United States Patent [19]

Sharpton

[11] **3,857,211**

[45] **Dec. 31, 1974**

[54] **MULTILEVEL COMPONENTIAL HOUSE TRAILER**

[76] Inventor: **George Sharpton,** 104 N. Tenth St., Lyons, Ga. 30436

[22] Filed: **June 25, 1973**

[21] Appl. No.: **372,939**

[52] **U.S. Cl.** ..... **52/65,** 52/68, 52/69, 296/23 G

[51] **Int. Cl.** **E04b 1/344**

[58] **Field of Search** ..... 52/66, 67, 68, 69, 70; 296/23 R, 23 F, 23 G

[56] **References Cited**

UNITED STATES PATENTS

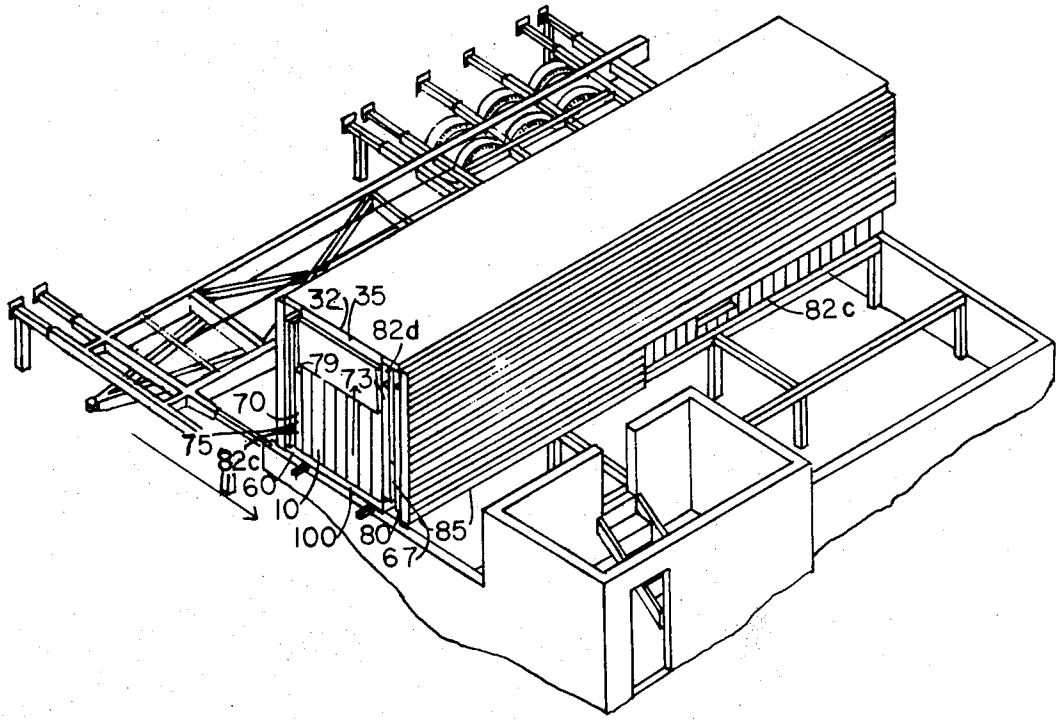
559,966	5/1896	Bierstadt	52/86
1,417,736	5/1922	Heygate	52/69
1,861,548	6/1932	Peck	52/69
2,155,876	4/1939	Stout	52/69
2,886,856	5/1959	Kun Che	52/69
2,920,920	1/1960	Coase	52/68
3,070,850	1/1963	McClure	52/69
3,107,116	10/1963	Meaker	52/67
3,271,065	9/1966	Scuris	296/23 R
3,429,608	2/1969	Furnam	52/66
3,460,297	8/1969	Fritz	52/66

Primary Examiner—Frank L. Abbott
Assistant Examiner—Henry Raduazo

[57] **ABSTRACT**

The present invention pertains to a housetrailer having multiple living levels with the addition of folding components for the upper and lower level and capable of being retracted into and about the lower living level to facilitate transportation along public roads with a means of supporting it after having been raised by an auxiliary use of determined number of jacks while a mechanical core for the upper and lower levels is permanently attached to the lower floor and sleeved within the floor of the upper level as the upper level is retracted into and about the lower level.

