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FREIGHT CONTAINER

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Fig. 1.

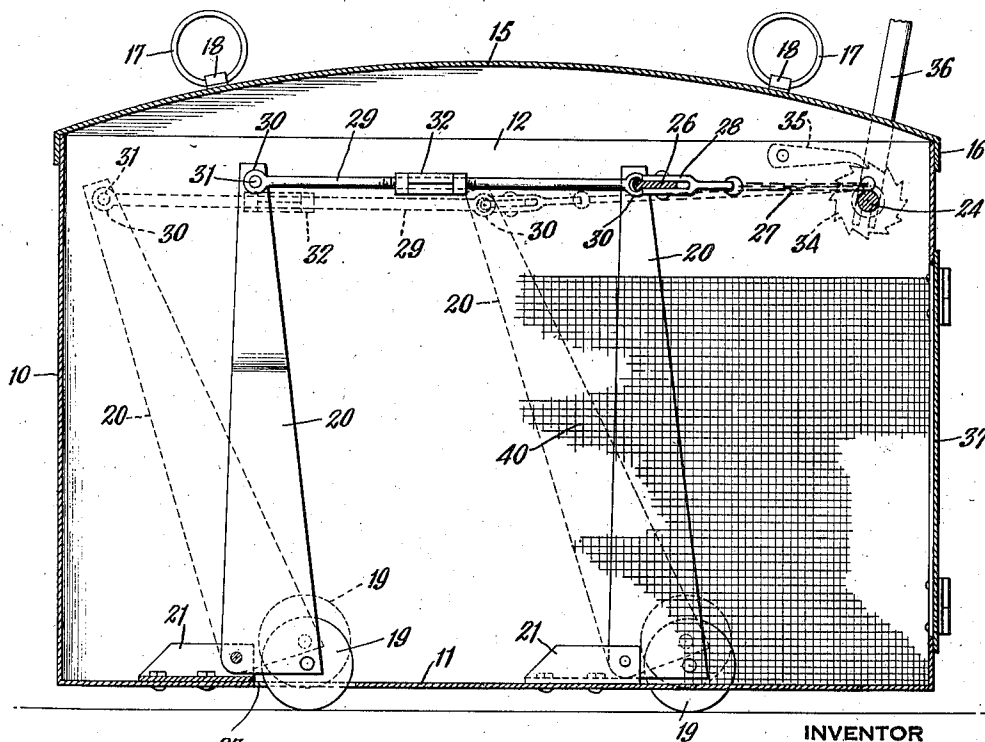
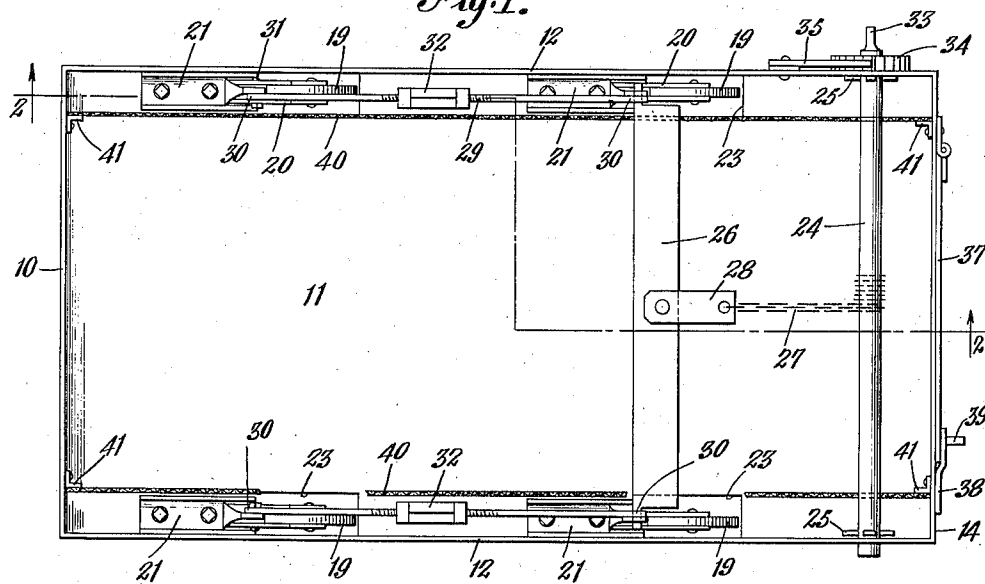


Fig. 2.

