United States Patent [19]

Catalano, Sr.

[11] **3,879,905**

[45] **Apr. 29, 1975**

[54] **PRECAST FOUNDATION ASSEMBLY FOR MOBILE HOMES**

[76] Inventor: **Frank R. Catalano, Sr.**, P.O. Box 1507, West Palm Beach, Fla.

[22] Filed: **Jan. 22, 1974**

[21] Appl. No.: **435,510**

[52] **U.S. Cl.** **52/23**; 52/157; 52/294; 52/299

[51] **Int. Cl.** **E02d 27/00**

[58] **Field of Search** 52/23, 79, 143, 292, 294, 52/299; 238/84-91

[56] **References Cited**

UNITED STATES PATENTS

806,151	12/1905	Kneedler	238/91
1,067,457	7/1913	Beavan	238/91
1,119,232	12/1914	Bodine	238/91
1,195,634	8/1916	Wolf	238/87
1,372,610	3/1921	Detloff	238/91
1,713,454	5/1929	Springer	238/91
1,761,705	6/1930	Buente	238/87
2,129,211	9/1938	Hickl	52/294
3,300,914	1/1967	Stewart	52/299
3,415,025	12/1968	Walz	52/299
3,623,296	11/1971	Santoro	52/79
3,664,082	5/1972	Zintel	52/143
3,726,054	4/1973	Anderson	52/23
3,747,288	7/1973	Grimelli	52/23
3,751,866	8/1973	Renchen	52/23
3,791,087	2/1974	Sigal	52/299

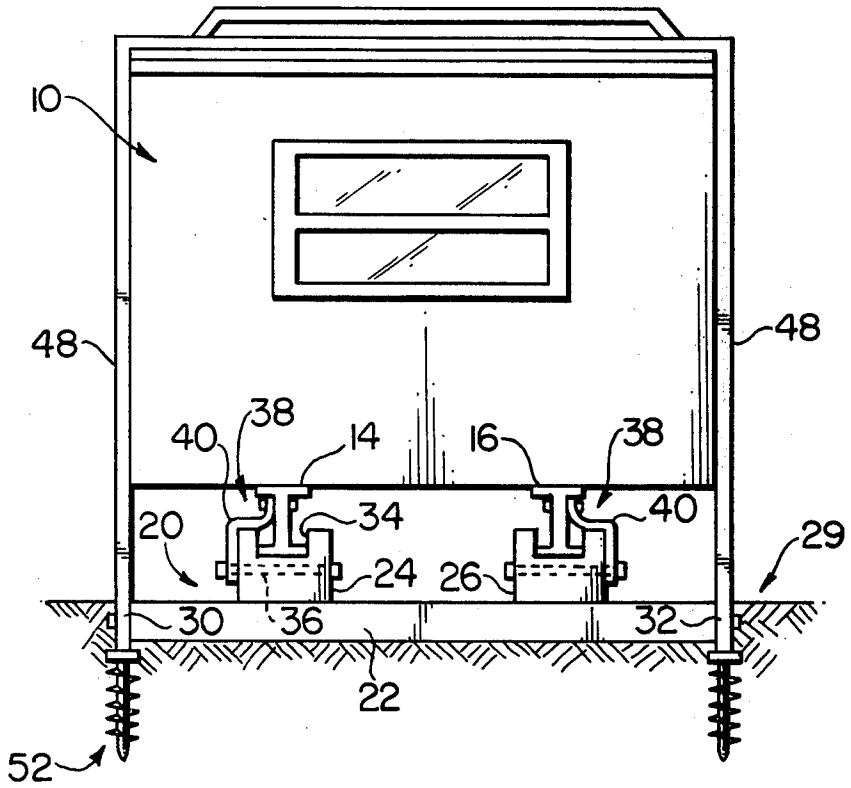
Primary Examiner—John E. Murtagh

Attorney, Agent, or Firm—Roylance, Abrams, Berdo & Kaul

[57] **ABSTRACT**

A precast foundation assembly for mobile homes including a plurality of precast concrete support assemblies supported on the ground and receiving the frame of the mobile home, a securing assembly for coupling the mobile home to the support assemblies and an anchoring assembly for anchoring the support assemblies to the ground.

