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W. K. WATERMAN.
BODY FOR AUTO TRUCKS.
APPLICATION FILED JUNE 16, 1916.

Patented Apr. 24, 1917.
4 SHEETS—SHEET 1.

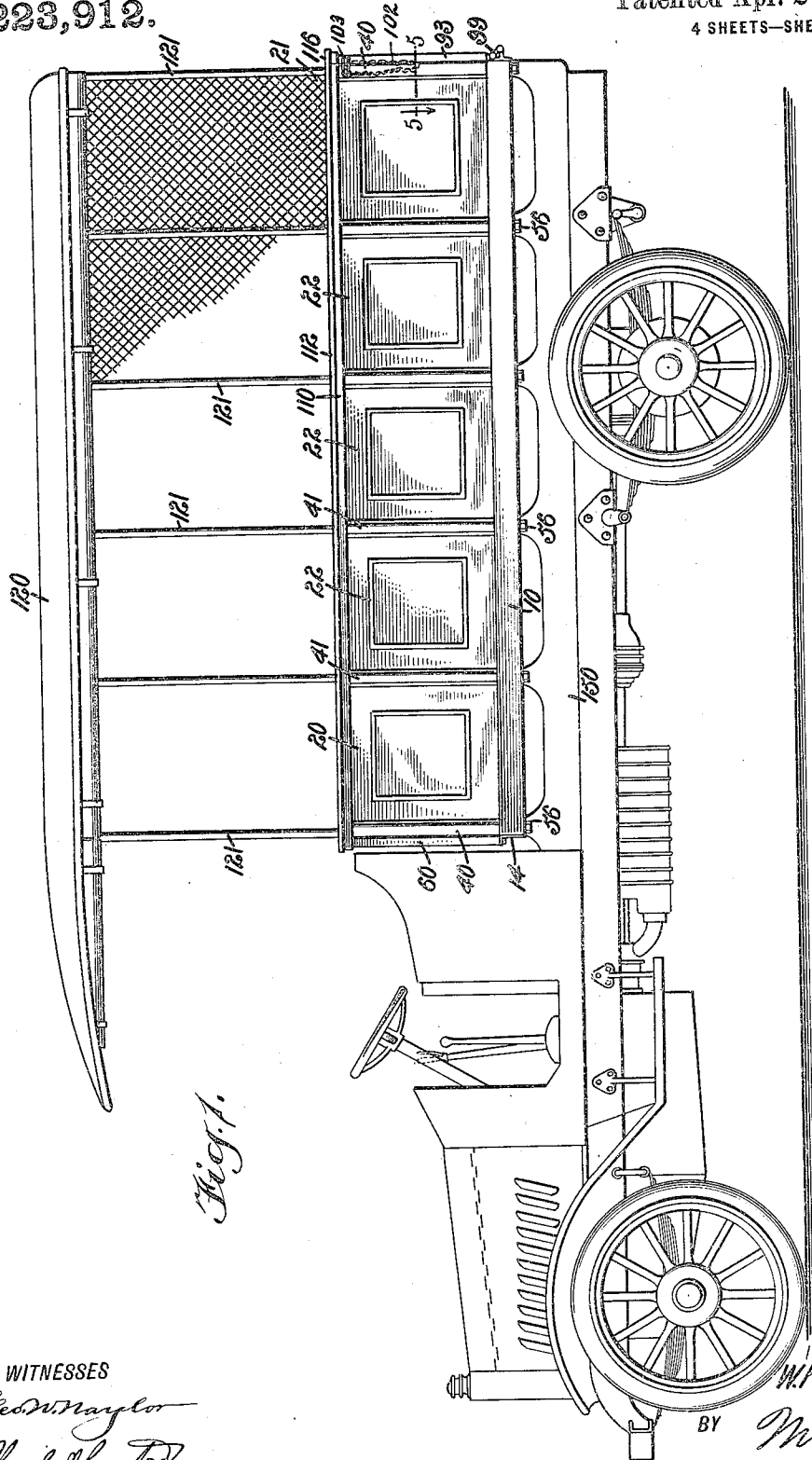


Fig. 1.