1 Claim, 20 Drawing Figures



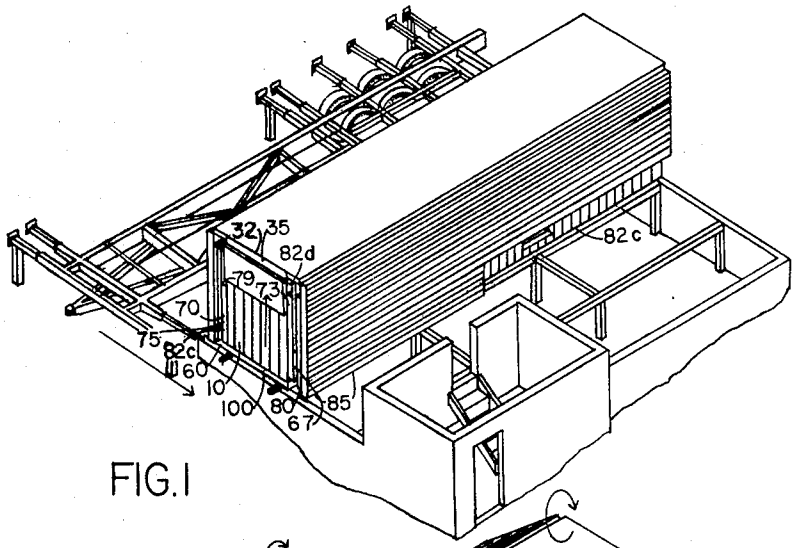


FIG. 1

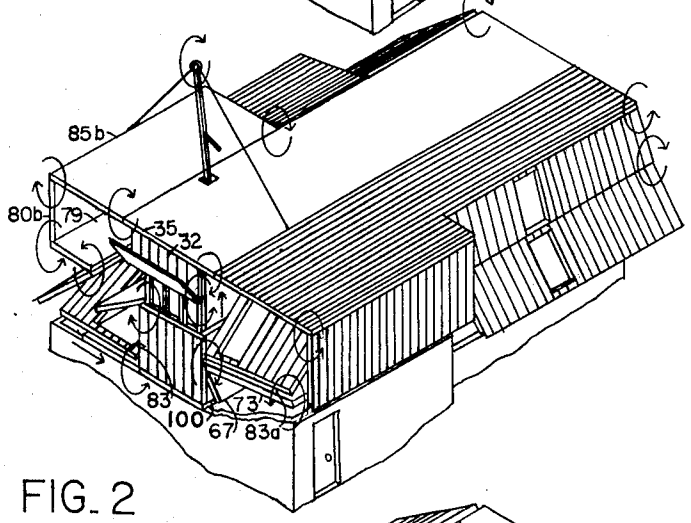


FIG. 2

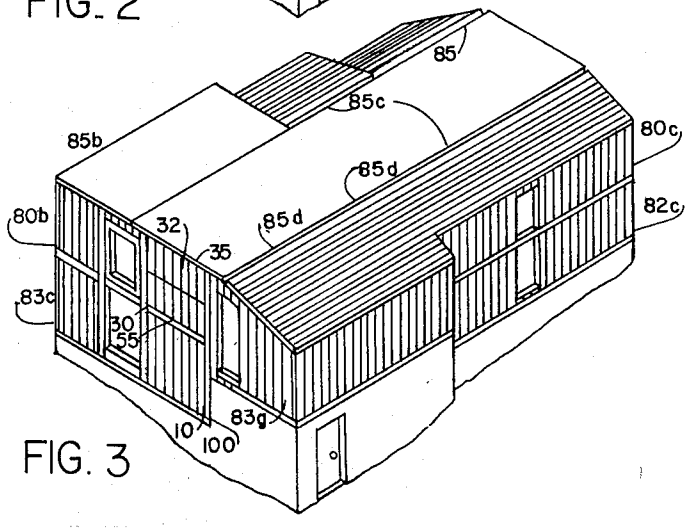


FIG. 3

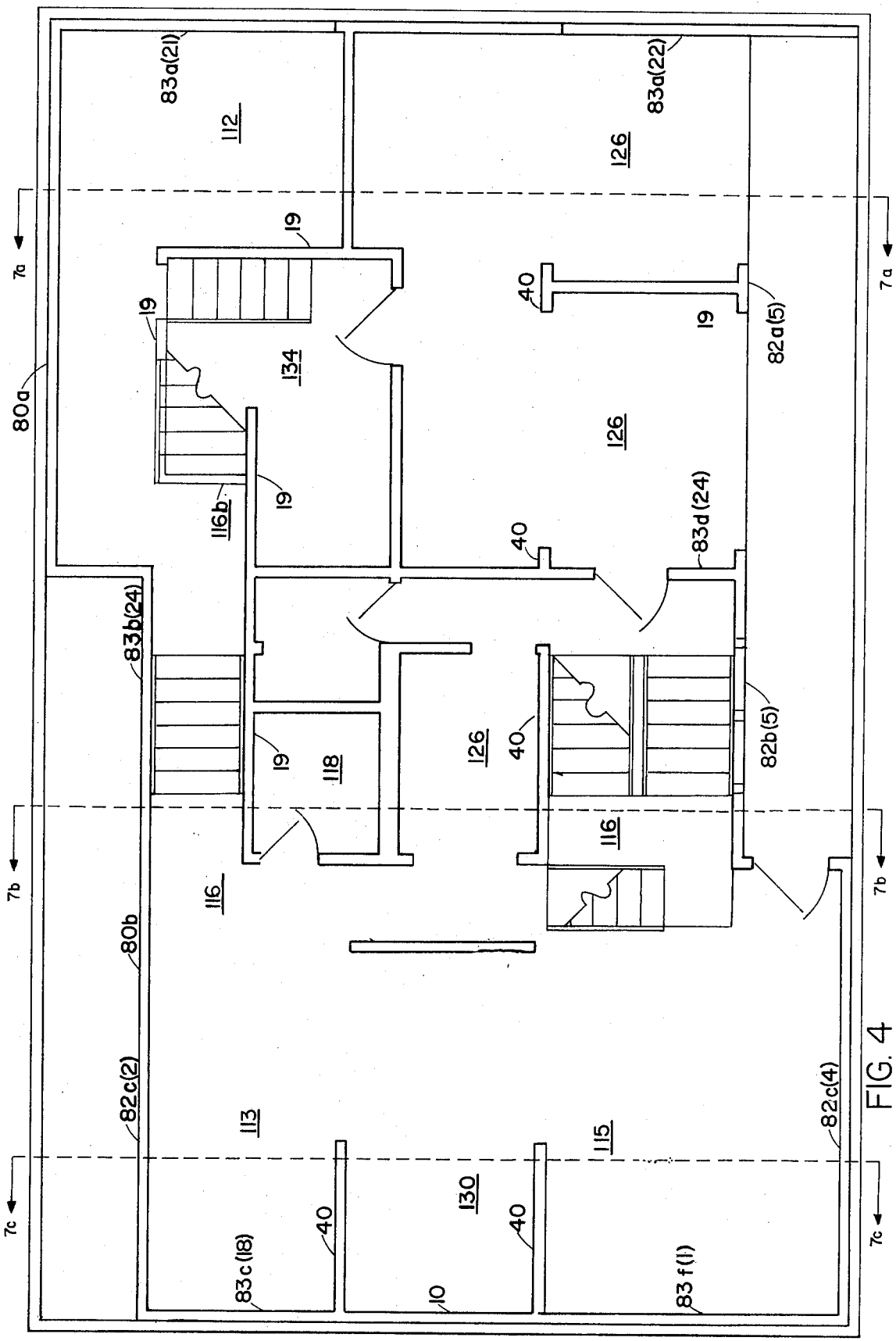

83a(21)
112
83a(22)
126
19
7a
40
82a(5)
80a
134
116b
83d(24)
83b(24)
118
82b(5)
116
7b
80b
82c(2)
113
115
82c(4)
7c
130
83c(18)
10
83f(1)

FIG. 4

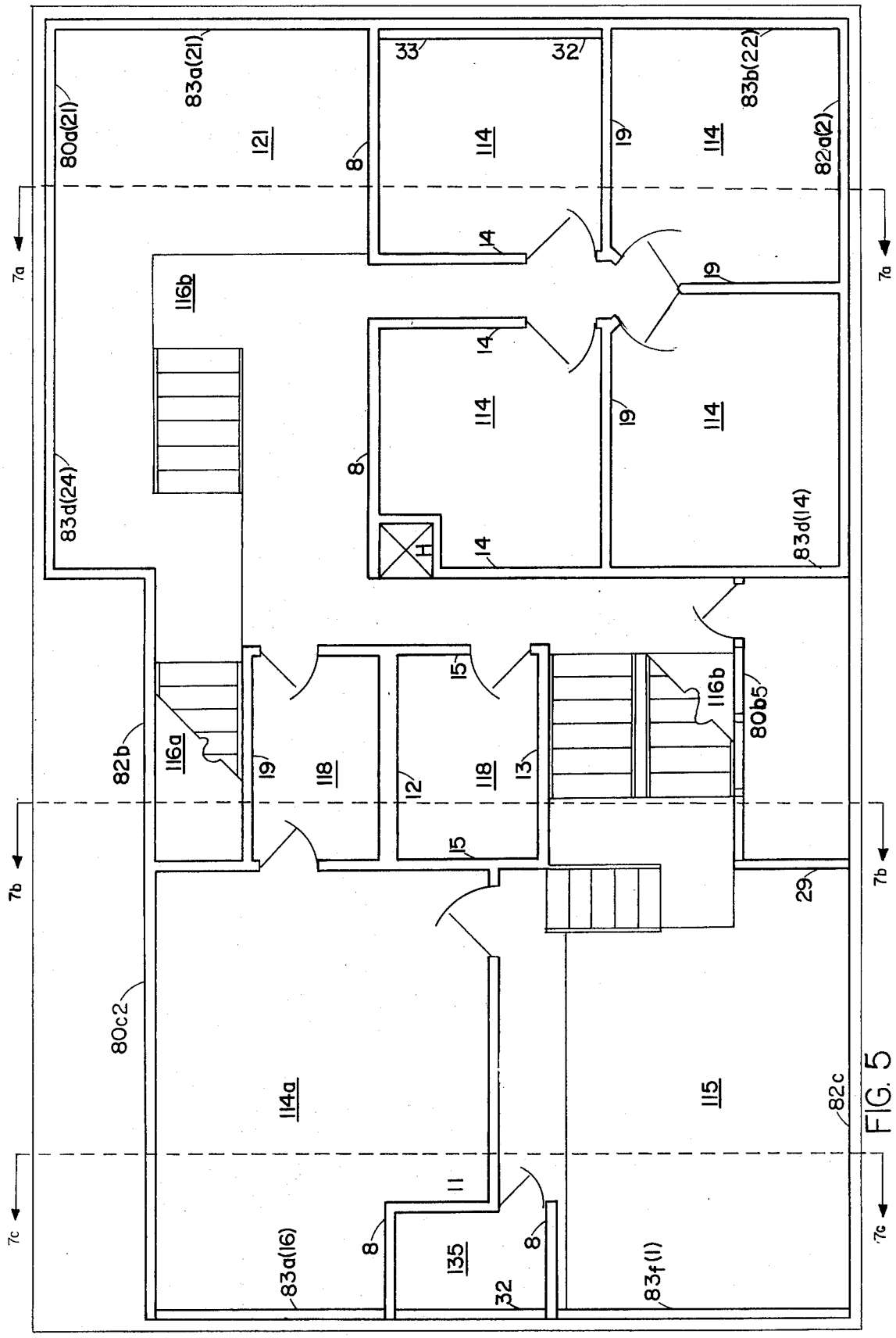

80a(21)
83a(21)
121
33
32
114
83b(22)
82a(2)
19
8
14
7a
116b
83d(24)
H
83d(14)
15
116b
80b5
82b
116a
118
12
13
7b
29
80c2
114a
115
82c
11
7c
83a(16)
135
83f(1)

FIG. 5

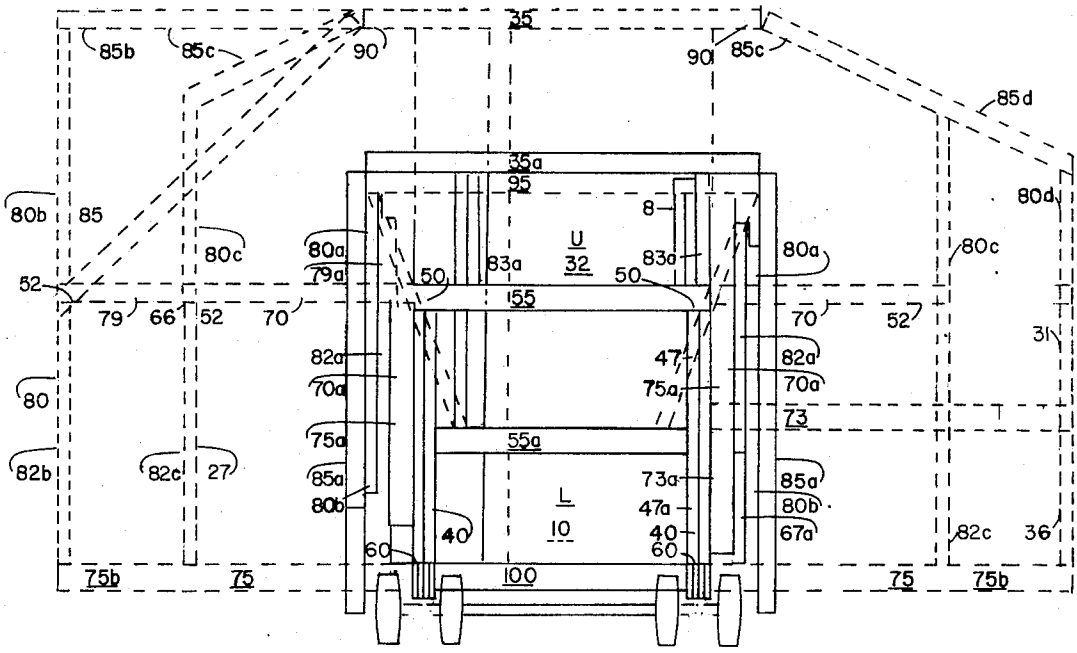

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85b
85c
90
90
85c
85d
35a
95
80b
85
80c
8
80d
80a
79a
50
83a
U
32
83a
50
80a
80c
52
79
66
52
70
55
70
52
31
82a
47
82a
80
70a
75a
70a
73
75a
55a
82b
82c
27
85a
73a
85a
80b
L
47a
80b
10
40
40
67a
60
60
82c
36
75b
75
100
75
75b

