Jan. 4, 1949. L. D. SMITH ET AL 2,457,841

FREIGHT CONTAINER

Filed May 7, 1945

7 Sheets-Sheet 1

Fig. 1

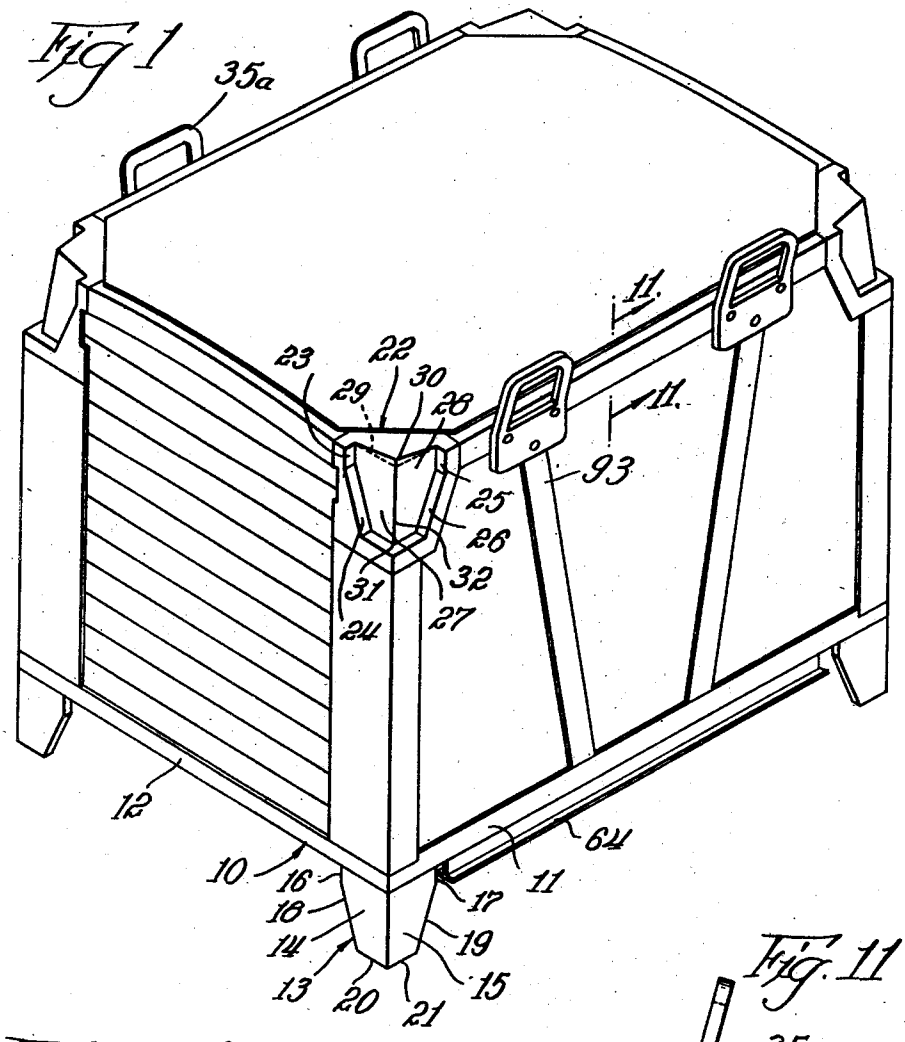


Fig. 11

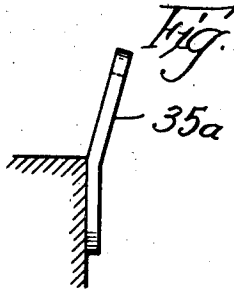
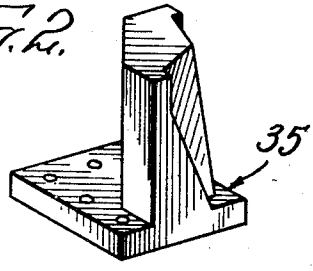


Fig. 12.



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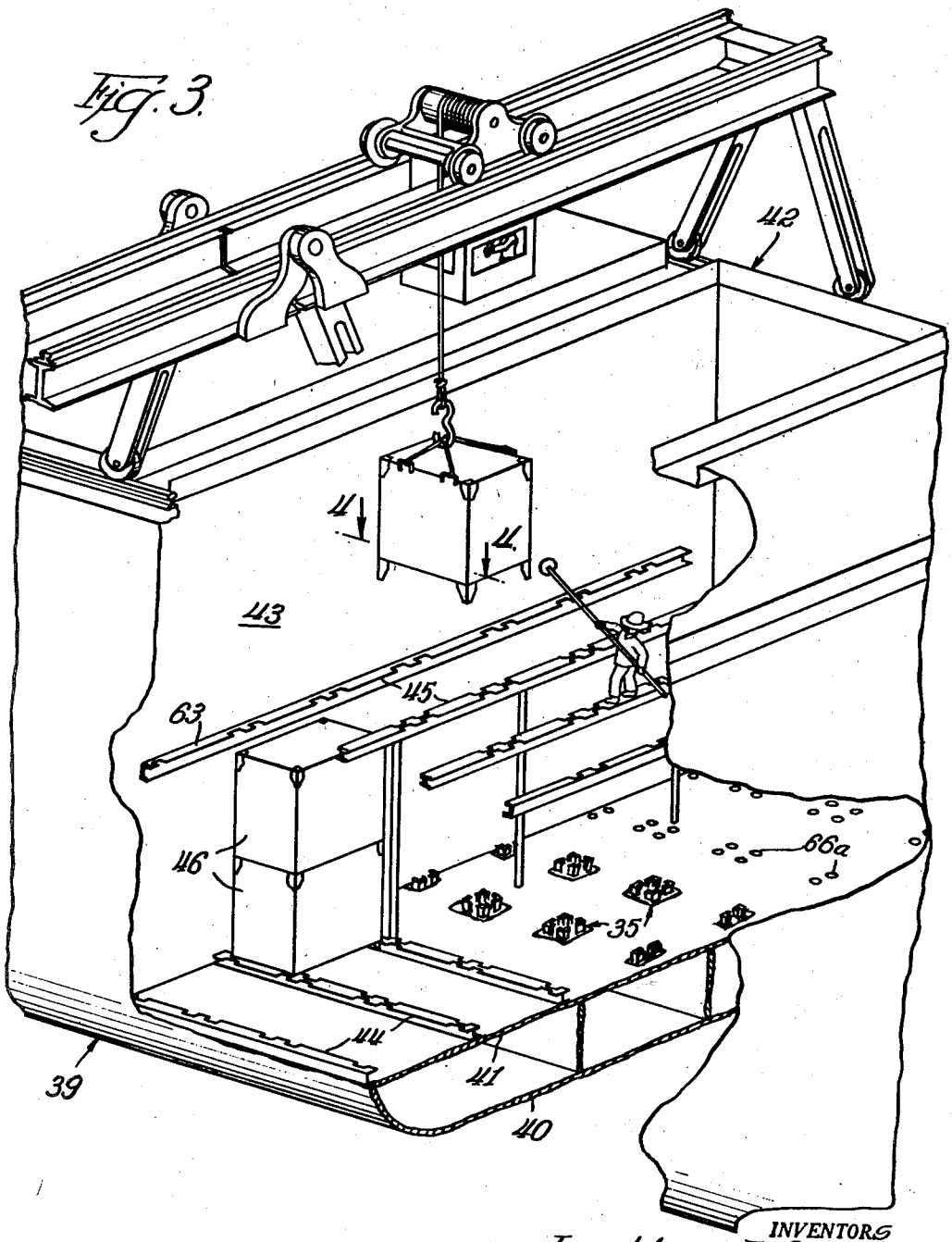
Jan. 4, 1949. L. D. SMITH ET AL 2,457,841

FREIGHT CONTAINER

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Fig. 3.