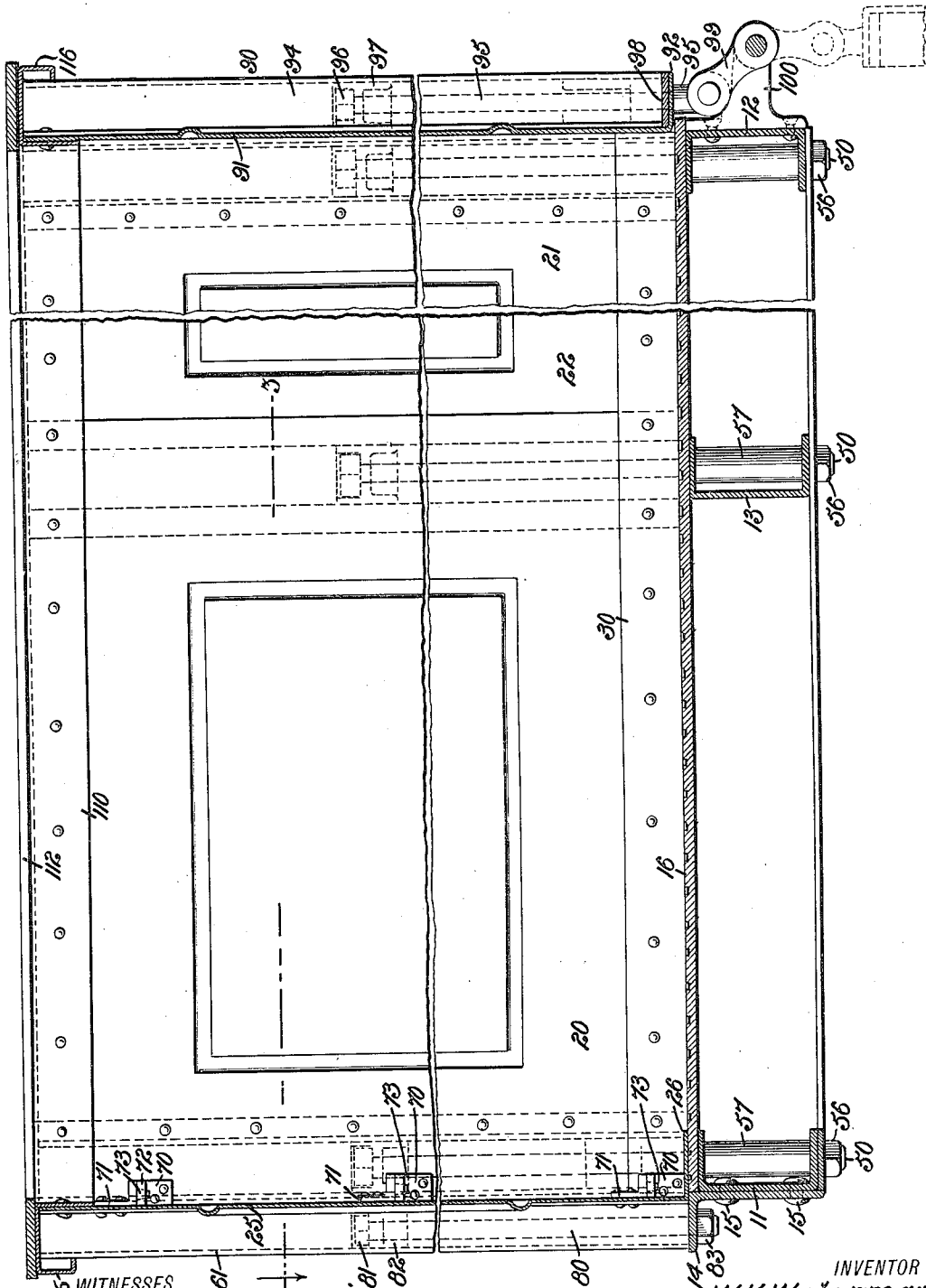
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