FIG. 6

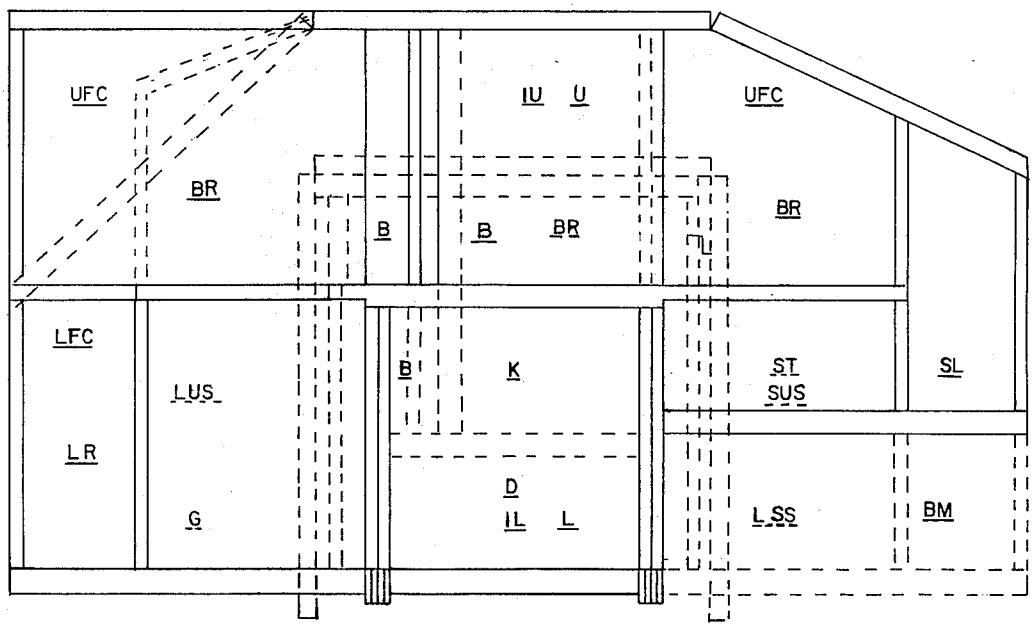

UFC
IU
U
UFC
BR
B
B
BR
BR
LFC
B
K
ST
SUS
SL
LUS
LR
D
IL
L
L SS
BM
G

FIG. 7

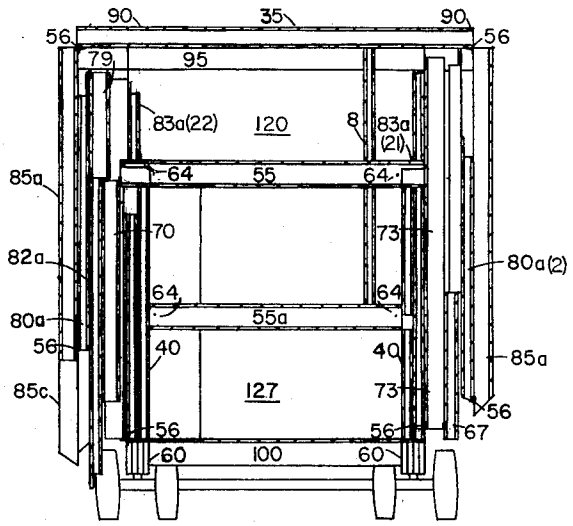

90
35
90
56
56
79
95
83a(22)
120
8
83a
(21)
85a
64
55
64
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73
82a
80a(2)
64
64
80a
55a
56
40
40
85a
85c
127
73
56
56
56
67
60
100
60

FIG. 6a

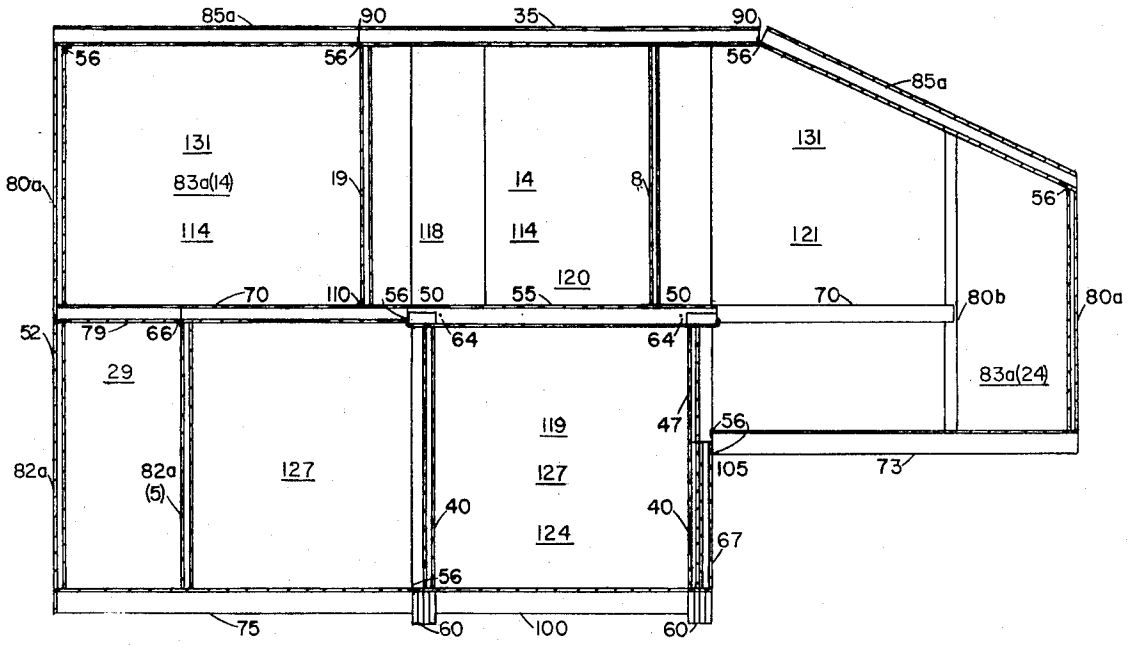

85a
90
35
90
56
56
56
85a
131
131
80a
83a(14)
19
14
8
56
114
118
114
121
120
70
110
56
50
55
50
70
80b
80a
52
79
66
64
64
29
83a(24)
119
47
56
82a
82a
(5)
127
127
105
73
40
40
124
67
56
75
60
100
60

FIG. 7a

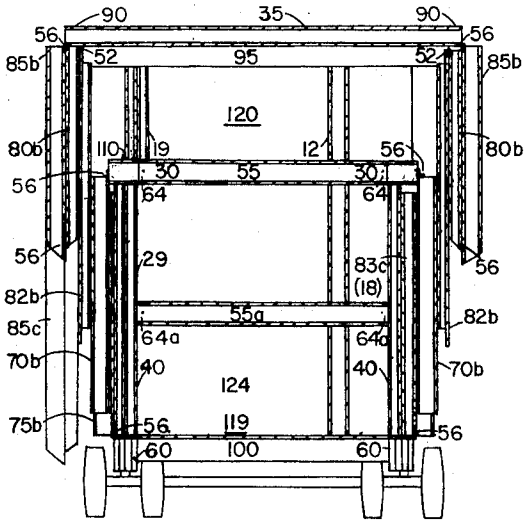

90
35
90
56
56
85b
52
95
52
85b
120
80b
110
19
12
56
80b
30
55
30
56
64
64
56
29
83c
(18)
56
82b
55a
82b
85c
64a
64a
70b
40
40
70b
124
75b
56
119
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60
100
60

FIG. 6b

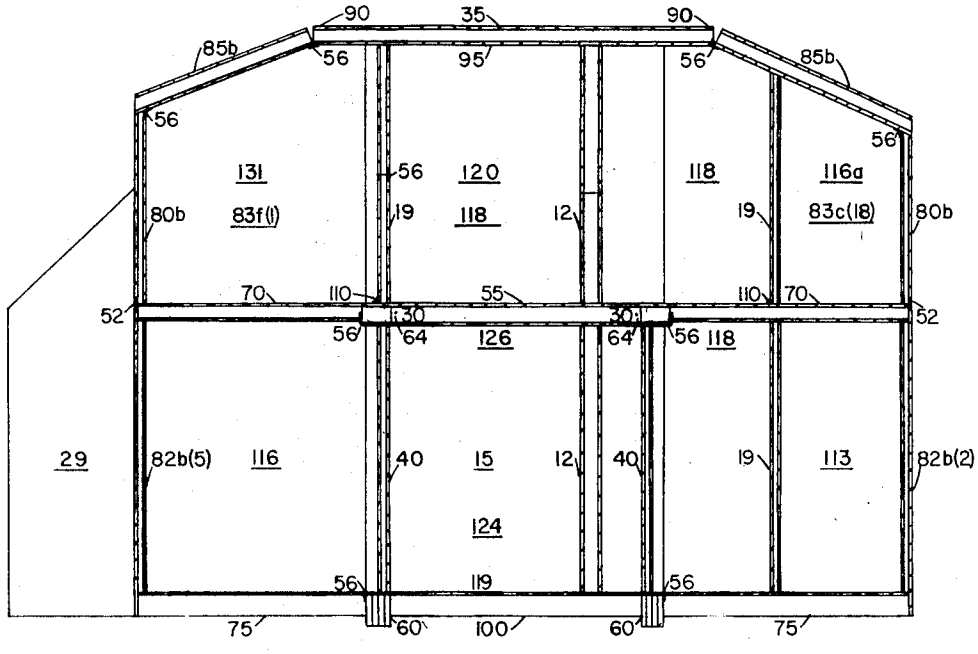

90
35
90
85b
56
95
56
85b
56
56
131
56
120
118
116a
80b
83f(1)
19
118
12
19
83c(18)
80b
70
110
55
110
70
52
52
30
30
56
64
126
64
56
118
29
82b(5)
116
40
15
12
40
19
113
82b(2)
124
56
119
56
75
60
100
60
75

FIG. 7b

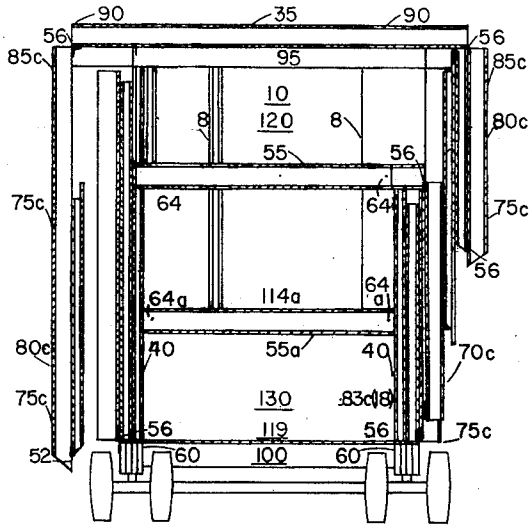

90
35
90
56
56
85c
95
85c
10
120
8
8
80c
55
56
75c
64
64
75c
56
64a
114a
64a
80c
40
55a
40
70c
75c
130
83c(18)
56
119
56
75c
52
60
100
60