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FREIGHT CONTAINER

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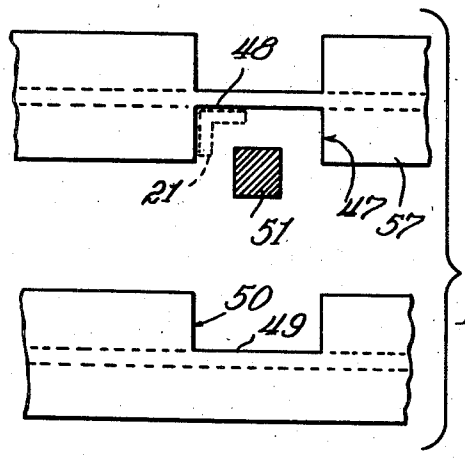


Fig. 4.

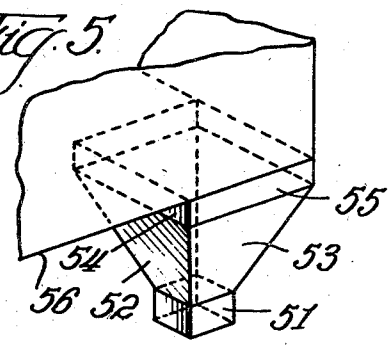


Fig. 5.

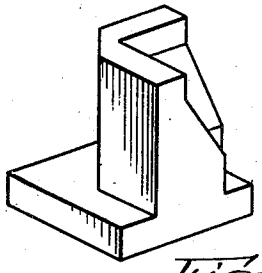


Fig. 6.

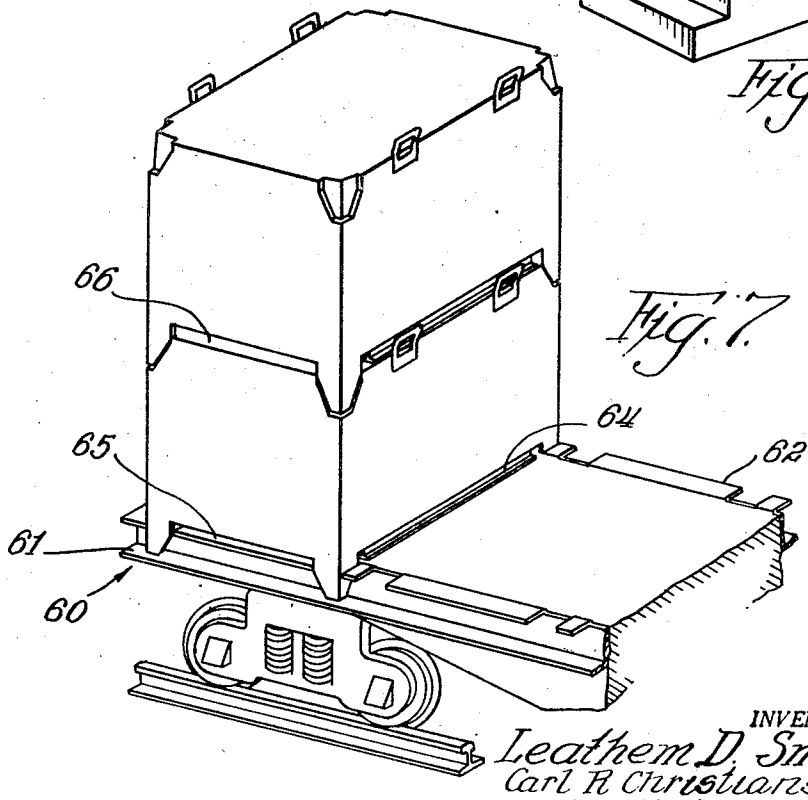


Fig. 7.

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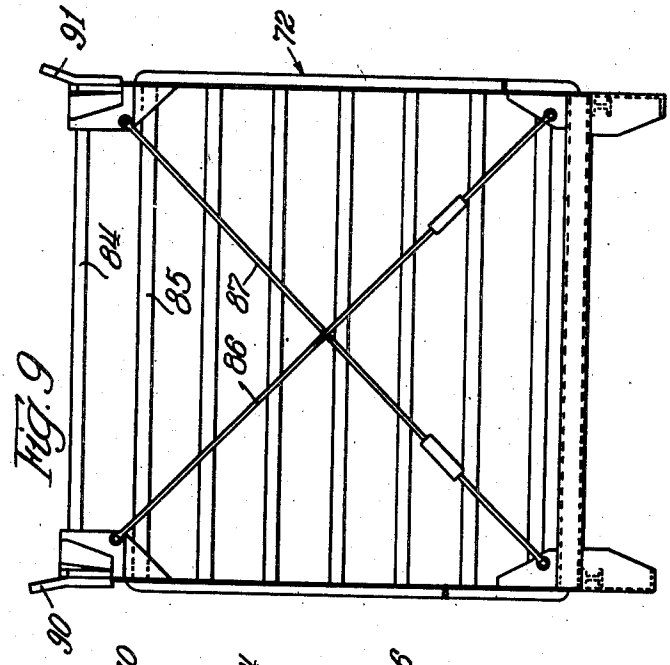


Fig. 9

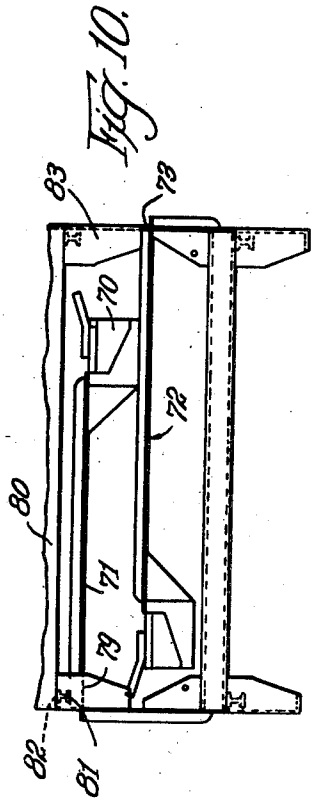


Fig. 10.

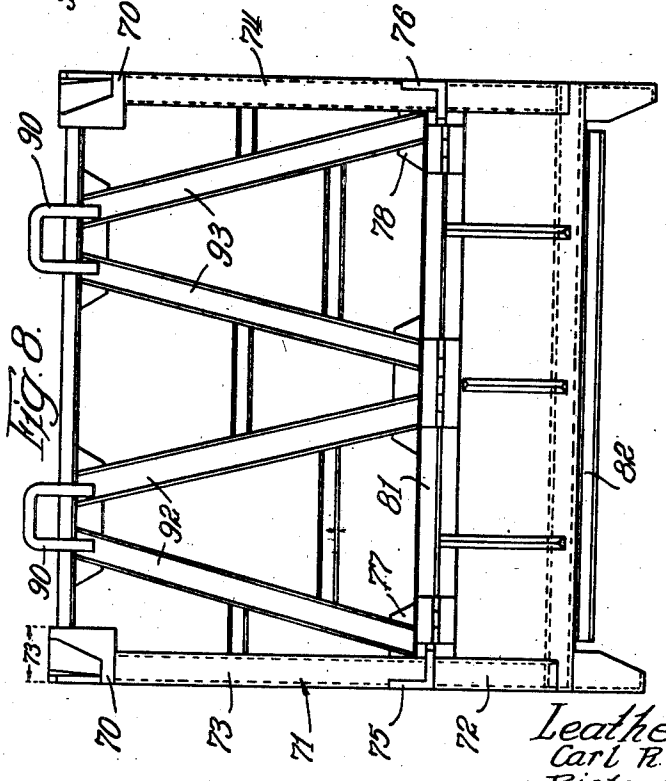


Fig. 8.