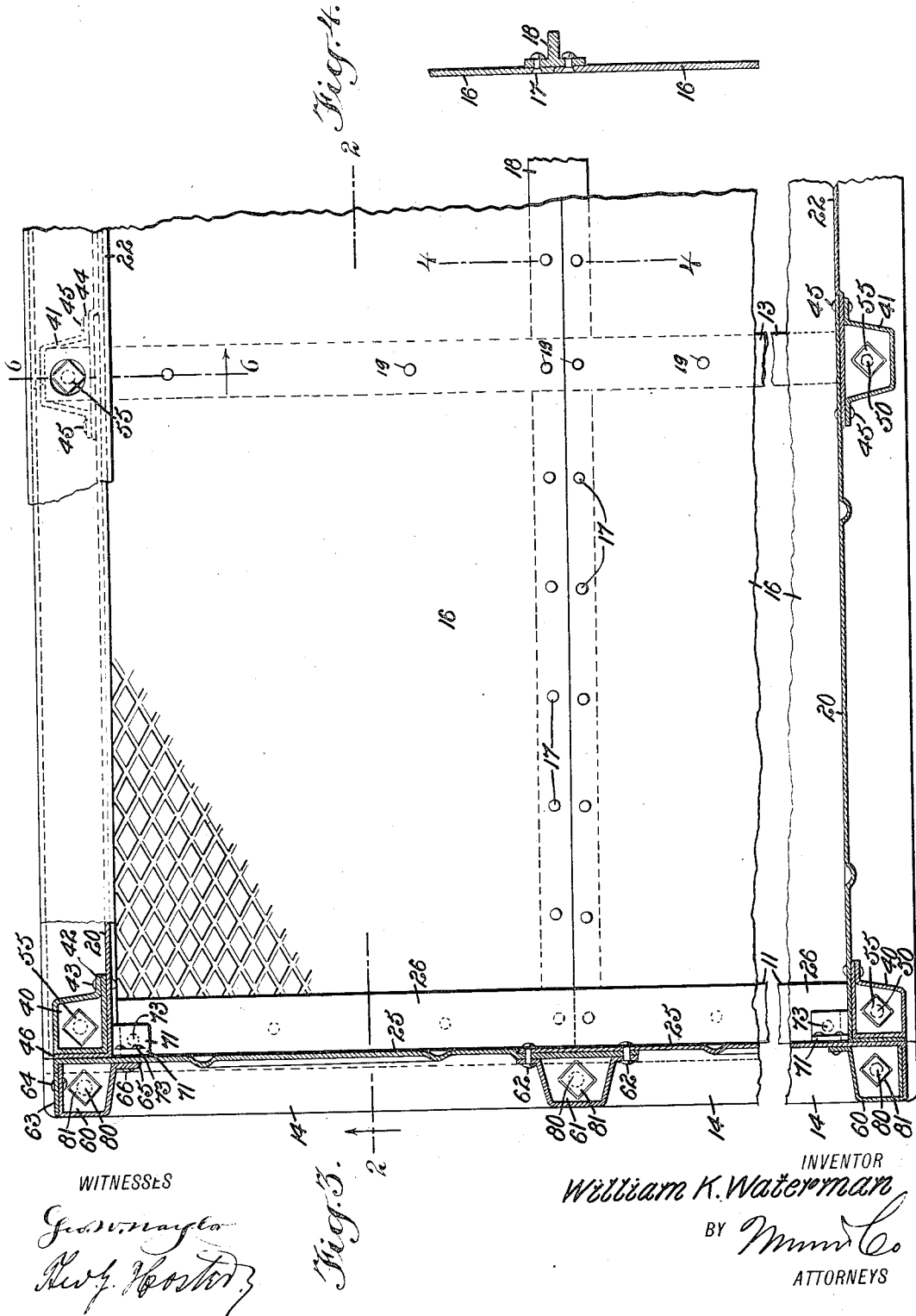


