Oct. 18, 1938. R. ROSCOE 2,133,474

DISPENSING APPARATUS

Filed Sept. 16, 1937

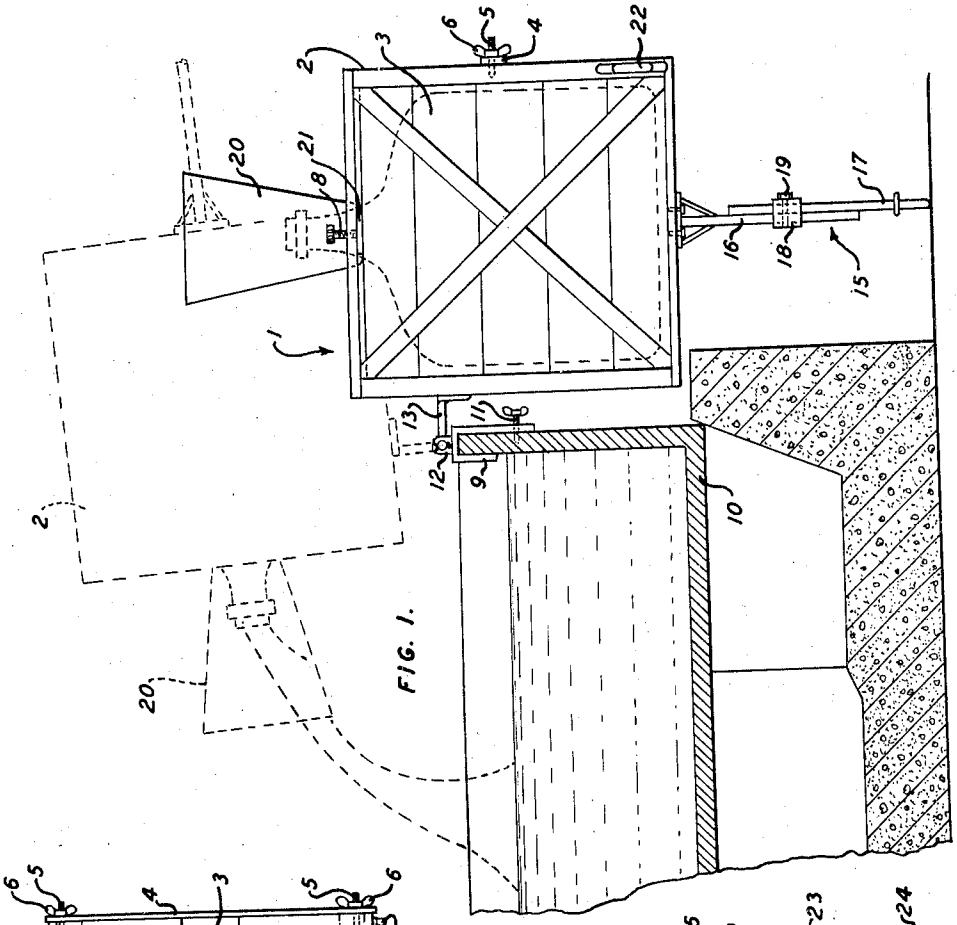


FIG. 1.

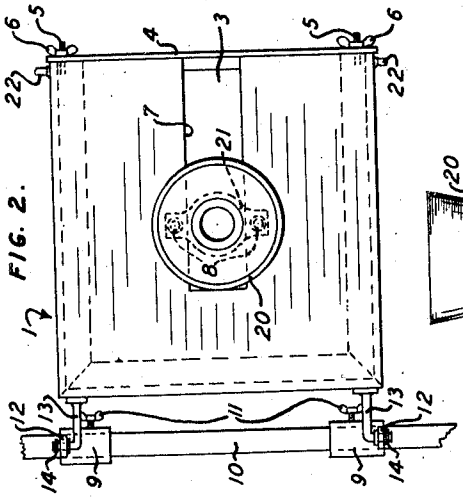


FIG. 2.

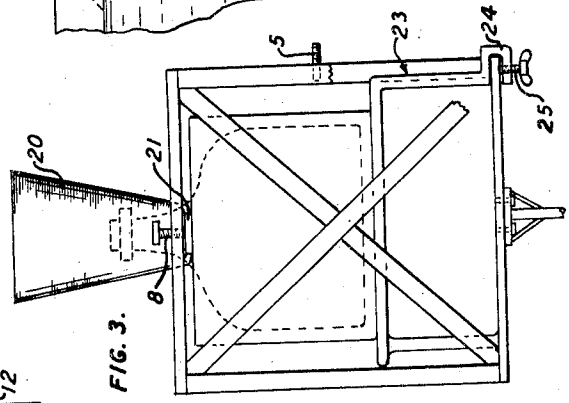


FIG. 3.