FIG. 6c

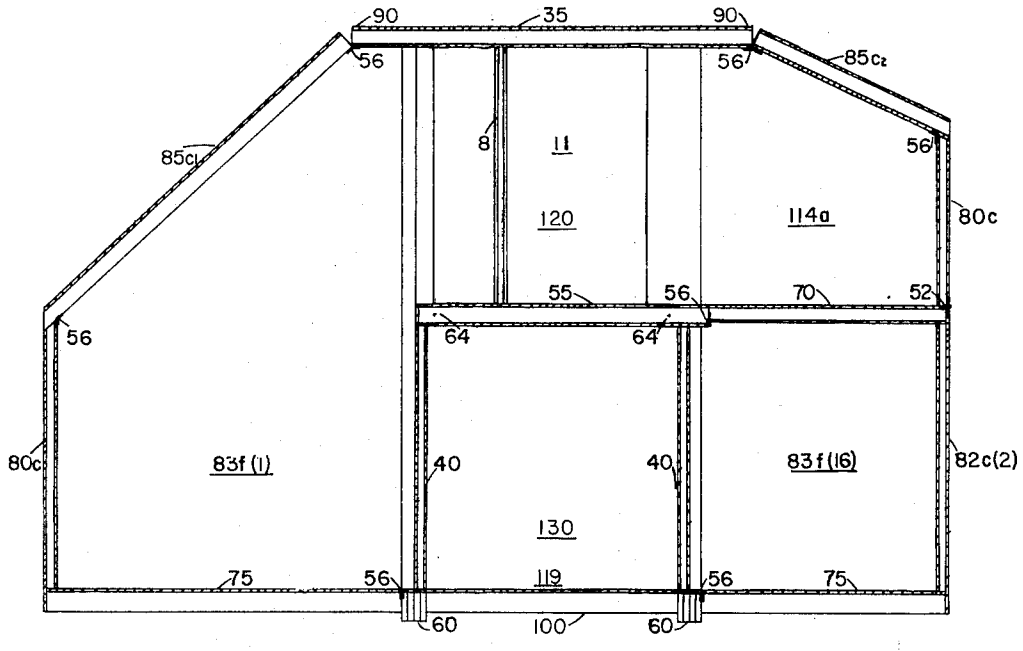

90
35
90
56
56
85c2
85c1
8
11
56
120
114a
80c
55
56
70
52
56
64
64
80c
83f(1)
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83f(16)
82c(2)
130
75
56
119
56
75
60
100
60

FIG. 7c

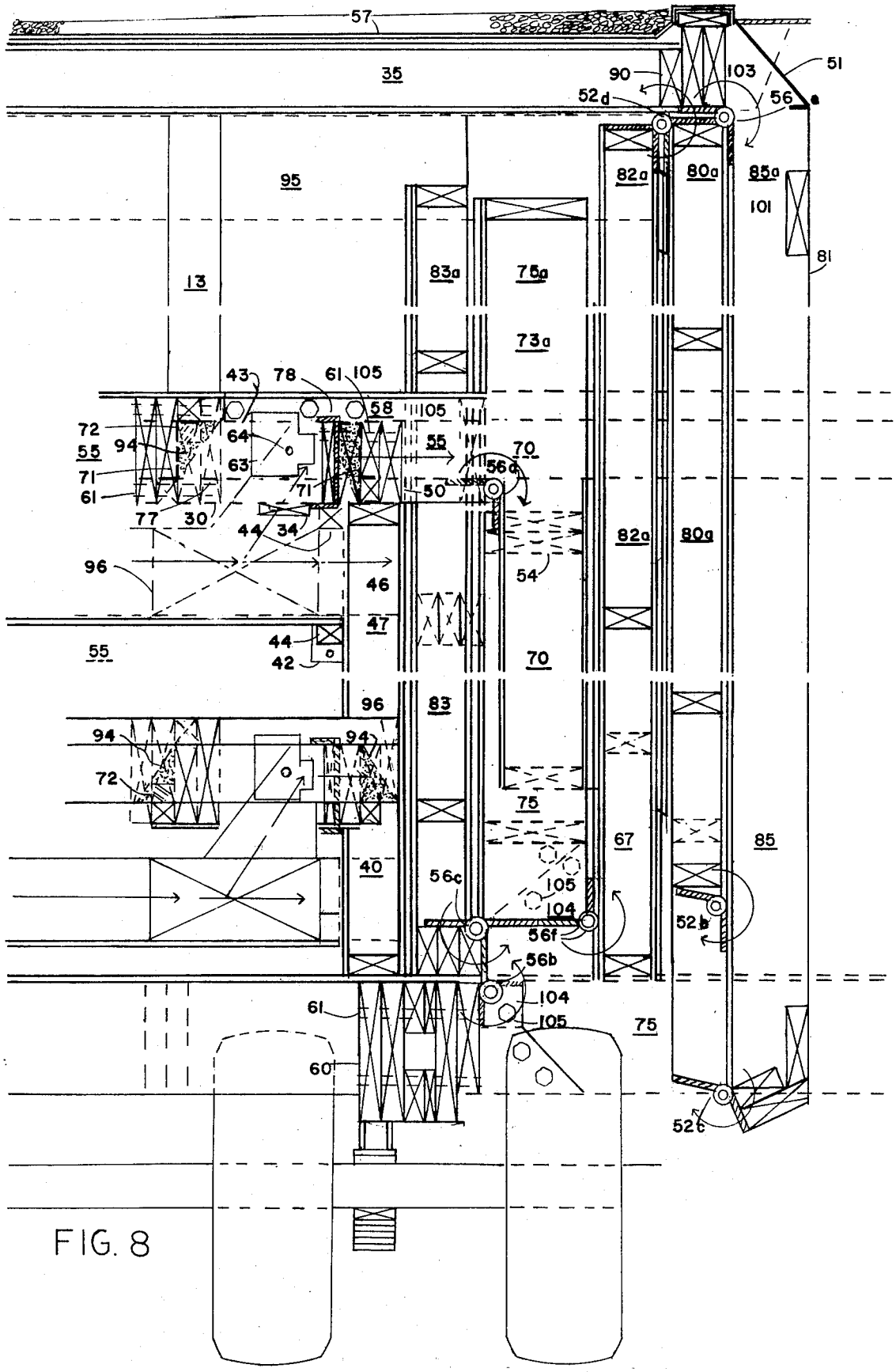

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35
90
103
51
52d
56
95
82a
80a
85a
101
81
13
83a
75a
73a
43
78
61
105
58
72
64
55
94
63
71
61
77
30
44
34
96
46
47
55
44
42
70
56d
50
54
83
94
72
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67
85
40
56c
105
104
56f
52b
56b
61
60
52c

FIG. 8

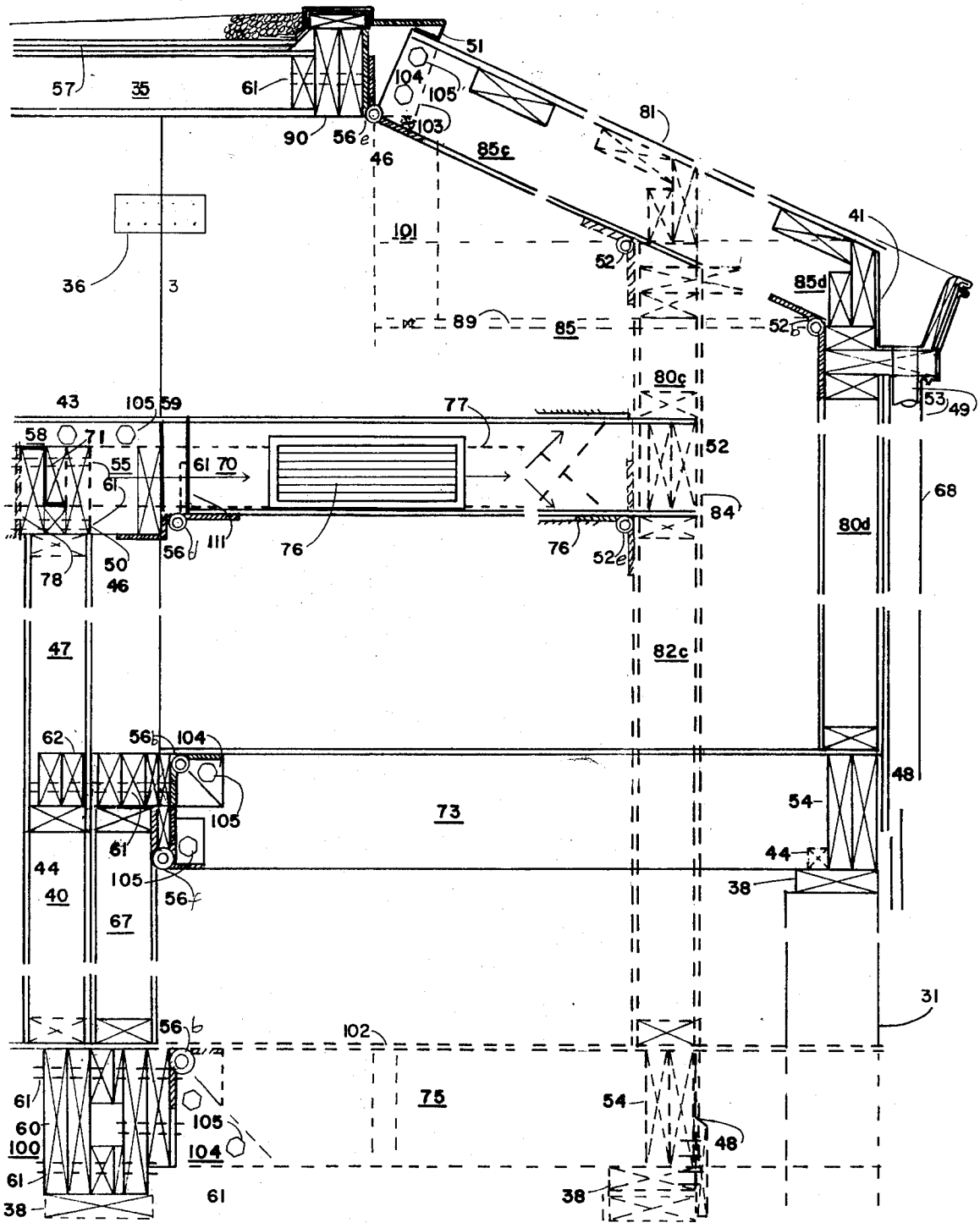

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61
90
56e
46
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104
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103
81
85c
41
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52
36
3
89
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85d
80c
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71
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80d
56d
111
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76
52a
78
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46
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82c
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56b
104
48
105
73
54
61
44
44
105
56f
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38
75
105
104
61
54
48
38

