2**, this frame has been shown as broken, and in actual practice, the rear portion extends considerably to the rear of the wheels and the overall length of the stationary frame is on the order of 30 feet and the overall width is on the order of 4 feet.

Mounted on the front of the stationary frame **20** is an adjustable frame **23** which has two longitudinally extending hollow box beams **24** having an exterior cross-sectional size slightly smaller than the interior cross-sectional size of the hollow box beams **21** of the stationary frame. These longitudinal beams **24** are joined by removable cross braces **25** on the ends of which are welded mounting plates **26** which are removably secured to the sides of the beams **24** by bolts **27**, as shown in FIG. **3**.

On the front of the adjustable frame **23** is a hitch frame, generally indicated at **28**, having two angle legs **29** diverging from a hitch **30**, and terminating in straight parallel hitch legs **31** of a size which will fit within the hollow longitudinal beams **24** of the adjustable frame. Transverse holes (not shown) in the hitch frame legs **31** are aligned with corresponding holes in the walls of the beams **24**, and lock pins **32**, shown on each of the inside walls of the longitudinal beams **24**, are provided, which extend into the holes in the hitch legs **31** and beams **24** for securing the hitch frame **28** on the front of the adjustable frame **23**.

It will be seen that the hitch frame **28** is thus removable from the adjustable frame **23** by actuating the lock pins **32** to disengage them from the hitch frame legs, and the hitch frame **28** can be inserted into the hollow beams **21** at the rear of the stationary frame and secured by corresponding lock pins **32** thereat.

As with the stationary frame **20**, the adjustable frame has been broken, and in its fully extended position, it projects some **30** feet forward of the front end of the stationary frame. However, it can, by the removal of all but the frontmost removable cross braces **25** be telescoped almost completely into the box beams **21** of the stationary frame, in which position it projects only about 9 feet forwardly of the stationary frame **20**.

Mounted on the inside of the box beam **21** at the front of the stationary frame are two pluralities of lock pins **32**, one set on the inside of each of the longitudinal beams **21**. These pins extend through corresponding holes (not shown) in the longitudinal beams **21** and engage in corresponding holes which are provided at appropriate intervals along the box beams **24** of the adjustable frame. Thus, the adjustable frame can be positioned at a large plurality of positions relative to the stationary frame **20** by sliding the adjustable frame out of the stationary frame until it reaches the desired position and then setting the lock pins **32** in the appropriate holes in the beams **24** of the adjustable frame.

Details of the lock pins are shown on an enlarged scale in FIG. **7**. The lock pin shown is one of the lock pins on the box beams **21** of the stationary frame **20**. A housing **33**, which is generally cylindrical in shape, is welded in the inner wall of the hollow box beam **21**, and the free end is closed by a cap **33***a* threaded into the end of the housing **33**, the cap having an aperture therethrough. The housing further has slots **34** on opposite sides thereof. Extending through the aperture in the cap **33***a* is a pin **35** having a turn handle **36** on the free end thereof outside of the housing **33**. In the position shown, in which the pin **35** is in the locking position, the other straight end of the pin extends through aligned apertures in the inner wall of the hollow beam **21**, the inner wall of hollow beam **24**, the outer wall of hollow beam **24**, and the outer wall of hollow beam **21**. The end of the pin is held in an aperture in a retaining plate **39** welded to the outer wall of the hollow beam **21**.

Extending through the pin **35** is a guide pin **38**, the ends of which slide in the slots **34** in the housing **33**. Positioned between the guide pin and the threaded cap **33***a* is a return spring **37**.

It will thus be seen that when a force is exerted in the left-hand direction in the figure on the handle **36**, the pin **35** is withdrawn from the aligned apertures in the beams, the guide pin **38** compressing the spring as it moves to the left along the slots **34** in housing **33**. The box beam **24** is then free to move longitudinally within the box beam **21** until a different set of holes therein is aligned with the holes in the box beam **21**. At this point, the handle can be released and the force of the compressed spring **37** will force the pin **35** through the aligned holes until the end of the pin is in the hole in the reinforcing plate **39**.