INVENTOR
R. ROSCOE

BY

Harry L. Duft
ATTORNEY

Patented Oct. 18, 1938 2,133,474

UNITED STATES PATENT OFFICE

2,133,474

DISPENSING APPARATUS

Robert Roscoe, Baltimore, Md., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application September 16, 1937, Serial No. 164,145

11 Claims. (Cl. 221—69)

This invention relates to an apparatus for handling material and more particularly to an apparatus adapted to be used for facilitating the dispensing of material from a container such as a carboy.

An object of the invention is to provide an effective dispensing apparatus which is adapted to handle containers with a minimum of effort and maximum of safety.

One embodiment of this invention contemplates an apparatus for dispensing a corrosive or caustic liquid from a shipping container into a receiver, as for example a plating bath or a pickling tank. A box-like receptacle having an open end is detachably secured to the receiver and a funnel-shaped pouring spout is attached to the shipping container. The receptacle is provided with an adjustable standard in the form of a leg for supporting the combined weight of the receptacle and the shipping container by means of which they may be raised and pivoted about hinges adjacent the receiver until tilted thereover, permitting the liquid in the container to flow therefrom.

In the accompanying drawing:

Fig. 1 is a side elevation partly in section showing a housing and a container mounted therein attached in operable relation to a receiver;

Fig. 2 is a plan view of the housing shown in Fig. 1; and

Fig. 3 is a side elevation of a modified form of the housing.

Referring more particularly to Figs. 1 and 2, a receptacle or housing 1 formed of wood or metal structural units is provided with an open end 2 through which a container 3 may be inserted. The container may be secured within the housing by means of a cross-bar 4 removably mounted on threaded bolts 5 located within the upright members of the housing adjacent to the open end. The cross-bar is securely held in position by means of wing nuts 6. The top of the housing is provided with an opening 7 in the form of a slot extending from the open end, through and slightly beyond the center of the top of the housing. Set-screws 8 are positioned in the top of the housing near the center thereof and adjacent the slot opening for a purpose to be hereinafter described.

The housing is detachably secured to the receiver in order that it may be removed therefrom and stored when not in use. To accomplish this a pair of channel members 9 are provided which engage the edge of the receiver 10 and which are secured thereto by means of set-screws 11. The channel members are provided with perforated flanges 12 adapted to receive the short portion of L-shaped arms 13, which are attached to the upright members of the housing adjacent the receiver. The L-shaped arms 13 are mounted slightly below the top face of the housing in order that the pouring spout will extend over the edge of the receiver to a point at which the pouring liquid will not endanger the operator. The flanged portions of the channel members and the L-shaped arms may be maintained in pivotal relation by means of cotter-pins 14 which are inserted in holes provided therefor in the bars.

The housing is provided with an adjustable standard 15 in the form of a leg for supporting substantially all of the combined weight of the housing and the shipping container. The adjustable standard 15 consists of a bar 16 attached to the bottom of the housing and an adjustable bar 17 maintained in a vertically slidable relation with the stationary bar by means of a collar 18 which surrounds both bars. The collar 18 is provided with a set-screw 19 for locking the movable bar 17 at any given height. The end of the slidable bar abutting the floor may be formed as a handle for gripping the standard when raising the housing to pour the liquid.

The pouring fixture is provided with a spout assembly to protect the operator from injuries that may result from splashing of dangerous chemicals. The spout assembly consists of a funnel-shaped spout 20 integrally mounted on a base plate 21 which is provided with an opening therein registering with the opening at the small end of the spout. The spout is constructed of sufficient height to protect the operator from splashing of the liquid caused by air entering the container and, further, to direct the pouring as far away from the operator as practicable. The spout is constructed with a funnel-shape in order that the liquid poured may cover as large an area as possible at the point of contact with the liquid in the receiving tank. This provision is made to prevent turbulence and reduce splashing to a minimum. While the mouth of the spout is disclosed as being circular in cross section, it may be constructed elliptical or of other suitable shape to spread the liquid being discharged from the carboy into the body of the liquid in the receiving tank. The longitudinal dimension of the base plate is greater than the width of the channel opening in the top face of the housing, permitting the set-screws 8 to contact the plate 21 thereby forcing it against the shipping crate of

the carboy and locking the spout assembly in position.