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FREIGHT CONTAINER

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Fig. 12.

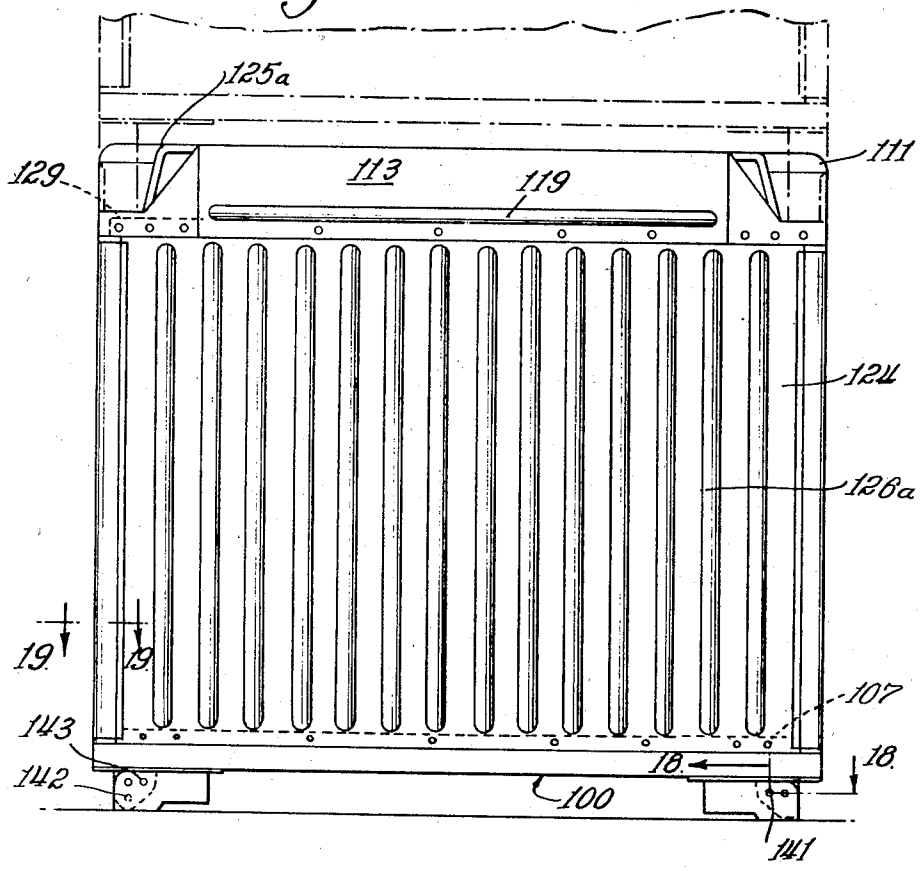
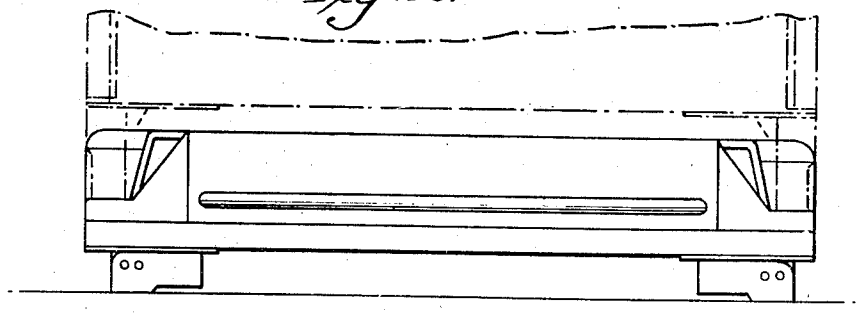


Fig. 13.



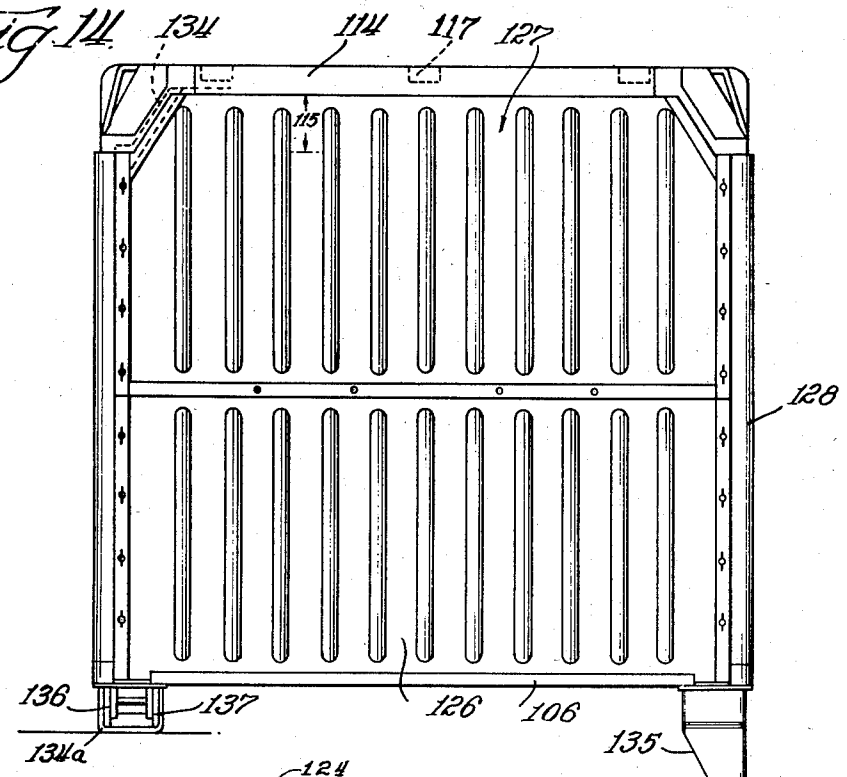
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Jan. 4, 1949. L. D. SMITH ET AL 2,457,841

FREIGHT CONTAINER

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Fig. 14.



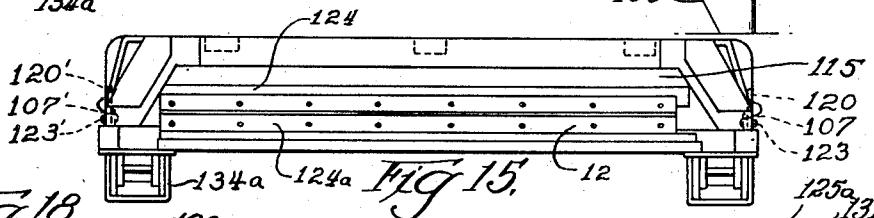


Fig. 15.

Fig. 18.

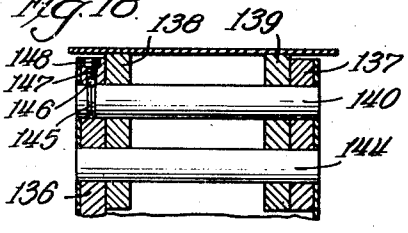
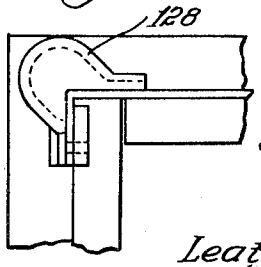


Fig. 19.