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FREIGHT CONTAINER

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Continuation of application Serial No. 567,749,
October 8, 1931. This application October 9,
1933, Serial No. 692,758

19 Claims. (Cl. 280—44)

This invention relates to shipping containers, and more particularly to a container or receptacle for shipping less than car load lots. This application is a continuation of my application
5 Serial No. 567,749, filed October 8, 1931.

An object of this invention is to provide a container or packing member which is adapted to be placed in a freight car or other carrier, the device receiving articles for shipment which are of
10 a size and quantity less than sufficient to fill a freight car.

Another object of this invention is to provide a shipping device of this kind which is so constructed that it will protect the articles placed therein against damage during the shipment in a carrier, the device also including means whereby
15 it may be readily moved on a flat surface such as out of the carrier and onto a platform or other flat surface.

A further object of this invention is to provide a device of this kind which can be moved by a crane or other lifting device and which, when placed in approximately the desired position, may be readily shifted so that other articles
20 may be placed in the carrier in close proximity to the device.

A still further object of this invention is to provide a shipping member of this kind which is relatively light in weight but having sufficient
25 rigidity to protect the articles positioned therein so that the container will not be damaged during the movement of the carrier.

The above and various other objects and advantages of this invention will in part be described and in part be understood from the following detailed description of the present preferred embodiment, the same being illustrated in the accompanying drawing, wherein—
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Figure 1 is a detail top plan view of a device constructed according to the preferred embodiment, of this invention, having the top removed therefrom, and
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Figure 2 is a longitudinal section taken on the line 2—2 of Figure 1.

Referring to the drawing wherein like numerals of reference designate corresponding parts throughout the several views, the numeral 10 designates generally a shipping receptacle or box having a bottom 11, side walls 12 and end
45 walls 13 and 14, the wall 14 constituting the front end of the receptacle. The bottom, side and end walls of this device are preferably constructed of metal which may be suitably reinforced so that a relatively rigid box-like construction will be provided wherein various ar-
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ticles for shipment may be positioned, these articles being in quantity less than a car load lot.

A top 15, which has marginal depending flanges 16, is secured to the side walls 12 and the end walls 13 and 14, and a pair of lifting rings 17 are secured to the top 15 adjacent each end thereof and in substantially the longitudinal center thereof, these rings 17 being
55 mounted in bearings 18 or the like. In containers of this kind where relatively heavy articles are mounted therein, it is exceedingly difficult to shift the containers without the use of cranes which engage the loops or ring members 17.

In order to facilitate the shifting or moving of the container 10 either within the carrier or other flat surfaces, I have provided a plurality of wheels or rollers 19, which are pivotally secured to levers 20, which levers 20 are pivotally
60 or rockably mounted in U-shaped supporting members 21 carried by the bottom 11. These rollers or wheels 19 are provided in opposed pairs and the levers 20 are disposed clearly adjacent each side wall 12. The lower ends of the levers
65 20 are pivotally mounted in the U-shaped supports 21 by means of a pivotal member 22 or the like. The bottom 11 is provided with slots or openings 23 therethrough, the purpose for which will be hereinafter described.

In order to rock the levers 20, I have provided a bar or shaft 24 which is rotatably mounted in the side walls 12 adjacent the top thereof and closely adjacent one end, the shaft 24 constituting a part of a winch or winding apparatus and this shaft 24 is held against lateral
70 movement with respect to the side walls 12 by means of stop members 25.

An equalizing bar 26 connects the front pair of levers 20, the equalizing bar 26 being mounted
75 in the upper ends of these bars 20 and a chain or flexible member 27 which is trained over the shaft 24 engages a clevis 28 carried by the equalizing bar 26 adjacent the central portion thereof. The front and rear levers 20 of each
80 pair are connected together by means of a tie rod 29 having eyes 30 at each end thereof for engagement with a pin 31 carried by the levers 20.

