July 10, 1934. F. B. SMITH, JR 1,965,726

MEANS FOR HANDLING GLASS BOTTLES AND THE LIKE

Filed Sept. 12, 1933 2 Sheets-Sheet 1

Fig. 1.

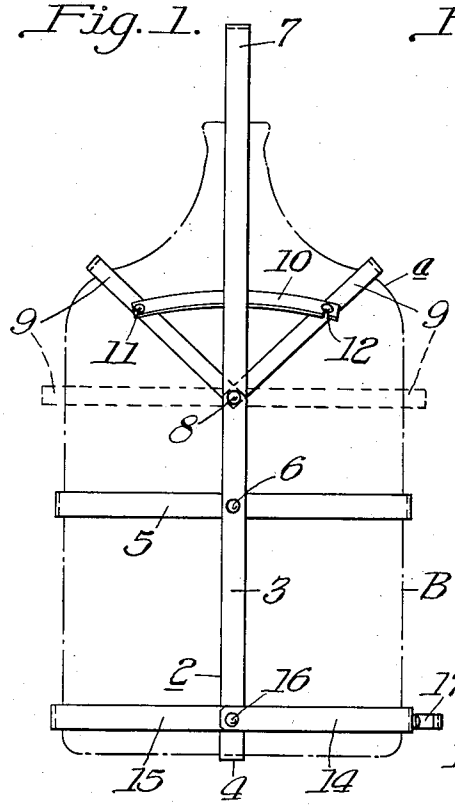


Fig. 2.

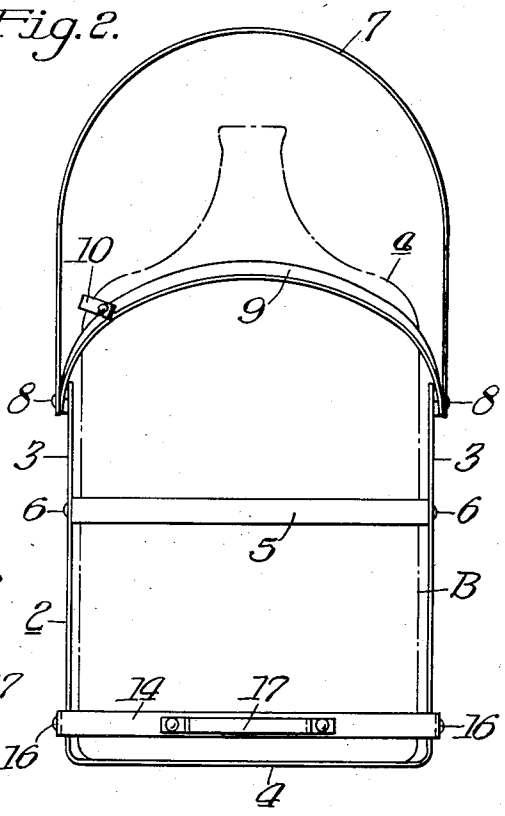


Fig. 3.

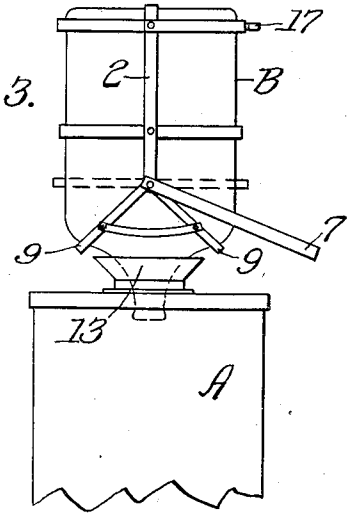
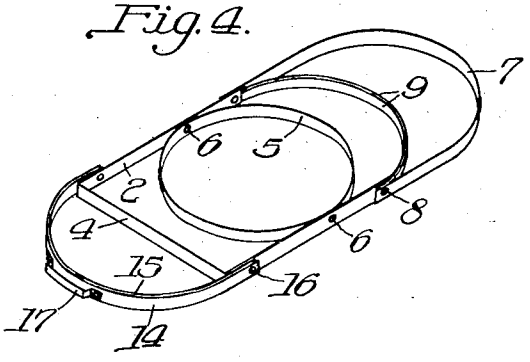


Fig. 4.



INVENTOR.
Frank B. Smith Jr
BY W. G. Doolittle
ATTORNEY.

July 10, 1934. F. B. SMITH, JR 1,965,726

MEANS FOR HANDLING GLASS BOTTLES AND THE LIKE

Filed Sept. 12, 1933 2 Sheets-Sheet 2

Fig. 6.