7 Claims, 5 Drawing Figures



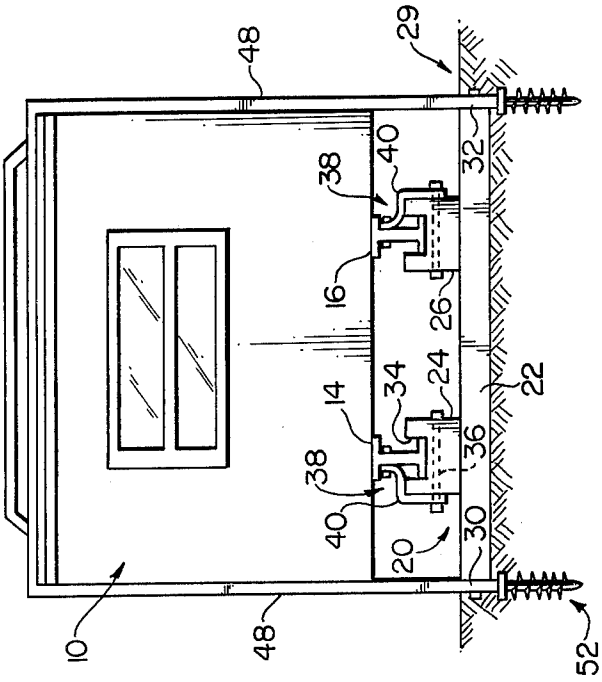


FIG. 2

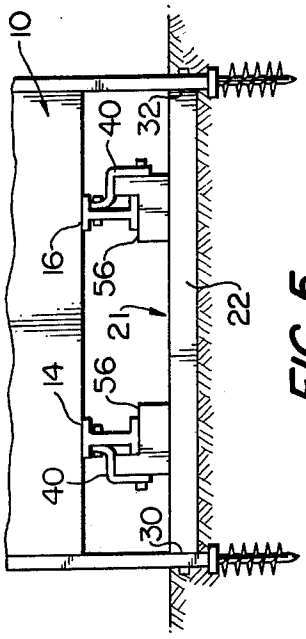


FIG. 5

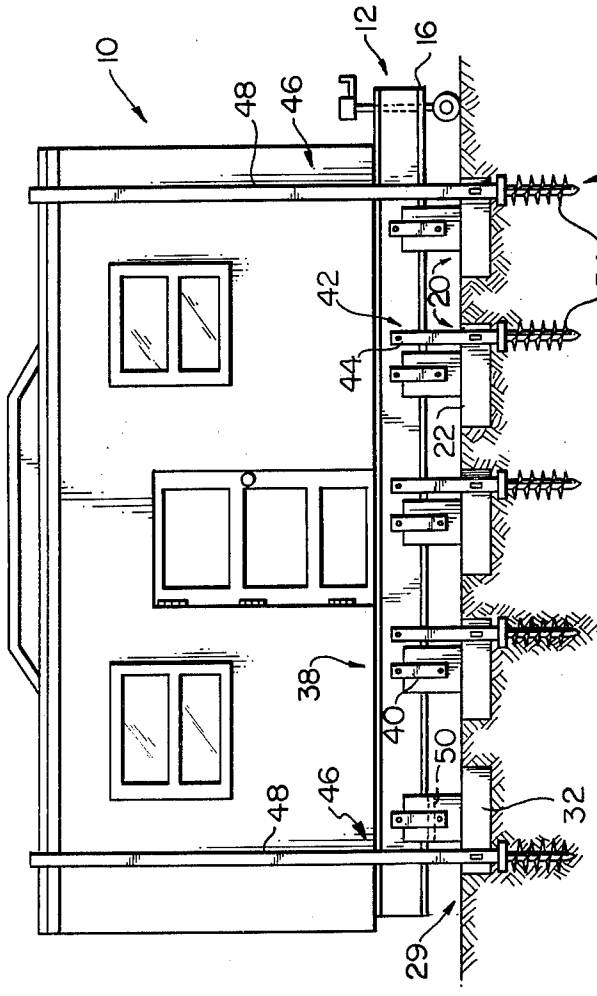


FIG. 1

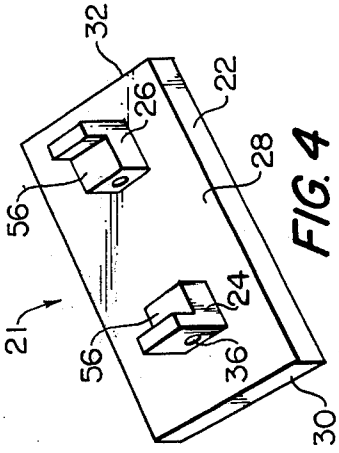


FIG. 4

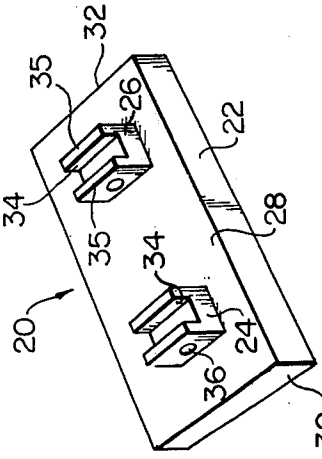


FIG. 3

PRECAST FOUNDATION ASSEMBLY FOR MOBILE HOMES

The present invention relates to foundations, and more particularly, it relates to precast foundations for mobile homes.

Traditionally, mobile homes have been utilized to provide living facilities which can be moved from place-to-place. The typical mobile home consists of a frame, a housing containing the living facilities mounted on the frame and wheels for supporting the frame, as well as a coupling device to couple the frame to a towing vehicle.

In recent times, ever larger mobile homes have been constructed with a view towards making these homes a relatively permanent dwelling facility, with movement of the home from place-to-place being minimized, if not totally restricted to the transport of the home from the building site to the trailer park or land area at which the home is to be used. At the installation site the wheels supporting the mobile home are usually removed and a foundation or supporting structure is substituted therefor and upon which the mobile home is relatively permanently supported.

In providing a foundation for these types of mobile homes, two factors must be balanced. Specifically, the foundation must provide enough support to adequately prevent the mobile home from being dislodged by high winds, and yet light enough so that the foundation can be moved from place-to-place. The first factor is obvious, insofar as the foundation must provide the stability required for a reasonably permanent and weather resistant dwelling. The second factor is concerned with the fact that if a mobile home is provided with a foundation permanently affixed to the land, then the mobile home is no longer exempt from real estate taxes and building permits required by many county governments.

In this regard, the prior art devices have been deficient insofar as those that provide reasonably good support tend to be of a permanent nature, and therefore subject to taxes and permits. Additionally, those prior art devices which are light and portable enough to be exempt from such licenses and taxes fail to provide the necessary stability and security to the mobile home.