FIG. 9

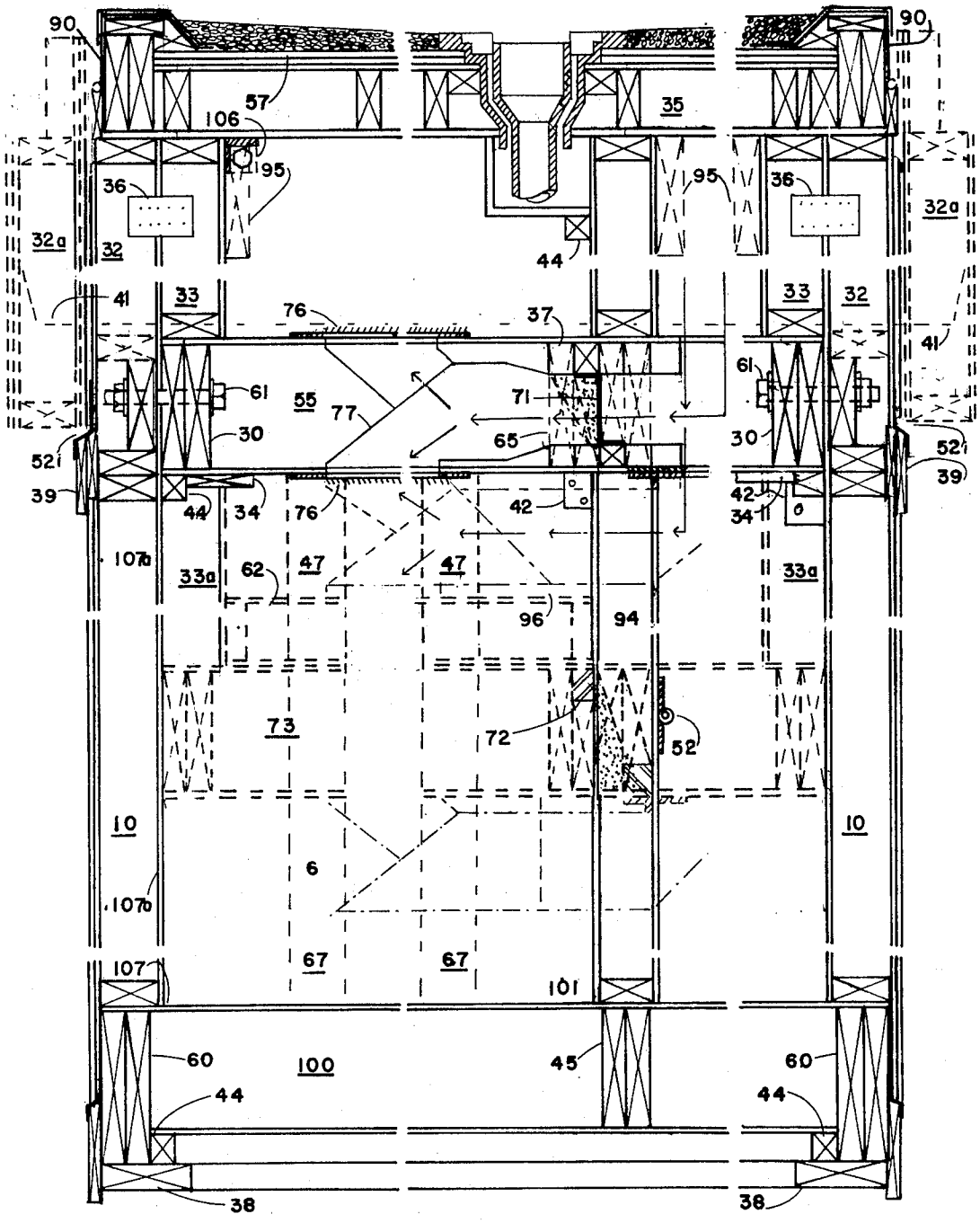

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32a
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41
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37
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77
71
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65
52
39
34
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47
96
94
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72
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67
101
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100
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FIG. 10

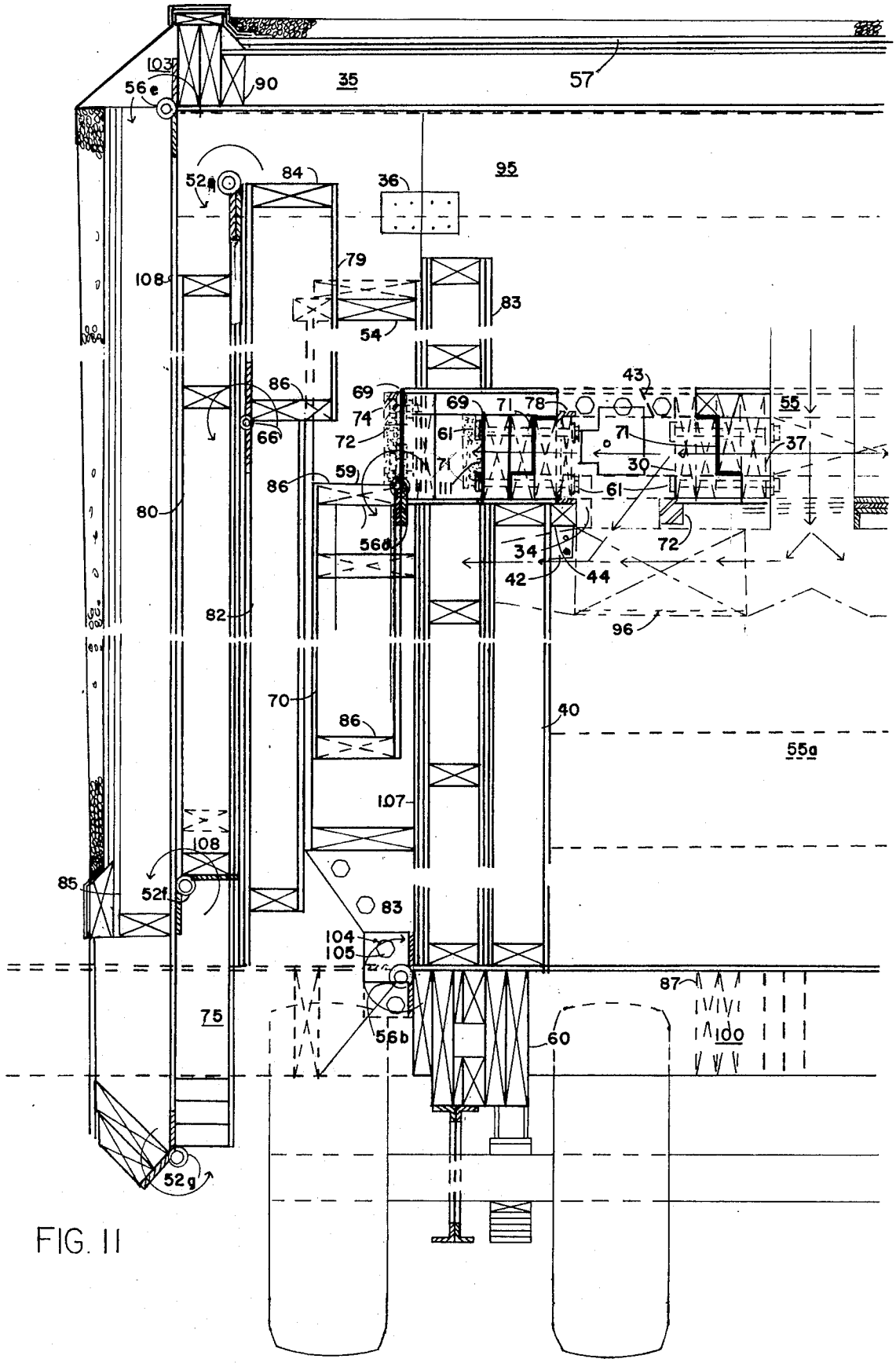

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56e
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57
52a
84
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95
108
79
83
54
86
69
74
72
66
59
80
56a
82
70
86
107
108
85
52f
83
104
105
75
56b
60
87
100
43
55
71
78
61
30
37
34
42
44
72
96
40
55a
52g