A turnbuckle member 32 engages the abutting
85 ends of the tie rod 29 so that the front and rear levers 20 may be suitably adjusted for projecting the wheels or rollers 19 through the openings 23 in the bottom 11 for the desired distance. Preferably, the distance that the roll-
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ers 19 will be projected through the bottom is only sufficient to raise the container 10 off of the floor or flat surface, so that the rollers or wheels 29 need not be projected outwardly through the bottom for a distance equal to the diameter thereof.

In order to facilitate turning of the shaft 24, one end 33 thereof is preferably formed into a square and a ratchet wheel 34 is secured to the projecting end of the shaft 24. A pawl member 35 is pivotally carried by the adjacent side wall 12 of the container 10 and engages the ratchet 34 so as to hold the shaft 24 against rotation in one direction. A handle or operating member 36 is adapted to removably engage the projecting end 33 of the shaft 24, so that the desired leverage can be applied for turning of this shaft 24.

In practice, the winch construction herein disclosed is such that the wheels 19 will be projected through the bottom 11 for the desired distance, so as to facilitate rolling or shifting of the container 10 by turning the shaft 24 not more than a single turn. A door or closure 37 is hingedly carried by the front wall 14 and a latch member 38, which is mounted on the front end 14, is adapted to engage a keeper 39, so that the container 10 may be locked for protecting the contents thereof against unauthorized removal. The turns of the shaft 24 required to raise the container may vary, depending on the size of the shaft 24 and the degree of projection desired of the wheels 19.

In order to protect the container lifting mechanism hereinbefore described, I have provided an inner wall construction including a screen or web-like member 40, which is secured at each end thereof to angle bars 41 or the like, carried by each end of the container 10. This inner wall construction 40 is disposed in parallel relation to each side wall 12 and in inwardly spaced relation thereto and is of a height such that it will not interfere with the longitudinal movement of the equalizing bar 26 or the flexible member 27. In this manner, the contents of the container 10 will not shift laterally therein to a position where they will interfere with or prevent the movement of the levers 20.

In the use of this device, the articles are adapted to be placed within the container 10 between the inner walls 40 and when the container 10 has been filled to the desired extent, the door or closure member 37 may be sealed or otherwise secured so as to prevent unauthorized removal of the contents of the container 10. This container may then be lifted or shifted by inserting cables or other members in the ring members 17. If desired, however, the container 10 may be shifted without the use of the rings 17 by merely turning the shaft 24 through the use of the shaft operating member 36, so as to rock the wheel carrying levers 20 forwardly and project the wheels 19 through the slots 23 of the bottom 11. In this position, the container 10 may be shifted or rolled into the carrier and when in the desired position within the carrier, the shaft 24 may be rotated in the opposite direction so as to permit the levers 20 to move rearwardly and carry the wheels 19 inwardly of the container and out of engagement with the floor or other flat surface.

It will be noted, from the foregoing, that this container 10 will effectively seal the articles therein and protect the articles against damage during the movement of the carrier and that the contents of the container 10 cannot be removed

until the door 37 has been unlocked or unsealed. The winch operating lever 36 is preferably forwarded along with the container 10 and if desired, may be placed within the container 10 after it has been placed in the carrier in the desired position, or it may be otherwise placed in a position where it can be readily used for shifting of the container 10 during the removal of the container from the carrier.

It is, of course, understood that various changes and modifications may be made in the details of construction and design of the above specifically described embodiment of this invention without departing from the spirit thereof, such changes and modifications being restricted only by the scope of the following claims.

What is claimed is:—

1. A freight container comprising a housing closed on all sides and provided with an opening in one wall to gain access to the interior of the housing, a closure for the opening, and means within the housing and operable exteriorly thereof to raise or lower the housing relative to a plane surface irrespective of the position of the closure, said means including pivoted levers carried by the housing and wheels carried by said levers.

2. A freight container comprising a housing closed on all sides and provided with an opening in one wall to gain access to the interior of the housing, a closure for the opening, means within the housing to raise the housing relative to a plane surface for movement thereover or to lower the housing onto the plane surface, said means including pivoted levers carried by the housing and wheels rotatably carried by said levers, operating means for said first named means disposed within the housing and operable independently of the position of the closure and having a portion extending exteriorly thereof for operation, and coacting means carried by the housing and the operating means to hold said latter means in adjusted position.