To the contrary, the present invention combines both of the advantageous features required of a mobile home foundation because it provides a foundation which ensures a high degree of stability to the home, yet the foundation is portable and therefore not subject to taxes and permits.

Therefore, it is an object of the present invention to provide a foundation adequately supporting a mobile home, yet portable so as to obviate real estate taxes and building permit requirements.

Another object of the present invention is to provide a foundation assembly for mobile homes which can be precast from concrete.

Another object of the present invention is to provide a mobile home foundation having a reliable mechanism for securing the home to the foundation support assembly.

Another object of the present invention is to provide a mobile home foundation assembly which includes an assembly for securing the supporting structures to the ground.

The foregoing objects are attained by providing a precast foundation assembly for a mobile home, having

a frame, the combination comprising support means for supporting the mobile home on the ground, said support means including a plurality of precast concrete support assembles spaced along the bottom of the mobile home and supported on the ground, each of said support assemblies comprising a slab base, and two spaced apart support structures precast integrally with said slab base, each of said support structures having a receiving portion for engaging the frame of the mobile home.

Other objects, advantages and salient features of the present invention will become apparent from the following detailed description, which, taken in conjunction with the annexed drawings, discloses a preferred embodiment of the present invention.

Referring now to the drawings which form a part of this original disclosure:

FIG. **1** is a front elevational view showing a mobile home supported by the foundation assembly in accordance with the present invention;

FIG. **2** is a side elevational view of the structure shown in FIG. **1**;

FIG. **3** is a perspective view of a support assembly constructed in accordance with the present invention;

FIG. **4** is a perspective view of a support assembly constructed in accordance with a second embodiment of the present invention; and

FIG. **5** is a side elevational view, similar to FIG. **2**, but showing a mobile home supported on a support assembly in accordance with the second embodiment of the present invention.