Located on the vertical members of the housing adjacent to the opening end and near the bottom face of the housing are handles **22** to provide further gripping means when raising the housing.

Fig. 3 discloses a modification of the invention adapting the pouring mixture for use with containers of various sizes. The housing is provided with an adapter **23** in the form of a platform which may be inserted through the open end **2**. The base of the adapter adjacent to the open end of the housing is provided with a U-shaped flange **24** which engages the edge of the bottom of the housing. The flange **24** is provided with set-screws **25** which contact the housing and lock the adapter in position.

In operation of the device, the neck protecting cover is removed from a crate containing a carboy to be emptied and the spout assembly is placed on top of the crate surrounding the protruding neck of the carboy. The crate containing the carboy and the spout assembly is inserted in the housing **1** through the open end **2** thereof with the spout **20** projecting through the channel opening **7** in the top face of the housing and the base plate **21** immediately thereunder. The crate is then secured against movement by means of the cross-bar **4** and the spout assembly locked in position by means of the set-screws **8**. The operator may then elevate the housing to the position shown in dotted construction in Fig. 1 by means of the handles **22** and the standard **15**. While in this, the pouring, position, the receiving tank will sustain substantially the entire weight of the housing and the carboy, and the contents of the carboy will be discharged into the receiving tank with maximum safety to the operator.

While the preferred form of the invention is shown and described herein, it is to be understood that such variations thereof are contemplated as will be embraced within the scope of the appended claims.

What is claimed is:

1. An apparatus for dispensing from a container into a receiver comprising a housing for said container, a supporting standard for said housing and means for securing said housing and standard in pivotal relation to a receiver into which said container is to be emptied.

2. An apparatus for dispensing from a container into a receiver comprising a housing for said container, a supporting standard for said housing of such height as to support the housing with its upper part substantially above the receiver, a pouring fixture for said container and means for securing one side of said housing in pivotal relation to a side wall of the receiver into which said container is to be emptied.

3. An apparatus for dispensing from a container into a receiver comprising a housing for said container, a supporting standard for said housing, a pouring fixture for said container, an adapter for said housing to permit the accommodation of various sizes of containers, and means for securing said housing and standard in pivotal relation to the receiver into which said container is to be emptied.

4. An apparatus for dispensing from a container into a receiver comprising a housing for said container, a pouring fixture for said container, an adjustable support for said housing, and means for detachably securing one side of said housing pivotally to a side wall of the receiver into which said container is to be emptied.

5. An apparatus for dispensing from a container into a receiver comprising a housing for said container, a pouring fixture for said container, an adjustable standard for said housing, the lower end of said standard being formed into a handle, and means for securing one side of said housing in pivotal relation to the receiver into which said container is to be emptied.

6. An apparatus for dispensing from a container into a receiver comprising a housing for said container, a standard for said housing, a funnel-shaped pouring fixture for said container, means for securing said pouring fixture to said container and thereby locking the container in the housing, and means for securing said housing and standard in pivotal relation to the receiver into which said container is to be emptied.

7. An apparatus for dispensing from a container into a receiver comprising a housing for said container, an adjustable standard for said housing, a pouring fixture for said container, means for securing said pouring fixture to said container and thereby positioning the container within the housing, and means for securing said housing in pivotal relation to the receiver into which said container is to be emptied.

8. An apparatus for dispensing from a container into a receiver comprising a housing for said container, means for securing said housing in pivotal relation to a receiver into which said container is to be emptied, and a funnel-shaped pouring fixture for said container, the smaller end of said pouring fixture encircling the neck of said container.

9. An apparatus for dispensing from a container into a receiver comprising a housing for said container, means for securing said housing in pivotal relation to a receiver into which said container is to be emptied, and a pouring fixture for said container, said pouring fixture having a large discharge end to disperse the discharged liquid over a large area in the receiver.

10. An apparatus for dispensing from a container into a receiver comprising a housing for said container, means for securing one side of said housing in pivotal relation to a receiver into which said container is to be emptied, and a pouring fixture for said container, said pouring fixture being sufficiently high to discharge the liquid away from the side of said receiver thereby confining any splashing to said receiver.

11. An apparatus for dispensing from a container into a receiver comprising a housing for said container, means for securing said housing in pivotal relation to a receiver into which said container is to be emptied, a removable pouring fixture for said container, said pouring fixture diverging toward the discharge end, and means for securing said pouring fixture to said container and for positioning said container within said housing.

ROBERT ROSCOE.