FIG. 11

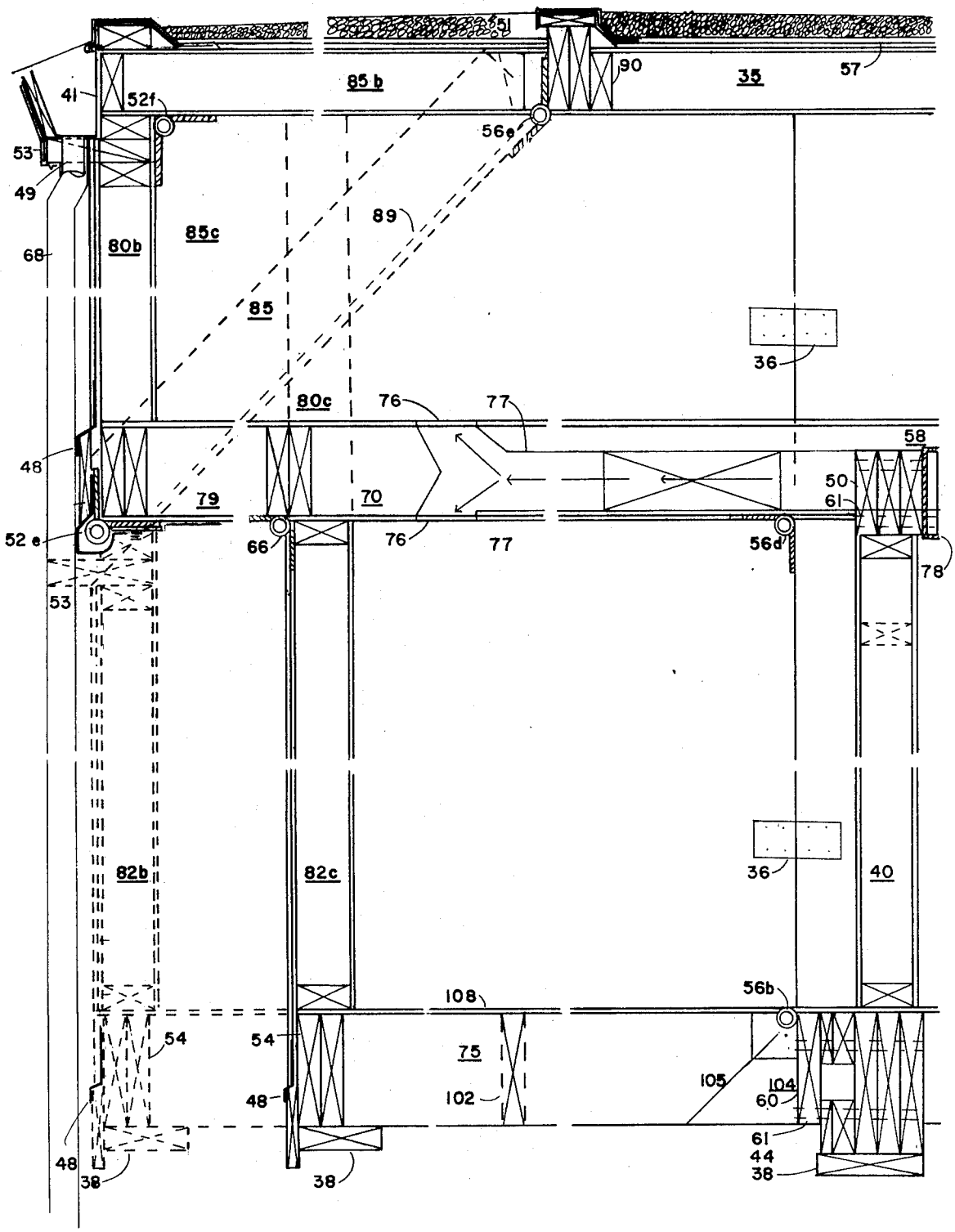

41
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56e
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80b
85c
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80c
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48
79
70
50
61
52e
66
76
77
56d
78
53
82b
82c
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38
38

FIG. 12

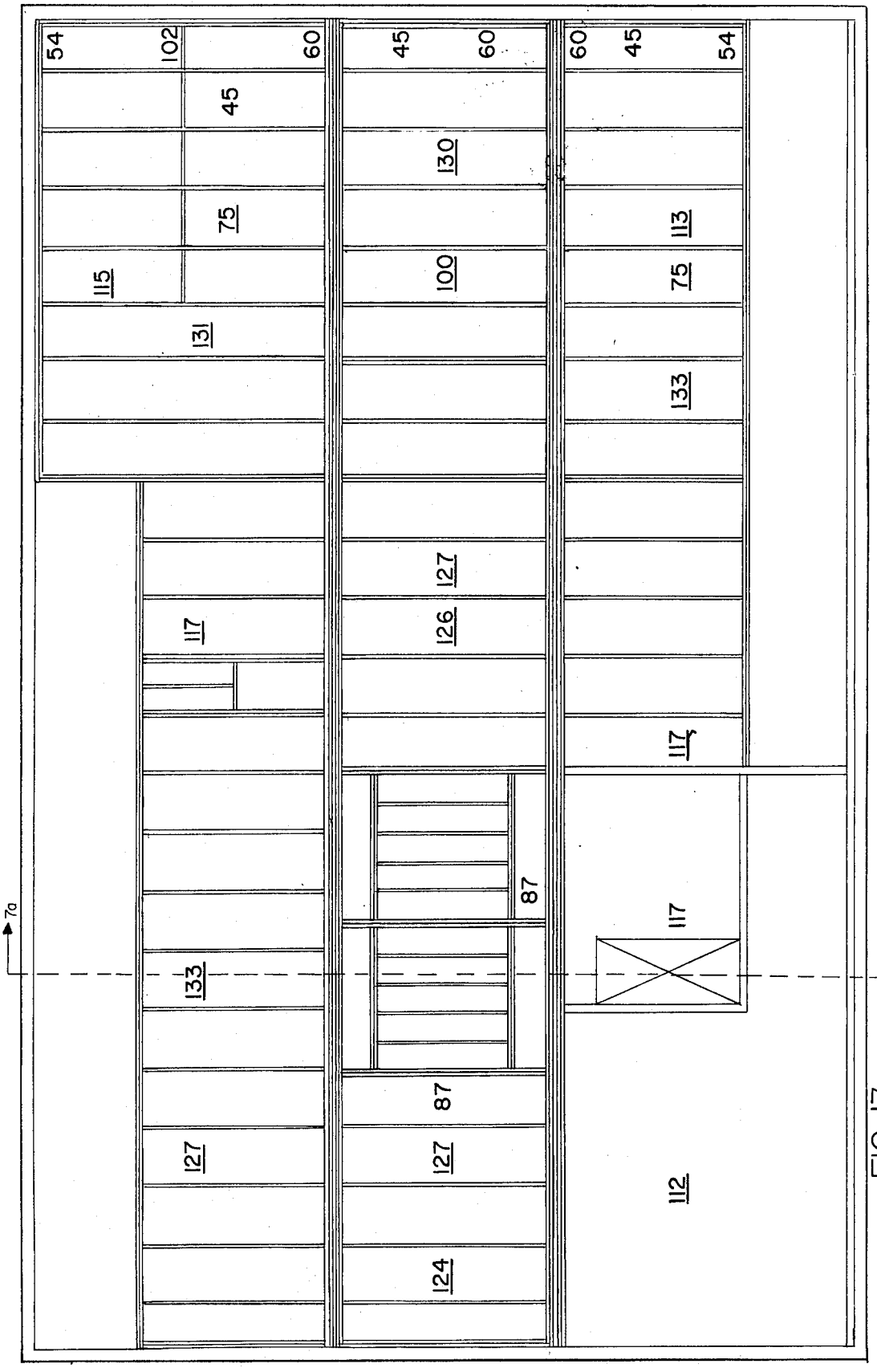

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115
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117
7a
7a
133
87
127
127
112
124

FIG. 13

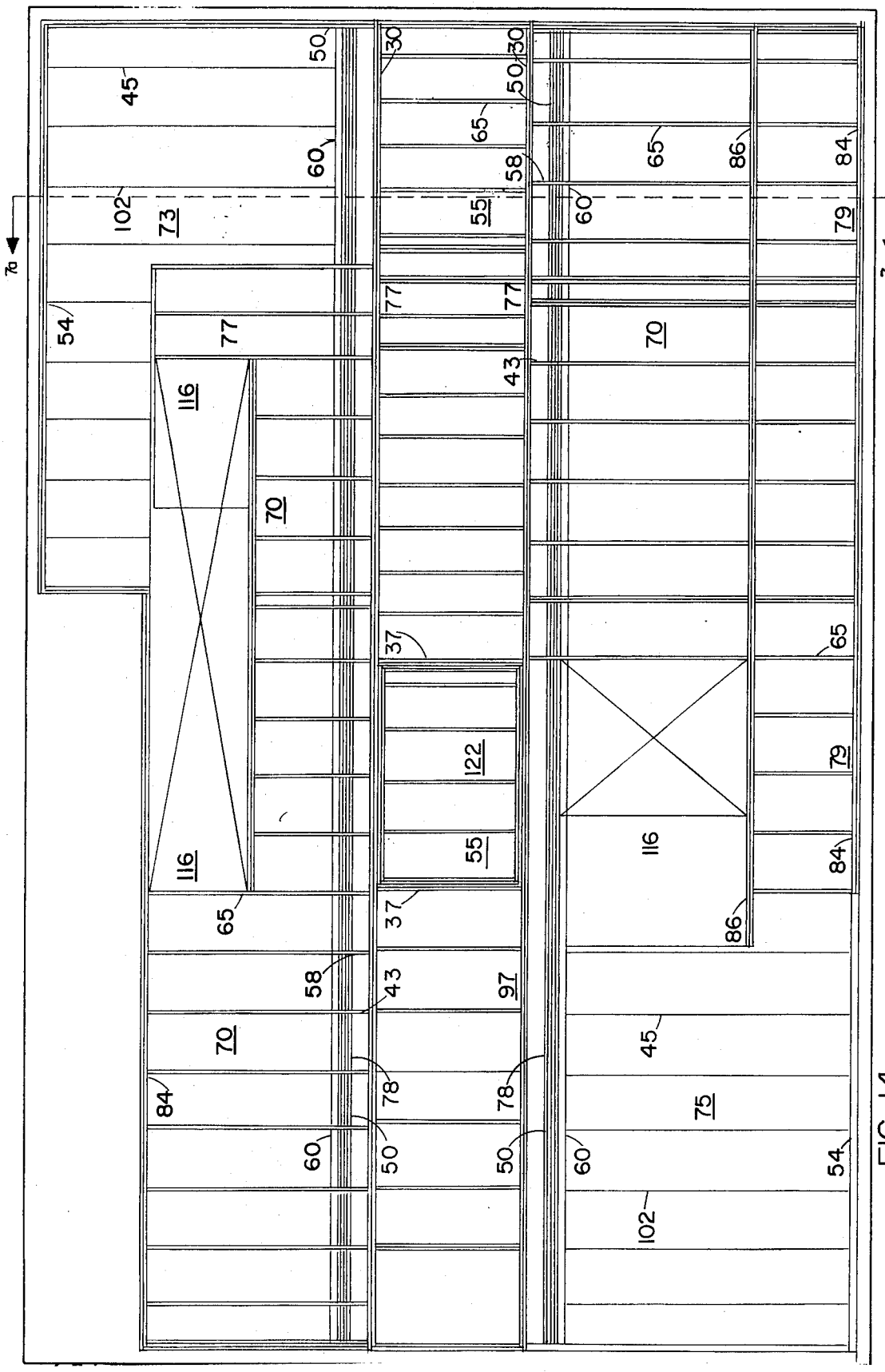

7a
7a
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65
86
84
60
58
60
102
73
55
79
77
77
54
77
70
43
116
70
37
65
122
79
55
116
116
84
65
37
86
58
43
97
45
70
78
78
75
84
60
50
50
60
54
102