In order to permit the box beams **24** of the adjustable frame to move freely into the box beams **21** of the stationary frame, roller means generally indicated at **40** in FIGS. **1** and **2** is provided at the forward end of each of the hollow longitudinal beams **21** of the stationary frame. It is, of course, possible to provide additional roller means at various points along the length of the beams **21** of the stationary frame, such as just to the rear of the pins **32**, as shown in FIGS. **1** and **2** and also approximately 14 or 15 feet from the rear of the stationary frame. Details of these roller means are shown in FIGS. **5** and **6**.

Welded to the exterior side walls of the hollow box beam **21** of the stationary frame are roller mounting plates **41**, the ends of which project above and below the top and bottom walls of the hollow box beam **21**. Extending between the projecting ends of the plates **41** at each of the ends of the plates **41** is a shaft **42** which is held in position by nuts **43** threaded on the ends thereof and lock washers **44**. Fixed on each of the shafts **42** is a bushing **45** on which is rotatably mounted at roller **46** by means of bearings **47** at each end thereof. Ball bearings are shown in the present embodiment, but roller bearings may be substituted therefor. The diameters of the rollers are sufficiently large for the peripheries of the rollers to extend through roller apertures **48** in the top wall and the bottom wall of the

beam 21 of the stationary frame for engagement with the top wall and the bottom wall of the beam 24 of the adjustable frame. Thus, the longitudinal beams 24 of the adjustable frame are held in rolling engagement within the hollow beams 21 of the stationary frame between the opposed pairs of rollers 46 so that the beams 24 can be rolled easily into the beams 21.

The carrier of the present invention has a plurality of pairs of wheels 52, there being three pairs in the embodiment shown. These are mounted in a conventional way on the ends of axles 51, which are here shown as being square in cross-section. The stationary frame 20 is mounted on the axles on a wheel chassis, generally indicated at 50. As shown in detail in FIGS. 8–10, the wheel chassis 50 comprises a plurality of lateral sleeves 53 which are slidably mounted on the square axles 51. These sleeves 53 are joined by longitudinally extending braces 55 and 55a, there being a pair of such braces on each side of the chassis substantially directly under the longitudinally extending box frames 21. Triangular corner plates 76 between the braces 55 and sleeves 53 stiffen the chassis 50. Vertically mounted on each sleeve 53 is an inner vertical sleeve 56, and on the vertical sleeve 56 is slidably mounted an outer vertical sleeve 57. To the upper end of the outer vertical sleeve 57 is secured a top plate 58, the one end of which is secured to the inner wall of the adjacent longitudinally extending box beam 21 of the stationary frame. Within the inner vertical sleeve 56 is a frame raising hydraulic piston-cylinder mechanism 60 having one end secured on the lateral sleeve 53 and the other end, preferably the piston rod end, secured to the top plate 58. Mounted on the outer end of each sleeve 53 is a vertical brace 61 which is comprised of a vertical guide plate 62 and a brace place 63, substantially perpendicular thereto. The inner surface of the vertical guide plate 62 is in slidable contact with the outer wall of the hollow box beam 21.

Conventional leaf spring means are provided for the front and rear axles. Leaf springs 64 have the free ends mounted in spring shackles 65 secured to the bottom wall of the box beam 21 and the center of the leaf springs 64 is secured to the top of the sleeve 53 on the end axles by U-bolts 66. A rubber bumper 67 is also attached to the top surface of the springs.

As seen most clearly in FIG. 10, there is secured to the central portions of each of the axles a frame 70 having annular frame portions 70*a* between each pair of adjacent axles, as shown in FIG. 1. Mounted in each annular frame portion is a pair of hydraulic piston-cylinder mechanisms.

In FIG. 10, the right-hand hydraulic piston-cylinder mechanism 71 is a left lateral shift hydraulic piston-cylinder mechanism and has the piston rod 72 thereof extending outwardly and bolted to the longitudinal side plate 55 between adjacent lateral sleeves 53. The other hydraulic piston-cylinder mechanism, and the piston rod 74 thereof, shown in FIG. 1, extending to the longitudinal side plate 55 on the other side of the wheel chassis 50. The ends of frame 70 are bolted to the end axles 51 by bolts 75, and the intermediate portion of the frame 70 is likewise bolted to the intermediate axle 51 by similar bolts 75.