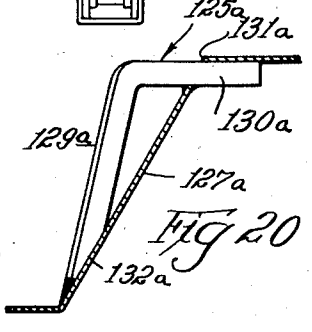
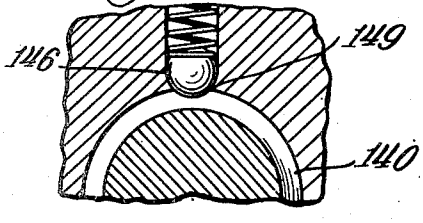


Fig. 20

Fig. 21.



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FREIGHT CONTAINER

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Fig. 16.

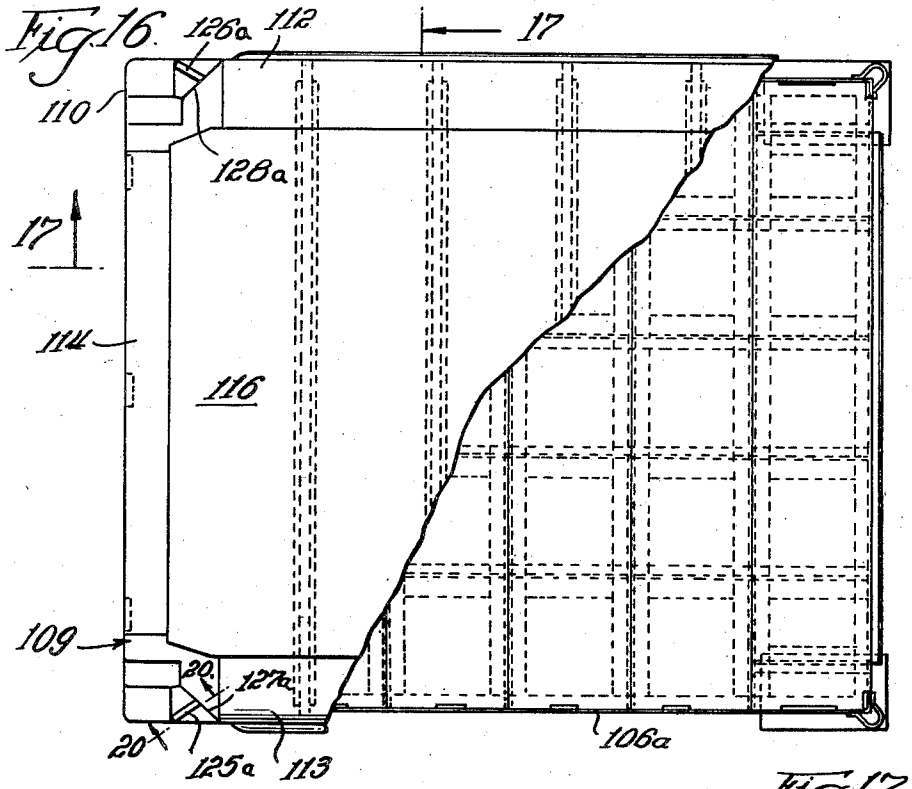
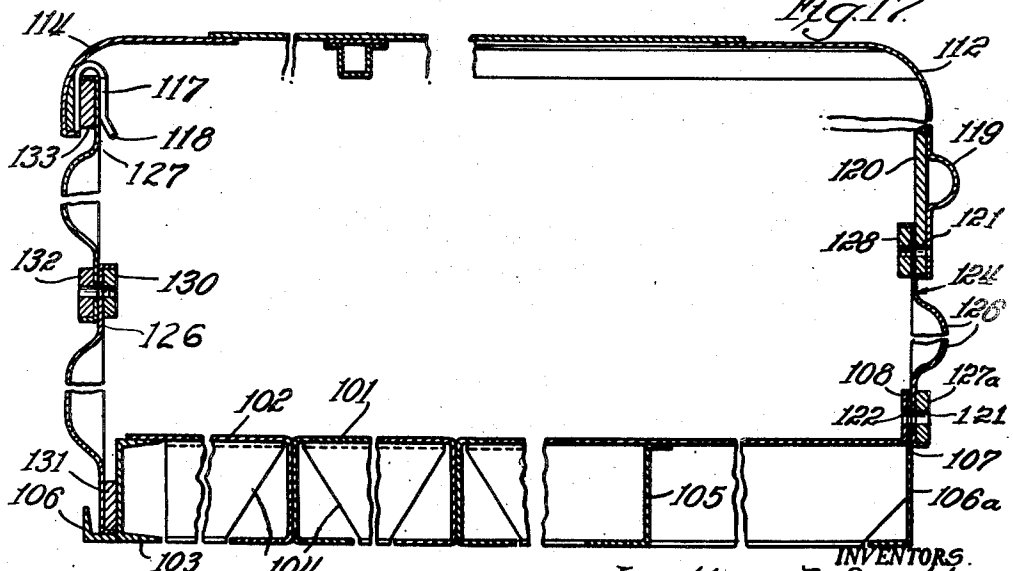


Fig. 17.



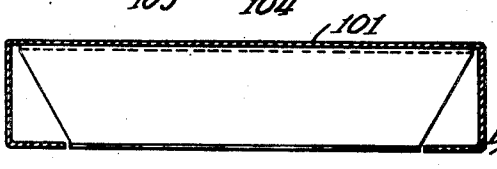


Fig. 22.

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UNITED STATES PATENT OFFICE

2,457,841

FREIGHT CONTAINER

Leathem D. Smith, Richard A. Stearn, and Carl R. Christianson, Sturgeon Bay, Wis.; said Stearn and said Christianson assignors to said Smith; Alva Smith, administratrix of said Leathem D. Smith, deceased

Application May 7, 1945, Serial No. 592,376

15 Claims. (Cl. 220—1.5)

1

This invention relates to a container for carrying merchandise direct from shipper to consignee irrespective of the mode of conveyance used. It is one of several inventions developed for the purpose of rendering practical such shipments, particularly when part of the trip is made by ship and barge.

Containers heretofore provided for such a purpose have, for the most part, been promoted for use on railroads to compete with door-to-door service provided by trucking companies. These railroad containers quite commonly have a right angle, parallelepiped shape with a length approximating the width of a railroad car, a somewhat narrower width, and a height equalling the height of a railroad car above the car floor or sometimes half this height so that one container may be stacked upon another. While such containers have served their purpose for railroads, they have not been used in shipments by sea, primarily because ships have not been designed for rapidly handling such containers and because the containers have not been adapted to ships.

However, in recent years, stevedoring charges incurred in moving cargo at wharves have doubled and one Great Lakes steamship company reports claims for losses due to pilferage and damage by mishandling amounting to nine per cent of the gross hauling revenues. A shipping container having a uniform size and shape to promote fast handling by machinery instead of by manual labor and strong enough to be immune to pilfering may of itself cure both of the serious obstacles to economical handling of freight by ship.

The general object of this invention is to provide a container so designed that it may be used on railroad flat cars or on a truck with a minimum of space wastage, and at the same time one that may be stowed with equal economy of space in a ship hold. The specifications of railroad clearances and ship hold clearances that the container must meet are these. The height above a railroad flat car floor available for loading is approximately 11 feet. The width of a flat car is approximately nine feet and its length varies from 40 to 60 feet. The holds of a conventional ship of the size applicants seek to use for containers frequently comprise a lower hold having a height between the tank top or cargo floor and the beams supporting the first between deck of some 13 to 14 feet, while the distance from a between deck to the next deck thereabove is some 7 or 8 feet. Applicants' containers are right angle parallelepipeds having a length of 7 to 9 feet and a width of 6 to 7 feet. Their height will depend

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upon whether it is desired to load one on top of another on a railroad flatcar or to meet hold height requirements.