Referring to the drawings in more detail, as shown in FIGS. **1** and **2** a mobile home **10** having a frame **12** is supported on the foundation assembly which comprises the present invention.

In a typical mobile home, such as that shown in FIGS. **1** and **2**, at least two conventional steel I-beams **14** and **16** constitute the primary components of the frame, and these I-beams extend longitudinally of the home in spaced, parallel relationship.

The foundation assembly includes a plurality of support assemblies, a plurality of securing assemblies, and an anchoring assembly.

Referring now to FIG. **3**, a support assembly **20** is shown comprised of a slab base **22** and two spaced apart support structures **24** and **26**. The slab base **22** is preferably a rectangular, planar slab of precast concrete material which is reinforced by metal rods (not shown). Integrally formed with the slab base **22** during the conventional casting operation of the support assembly **20** are the two support structures **24** and **26** which are formed in a right parallelepiped configuration. Each support structure, or block, is centered along the longitudinal axis of the slab base on the top surface **28** of the base and both are spaced inwardly from the ends **30** and **32** of that base. Each support structure has a receiving portion, or slot, **34** located in the top of the block, such slot being located in the middle of the top of the block and being oriented perpendicular to the longitudinal axis of the slab. Passing completely through each block in a direction parallel to the longitudinal axis of the slab is a bore **36** which is located approximately midway along the height of the block. Preferably, the depth of each slot **34** is less than the height of the I-beams which will be received therein, as described hereinafter.

Referring again to FIGS. 1 and 2, a plurality of the support assemblies 20 are positioned beneath the mobile home 10 in a spaced parallel configuration such that the I-beams 14 and 16 are received in the slots 34 which are formed in the support structures 24 and 26. Preferably the slab bases 22 on each support assembly 20 are embedded in the ground such that the top surface 28 of each is essentially parallel to the surface 29 of the ground. As shown in FIG. 1, five of the support assemblies 20 are utilized; however, this is only by way of example, any desired number being readily usable.

As shown in FIG. 2, the length of the slab base 22 is substantially equal to the width of the mobile home 10 supported thereon and the distance between the I-beams 14 and 16 equals the distance between the slots 34. Preferably each I-beam has a width equal to the width of the slot 34 so that relative movement therebetween is minimized.

Referring now to FIGS. 1 and 2, three different securing assemblies are illustrated. The first securing assembly 38 comprises a plurality of elongated steel straps 40, each of which is bolted to one of the I-beams at one end and to a support structure, through bore 36, at the other end. As shown in FIG. 2, each support assembly 20 has one strap 40 coupled between I-beam 14 and support structure 24 and another strap 40 coupled between I-beam 16 and support structure 26.

The second securing assembly 42 comprises a plurality of elongated steel straps 44, each of which is bolted at one end to an I-beam and at its other end to an end of a slab base 22. Preferably, straps 44 connect I-beams 14 and 16 to respective ends 30 and 32 of the three middle support assemblies 20 shown in FIG. 1.

The third securing assembly 46 comprises two elongated steel straps 48. One strap 48 is bolted at one end to end 32 of the slab base 22 of the left most support assembly in FIG. 1 and extends upward and over the top of the mobile home 10 and then downward along the opposite side where it is bolted to the end 30 of that slab base 22. The second strap 48 is similarly coupled to the right most support assembly 20 in FIG. 1.

Preferably, wood shims 50, shown in FIG. 1, are placed in the slots 34 between the block and the bottom of each I-beam so that precise levelling of the mobile home might be effected.

The anchoring assembly 52 comprises a plurality of auger anchors 54, each in the form of a steel helix which is connected at its top end to the bottom of steel straps 44 and 48. Preferably the auger anchor is 4 feet long and is positioned in the ground along a substantial part of its length.

Referring now to FIG. 4, a second embodiment of a support assembly, designated 21, is shown which, rather than having central slots in the top of the blocks for receiving the I-beams, has a reduced portion 56 which is formed by eliminating one of the upstanding legs 35 forming the slots 34 in the previously described support structures. In this fashion, the width of the I-beams need not be precisely equal to the width of the reduced receiving portion 56, such portion thereby accommodating an I-beam having a width which is greater than the width of the reduced receiving portion itself. The remaining elements of support assembly 21 are the same as in assembly 20 and are given similar reference numerals.