It will be seen that with this construction, by the actuation of the frame raising hydraulic piston-cylinder mechanisms 60, the stationary frame 20 can be raised and lowered by the exertion of the force on the top plates 58, the beams 21 being guided in vertical movement by the outer vertical sleeve 57 sliding on the inner vertical sleeve 56, and the outer wall of the box beam 21 sliding on the vertical guide plate 62. Likewise, the entire stationary frame can be shifted to the left or the right, relative to its length, along the axles 51 by actuating the lateral shift hydraulic piston-cylinder mechanisms 71 and 73. To shift the stationary frame 20 to the left (downwardly in FIG. 1 and in FIG. 10) the hydraulic piston-cylinder mechanisms 71 are actuated to extend the piston rods 72 while the hydraulic piston-cylinder mechanisms 73 are actuated to draw the piston rods 74 in. This exerts a force on the wheel chassis 50 which slides it along the axles 51 on the sleeves 53, thereby carrying with the sleeves 53 the entire stationary frame 20.

The outriggers, one of which is shown in detail in FIG. 11, are normally carried within the outrigger housing 80 which is a hollow sleeve extending transversely of the adjustable frame 23 near the front thereof. Each outrigger has an outrigger hinge member 81 slidable within the housing 80 and has a hinge pin 82 to which is hinged the outrigger stand 83 having on the bottom thereof the outrigger foot plate 84 threaded into the bottom of the outrigger stand 83. The outrigger hinge 81 is mounted on the end of a piston rod 85 of one of the pair of oppositely-oriented outrigger extending hydraulic piston-cylinder mechanisms 86, which are within the housing 80 near the center thereof. With the piston rod 85 extended, the outrigger hinge is at the end of the housing 80, so that the outrigger stand can extend downwardly from the hinge 81 and the footplate 84 can rest on the ground to support the forward end of the frame 23. It will be understood that a like outrigger is provided on the other end of the housing 83. When the piston rods 85 are withdrawn into the piston-cylinder mechanisms 86, the hinge pins are drawn into the housing, and the outrigger stands are thereby swung upwardly around the pins 82 and the outrigger stands are drawn into the housing 80, thereby leaving exposed only the footplates 84.

When the outrigger is in the position as shown in FIG. 11 with the outrigger stands at both ends of the housing 80 in position, the footplates 84 resting on the ground and the forward end of the adjustable frame 23 being supported thereon, the frame 23 can also be adjusted vertically relative to the outrigger housing 80 and can be adjusted laterally along the outrigger housing 80.

Laterally adjustable frame sleeves 87 are slidably mounted on the outrigger housing 80, and an inner vertical sleeve 88 is mounted on each lateral sleeve 87, and slidable on the outside of each inner vertical sleeve 88 is an outer vertical sleeve 89. A top plate 90 is secured to the top of each outer vertical sleeve 89, and the ends of the top plates 90 are secured to the inner walls of the hollow box beams 24 of the adjustable frame. A hydraulic piston-cylinder mechanism 99 is mounted within each inner vertical sleeve 88. Also mounted on each lateral sleeve at the outer end thereof is a vertical brace 91 comprised of a vertical guide plate 92 against which the outer wall of the hollow box beam 24 thereabove slides, and a brace plate 93 secured to the vertical guide plate 92.

As seen in FIG. 1, a lateral shift mounting frame 94 is secured to the center of the outrigger housing 80 between the longitudinally extending hollow box frames 24 and mounted on the frame 94 are two hydraulic pis-

ton-cylinder mechanisms, a left lateral shift hydraulic piston-cylinder mechanism **95** and a right lateral shift hydraulic piston-cylinder mechanism **96**. The piston rod **95a** of the hydraulic piston-cylinder mechanism **95** is secured by means of a connecting plate **97** to the lateral slide **87** on the left side of the adjustable frame **23** and the piston rod **96a** of the hydraulic piston-cylinder mechanism **96** is secured to the lateral slide **87** on the right side of the adjustable frame **23** by a connecting plate **98**.