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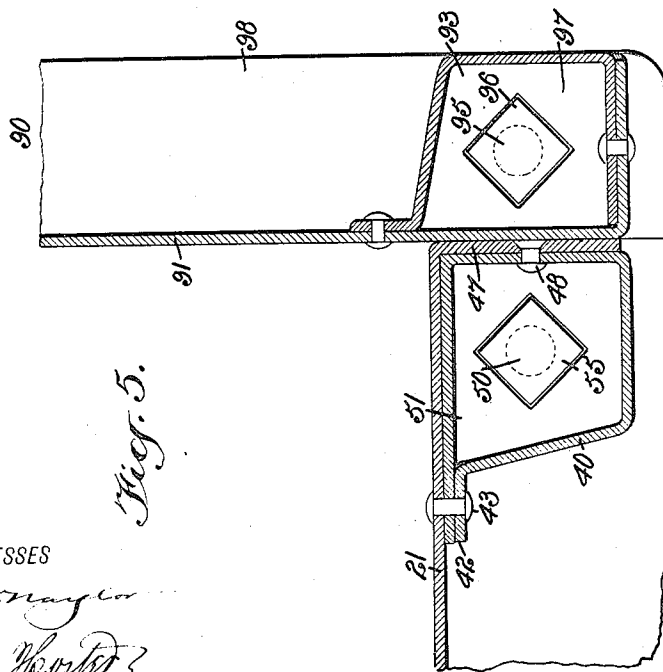
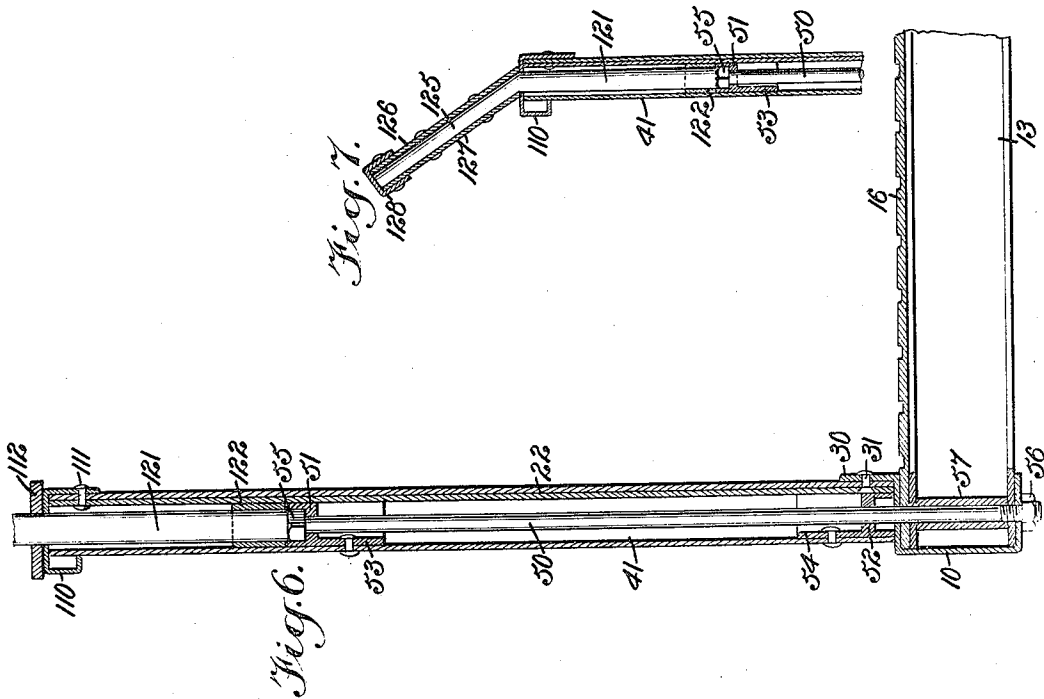
Fig. 2.