For more extensive general remarks on container ships, see the introductory portion of our copending application, Serial No. 586,521, now Patent No. 2,440,307.

Existing equipment for handling this type of container is of two general sorts. The first type moves the container about by hooking to it from above, as for example, a ship boom, a bridge mounted travel crane, and the like. The containers have eyelets along their upper edges to facilitate their being fastened to the hook of such cranes. In places where cranes are not available, or where a crane cannot be used, as under decks in ship holds or inside warehouses, the containers may be rested on dollies or other rolling equipment. One common moving instrument is a fork type tractor which has a pair of arms that may be inserted beneath the container between its legs and which may then raise the container until the legs of the container are clear of the floor.

The first specific object of this invention is to utilize the legs of an upper container as the sole means of preventing lateral and tilting movement of the container when resting on a lower container, while at the same time, providing a space between the bottom of the upper container and the top of the lower container into which the lifting arms of a fork type tractor may be inserted. In the earliest embodiment of the container which is described first, fixed legs which may be seated in complementary sockets in the top of a similar container are employed, and in order to provide an opening between the bottom of a superposed container and the top of a container upon which it is resting into which the lifting arms of a fork type tractor may be inserted, a supporting rail is positioned along the two opposite outside bottom edges of the container. By this construction, the weight of the container rests not upon the legs, but upon these supporting rails. In a preferred embodiment of the invention, however, the seating sockets are shallower than the height of the legs so that when the legs seat in the sockets, they will support the bottom of a superposed container above the top of the lower container.

Another object of this invention is to provide flexibility in the over-all height that one container or several containers may occupy. In the earlier embodiments of the container first described, this is effected by depressing the holding means for the container legs below whatever sur-

face the container is to rest on. Thus in the case of a railroad flatcar, the holding means are depressed along the side edges of the car below the floor level. In the case of a hold bottom, openings may be cut in the floor to receive the container legs. In a preferred embodiment of the invention, applicants have provided a folding leg which will support the container at either of two heights. This folding leg is so designed that it will seat in the leg sockets regardless of its position.

Another object of this invention is to provide a knockdown container that is sturdy and which nevertheless possesses the stacking features of applicants' rigid container. Two knockdown containers are disclosed in this application. The first described embodiment comprises a rigid bottom upon which is mounted side walls that may be folded over onto the bottom. The top of the side walls carry the leg sockets, and means are provided in the top of the container when knocked down for holding the legs of a superposed knocked down container. Applicants' preferred embodiment of a knockdown container comprises a rigid bottom and a rigid top spaced by removable side panels which are so related in size to each other and the top member that when the top member is seated directly on the bottom member, the side panels may be placed therebetween.

Another object of this invention is to provide legs and leg sockets which despite inexact positioning of a leg above a socket will nevertheless result in an exact seating of the leg in the socket. In the rapid handling of containers, whether by hoisting means or floor operated tractors, much time would be consumed in exactly positioning them in whatever is to support them. A feature of this invention is to provide both the sockets and the legs with tapering or guide walls so that if they are aligned sufficiently well so that the bottom of the leg enters the large end of the socket, further lowering will seat them tightly in position.

A preferred form of the invention last developed by the applicants possesses several features peculiar to itself. In erected condition, its side and end walls are solid panels, whereas in the first described knockdown container, the end walls are spaced bars which do not adequately protect the contents of the container from pilferage. The preferred knockdown container has lifting eyelets mounted within the upper leg sockets so that the eyelets do not project beyond the plane exterior surfaces of the container. This protects the eyelets from damage and misshaping, which is important because it is contemplated that ultimately the eyelets will be engaged by automatically controlled hooks on a crane and it is therefore necessary that the exact position of the eyelets be maintained. These eyelets have one wall so sloped that it cooperates with the socket to guide a leg into seating position. In this preferred form of knockdown container, the exact relationship of the various parts to each other are important.

Reference in this application will also be made to the ship hold beam construction wherein notched beams spaced from one another replace decks. Additionally, there will be illustrated leg sockets that may be mounted on flat surfaces where it is not practical to provide depressed sockets. In another application, applicants disclose a container ship in which all loading can be done by a hoist that can get above any container in any part of the container ship hold. Floor type tractors for moving the containers about the hold are therefore unnecessary and special construction of the hold tank top in order to put in depressed sockets can be avoided. Similarly, it may be found desirable to provide such container holders at spots on the hatch deck of a ship to hold the containers temporarily during a load shifting operation at sea.

These and such other objects as may hereinafter appear are attained by the embodiments of the invention shown in the drawings comprising seven sheets wherein:

Figure 1 is a perspective view of applicants' rigid container;

Figure 2 is a holding means that may be bolted with similar holding means to a ship deck or to a railroad car bottom for supporting a container;

Figure 3 is a perspective view of a ship hold illustrating the notched rail framework used to support applicants' containers and square holes in a deck floor to receive the legs of applicants' containers;

Figure 4 is a view taken on the line 4—4 of Figure 3 and illustrates the advantage obtained by the leg construction shown in perspective in Figure 5;

Figure 6 is a holding means for this leg construction which may be attached to a deck or railroad car floor;

Figure 7 is a perspective view of a railroad flat car having holding means depressed below the level of the car floor;

Figure 8 is a side elevational view of a knockdown container of the type shown in applicants' copending application Serial No. 532,240, now Patent No. 2,440,306, to which has been added the leg sockets;

Figure 9 is an end elevational view of the container shown in Figure 8;

Figure 10 is an elevational view showing the container in knocked down condition;

Figure 11 is a view taken on the line 11—11 of Figure 1;

Figures 12 through 22 show a preferred embodiment of a collapsible container and more particularly Figures 12 and 13 are side elevations of the container in erected and knockdown form;

Figures 14 and 15 are end views of the container in erected and knockdown form;

Figure 16 is a plan view partially cut away;

Figure 17 is a view taken on the line 17—17 of Figure 16;

Figure 18 is a view taken on the line 18—18 of Figure 12;

Figure 19 is a view taken on the line 19—19 of Figure 12;

Figure 20 is a view taken on the line 20—20 of Figure 16;

Figure 21 is an enlargement of the ball check in Figure 18; and

Figure 22 is a cross sectional view of one of the transverse members forming the container base.

Continuing to refer to the drawings, the numeral 10 identifies a container having a generally right angle, parallelepiped shape. The base member 11 extends along the length of the container which is approximately the width of a railroad flat car, see Figure 7, while the base member 12 extends along the width of the container and is somewhat shorter than the length. The height of applicants' container is such that one may be stacked on top of the other when the legs of the upper container seat in holding means on the top of the lower container and

when the legs of the lower container seat in depressed holding means on the railroad car floor.

At each lower corner of the container is a leg 13 comprising two vertical side walls 14 and 15 at right angles to each other. Each of these side walls has a short depending straight wall portion 16 and 17 which are substantially parallel to the vertical sides of the container 10. Extending downwardly at an angle to the edges 16 and 17 are the tapering or guide edges 18 and 19 which terminate in the bottom edges 20 and 21 of the leg. The exact construction of the legs and the means for fastening the legs to the container are not material.