3. A freight container comprising a housing closed on all sides and provided with an opening in one wall to gain access to the interior of the housing, a closure for the opening, means within the housing to raise the housing relative to a plane surface for movement thereover or to lower the housing onto the plane surface, said means being operable independently of the position of the closure and comprising levers rockably carried by the housing and wheels carried by the levers, an operating member rotatably carried by the housing and having a lever disposed exteriorly thereof for rotating said member, and flexible means operatively connecting the first mentioned levers to the operating member.

4. A freight container comprising a housing closed on all sides and provided with an opening in one wall to gain access to the interior of the housing, a closure for the opening, means within the housing and operable exteriorly thereof independently of the position of the closure to raise or lower the housing relative to a plane surface, said means including pivoted levers carried by the housing and wheels rotatably carried by said levers, and guard means within the housing for said first named means.

5. A freight container comprising a housing closed on all sides and provided with an opening in one wall to gain access to the interior of the housing, a closure for the opening, means within the housing operable independently of

the position of the closure to raise the housing relative to a plane surface for movement thereover or to lower the housing onto the plane surface, said means including pivoted levers carried by the housing and wheels rotatably carried by said levers, operating means for said first named means disposed within the housing and having a portion extending exteriorly thereof for operation, coacting means carried by the housing and the operating means to hold said latter means in adjusted position, and guard means within the housing for said first named means.

6. A freight container comprising a housing closed on all sides and provided with an opening in one wall to gain access to the interior of the housing, a closure for the opening, means within the housing operable independently of the position of the closure to raise the housing relative to a plane surface for movement thereover or to lower the housing onto the plane surface, said means comprising levers rockably carried by the housing and wheels carried by the levers, an operating member rotatably carried by the housing, a lever disposed exteriorly of the housing for rotating said member, flexible means operatively connecting the first mentioned levers to the operating member, and guard means within the housing for said levers.

7. A freight container comprising a housing closed on all sides and provided with an opening in one wall to gain access to the interior of the housing, a closure for the opening, means within the housing to raise the housing relative to a plane surface for movement thereover or to lower the housing onto the plane surface, said means comprising levers rockably carried by the housing and wheels carried by the levers, an operating shaft rotatably carried by the housing and disposed transversely thereof, a lever disposed exteriorly of the housing, flexible means trained over the shaft and operatively connected to the first mentioned levers, and a pair of guard members disposed one on each side of the housing inwardly of the first mentioned levers whereby to protect the latter levers against contact with articles disposed within the housing.

8. A freight container as set forth comprising a housing closed on all sides and having means engaging at least one wall of the housing whereby access may be had to the interior thereof, and retractible means within the housing and operable from the exterior thereof to facilitate shifting thereof, said retractible means being operable without movement of said first named means relative to the housing, said means including pivoted levers carried by the housing and wheels rotatably carried by said levers.

9. A freight container comprising a housing closed on all sides and provided with an opening in one side whereby access may be had to the interior of the housing, a closure for the opening, means within the housing and operable exteriorly thereof to raise the housing relative to a plane surface irrespective of the position of the closure relative to the housing, said means including pivoted levers carried by the housing and wheels rotatably carried by said levers, and means for holding said first named means in extended position.

10. A freight container comprising a housing closed on all sides and provided with an opening in one wall to gain access to the interior of the housing, a closure for the opening, rock

levers carried by the housing, retractible wheels on the levers, operating means for said levers engageable exteriorly of the housing and independent of the position of the closure, a toothed wheel carried by the operating means, and a dog carried by the housing and engaging the toothed wheel to hold the retractible wheel in operative position.

11. A freight container comprising a housing having double side walls, bottom and end walls, one end wall having an opening to give access to the interior of the housing, a closure for the opening, pairs of wheels of substantial diameter between each pair of side walls, means including wheel carrying levers arranged between each pair of side walls for extending and retracting each pair of wheels simultaneously independently of the position of the closure, the upper part of the wheels when in retracted position being above the bottom wall of the container, and means for operating said wheel extending and retracting means operable from the exterior of the housing.