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UNITED STATES PATENT OFFICE.

WILLIAM K. WATERMAN, OF NEW YORK, N. Y.

BODY FOR AUTO-TRUCKS.

1,223,912.

Specification of Letters Patent.

Patented Apr. 24, 1917.

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To all whom it may concern:

Be it known that I, WILLIAM K. WATERMAN, a citizen of the United States, and a resident of the city of New York, Flushing, borough of Queens, in the county of Queens and State of New York, have invented a new and Improved Body for Auto-Trucks, of which the following is a full, clear, and exact description.

10 The object of the invention is to provide a new and improved knockdown body for auto-trucks, arranged to permit of shipping the wagon body in knockdown condition to a distant place, and to enable a local wheel-
15 wright or other mechanic to quickly and conveniently set up and attach the wagon body to a truck chassis of any construction. A further object is to permit of manufacturing the wagon body in units for forming
20 a wagon body of any desired length.

In order to accomplish the desired result, use is made of a supporting frame formed of beams, panels resting on the said frame and having overlapping sides, hollow posts
25 attached to the said panels at their joints and resting on the said supporting frame, and bolts within the said hollow posts and engaging the said frame beams to fasten the posts in place on the frame.

30 A practical embodiment of the invention is represented in the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

35 Figure 1 is a side elevation of the knockdown body in position on an auto-truck of usual construction;

Fig. 2 is an enlarged sectional side elevation of the knockdown body, the section
40 being on the line 2—2 of Fig. 3;

Fig. 3 is a sectional plan view of part of the same on the line 3—3 of Fig. 2;

Fig. 4 is a cross section of a portion of the sectional floor, the section being on the
45 line 4—4 of Fig. 3;

Fig. 5 is an enlarged sectional plan view of one of the rear corners of the body and its gate end, the section being on the line
5—5 of Fig. 1;

50 Fig. 6 is a transverse section of a portion of the body on the line 6—6 of Fig. 3; and

Fig. 7 is a similar view of the same and showing a side support instead of a top.

The supporting frame of the knockdown
55 body consists of two side beams 10, a front cross beam 11, a rear cross beam 12 and a

number cross beams 13 intermediate the end cross beams 11 and 12, the several beams 10, 11, 12 and 13 being preferably made of channel iron, as plainly indicated in the
60 drawings. The front cross beam is reinforced by a cross beam 14 of angle iron fastened by rivets 15 to the front cross beam 11. The ends of the cross beams 11, 12 and 13 fit into the side beams 10 and their top
65 members are a distance below the top members of the side beams 10 to accommodate a floor 16, preferably made of sheet metal, roughened at the upper face for anti-slipping
70 purposes. The sides of the floor 16 extend between the top members of the side beams 10 and the top members of the cross beams 11, 12 and 13, as plainly indicated in
Fig. 6, so that the floor 16 is held against
75 sidewise shifting. The free end of the floor 16 abuts against the angle iron beam 14, thus holding the floor against forward
movement. The floor 16 is preferably made
80 in longitudinal sections fastened by rivets 17 to T-irons 18 (see Fig. 4) extending between adjacent beams 11 13, and 13 12, to
securely hold the floor sections in position and to reinforce the same to prevent sagging
when placing a heavy load on the floor. The
85 floor is also fastened by rivets 19 to the intermediate cross beams 13 (see Fig. 4).

On the top of the side beams 10 rest side panels 20, 21 and 22, of which the panels 20 are the foremost panels, the panels 21 are the rearmost panels, and the panels 22 are
90 the intermediate panels. The panels are connected with each other at their sides by lapped joints, that is, the end of one panel has one side bent outwardly to form a recess
95 for the side of the adjacent panel, thus providing a smooth interior surface for each side of the vehicle body. On the front beam 14 rest front panels 25 provided with lapped joints similar to the ones above described in
reference to the side panels 20, 21 and 22.
100 The lower ends of the panels 25 are provided with inwardly extending flanges 26 overlying the front end of the floor 16, as plainly shown in Fig. 2, thus holding the floor in
place at the front end. In order to fasten
105 the side panels in position on the side beams 10, the inner ends of the top members of the side beams 10 are provided with upwardly extending flanges 30 on which the lower portions of the members 20, 21 and 22 are fast-
110 ened by rivets 31, as plainly indicated in Fig. 6. End posts 40 are used for fastening

the foremost and rearmost panels 20 and 21 to the side beams 10 and the posts 41 are used for connecting the joint of the panels 20, 21 and 22 to the said side beams. The posts 40, 41 are made hollow and are provided with flanges 42 fastened by rivets 43 to the corresponding panels 20, 21, as plainly indicated in Figs. 3 and 5. The posts 41 are U-shaped in cross section and are provided with flanges 44 fastened by rivets 45 to the overlapping sides of the panels 20, 21 and 22. The foremost and rearmost panels 20 and 21 are provided with outwardly extending flanges 46, 47 (see Figs. 3 and 5) fastened by rivets 48 to the corresponding faces of the posts 40. The panels 20, 21 and 22 are of uniform length (say 2 feet) so that any number of panels may be connected with each other for making a wagon body of a predetermined length (say 8 or 10 feet) as desired by the customer. Thus each side of the wagon body is formed of a number of units according to the length of the body.