It will be seen that by the appropriate operation of the piston-cylinder mechanisms **99**, the hollow frame members **24**, and thus the adjustable frame **23**, can be raised and lowered relative to the outrigger housing **80**, and by appropriate operation of the hydraulic piston-cylinder mechanisms **95** and **96**, the adjustable frame **23** can be shifted to the left and to the right relative to the outrigger housing **80**.

As seen in FIG. **12**, the various piston-cylinder mechanisms are connected in a more or less conventional hydraulic system. The raising and lowering piston-cylinder mechanisms **60** and the raising and lowering piston-cylinder mechanisms **99** are connected in parallel to a four-way valve **100** which in turn is connected by a hydraulic fluid supply line **101** to a pump **102** through a relief valve **103** and a gauge **104**, the pump **102** drawing hydraulic fluid from reservoir **105**. A hydraulic return line **106** is also connected between the four-way valve **100** and the reservoir **105**.

Likewise the right and left shifting hydraulic piston-cylinder mechanisms **71** and **72** and **95** and **96** are connected in parallel to a four-way valve **107**, and through the four-way valve to the pump **102** and reservoir **105**. Finally, the outrigger hydraulic piston-cylinder mechanisms are connected in parallel to the four-way valve **108** and through the four-way valve **108** to the pump **102** and the reservoir **105**.

When the four-way valve **100** is actuated for movement in the up direction, hydraulic fluid is supplied to the hydraulic piston-cylinder mechanisms **60** and **99** to raise the stationary frame **20** and the adjustable frame **23** at the same rate, and when the valve **100** is actuated for movement in the down direction, the frames are lowered. When the four-way valve **107** is actuated for movement in the right direction, the hydraulic piston-cylinder mechanisms **73** and **96** are actuated to force the wheel chassis **50** and outrigger slides **87** in the right direction and the mechanisms **71** and **95** are actuated to draw the wheel chassis **50** and the outrigger slides in the right direction. When the four-way valve **107** is actuated for movement in the left direction, the respective hydraulic piston-cylinder mechanisms are actuated in the opposite directions. When the four-way valve **108** is actuated in the out direction, the hydraulic piston-cylinder mechanisms **86** are actuated to move the outriggers to the outer positions as shown in FIGS. **1**, 2 and **11**, while when the four-way valve is actuated in the direction, the hydraulic piston-cylinder mechanisms **86** are actuated to draw the outriggers into the outrigger housing **80**.

There has thus been provided a carrier in which the frame is adjustable not only in length, the adjustable frame being telescopable into the stationary frame, but in which the frame can be adjusted both vertically relative to the wheels and an outrigger supporting the front of the frame and laterally of the frame relative to the wheels and the outrigger. Thus, when a mobile or modular home reaches a permanent installation site, the carrier can be moved into position as close to the foundation as is convenient, and then the frame of the carrier can be raised or lowered and shifted laterally back or forth until the frame is lined up exactly level with the foundation. Thereupon the mobile or modular home can be placed gently and directly onto the foundation. Where the second half of a double-wide mobile or modular home is being transported to be attached to the first half already located at the permanent installation site, the carrier can again be moved into position close to the already positioned part of the home and again the frame can be raised or lowered and shifted laterally with precision until the part of the home on the carrier is in position to be attached to the part already on the foundation.

After the mobile or modular home or part thereof has been installed at the permanent site, the carrier of the present invention can be shortened by telescoping the adjustable frame into the stationary frame so that a relatively short carrier is trailed back to the assembly point or retail sales lot.

While specific structures have been shown and described for the various elements of the carrier of the present invention, it will be clear to those skilled in the art that other equivalent structures can be substituted therefor. For example, it is not necessary to use box beams for the longitudinal beams of the adjustable frame, although these are preferred. Other locking means could be used for the locking pins **32**, for example a simple pin attached to the beam by a chain so that it would not be lost. Other equivalent actuating systems, such as a pneumatic system or a combined pneumatic and hydraulic system could be substituted for the hydraulic system shown. A system of reversible electric motors could be used.

