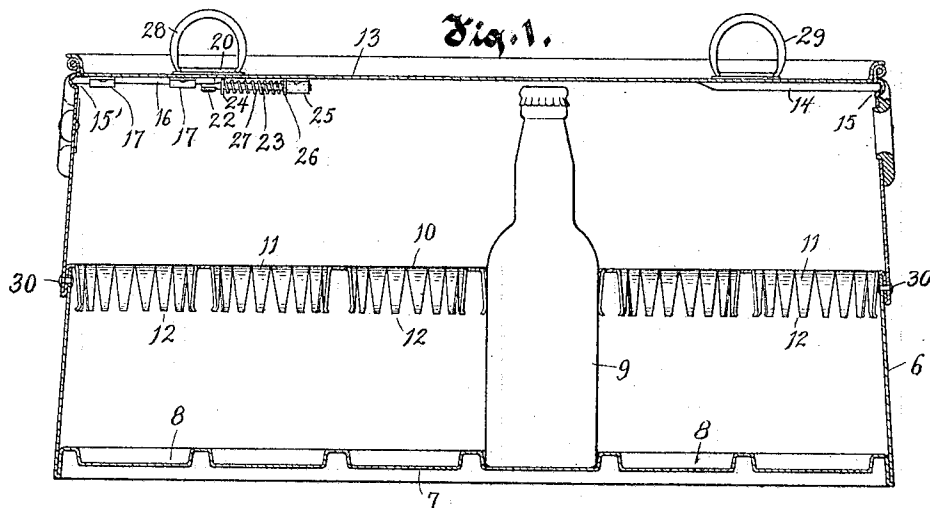
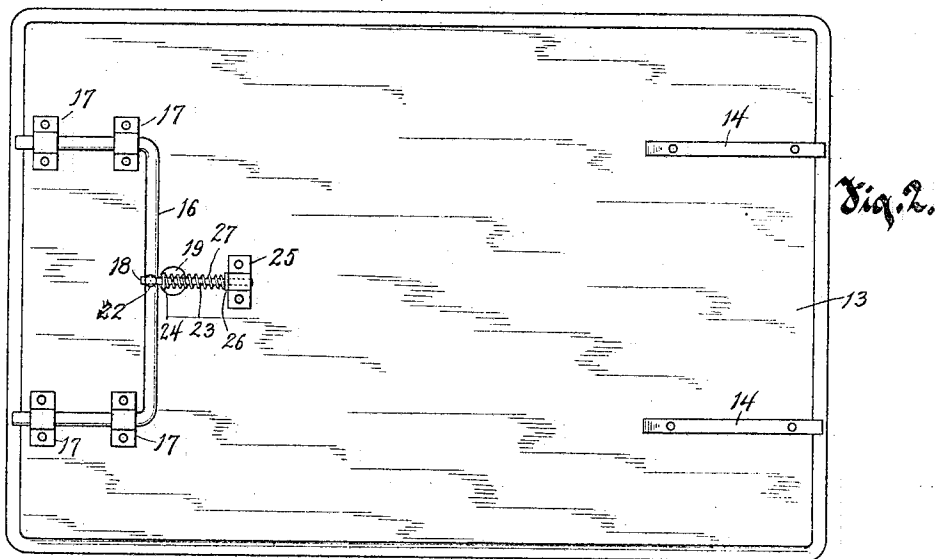
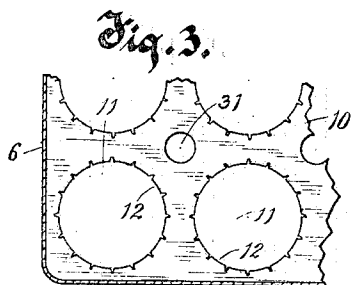
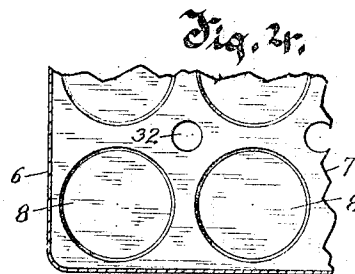
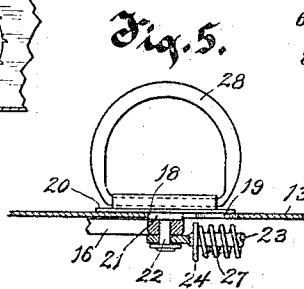


No. 809,854.

PATENTED JAN. 9, 1906.

F. SOCHUREK, SR.
SHIPPING CRATE.

APPLICATION FILED OCT. 31, 1904.



Witnesses.

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UNITED STATES PATENT OFFICE.

FRANK SOCHUREK, SR., OF MILWAUKEE, WISCONSIN.

SHIPPING-CRATE.

No. 809,854.

Specification of Letters Patent.

Patented Jan. 9, 1906.

Application filed October 31, 1904. Serial No. 230,868.

To all whom it may concern:

Be it known that I, FRANK SOCHUREK, SR., residing in Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented new and useful Improvements in Shipping-Crates, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

My invention has relation to improvements in shipping-crates.

Shipping-crates as heretofore constructed have been open to considerable objection on account of the liability of the bottles contained therein being broken during shipment or handling.

It is the primary object of my invention to provide an improved construction wherein the danger of breakage to the bottles during shipment or handling is reduced to the minimum.

Further objects reside in the provision of an improved form of locking mechanism for the cover of the crate and in the simplification of the construction of the crate in its entirety.