Each of the posts 40 and 41 is attached to the corresponding side beam by bolts 50 passing through bearings 51 and 52 formed in pieces 53 and 54 riveted or otherwise secured to the inside of the post, as plainly indicated in Fig. 6. The polygonal head 55 of the bolt 50 is seated in a correspondingly shaped recess formed in the top of the bearing 51 which is located a distance below the top of the corresponding post 40 or 41. The bolt 50 also passes through the bearing 52 of the piece 54 secured to the lower end of the post, each piece 53 and 54 reinforcing the corresponding post. The lower end of each bolt 50 passes through the top and bottom members of the side beams 10 and also through the top and bottom members of the cross beams 11, 12 and 13, and the nuts 56 of the bolts screw against the under side of the bottom member of the corresponding side beam 10, as plainly indicated in Fig. 6. The tubular spacers 57 are arranged on the lower portions of the bolts 50 intermediate the top and bottom members of the cross beams 11, 12 and 13, thus providing an exceedingly strong construction at the same time securely fastening the posts in position on the beams 10. It will also be noticed that the bolt 50 is not liable to turn owing to the heads 55 engaging the recesses in the bearings 51 to permit of securely screwing the nuts 56 on the lower ends of the bolts 50.

The end panels 25 are attached to corner posts 60 and intermediate posts 61, of which the corner posts 60 are similar to the posts 40 and are fastened by rivets 62 to the overlapping portions of adjacent panels 25, as plainly indicated in Fig. 3. The outer side of each outermost panel 25 is provided with a forwardly extending flange 63 fastened by rivets 64 to the outer side of the post 60, which latter is provided at its inner side

with a flange 65 fastened by rivets 66 to the corresponding panel 25. The abutting panels 20 and 25 at each forward corner are provided with interlocking means such as brackets 70 and 71, of which the bracket 70 is riveted to the inner face of the panel 20 and is provided with an apertured flange 72 into which fits a pin 73 depending from the other bracket 71 riveted to the panel 25. Thus by the arrangement described, the corner panels 20 and 25 are held against lateral displacement. Each of the posts 60 and 61 is fastened to the top member of the angle iron beam 14 by the use of a bolt 80, similar to the bolts 50 previously mentioned. The polygonal head 81 at the upper end of each bolt 80 fits into a correspondingly shaped recess in a bearing 82 attached to the inside of the post 60 or 61, and the lower end of the bolt passes through the top horizontal member of the beam 14 while the nut 83 of the bolt screws on the lower threaded end of the bolt 80 against the under side of the top member of the said beam 14.

The end gate 90 is formed of panels 91, similar to the panels 25, with the exception of the bottom flange 92 which is bent outwardly instead of inwardly, as shown in Figs. 2 and 5. The panels 91 are attached to end posts 93 and intermediate posts 94, similar to the posts 60 and 61 above referred to. Within the posts 93 and 94 are mounted bolts 95 having their heads 96 engaging bearings 97 fixed within the posts, the same as the bearings 82 previously mentioned. The lower ends of the bolts 95 extend through a bottom plate 98 and through the flange 92, and the lower terminal of each bolt 95 pivotally connects with a link 99 fulcrumed on a bracket 100 bolted or otherwise secured to the rear cross beam 12. By the arrangement described the end gate 90 can be readily swung into closed position, as shown in full lines in Fig. 2, or down into open position, as indicated in dotted lines in the same figure. The end gate 90 is connected at its upper end by the usual chains 102 and staples 103 with the rear side panels 21 to hold the end gate in closed position, in horizontal open position or in dropped position, as desired by the user.

The side panels 20, 21 and 22 and their posts 40 and 41 are covered at the top by cap pieces 110 fastened by rivets 111 or similar fastening devices to the panels. Each cap piece 110 is provided on top with a protecting plate 112 projecting beyond the sides of the cap piece so as to prevent injury to the same on loading or unloading material from the wagon body. A similar cap piece 115 is arranged on the front panels 25 and their posts 60 and 61, and the panels 91 and posts 93 and 94 are likewise protected by a cap piece 116 together with a protecting plate such as 112, previously mentioned.