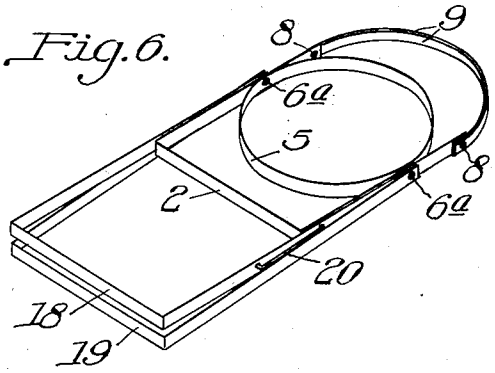
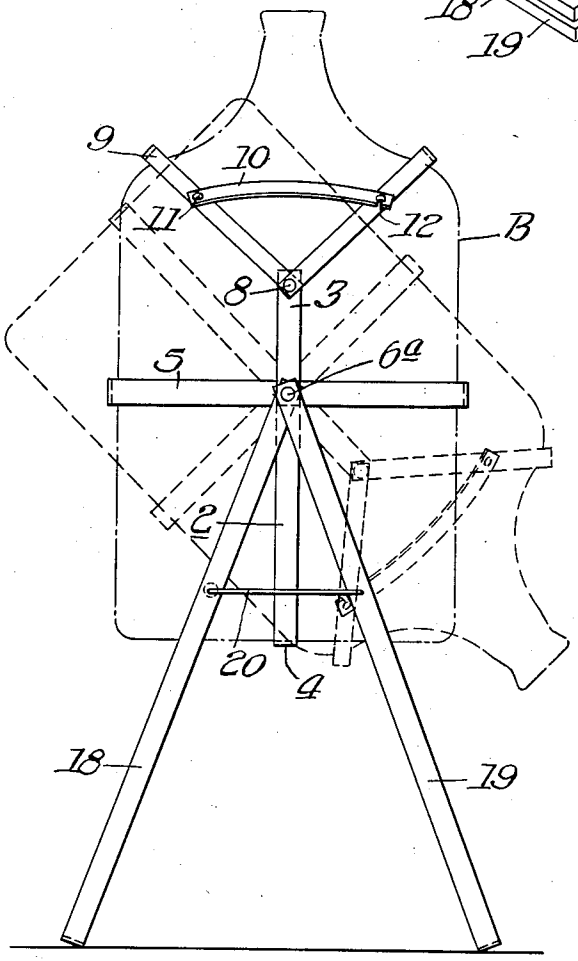


Fig. 5.



INVENTOR.
Frank B. Smith Jr.
BY W. F. Doolittle
ATTORNEY.

Patented July 10, 1934 1,965,726

UNITED STATES PATENT OFFICE

1,965,726

MEANS FOR HANDLING GLASS BOTTLES AND THE LIKE

Frank B. Smith, Jr., Pittsburgh, Pa.

Application September 12, 1933, Serial No. 689,086

10 Claims. (Cl. 215—100)

This invention relates to improvements in means for handling glass bottles or carboys, particularly large-sized bottles of the character generally employed in the dispensing of liquids, as for example, mineral waters, acids and other chemicals.

Bottles or carboys of the character stated are generally of either five or ten gallon capacity, and are of cylindrical shape, making them somewhat heavy and unwieldy to handle when filled with liquid. For example, when such bottles are used for mineral or drinking waters, the persons delivering or replacing the bottles from day to day experience considerable difficulty in carrying, lifting and inverting said bottles to position them on the ordinary water cooler or drinking stand.

It is a prime object of my invention to provide a device for such bottles, to facilitate their being carried by hand and manipulated so as to be easily lifted and swung into any desired position, said means being readily applied to or removed from the bottle.

A further object is to provide in connection with such a device, novel means for removably securing the bottle therein.

Additional objects and advantages are, to provide a support for the device whereby to produce a tiltable construction for pouring or discharging the contents of the bottle; to provide a durable but inexpensive construction welded and riveted together so as to prevent removal and loss of the parts; and a knock-down or collapsible construction capable of being folded into a compact form for shipment or storage.

My invention may be more readily understood from the following description, taken in connection with the accompanying drawings, wherein:

Fig. 1 is an elevational view of a device for handling a large glass bottle, constructed in accordance with my invention;

Fig. 2, a similar view taken at right angles to the view of Fig. 1;

Fig. 3, an elevational view showing my device employed in connection with the container or bottle of a water cooler;

Fig. 4, a diagrammatic perspective view, showing the device in collapsed or folded position;

Fig. 5, an elevational view of a modification, showing my device in connection with a support for tilting a bottle or container; and

Fig. 6, a diagrammatic perspective view of the form of Fig. 5 in collapsed or folded position.

Referring to the drawings, my invention generally comprises a skeleton framework including a single U-shaped sling or stirrup 2 having spaced-apart side members 3 and a transverse bottom member 4. A circular member or ring 5 pivoted at opposite sides thereof within and to the side members 3, as at 6, is normally disposed transversely at right angles to the stirrup 2.

As illustrated, the device is designed for receiving and supporting a container or glass bottle B therein, said bottle resting by its bottom portion on the member 4 of the stirrup.

A handle or supporting member 7 for the device is pivoted to the side members 3, as at 8, and extends thereabove a sufficient distance to amply clear the mouth of the bottle B and provide a grip for the hand.

The container or bottle B, as illustrated, is of the glass carboy type generally employed for mineral or drinking waters, acids and other liquid chemicals, i. e., a large glass bottle having a cylindrical body and a convex upward shoulder *a* terminating in a reduced throat or neck thereabove.