At each upper corner of the container is a leg socket generally identified by the numeral 22 and comprising seating shoulders 23 and 24 complementary to the walls 16 and 18 of a container leg and seating shoulders 25 and 26, complementary to the walls 17 and 19 of a container leg. The walls 27 and 28 connecting the seating shoulders 23 and 25 do not intersect each other at a right angle as they would if they followed the dotted lines 29, but at an obtuse angle so that the point of intersection 30 is connected to the point of intersection 31 by an edge 32 which is sloping due to the sloping nature of the walls 27 and 28. The purpose of the sloping walls 27 and 28 is to assist the stacker in loading the containers one on top of the other. If the surfaces 27 and 28 were vertical so that they defined an edge along the dotted line 29, it would be exceedingly difficult for the stacker to seat one container on the other. Where, however, accuracy of positioning is determined at the lower or bottom end of the seat, the stacker may roughly position one container over another and rely upon the legs engaging the sloping walls 27 and 28 to exactly and tightly seat the container on the lower container.

It is contemplated that where such leg construction is used, blocks such as 35 may be removably or fixedly fastened in a deck floor. Such construction will be useful where containers may be lowered directly upon the holding means, as for example in a container ship having large hatches.

Large lifting eyes 35a are affixed to the side walls of the container so that the supporting spacer members 64 of a superposed container may rest on the top edges of the lower container. These eyes may be sloped outwardly as illustrated in Figure 11 to avoid contact with the spacer members as they move toward accurate registry with the top side walls of the lower container.

Referring now to Figure 3, there is illustrated a container ship of the type proposed by applicants wherein the hull is generally identified by the numeral 39. The bottom plates 40 support a tank top or cargo bottom 41, and as elsewhere explained, the construction at the ship sheers is such that large hatches 42 may be employed. In the hold generally identified by the numeral 43, a series of regularly spaced beams 44 rest upon the tank top 41 and a deck of similarly spaced beams 45 is positioned at a point sufficiently far above the tank top so that two containers may be stacked one upon the other. The beams in the deck 45 are spaced from each other so that the containers 46 when turned with their long dimension parallel with the beam may be passed between the beams down into the lower part of the hold. These beams are especially constructed as described in another application, but are characterized by spaced notches into which the legs of a container will fit.

It is recognized that there could be mounted on these beams holding means such as illustrated in Figure 2, but the notches are simply made if they are cut out of a steel I beam or if they are formed by outwardly projecting auxiliary flanges on I beams. It is therefore desirable to be able to insert rapidly the legs of a container in these notches.

Referring now to Figure 4, it would be rather difficult to insert the bottom end of legs such as 21 into a group of holding members such as 47 because the spacing of the outside walls of the respective slots only slightly exceeds the outside dimensions of the container in order to prevent the container from working during rolling at sea. Seating a container in a set of four holding means therefor, by means of a crane cable, might be too slow to be practical.

Applicants provide their containers with legs, each of which has a lead 51 connected by four outwardly sloping walls as 52 and 53, see Figure 5, to short vertical walls as 54 and 55. The legs consist of a cube upon which is superimposed an inverted, truncated pyramid upon which is superimposed a parallelepiped. Referring again to Figure 4, it will be observed that all that is necessary is to get the lead 51 any place within the notch 47 and let the container slowly downwardly so that the sloping walls, as 52 and 53, will ultimately cause the parallelepiped portion of the leg to seat in the notch. The container itself will rest its lower edge 56 of Figure 5, on the upper edge of the beam 57 of Figure 4. Where there is a supporting beam 64, see Figure 1, the height of the parallelepiped portion at the top of each leg (bounded by the walls 54 and 55 of Figure 5) will be proportionately increased because it is the outside side walls of this portion that prevent lateral movements of the container in the holding means.

Referring now to Figure 7, a construction for positioning applicants' containers on a flat surface is shown. The flat surface there illustrated is a railroad flat car 60 having a somewhat narrow bed construction whereby there may be mounted along the side edges and still within width clearances of the railroad, outwardly faced C beams 61 and 62 similar to those abutting the bulkhead in Figure 3 and identified by the numeral 63. Unlike the arrangement of the beam framework in Figure 3 wherein the notches of one beam face the notches of the other beam so that a container positioned in the notches has its width lower edges resting on the beams, in the railroad car, Figure 7, the C beams face away from each other so that the long lower sides of the containers rest on the bed of the car. It is desired that there be a space between the lower edge of the container and any floor upon which it rests into which may be inserted the lifting arms of a fork tractor. This space is obtained by providing a spacer member 64, see Figure 1, adjacent the long side of the container. When this container is mounted on a flat car, an opening 65 which may be of any desired height, will be created between the bottom of the container and the top of the flat car. When the second container is mounted on the first, a similar opening 66 will be created. This same result follows where the deck of a ship is notched by rectangular holes into which the legs of the container are dropped, see 66a in Figure 3. In

either case, the container will be held clear of the floor so that the lifting fingers on the fork tractor may be inserted thereunder, and the notches in the floor will be so small that they will not interfere with the functioning of the tractor. This is to be contrasted with the situation which exists where blocks such as illustrated in Figures 2 and 6 are used on a flat surface. These blocks would interfere with the movement of many types of tractors. If the loading arrangement does not contemplate the use of a tractor, the blocks may be superior to holes in the deck, which may be objectionable because the latter may require additional reinforcing of the deck structure.

The depending supporting spacer members 64 upon which the containers rest when they are lying on a substantially flat surface do not interfere in any way with the containers resting on their lower width edges when they are positioned so as to span beams such as those of the deck 45 in Figure 3.

It will be appreciated that it may be desirable to put the spacer members 64 across the short dimension or width of the containers in order to permit the loading tractors to insert their fingers across the width of the container rather than along the length, which latter arrangement may involve the raising of a weight too great for the heaviest loading tractor now available.

Referring now to the knockdown container illustrated in Figures 8, 9 and 10, the construction details of this container are substantially the same as those of the container disclosed in the copending application. However, this knockdown container has leg sockets 70 in each of the upper corners so that these containers may be stacked one on top of the other in the same manner as the container illustrated in Figure 1. In order to collapse these containers, the upper portion 71 of Figure 8 is shortened, the lower portion 72 is lengthened by substantially the same distance that 73 is shortened so that, referring to Figure 10, when the right-hand wall 72 is folded down on the hinge 73, the wall 71, when folded down, will rest on the socket 70 and hold the two walls 71 and 72 substantially parallel.

A further feature of these knockdown containers resides in means for stacking them while in collapsed condition. Referring to Figure 8, members 73 and 74 are recessed at 75 and 76, the necessary rigidity between these members 73 and 74 and the balance of the wall 71 being obtained by means of the plates 77 and 78. When the wall 71 is in the position shown in Figure 10, the legs such as 79 of the superimposed container will rest on the surface 81 by virtue of the small I beam 82. It should be noted that the two legs in these two sockets 75 and 76 prevent movement of the superimposed container 80 in any direction and that consequently holding means for the free legs 83 are unnecessary. The removable battens 84 and 85 and the tension rods 86 and 87 may be removably held in the collapsed container by any suitable means.

Applicants' knockdown containers are equipped with large holding eyelets 90 and 91 which are designed to cooperate with holding means capable of holding the containers in other than horizontal position. Attention is invited to the fact that the eyelets 90 of Figure 8 and 35*a* of Figure 1 are fastened not only to the upper edge member of the container, but also to the vertical stay members such as 92 and 93.

Examining now the preferred embodiment of the knockdown container disclosed in Figures 12 through 22, applicants utilize the space between the sockets at the top of the container to store the side panels when the container is in knocked down condition. This basic idea necessitates the cutting away of the end sides of the top member so that the long side panels of the container may be received therebetween and requires that the side panels have a height equal to or less than the distance between the sockets across the end dimension of the container.