It is thought that the invention and its advantages will be understood from the foregoing description, and it is apparent that various changes may be made in the form, construction and arrangement of the parts without departing from the spirit and scope of the invention or sacrificing its material advantages, the form hereinbefore described and illustrated in the drawings being merely a preferred embodiment thereof.

What is claimed is:

1. A carrier for transporting a single-wide or half of a double-wide mobile home or modular home constructed without wheels and steel underframe, comprising a stationary frame having a pair of parallel hollow box beams and fixed cross braces between them securing them to each other, an adjustable frame comprising a pair of parallel beams slidable telescopically in the stationary box beams of the stationary frame and having removable cross brace between them securing them to each other, lock means locking the frames to each other in any of a plurality of positions, a plurality of pairs of wheels and an axle extending between each pair of wheels, a wheel chassis slidably mounted on said axles for movement in the direction of the length of said axles, said stationary frame being mounted on said wheel chassis for vertical movement relative to said wheel chassis and extending transversely to the direction of length of said axles, an outrigger housing adjacent the end of the adjustable frame remote from the stationary frame extending substantially parallel with said axles and having outrigger support means depending therefrom for contact with the ground beneath the

carrier, outrigger slide means slidably mounted on said outrigger housing, the adjustable frame being mounted on said outrigger slide means for vertical movement relative to said outrigger slide means and extending transversely to the direction of length of said outrigger housing, raising and lowering means between the wheel chassis and the stationary frame and between the outrigger housing and the adjustable frame for raising and lowering the frames together, and lateral shifting means between said axles and said wheel chassis and between said outrigger housing and said outrigger slide means for shifting the wheel chassis and the outrigger slide means together in one or the other direction transversely of the length of the frames, whereby the frames can be shifted up and down relative to the wheels and the outrigger housing and can be shifted laterally back and forth relative to the wheels and the outrigger housing for adjusting the position of the mobile or modular home or a part of it at the installation site.

2. A carrier as claimed in claim **1** in which said raising and lowering means and said lateral shifting means are both hydraulic piston-cylinder means.

3. A carrier as claimed in claim **1** in which said wheel chassis comprises a plurality of lateral sleeves beneath the box beams on each side of the stationary frame, and frame members connecting the lateral sleeves on one side of the stationary frame to each other, and said lateral shifting means comprises a lateral shift cylinder mounting frame secured to said axles and hydraulic piston-cylinder mechanisms mounted on said mounting frame and having piston rods extending therefrom to said frame members.

4. A carrier as claimed in claim **1** in which said outrigger housing has a mounting frame thereon, said outrigger slide means comprise a pair of outrigger slides one beneath each side frame, and said lateral shifting means comprises hydraulic piston-cylinder mechanisms mounted between said mounting frame and the respective outrigger slides.

5. A carrier as claimed in claim **1** in which said wheel chassis comprises a plurality of lateral sleeves beneath the box beams on each side of the stationary frame, and frame members connecting the lateral sleeves on one side of the stationary frame, a vertical guide plate extending upwardly from each sleeve and engaging the outside surface of the box beam thereabove, and pairs of vertical telescoping sleeves, one vertical sleeve of a pair on each lateral sleeve and the other of the pair on the box beam of the stationary frame thereabove, said guide plates and pairs of vertical sleeves guiding said stationary frame in its vertical movement on said wheel chassis.

6. A carrier as claimed in claim **1** in which said outrigger slide comprises two slide elements, one beneath each parallel beam of said adjustable frame, and a vertical guide plate extending upwardly from each slide element and engaging the outside surface of the beam thereabove, and a pair of vertical telescoping sleeves, one vertical sleeve of a pair on each slide element and the other of the pair on the beam of the adjustable sleeve thereabove, said guide plates and pairs of vertical sleeves guiding said adjustable frame in its vertical movement on said outrigger housing.

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