FIG. 14

MULTILEVEL COMPONENTIAL HOUSE TRAILER

DESCRIPTION OF PRIOR ART

Due to various social and economic factors, the mobile homes has been a demanding item. But, due to limitations of length, height and width of vehicles which are transported upon public roads and highways, the total living area has been limited. Although there are some mobile homes which may be carried in sectional units (sectionals, stack-ons, components, etc., single levels, fold-out types, and units with retractable upper levels), these units still required 2 to 4 times as many transporters as would be required using this retractable folding structure when moving from one location to another along public roads and highways. Similar art may be found in U.S. Pats. Nos. 3,612,589; 2,739,833and 2,862,253of 296/23 to 69

SUMMARY

The present invention comprises an improved mobile home or house trailer which is small enough to be moved along public streets or highways and yet provides substantially more living area than an ordinary house trailer of comparable linear dimensions.

It is also the object of this invention to provide a new and improved mobile home having at least an upper living level and a lower living level to which folding components for multilevel living are attached respectively, and an upper level capable of being retracted into the lower level to facilitate transportation upon public roads.

It is also the object of this invention to provide a new and improved mobile home having at least a means supporting the upper level with respect to the lower level which is raised by means of auxiliary jacks with respect to this unit.

It is too the object of this invention to provide a multilevel mechanical core that serves the first and second level respectively which is permanently mounted to the lower level and is sleeved within the floor of the upper level during vertical movement of the upper level.

It is also the object of this invention to provide folding components capable of being arbitrarily located along the perimeter of a basic multilevel unit having a retractable or decending upper level with continuous beams which are mounted perimetrically to linearly fixed walls or studs. The component panels will ascend and descend vertically and horizontally as well when they are to be used with a different basic module from what is illustrated in this application, but requiring the same basic means of application as the one illustrated here.

It is further an object of this invention to provide a floor that will elevate vertically along a fixed wall, studs or columns to a given height to provide a split level condition.

BRIEF DESCRIPTION OF DRAWINGS

FIG. **1** is an issometric showing the unit folded for transit.

FIG. **2** is an issometric showing the unit unfolding during erection.

FIG. **3** is an issometric showing the unit unfolded and erected.

FIG. **4** is a floor plan illustrating the playout of the first floor of the erected unit.

FIG. **5** is a floor plan illustrating the layout of the second floor of the erected unit.

FIG. **6** is a building section illustrating the building in its folded position in comparison to it unfolded and erected.

FIGS. **6***a*, *6b* and **6***c* are section views taken along lines **7***a*, *7b* and **7***c* illustrating the building in its folded position.

FIG. **7** is a building section illustrating the unit unfolded and erected in comparison to it folded for transit.

FIGS. **7***a*, *7b* and **7***c* are section views taken along lines **7***a*, *7b* and **7***c* illustrating the building unit in the unfolded position.

FIG. **8** is a blown up wall section transversally illustrating the split level wall, floor and roof panels, and those that house the first to second level stairs when the unit is folded for transit. Roof connections are also illustrated, as well as vent mating.

FIG. **9** is a blown up wall section transversally illustrating the wall floor and ceiling panels of FIG. **8** in their unfolded positions.

FIG. **10** is a blown up wall section longitudinally illustrating the unit folded and unfolded comparatively with emphasis on major structural panels.

FIG. **11** is a blown up wall section transversally illustrating the wall, floor and roof panels of the recessed lower level with an extended upper level and the living room.

FIG. **12** is a blown up wall section transversally illustrating the panels shown in FIG. **11.**

FIG. **13** is a framing plan showing such a layout for framing the first level floor panels.

FIG. **14** is a framing plan showing such a layout for framing the second lever floor panels.

1. End Exterior Wall (full width)
2. Side Exterior Wall (recessed)
3. Full top Exterior Wall
4. Mid-Unit Partition
5. Movable Partition for Bath or Util. Rm.
6. Lower Linear Load Bearing Wall
7. Lower Side Wall
8. Upper Linear Load Bearing Wall
9. Divider (fixed — ½ fold)
10. End Bracing and Load Bearing Wall (LC)
11. End Bracing and Load Bearing Wall (UC)
12. Bathroom — Kitchen Plumbing tree
13. Bathroom or Utility Partition (fixed linear wall)
14. Fixed Partition (Attached Core Panel)
15. Fixed transverse Bathroom Partition (LC)
16. Base for fixed Bathroom Partition with attached upper part
17. Reclining core panel (attached at base).
18. Side wall for living room component
19. Movable partition
20. Hydraulic Jack
21. End Folding Panel Split Level
22. End Wall (Garage)
23. Stair well Exterior Wall
24. Intermediate Folding Part.
25. Pantl (Bridging side)
26. Split Level Wall Exterior
27. Recessed Component Wall
28. Movable Stair
29. Intermediate Moable partition
30. Major Beams for Decending Second Floor (Perimeter)

31. Lower Split level Wall
32. Outer End Wall (Upper Level)
33. Inner End Wall (Upper Level)
34. 1 × 4 Lath Strip
35. Intermediate Roof Panels
36. Metal Ties
37. Second Floor Mechanical Core Floor Beams
38. Sill
39. Facia Strips
40. Fixed Columns or Load Bearing Walls Upon Perimeter Floor Beams of Intermediate Lower Unit.
41. Drain Gutter For Unit.
42. Jack Attachment.
43. Point of Second Floor Panel Separation
44. Ledger Strip
45. First Floor Joists
46. Bolt for Suspended Load Bearing Wall
47. Split Level Suspended Wall
48. Base wall flashing.
49. Gutter Drain
50. Continuous Beams for Second Floor (Perimeter)
51. Elastic Flashing
52. Wall — Floor, Wall—Wall, or Wall — Ceiling
53. Gutter Block
54. First Floor Component Outer Headers
55. Second Level Intermediate Floor Panel
56. Floor or Ceiling Hinge
57. Built Up Roof
58. Bridging Joist Plate (Metal)
59. Second Floor, Component Pivot Beam
60. Continuous Beam for First Floor (Perimeter)
61. Beam Connector Bolts
62. Suspended Wall (Block)
63. Second Floor Hatch Type Pivot Plate
64. Second Floor Hatch Type Pivot Bolt
65. Second Floor Joists
66. Second Floor Extension Component Hinge
67. Split Level Support Wall at Intermediate Component
68. Down Spout
69. Vent Seal (Direct)
70. Second Level Component Floor Panel
71. Sealed Vent Connection (Overlapping)
72. Foam Blocks
73. Split Level Floor Panel
74. Direct Vent Compression Seals (Pivotal)
75. First Floor Component Panel
76. Floor Register
77. Forced Air Vent
78. C-Shaped continuous Joist for Second Level Continuous Panel
79. Second Floor Extension Floor Panel
80. Notation for Typical Outer Component Walls
81. Pitched Roofing
82. Notation for Typical Outer Flush or Recessed Lower Component Wall
83. Notation for End or Intermediate Panel Folding about the First Level Floor Panels
84. Second Floor Headers for Component Panels
85. Notation for Component Roof Panel
86. Adjoining Beams for Second Floor Components.
87. Joists for Wheel Cut Out
88. Extended Upper Floor Components
89. Living Room Pin Rack
90. Roof Headers (Perimeter of Center Unit)
91. Roof of Short Component and Extension
92. Roof of Split Level Component
93. Stair Rail
94. Diagonal Felt Blocks
95. Transit Roof support
96. Vent Support Bracket
97. Forced Air Furnace
98. Hinge for Intermediate Height on End or Intermediate Walls
99. Fixed Stair
100. Intermediate First Floor Panel
101. Suspended Stud
102. Floor Bracing
103. Roof Panel Attachment
104. First Floor Component Panel Attachment
105. Metal Plate Bolts
106. Roof — Lateral Component Panel Connector
107. Lateral Panel Hinge
108. Folded Panel Hold Attachment
109. Gutter tie
110. Pivot for Interior Wall Panel
111. Optional Direct Vent Connection
112. BMT — Basement
113. ST — Study
114. BR — Bedroom
A Master Bedroom
115. LR — Living Room
116. L-U-S — Lower to Upper Level Stair
116*a* Lower to Split Lever Stair
116*b* Split Lever to Upper Lever
117. S — Stair
118. B — Bathroom
119. L — Lower Living Unit
120. U — Upper Living Unit
121. SL — Split Level
122. MC — Mechanical Core
123. FC — Folding Component
124. IL — Intermediate Lower Component
125. IU — Intermediate Upper Component
126. K — Kitchen
127. G — Garage
128. UT — Utilities
129. H — Heater
130. D — Dining
131. UFC — Upper Folding Component
132. FC — Folding Component
133. LFC — Lower Folding Component

ERECTION BEGINS

(Elevation of Upper Unit)

At this time, the unit is prepared to unfold as panels are elevated to their respective erected positions which I shall attempt to illustrate in this description of the folding process. First of all, the upper unit to be elevated **4'–0"** to its erected position as shown in FIG. **7** by auxiliary jacks **20,** strategically placed beneath the floor of the upper level; and the bolts **61** are to be used in order to securely attach the second floor continuous beams, **50,** to their respective adjacent beams, **95,** of the plumbing core, **37;** and the continuous beams of the second floor, **30,** as shown in FIG. **8.** During this lifting process, the split level floor panel **73** is also lifted vertically in its folded position to a height of **4"–0"** along the linear load bearing wall **40,** as shown in FIG. **10.** This panel, it should be noted, is hinged upon a lift **47** that is suspended from the continuous beam **50** of the upper floor. The Split level support panel **67** is also unfolded 180° about hinge **56***f* at this time such that its

base rests atop beams **60** as a load bearing wall for split level panel **73**, as shown in FIG. **7**, **8**. and **9**.