FIG. 5 illustrates the relative position of a mobile home supported on a series of support assemblies 21 formed in accordance with the one shown in FIG. 4.

In a preferred embodiment of the support assembly 20 shown in FIG. 3, the slab base 22 has a length of 11 feet, 7 inches and width of 4 feet. The width of the slot 34 is preferably four inches and the thickness of the upstanding legs 35 of the block surrounding the slot is 3 inches, the blocks thereby having an overall width of 10 inches. Preferably, the slab base has a height of 8 inches and the height of the block is 1 foot, 9 inches. The depth of the slot is approximately 3 inches.

Each of the precast support assemblies weighs approximately 4,650 lbs. and provides 48 square feet of footing.

In practice, the support assemblies 20 and 21 are conventionally precast in one integral piece, with a plurality of them being transported to the intended location of the mobile home. Depending on the number of support assemblies to be used, a plurality of cavities are dug out from the ground for the reception of the slab bases for each of the support assemblies. Each support assembly is then placed in an excavation and they are all aligned in a parallel spaced relationship extending approximately along the entire length of the mobile home to be supported thereon.

The mobile home, which is initially conventionally mounted on wheels and transported by a towing vehicle to the foundation site is then placed, with the aid of a crane or similar apparatus, on the plurality of support assemblies so that the longitudinal I-beams 14 and 16 are received in the slots 34 or reduced portions 56. The wheels are then removed if desired. In order to assure a complete level positioning of the mobile home, at this time the wood shims 50 are placed in the reduced receiving portions between the I-beams and the blocks.

As the final step, the securing assemblies 38, 42 and 46 are made fast and the anchoring assembly augers are screwed into the ground adjacent the support assemblies and secured, such as by welding, to the steel straps 44 and 48.

While two advantageous embodiments of the present invention have been utilized to describe and illustrate the invention, it will be understood by those skilled in the art that various changes and modifications can be made therein without departing from the scope of the invention as defined in the appended claims.

What is claimed is:

1. A precast foundation assembly for a mobile home having a frame, the combination comprising:

support means for supporting said mobile home on the ground,

said support means including a plurality of precast concrete support assemblies spaced along the bottom of said mobile home and supported on the ground,

each of said support assemblies comprising a slab base having a length substantially equal to the width of said mobile home, and two spaced apart support structures precast integrally with said slab base, each of said support structures having a receiving portion for engaging said frame of said mobile home,

each of said support structures comprising an upstanding block substantially in the form of a parallelepiped extending upwardly from the top surface of said slab base with the tops of each of said blocks

being elevated from the top surface of said slab base,

each of said receiving portions being a reduced portion formed in the tops of each of said blocks, and

each of said blocks being centered along the longitudinal axis of said slab base and being spaced inwardly from the ends of said slab base.

2. A precast foundation assembly according to claim **1**, wherein each of said support structures comprises a block and said receiving portion is a reduced portion formed in the top of said block.

3. A precast foundation assembly according to claim **1**, wherein each of said support structures comprises a block and said receiving portion is a slot formed in the center of the top of said block.

4. A precast foundation assembly according to claim **1** and further including

an elongated steel strap,

first means for coupling one end of said strap to said frame, and

second means for coupling the other end of said strap to one of said blocks,

said second means including a bore passing completely through said block in a direction parallel to the longitudinal axis of said slab base and a fastener coupled to said strap other end and extending through said bore.

5. A precast foundation assembly according to claim **1** and further including

an elongated steel strap,

means for coupling one end of said strap to said frame, and

means for coupling the other end of said strap to the end of said slab base.

6. A precast foundation assembly according to claim **5** and further including

an auger secured at one end to said other end of said strap and positioned along a substantial part of its length in the ground.

7. A precast foundation assembly according to claim **1** and further including

an elongated steel strap coupled at one end to an end of said slab base, passing over the top of said mobile home, and coupled at the other end to the end of the same slab base, and

an auger secured at each end of said strap and positioned along a substantial part of its length in the ground.

* * * * *