In order to support a top or a cover 120, use is made of stanchions 121 extending with their lower portions into the posts 40, 41, 60 and 61 and resting on the top of the corresponding bearings 51 and 82. A bushing 122 is fitted around the lower end of each stanchion 121 to fill the corresponding post with a view to prevent the stanchion from wobbling. It is understood that each stanchion 121 extends through apertures in the cap piece 110 or 115 together with its protecting plate 112 thus providing a second bearing for each stanchion to securely hold the same in position, as will be readily understood by reference to Fig. 6. If desired, the stanchion 121 may be provided with an outwardly bent top portion 125 and the several stanchions are connected with each other by plates 126 and 127 to form an outwardly inclined side board on each side of the wagon body. The plates 126 and 127 are covered by a cap piece 128, as will be readily understood by reference to Fig. 7. From the foregoing it will be seen that the sides, the front, the bottom and the end gate can be readily manufactured in the shop and shipped in a small bundle to a distant place together with the bolts and joints, to allow a wheelwright or other mechanic to readily set up the parts and fasten the same to the chassis frame 150, as shown in Fig. 1.

According to the order received the number of intermediate panels 22 can be increased or diminished so as to make a truck body of a desired length.

It will also be noticed that by the arrangement described a body can be constructed that is readily adapted to the demands of varying transportation requirements or to the uses of different business by the use of the same initial units as the floor, sides and ends, and the addition thereto as occasion requires of floor boards, stakes, mesh guards or inclosing panels.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:—

1. A knockdown body for auto-trucks, comprising a bottom frame formed of side beams and cross beams of channel iron, side panels having overlapping joints at the sides and resting on the said side beams, hollow side posts resting on the said side beams at the joints of the panels, fastening means connecting the said side posts with the overlapping sides of the side panels to fasten the latter together and to the side posts, and bolts within the said side posts and engaging the said side beams to fasten the side posts to the side beams.

2. A knockdown body for auto-trucks, comprising a bottom frame formed of side beams and cross beams of channel iron, side panels having overlapping joints at the sides and resting on the said side beams, hollow

side posts resting on the said side beams, fastening means connecting the said side posts with the overlapping sides of the side panels to fasten the latter together and to the side posts, bolts within the said side posts and engaging the said side beams to fasten the side posts to the side beams, an angle iron secured to the front cross beam of the frame, front end panels having overlapping joints at their sides, hollow front posts resting on the said angle iron, fastening means connecting the said front posts with the overlapping sides of the front panels, and bolts within the said front posts and engaging the said front angle iron to fasten the said front posts to the said angle iron.

3. A knockdown body for auto-trucks, comprising a bottom frame formed of side beams and cross beams of channel iron, side panels having overlapping joints at the sides and resting on the said side beams, hollow side posts resting on the said side beams, fastening means connecting the said side posts with the overlapping sides of the side panels to fasten the latter together and to the side posts, bolts within the said side posts and engaging the said side beams to fasten the side posts to the side beams, an angle iron secured to the front cross beam of the frame, front end panels having overlapping joints at their sides, hollow front posts resting on the said angle iron, the forward side panels having at their forward sides outwardly extending flanges extending between the corner side and front posts, fastening means connecting the said front posts with the overlapping sides of the front panels, and bolts within the said front posts and engaging the said front angle iron to fasten the side front posts to the said angle iron.

4. A knockdown body for auto-trucks, comprising a bottom frame formed of side beams and cross beams of channel iron, side panels having overlapping joints at the sides and resting on the said side beams, hollow side posts resting on the said side beams, the foremost and rearmost side panels having outwardly extending flanges engaging the side posts located at the front and rear ends of the side beams, fastening means connecting the said side posts with the overlapping sides of the side panels to fasten the latter together and to the side posts, and bolts within the said side posts and engaging the said side beams to fasten the side posts to the side beams.