At this time, wall panels type **83** are lifted 90° to their erected position as shown in the section in FIG. **6** and are preferably bolted to joists of the first floor ceiling as shown in FIG. **8** and **9**. The upper part of second floor bath room wall panels type **15** are unfolded from their respective folded positions 90° about their bases to their erected positions as shown in FIGS. **6** and **7**.

However, the upper part of the pluming tree is to be constructed at the site after erection and is to be done by conventional means as applied to both plumbing and carpentry.

PREPARATION FOR UNFOLDING OF COMPONENT WALL, FLOOR, AND CEILING PANELS

Prior to unfolding, the component panels are to be firmly folded and held along the walls of the basic unit **40** which are referred to here as linear load bearing walls. However, only the beams **50** atop these walls are continuous while the walls themselves are placed for spatial purpose and compensated for structurally by columns **40**, spaced 10′ o.c. along the continuous floor and ceiling beam **60** and **50** of the first and second level as shown in FIGS. **7** and **8**. They should be sandwiched in their respective folded positions as shown in FIG. **6**. All component roof panels should hold the outer most position on both sides of the basic central core while the upper wall panel **80**, or the panel directly attached to the respective component roof holds the next position. The lower exterior wall panels, **80, 82**, if used, should hold the next or third outer most position as shown in FIG. **6** and should occupy the third layer. The next layer of panels should house the first and second floor or simply the first floor component floor panels **70, 75** depending on whether the respective component has a second floor to occupy such space. These two panels overlap each other with the upper floor panel holding the outer most position or the two as shown in FIG. **8**. The innermost folding component panels are the end walls, **1, 16, 21, 22** and the intermediate unit partitions **4** and **24**, all of which are transversally placed upon their respective first floor panels when unfolded as shown in FIG. **3**.

These panels lay on their side, adjacent to its respective first floor panel while they are attached to these floor panels by a hinge **107** about which it rotates during the folding process. However, there are a few cases wherein the upper part **4,24** of these end walls or intermediate component panels must be folded back 180° about a hinge **98** placed at a height that will allow both an intermediate and end panel FCP to fold without overlapping difficulties as shown in FIG. **2**. However, since the design of the unit is flexible, the panels may or may not need such consideration, because the distance between such panels may or may not allow them to lay completely upon the floor panel without overlapping each other.

UNFOLDING OF COMPONENT WALL, FLOOR AND CEILING PANELS

At this time, the ceiling panels Type **80** is lifted to a horizontal height level with that of the roof about hinges **56*h*** as designated by FIG. **7**. Next, the upper and lower walls of wall panel **82** is released at point **108** where the upper end of the wall which is attached to the ceiling panel about a hinge point of type **52*h*** as shown in FIG. **8**. If there is an upper and lower non-recessed wall panel situation as shown existing in FIG. **8**, the lower panel is now released and rotated 180° about points type **66**; there is an intermediate connecting hinge **52*e*** attaching the upper and lower exterior side walls **8** and **82** and also houses the extended floor panels **79** as shown in FIGS. **7** and **8**. When this operation is complete, the extension panel is secured at the intermediate joint **52** by bolting it as shown in FIG. **8**, and **9**.

In some cases, the second floor panel is extended by use of panel **79**, as shown in FIGS. **12** and **7**. The extension panel is connected to panel **80** at **86**.

This condition provides a recessed lower wall **82** which acts as a load bearing wall under the extended and non-extended conditions. Of course, the outer end of the extension panel **84** is spanded linearly and supported by columns or load bearing walls as shown in FIGS. **7** and **8**.

It should be noted strongly that, in this case, the extension panel **79** is hinged about the bottom of panel **80** and the top of panel **82**, thereby connecting the two panels indirectly at points **52*e*** and **66**.

The next step in the folding process involves the unfolding of lower floor panels **73–75**, FIGS. **6** and **7**. Prior to unfolding panels (**73, 75**) are to be released from point **56** by bolts **105** as shown in FIGS. **8** and **10** to allow the lower floor to rotate downward 135° about a hinge type **56*b*** in order to allow the end and intermediate wall panels **1, 4, 16, 22, 23** and **24** to unfold without interfering with the upper component floor panels which are presently hanging about the linear wall **14** or studs **40** in an upright position (FIGS. **6, 8** and **11**). The panels, **80, 82** are hung freely about point **56*h*** until the end and intermediate panels are erected to a vertical position and temporarily secured at the top at point **106**. The roof panels are left free temporarily to allow for movement of the side wall panels when erecting the component floor panels.

At this time, the end and intermediate wall panels **1, 4, 16, 21, 23** and **24** are actually erected. Note that these panels are rotated to their position of erection about hinges **107** attached at the end and intermediate panels are shown in FIG. **10**.

The next process of unfolding involves the setting of the upper level component floor panels **70**. These panels are rotated 90° from a preferred folded position and bolted into place as shown in FIGS. **6, 5, 8** and **10** at points **61** on the respective panels. However, it must be noted that panel type **82** must be in its final position for connection of this panel.

It is also to be noted that panel **80** will conveniently house a forced air vent **77** which is fitted automatically during erection as shown in FIGS. **8** and **10**. Columns may substitute for panel **82** when securely anchored. You will notice in FIGS. **4** and **12** that panel **80** is sandwiched in by panels **80** and **82**, and this provides a more sturdy connection. This panel **70** is attached to panel **55** by means of a steal plate **58** as shown in FIG. **8**. This plate is set at and overlaps beams **50** for support and is secured by bolts **61**.

The next step which must be performed somewhat simultaneously to that of the upper level component is the lower floor panel **75**. This panel provides a base for all folding component walls **82**. This panel rests upon a field developed foundation and is secured by anchor

bolts **65.** They are also securely fastened to the intermediate first floor beams **60** by a hinge **56***b* and when set for final erection the panel is securely fastened at **104** by bolts **105.**

During the erection of floor and wall panels forced air vents are automatically joined and sealed **71,** at all respective points where vents are held by horizontal panels and overlap vertically away from each other. These vents are also connected automatically when they are vertically joined from bottom and top respectively. FIG. **8** at **71** and **111.**

The last major unfolding of components involves the erection of the upper end walls **32.** The lower part of this wall is rotated 180° about a hinge **52***i* located at the vertical center of the panel which attaches it to a fixed upper part in the base of the panel; is attached to perimeter beams **30** as shown in FIG. **9.** This wall acts as a load bearing wall for the roof of the upper level.

At this time, the transit support beams **95** may be removed while the component roof panels **85** resting on the overhanging roof panel **35** are given additional support by such wall panels as **19** shown in FIGS. **2, 7** and **9.** These may be permanently attached by hinge **110** until **70** is to be folded downward about panel **75** due to lack of space. At this time, panel **19** is temporarily placed in an open space in the upper level.

TRANSPORTATION

Hydraulic jacks are used to lower this unit upon a chasis, FIG. **1,** (a low bed chasis) a type manufactured by several companies. The tires to be used are preferably not more than 24 inches in diameter, and a maximum of 30 inches in diameter. When tires are more than 24 inches in diameter, cut-outs are constructed in lower floor panels in order to provide for wheel clearance.

FIELD WORK

When this unit is to be erected upon a permanent foundation, the conventional track-roller method is used. When the folded unit is in place for unfolding, it should be set such that all floor panels fall exactly in their respective positions, FIGS. **3** and **4.**

Component roof wall and floor panels are lifted by conventional panel lifting machines.

Plumbing connections at the site between upper and lower level plumbing walls are made by conventional coupling unions for the plumbing and utility walls, and the system is joined at the foundation by conventional mechanical core means.

The gutters **41** and drains **49** in this case are field applied. They are attached to a block **53** which is customarily designed with fittings for insertion into an opening and secured by screws (FIGS. **8, 9** and **12**).

MISCELLANEOUS FIELD WORK

Elastic flashing **51** is used at the junction of roof panels **35** and **85** due to movement for transportation while there is still a need for flashing.

Wall base flashing **112** is also partially field applied by applying facia strips **39** on the site as shown in FIGS. **8, 10** and **12.**

Metal ties are used to secure attachment of panels **32** and **33.** They are used at the base of panels **80, 82, 10** before facia strips **39** are applied. They are also used as butted ends of adjacent wall panels. The metal ties are also used as top plate metal ties for wall corners of fixed wall and partition intersection of the intermediate floor levels of the unit.

Floor bracing is also field applied.

The foregoing disclosure and description are illustrative and explanatory thereof, and various adjustments in sizes, shapes and materials may be made without departing from the original spirit of the invention.

What I claime is:

1. A multilevel housetrailer comprising:

I. a lower story living unit including,
  a. a floor and ceiling having an outer periphery and means connecting said floor and ceiling in vertically spaced relation at said outer periphery;
  b. at least one floor and one ceiling extension pivotally attached to said floor and ceiling periphery respectively;
  c. a plurality of wall panels enclosing at least portions of said floor and floor extension;
  d. a split level component pivotally attached to said lower story living unit at the outer periphery intermediate said floor and ceiling thereof; and

II. an upper living unit having,
  a. the said ceiling as a floor, an upper ceiling, and a means connecting said ceiling and said upper ceiling;
  b. at least one upper floor extension formed by said at least one ceiling extension unit;
  c. at least one upper ceiling extension above said at least one ceiling extension; and
  d. a plurality of second wall panels enclosing at least a portion of said upper living unit, and said at least one upper level floor extension.

* * * * *