12. A freight container comprising a housing having double side walls, bottom and end walls, one end wall having an opening to give access to the interior of the housing, a closure for the opening, bell-crank levers pivotally mounted between each pair of side walls, each lever having one arm extending longitudinally, a wheel mounted on each of said arms, the other arm of each lever extending upwardly between each pair of side walls and means carried by the container and hand operated exteriorly of the same for moving the last mentioned arms longitudinally to extend the lower parts of the wheels below the lower margins of the side and end walls independently of the opening and closing of the closure.

13. A freight container comprising a housing having double side walls, bottom and end walls, a pair of bell-crank levers pivotally mounted between each pair of side walls, each pair of levers being connected for simultaneous operation, each lever having one arm extending longitudinally, a wheel mounted on each of said arms, the other arms of each lever extending upwardly between the side walls and means carried by the container and hand operated exteriorly of the same for moving an upwardly extending arm of each pair of levers longitudinally to project the wheels mounted on the first arms below the lower margins of the side and end walls.

14. A freight container comprising a housing having double side walls, bottom and end walls, a pair of bell-crank levers pivotally mounted between each pair of side walls, each pair of levers being connected for simultaneous operation, each lever having a relatively short arm extending longitudinally, a wheel mounted on each of said arms, the other arm of each extending upwardly between the side walls, one of such last-mentioned arms of each pair of levers extending upwardly to a point adjacent the top of the outer side walls, to give a high leverage ratio with respect to the arms carrying the wheels, and means carried by the container and hand operated exteriorly of the same for moving such upwardly extending arm laterally to project the lower parts of the wheels mounted on the short arms below the lower margins of the side end walls.

15. A freight container comprising a housing having double side walls, bottom and end walls, 150

pairs of wheels between each pair of side walls, means including wheel carrying levers arranged between each pair of side walls for extending and retracting said wheels, a shaft within the housing parallel to and adjacent the upper margin of one of the end walls and means operatively connecting the shaft to the wheel extending and retracting means whereby rotation of said shaft causes said means to extend the wheels, and means carried by the container for rotating said shaft operable from the exterior of the housing.

16. A freight container comprising a housing having double side walls, bottom and end walls, pairs of wheels between each pair of side walls, means including wheel carrying levers arranged between each pair of side walls for extending and retracting each pair of wheels simultaneously, a shaft within the housing parallel to and adjacent the upper margin of one of the end walls, a flexible member operatively connected to said means and said shaft whereby rotation of said shaft winds the flexible member around the shaft and causes said means to extend the wheels and means carried by the container for rotating said shaft operable from the exterior of the housing.

17. A freight container comprising a housing having double side walls, top, bottom and end walls, one end wall having an opening to give access to the interior of the housing, a closure for the opening, pairs of extendible and retractible wheels between each pair of side walls adjacent their lower margins, levers for extending and retracting said wheels extending upwardly between each pair of side walls to points adjacent the top of the housing, a shaft within the housing parallel to and adjacent the upper margin of the end wall having the opening, therein and a flexible member operatively connected to one of said levers and to said shaft, whereby rotation of said shaft winds the flexible

member around the shaft and draws the lever into wheel-extended position.

18. A freight container comprising bottom, end and side walls defining a goods receiving space, the lower part of the side walls throughout substantially their entire length being spaced inwardly from the outer margin of the container at the bottom thereof, arms pivotally mounted on the container for movement within the space between said side walls and the said outer margins of the container, wheels of substantial diameter mounted on the free ends of said arms so that the turning of said arms about their pivots extends and retracts the wheels with respect to the container, the wheels being within said space and having their upper parts, when in retracted position, above the said bottom wall of the container and means carried by the container and hand operated exteriorly of the same for turning said arms about their pivots to extend the wheels.

19. A freight container comprising bottom, end and side walls defining a goods receiving space, a pair of bell-crank levers pivotally mounted on the container on each side thereof on the outside of said side walls, each lever having a relatively short arm extending longitudinally, a wheel of substantial diameter mounted on each of said arms, the other arms of each pair of levers extending upwardly above the said bottom wall and being connected for simultaneous operation, one of such last mentioned arms of each pair of levers being considerably longer than the longitudinally extending arms to give a high leverage ratio with respect to the latter arms, and means carried by the container and hand operated exteriorly of the same for moving such longer arm longitudinally to project the lower parts of the wheels mounted on the short arms below the bottom of the container.

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