More specifically, referring to Figure 12, the numeral 100 generally identifies a base member, which, referring to Figures 16 and 17, comprises a plurality of C-shaped members as 101, see Figure 22, excepting that the two outside members, as 102 are formed with a heavy channel member such as 103. Reinforcing gussets as 104 and 105 provide additional transverse strength. Along the lower end edges of the bottom member are upright channels such as 106, see Figures 17 and 14. The long sides of the bottom member 100 are closed by strips such as 106—A, see Figure 17, which extend above the top of the bottom member forming a flange 107. See also Figure 16. A strengthening bar 108 is fastened to the flange 107 on the inside surface.

The top member of this knockdown container is a unitary structure and is characterized by four leg sockets 109, 110 and 111, the fourth leg socket not being shown in any of the drawings, see Figures 16 and 12. These leg sockets are joined to one another primarily by means of top side members 112 and 113 and top end members such as 114 which are positioned perimetrically around a top 116. The method of joining these various members together to form a top, or even forming the entire top including the depending leg sockets from a single casting or stamping is not important to this invention. Attention is invited, however, to the fact that the top side members such as 113 are of a height equal to the height of the leg sockets whereas the top end members such as 114, see Figure 14, join only the upper part of the sockets so that a space 115, suggested in Figure 14 and shown in Figure 15, results when the top member is seated upon the base member.

In order that the top member may be assembled with the base member, it is necessary that the assembling means on the base member be complemental to the assembling means on the lower part of the top member, and further, that these means be such that side and end panels may be positioned in between them and utilize them when the container is in erected position. The fastening means on the base and the top are all illustrated in Figure 17 where it is seen that the top end member 114 has interiorly mounted a compression clip 117 having a guide edge 118. The top side member 112 carries a horizontal reinforcing bead 119 carrying an internal reinforcing bar 120. The plan area of the top member is sufficiently larger than that of the bottom member to permit the top side member 112 and reinforcing bar 120 to seat externally of the flange 107 so that a bolt mounted in the opening 121 may be passed through the opening 122 to hold the top to the bottom when the side panels have been removed. The vertical alignment of the top side member 114 with respect to the channel 106 will be substantially the same. Referring to Figure 15, the reinforcing bars 120 and 120' and the upright flanges 107 and 107' are illustrated in dotted outline with bolts 123 and 123' holding the

members together. Referring to Figure 12, there are a plurality of these bolt holes along each side of the top member and of the bottom members in knockdown condition. Therefore, the top member is held to the bottom member by means of removable fasteners mounted along the two long sides of the two members.

In erected condition, applicants' container consists of side panels 124 and 125 and upper and lower end panels 126, 127, see Figure 14, and similar panels at the other end, not shown. Referring now to Figure 17, end panels, which have stamped into them reinforcing ribs 126 carry at their lower end externally thereof a reinforcing bar 127a and at their upper end a reinforcing bar 128 inwardly positioned. By this reversal of positioning of the bars 127a and 128, the side panel 124 may be mounted on the outside of the flange 107 and on the inside of the bar 128 attached to the top. The side panels, however, are not reversible, that is the top may not be placed downwardly for the reason that each side panel, referring to Figure 19, carries a heavy protective corner bead 128 which extends to the bottom of the side panel 124 but terminates short of the top of the side panel by a distance sufficient to permit the upper edge of the side panel to slip underneath the member 113, see the dotted line 129 in Figure 12.

The ends of the erected container are closed by upper and lower panels 126 and 127. In the case of these panels, referring to Figure 17, the reinforcing bars 130 and 131 are positioned on the inside of the panels while similar bars 132 and 133 are placed on the outside of the upper panel. Referring to Figure 14, the upper panel is cut away at 134 so that it may fit tightly against the inside wall of the leg socket holes. Holes are cut in the various edges of the panel members in such a way that they will properly register when the device is in erected condition and wing bolts may be used to hold it in assembled relationship.

The relationship of the top and the bottom in knocked down condition has been described, and referring to Figure 15, it will appear that the two side panels 124 and 124a are positioned in the space 115. Between them may be placed the four end panels.

The leg socket disclosed in this preferred container is a steel stamping. The feature of this invention is to incorporate in this leg socket at a point such that it will not interfere with the positioning of a leg therein, a lifting means for the container. By this construction, the lifting means will not protrude beyond the over-all dimensions of the container in any direction. The lifting means or eyes bear the numerals 125a and 126a and extend outwardly from the top of the walls 127a and 128a of the leg socket so as to make an acute angle of about 30 degrees with the side wall of the container, see Figure 16. Referring to Figure 20, an eyelet 125a consists of a bar 129a having its upper horizontal end 130a passed through a slot 131a in the wall 127a of a socket and welded thereto while the lower end is tapered at 132a and welded to the lower end of the wall 127a. Referring to Figures 20 and 12, the slope of the eyelet 125a assists in seating the leg of a superposed container.

This container is supported by foldable legs. In order to reduce the over-all height of two of these containers, one mounted on the other, so that they may be shipped on a standard flat car, it is desirable to be able to reduce the height somewhat. Referring to Figures 14 and 18, each

leg consists of a U-shaped stamping 134a having a tapered edge 135 to assist in guiding the leg into a leg socket. On the inner side of each arm of the U-shaped leg member are reinforcing members 136 and 137. At each corner of the container are supporting plates 138 and 139. These plates 136 through 139 are apertured to receive a pivot pin 144. The side arms of the U-shaped member 134a together with the reinforcing members 136 and 139 are also apertured at 143, see Figure 12, while the supporting plates are doubly apertured at 142 and 143. A removable pin 140 will hold it lying in either lowered or folded position. The pin 140 has an annular groove 145 in which rides a ball 146 urged against the surface of the groove 145 by a spring 147, held in position by a screw 148. The ball is not lost when the pin is removed because the hole in which it seats, referring to Figure 21, is not drilled completely through so that a retaining wall 149 holds the ball within the member 136. The containers may be stacked with the legs in either extended or folded position, the short base seating in the sockets to prevent lateral movement.

The advantages derived from the applicants' containers herein illustrated are several. Firstly, the containers can be stacked one on top of the other in either erected or knocked down condition. In the preferred form, the solid side panels have shapes and peripheral holding means which enable them to be positioned between a rigid top and a rigid bottom either in an upright condition or in a flat condition, so that the container may be knocked down. This same preferred form has eyelets depressed in the sockets so that they are protected by the general contours of the container. Moreover, these eyelets assist in seating a leg in a socket. Means for maintaining an opening beneath a container for the insertion of lifting arms of a fork type tractor consist in a preferred form in foldable legs, or sockets shallower than the legs, and in other embodiments in supporting channel members along two opposite bottom edges.

Having thus described our invention, what we claim as new and wish to secure by United States Letters Patent is:

1. A freight container comprising a body having top, bottom and side walls, legs depending from said body, upwardly open leg sockets permanently mounted in the upper part of said container each in vertical alignment with a depending leg for seating similar legs of another container, side walls on the leg sockets which cooperatively hold the legs of a superposed container from lateral movement in any direction, and a lifting eyelet mounted within the recess of each leg socket and adjacent to the side walls of said sockets.

2. A freight container comprising a body, legs depending from said body, a like plurality of upwardly open leg sockets permanently mounted in the upper part of said container each in vertical alignment with a depending leg, socket side walls on the container side of each socket complementary in shape to the corresponding inside walls of a container leg so as to prevent the leg of a superposed container from moving laterally inwardly of the container in any direction, and a lifting eyelet mounted within the recess of each leg socket and having a downwardly and outwardly sloping wall for guiding a container into a predetermined position in the bottom of the socket.