5. A knockdown body for auto-trucks, comprising a bottom frame formed of side beams and cross beams of channel iron, side panels having overlapping joints at the sides and resting on the said side beams, hollow side posts resting on the said side beams, fastening means connecting the said side posts with the overlapping sides of the side panels to fasten the latter together and to

the side posts, bolts within the said side posts and engaging the said side beams to fasten the side posts to the side beams, an angle iron secured to the front cross beam of the frame, front end panels having overlapping joints at their sides, hollow front posts resting on the said angle iron, fastening means connecting the said front posts with the overlapping sides of the front panels, bolts within the said front posts and engaging the said front angle to fasten the said front posts to the said angle iron, and interlocking means connecting the adjacent side panels and front panels with each other.

6. In a knockdown body for auto-trucks, a supporting frame for the body, comprising side beams of channel iron, cross beams of channel iron connecting the said side beams with each other at the ends and at points intermediate the ends, the top members of the said cross beams extending under the top members of the side beams and being spaced therefrom, and a floor resting on the said cross beams and extending at its sides under the top members of the said side beams.

7. In a knockdown body for auto-trucks, the combination of side beams of channel iron, and provided with upwardly extending flanges at the inner edges of the top members, side panels having overlapping joints at the sides and resting on the said side beams and fastened to the said flanges, hollow posts resting on the said side beams and fastened to the said panels at the side joints thereof, and bolts within the said posts and engaging the said side beams.

8. In a knockdown body for auto-trucks, the combination of side beams of channel iron and provided with upwardly extending flanges at the inner edges of the top members, side panels having overlapping joints at the sides and resting on the said side beams and fastened to the said flanges, hollow posts resting on the said side beams and fastened to the said panels at the side joints thereof, bearings within the said posts, and bolts engaging the said bearings and the top and bottom members of the side beams to fasten the parts to the side beams.

9. In a knockdown body for auto-trucks, the combination of a front cross beam of angle iron, a floor resting on the top member of the said cross beam, a front panel having at its lower end an inwardly extending flange overlying the said floor above the cross beam, and an angle iron attached to the outer face of the cross beam and against which abuts the front edge of the said floor, the said front panel resting on the said angle iron.

10. In a knockdown body for auto-trucks, the combination with a supporting frame formed of beams, panels resting on the upper face of said frame beams and having over-

lapping joints, the end of one panel being offset outwardly to receive the end of the adjacent panel, hollow posts attached to the outer faces of said panels at their joints and resting on the said supporting frame, and bolts within the hollow posts and engaging the said frame beams to fasten the posts in place.

11. In a knockdown body for auto-trucks, the combination with a supporting frame formed of beams, panels resting on the said frame and having overlapping sides, hollow posts attached to the said panels at their joints and resting on the said supporting frame, bolts within the hollow posts and engaging the said frame beams to fasten the posts in place, and capping pieces covering the tops of the panels and posts.

12. In a knockdown body for auto-trucks, the combination with a supporting frame formed of beams, panels resting on the said frame and having overlapping sides, hollow posts attached to the said panels at their joints and resting on the said supporting frame, bolts within the hollow posts and engaging the said frame beams to fasten the posts in place, capping pieces covering the tops of the panels and posts, and protecting plates on top of the capping pieces and projecting beyond the side edges thereof.

13. In a knockdown body for auto-trucks, the combination with a supporting frame formed of beams, panels resting on the said frame and having overlapping joints, hollow posts attached to the said panels at their joints and resting on the said supporting frame, each post having a bearing intermediate of its ends, bolts within the hollow posts and engaging the said frame beams to fasten the posts in place, and stanchions fitting into the upper ends of the posts and resting upon the bearing thereof.

14. In a knockdown body for auto-trucks, a side panel having an outwardly bent flange at one side, and a hollow corner post fitting the face of the panel at the flange, the corner post having overlying flanges, means fastening the said post flanges to the panel, and means fastening the said panel flange to the post.

15. In a knockdown body for auto-trucks, a panel having an outwardly extending flange at the side, a hollow post fitting with one side against the panel and with another side against the said flange, the post having a flange at the side fitting against the panel, fastening means for fastening the said post flange to the panel, and fastening means for fastening the panel flange to the corresponding post side with which the panel flange is in contact.

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