Means are provided for removably fastening or securing the bottle B in the device, and include a pair of movable arcuate or semi-circular bails or straps 9, pivoted by their ends to the side members 3, as at 8, and preferably externally of the side members, as shown.

The bails 9 are of sufficient radius to permit the passage of the bottle B therethrough when lowered into the dotted line position of Fig. 1, parallel to the ring member 5, permitting entrance or withdrawal of the bottle in and from the device.

The curvature of the bails 9 preferably approximates that of the portion of the bottle shoulder *a* engaged, whereby to permit the said bails to be raised or lowered over the shoulder without interference therewith. An arcuate latch 10 may be provided, pivoted to one bail at 11 and having pin and slot engagement 12 with the other bail, for removably securing the bails in raised position on either side of the bottle neck.

It will be seen that by using my invention, large heavy glass bottles may be handled with ease, minimum effort, and maximum safety against slipping and breakage. For example, when it is desired to raise and invert a large glass water bottle into a water cooler A of well known construction, the bottle is secured within my device and by means thereof is handled with comparative ease, to engage the bottle neck within the funnel opening 13 of said cooler.

When so positioned, the latch 10 may be opened and the bails 9 moved over the bottle shoulder *a*, thus enabling a ready removal of the device from

the bottle. If desired, an additional band or ring member may be provided, preferably comprising a pair of telescoping semi-circular members 14 and 15 pivoted by their ends at 16 to the lower ends of the side members 3. For receiving the bottle B, said members 14 and 15 are opened into ring shape, and one of the members may be provided with a hand grip 17 to assist the operator in handling, as when placing a bottle in inverted position for the purpose stated.

When the device is not in use, it may be collapsed and folded up in the manner of Fig. 4, thereby aiding in storing or transporting the same. The bails 9 may also be made telescoping to facilitate compactness when folded.

My invention may also be employed as a tilting device for pouring or discharging the contents of large glass bottles B. To this end, I provide a pair of U-shaped telescoping supports or frame members 18 and 19 pivoted together at their spaced-apart upper ends and to the stirrup 2 at 6*a*, said members diverging to provide an A-frame having removable side braces 20.

When so mounted, the device is free to pivot about the points 6*a* as trunnions, and readily permits pouring from the bottle B. The bails 9 function to secure the bottle in the device against accidental removal while in a tilted position.

The handle 7 may be omitted when the device is employed as a bottle tilter, the other parts remaining as before. The tilting form of my device may also be collapsed and folded as shown in Fig. 6, upon disengaging the frame braces 20.

I claim:

1. In a device for handling containers, a skeleton frame into which the container is adapted to be positioned, said frame having a pair of pivotally mounted arcuate bails for engaging and removably securing the container in said frame.

2. In a device for handling containers, a skeleton frame into which the container is adapted to be positioned, said frame having a pair of pivotally mounted semi-circular bails for engaging and removably securing the container in said frame.

3. In a device for handling containers, a skeleton frame into which the container is adapted to be positioned, said frame including a stirrup and a ring member adapted to be positioned transversely of each other, and a pair of pivotally mounted arcuate bails for engaging and removably securing the container in the frame.

4. In a device for handling containers, a skeleton frame into which the container is adapted to be positioned, said frame including a U-shaped stirrup and a transverse ring member pivoted together, and a pair of arcuate bails pivotally mounted by their ends to the stirrup for engaging and removably securing the container in the frame.

5. In a device for handling containers, a skeleton frame into which the container is adapted to be positioned, said frame including a stirrup and a ring member secured together, a pair of pivotally mounted spaced-apart arcuate bails for removably engaging the container, and a pivoted latch extending between and securing the bails in fixed relation.

6. In a device for handling containers, a skeleton frame into which the container is adapted to be positioned, said frame including a U-shaped stirrup, a plurality of ring members transversely secured to said stirrup, a handle pivotally mounted on the stirrup, a hand grip on one of the ring members, a pair of semi-circular bails pivotally mounted on said stirrup for removably engaging the container, and a pivoted latch extending between and securing the bails in fixed relation.

7. In a device for handling shouldered containers, a skeleton frame into which the container is adapted to be positioned, said frame pivotally mounting a pair of arcuate bails having substantially the curvature of the container shoulder for engaging said shoulder and removably securing the container in the frame.

8. In a device for handling containers, a collapsible skeleton frame into which the container is adapted to be positioned, said frame including a stirrup and a ring member pivoted together, a handle pivoted on said stirrup, and a pair of arcuate bails pivotally mounted by their ends to the stirrup for engaging and removably securing the container in the frame.

9. In a device for handling containers, a support, a skeleton frame tiltably mounted on the support into which the container is adapted to be positioned, and a pair of arcuate bails pivotally mounted by their ends to the frame for engaging and removably securing the container in the frame.

10. A collapsible device for handling containers comprising a pair of U-shaped telescoping supports pivotally secured together, removable braces for the supports, a skeleton frame tiltably mounted on the supports including a U-shaped stirrup and a ring member transversely pivoted thereto, a pair of semi-circular bails pivoted by their ends to the stirrup for engaging and removably securing the container in the frame, and a pivoted latch extending between and securing the bails in fixed relation.

FRANK B. SMITH, JR.