3. A fabricated metal freight container com-

prising a body having a top, side walls, and a substantially flat bottom, a plurality of legs pivotally depending from said body, a long support and a short support mounted on said leg and angularly spaced about the pivot, the bottom of each support being spaced from the pivot by a distance sufficient to hold the bottom of the container above a plane upon which either the short or the long support is resting, either support being in the same vertical line when in effective position, and a like plurality of upwardly open leg sockets mounted in the upper part of said container and each in vertical alignment with one of said legs for receiving either the long or the short support of similar legs, similarly arranged of another container.

4. A fabricated metal freight container comprising a body having a parallelepiped shape, a leg socket disposed in each top corner of the body, a leg pivotally mounted on a shaft at each bottom corner of the container, and two bases on each leg radially spaced from each other around the shaft and each base being in vertical alignment with a leg socket thereabove when in effective position so that either base is seatable in such a socket, one base being substantially closer to the shaft than the other base, and both being so related to the shaft that when either is in lowered position it will space the bottom of the container from the plane upon which the legs are resting.

5. A fabricated metal freight container comprising a body having a right parallelepiped shape, an upwardly open leg socket disposed in each top corner of the container, a leg pivotally mounted on a shaft at each bottom corner of the container, the axis of all of the shafts being parallel to each other and the legs folding inwardly of the body of the container, and two bases on each leg radially spaced from each other around the shaft and each base being in vertical alignment with a leg socket thereabove when in effective position so that either base is seatable in such a socket, one base being substantially closer to the shaft than the other base, and both being related to the shaft so that when either is in lowered position it will space the bottom of the container from the plane upon which the legs are resting.

6. A fabricated metal freight container having a right parallelepiped shape comprising a bottom, a leg depending from and pivotally mounted on a shaft mounted on each bottom corner, a long support and a short support angularly spaced from each other about the shaft, either support being in the same vertical line when in effective position, side panels mounted on the bottom, a top spanning the top edges of the side panels, a leg rest positioned in vertical alignment with each depending leg at each intersection of two side walls at a distance from the top of the container which is more distant from the top of the container than the distance between the short support and the shaft, and side walls extending from a portion of the periphery of each container leg rest upwardly to the top of the container to define an open-sided leg socket.

7. The freight container of claim 6 wherein the socket side walls extend inwardly of the container as well as upwardly so as to provide a guiding surface for a leg base and to provide an open inside top periphery of the socket which is substantially larger than the leg base.

8. A fabricated metal freight container made of sheet metal top, bottom and side walls joined along their edges to form a right parallelepiped body, a deep leg socket having guide walls downwardly directed which form an upwardly open entrance disposed at each top corner of the container, said socket being recessed within the inside planes of the intersecting side and top walls and extending downwardly into the space enclosed by the parallelepiped body, and a leg having a bottom in fixed lateral position depending from each bottom corner of the container, said leg bottom being in vertical alignment with the leg socket thereabove.

9. A fabricated metal freight container made of sheet metal top, bottom and side walls joined along their edges to form a right parallelepiped body, a deep leg socket having guide walls downwardly directed which form an upwardly open entrance disposed at each top corner of the container, said socket being recessed within the inside planes of the intersecting side and top walls and extending downwardly into the space enclosed by the parallelepiped body, a horizontal leg rest plate forming the bottom of each socket and fastened along its inside edge to the guide walls and along its outside edges to the side walls, and a leg having a bottom in fixed lateral position depending from each bottom corner of the container, said leg bottom being in vertical alignment with the leg rest plate thereabove.

10. A fabricated metal freight container made of sheet metal top, bottom and side walls joined along their edges to form a right parallelepiped body, a deep, open-sided leg socket having guide walls downwardly directed which form an upwardly open entrance disposed at each top corner of the container, said socket being recessed within the inside planes of the intersecting side and top walls and extending downwardly into the space enclosed by the parallelepiped body, and a leg having a bottom in fixed lateral position depending from each bottom corner of the container, said leg bottom being in vertical alignment with the leg socket thereabove.

11. A fabricated metal freight container made of sheet metal top, bottom and side walls joined along their edges to form a right parallelepiped body, a deep, open-sided leg socket having guide walls sloping downwardly and outwardly which form an upwardly open entrance disposed at each top corner of the container, said socket being recessed within the inside planes of the intersecting side and top walls and extending downwardly into the space enclosed by the parallelepiped body, a horizontal leg rest plate forming the bottom of each socket and fastened along its inside edge to the guide walls of the socket and along its outside edges to the side walls, and a leg having a bottom in fixed lateral position depending from each bottom corner of the container, said leg bottom being in vertical alignment with the leg rest plate thereabove.

12. A fabricated metal freight container comprising a right parallelepiped body formed of a sheet metal bottom, sides and top wall, a leg depending from each corner of the bottom, a horizontal cut in each side wall extending inwardly from each vertical corner of the container at a selected distance below the top to a point vertically inside the inside edge of the leg at the same corner, an upwardly directed cut in each side wall extending upwardly from the end of each horizontal cut to the top, a cut in the top wall at each corner connecting the two upper ends of the upwardly directed cuts in the side wall, the cuts in two adjacent side walls and top forming a leg socket seat in each top corner of the container,

and an integral leg socket fastened to all of the edges of said seat so that it is recessed into the enclosure of the container, said leg socket unit consisting of a leg base plate having outer edges congruent with two horizontal cuts in the side plates and of upwardly directed walls fastened to the inside edges of the base plate and having upper edges congruent with the edge of the cut-out portion in the top to which they are rigidly fastened.

13. A fabricated metal freight container comprising a right parallelepiped body formed of a sheet metal bottom, sides and top wall, a leg depending from each corner of the bottom, a horizontal cut in each side wall extending inwardly from each vertical corner of the container at a selected distance below the top to a point vertically inside the inside edge of the leg at the same corner, an upwardly directed cut in each side wall extending upwardly and inwardly at an angle from the end of each horizontal cut to the top, a cut in the top wall at each corner connecting the two upper ends of the upwardly directed cuts in the side wall, the cuts in two adjacent side walls and top forming a leg socket seat in each top corner of the container, and an integral leg socket fastened to all of the edges of said seat so that it is recessed into the enclosure of the container, said leg socket unit consisting of a leg base plate having outer edges congruent with two horizontal cuts in the side plates and of upwardly directed, sloping walls fastened to the inside edges of the base plate and having upper edges congruent with the edge of the cut-out portion in the top to which they are rigidly fastened.

14. A fabricated metal freight container made of sheet metal top, bottom and side walls joined along their edges to form a right parallelepiped body, a plurality of deep, open-sided sockets having guide walls downwardly directed which form an upwardly open entrance, each socket being disposed along the intersection of at least one side wall and top wall of the container, and each socket being recessed within the inside planes of the intersecting side and top walls and extending downwardly into the space enclosed by the parallelepiped body, and a like plurality of supports each having a bottom in fixed lateral position and depending from the bottom of the container, each support bottom being in vertical alignment with a support socket thereabove.

15. A fabricated metal freight container made

of sheet metal top, bottom and side walls joined along their edges to form a right parallelepiped body, a plurality of deep, open-sided sockets having guide walls downwardly directed which form an upwardly open entrance, one socket disposed along the intersection of at least one side wall and top wall of the container, and another socket disposed along the intersection of the side wall opposite said last mentioned side wall and top of the container, each socket being recessed within the inside planes of the intersecting side and top walls and extending downwardly into the space enclosed by the parallelepiped body, and a like plurality of supports each having a bottom in fixed lateral position and depending from the bottom of the container, each support bottom being in vertical alignment with a support socket thereabove.

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