With the above and other incidental objects in view the invention consists in the devices and parts or the equivalents thereof, as hereinafter more fully set forth.

In the accompanying drawings, Figure 1 is a longitudinal sectional view of the crate. Fig. 2 is an under view of the cover of the crate. Fig. 3 is a fragmentary detail view of the upper holding partition. Fig. 4 is a detail fragmentary view of the bottom of the crate; and Fig. 5 is a detail view, partly in section, of the locking mechanism for the cover.

The crate consists of a receptacle or box, preferably of metal of any desired kind and illustrated as of a substantially rectangular form. Any other desired form, however, may be given to said receptacle. This improved receptacle or box of the crate is indicated in the accompanying drawings by the numeral 6. The bottom piece 7 thereof is shown as raised a slight distance above the lower edges of the sides of the box, so that when the said box is placed upon the floor or other support the bottom piece will not come into direct contact therewith. As this bottom piece serves to support the lower ends of the bottles, it is obvious that in case the receptacle is dropped upon the floor or support with any considerable force the danger of breaking the bottles is not as great as is the case where the bottom piece is at the extreme lower edges of

the sides of the box, and hence comes in direct contact with the floor or support when the box is dropped. This bottom piece 7 is provided with a number of circular pockets or sockets 8, preferably formed by pressing the said bottom piece downwardly at a plurality of points. These sockets are adapted to receive the lower ends of bottles, one of said bottles (indicated by the numeral 9) being shown in Fig. 1 in proper position.

Mounted above the bottom piece 7 is a horizontal partition 10, said partition provided with a series of circular openings 11 for the passage of the bottles therethrough. Of course instead of the sockets 8 and the openings 11 being of circular form they may be of any other desired form to accommodate different shapes of bottles or receptacles—such, for instance, as bottles or receptacles of square form in cross-section. Depending downwardly from the edge of each of the openings 11 are a series of spring-fingers 12, which are preferably integral with the main body portion of the partition and are formed by slitting the material of the partition and then bending downwardly the fingers formed by the slitting and preferably gradually inclining said fingers inwardly in a direction downwardly. While, as stated, these spring-fingers are preferably formed integral with the material of which the partition is formed, yet this is not absolutely necessary, as said fingers may constitute an integral part of an annulus or ring secured to the bordering edges of the openings.

The cover of the box or receptacle (indicated by the numeral 13) is preferably, although not necessarily, of dish-shaped form. On the under side of this cover, and at one end thereof, are rigid engaging lugs 14, preferably two, and having their outer ends projecting beyond the end edge of the under side of the cover. If desired, however, instead of two of these lugs only one may be employed or any number greater than two. These lugs are adapted to engage recesses 15 or 15' on the inner sides and near the tops of the end pieces of the box, depending upon the way the cover is adjusted to the box. The cover also carries on its under side, at the end thereof opposite to the end at which the lugs 14 are located, a locking mechanism consisting of a movable U-shaped member 16, the legs thereof constituting locking-bolts which pass through and are guided in keepers 17. The cover is provided with an elongated slot

18, which terminates at its inner end in an enlarged circular opening 19. On the top of the cover and above the slot 18 is a turnable plate 20, said plate provided on its under side with a boss 21, which fits in the elongated slot 18. Extending from the boss 21 and connected with a central point of the connecting member of the U-shaped locking mechanism is a pin 22, to the lower end of which is connected a bolt 23, which carries a collar 24. This bolt passes through a keeper 25 and through a collar 26 at the outer end of the keeper. Surrounding the bolt and confined between two collars 24 and 26 is a coiled spring 27. The plate 20 on the top of the cover has pivoted thereto a bail or ring 28, by means of which the plate can be moved longitudinally and also rotated.

The position of the bail or ring 28 when the bolts of the U-shaped locking member are out is such that the opening of the ring is at right angles to the length of the cover, and the boss 21 of the plate 20 is in the elongated slot 18. The said locking-bolts being in this position and it is desired to adjust the cover to the box or receptacle, the bail 28 is grasped and pulled against the action of the coiled spring 27 in a direction away from the end edge of the cover. The boss 21 will thereby be drawn into the circular opening 19. The bail 28 is then turned at right angles to its former position, and this will cause the boss 21 to be brought athwart of the circular opening 19, and consequently the locking-bolts are thereby held or locked in a position in which their outer ends do not extend beyond the outer edge of the cover. These bolts, therefore, do not now offer any obstruction to the adjusting of the cover to the box. In adjusting the cover it is tilted downwardly slightly at the end carrying the rigid lugs 14, so that said lugs may engage either of the sets of recesses 15 15 or 15' 15', according to which end of the box the end of the cover carrying the lugs 14 is adjusted. The opposite end of the cover is now allowed to drop in place, and the bail 28 is turned back to its former position in which its opening is at right angles to the length of the cover, whereby the boss 21 is brought in line with the slot 18. The recoil of the spring 27 acting against the collar 24 of the bolt 23 will force the U-shaped locking mechanism outwardly, and hence cause the outer ends of the bolts of said locking mechanism to engage the recesses 15 15 or 15' 15', as the case may be. Of course when it is desired to release the locking mechanism, so as to effect the removal of the cover, the operation first explained is gone through with—that is to say, the bail 28 is grasped and a pull exerted inwardly, which will bring the boss 21 into the circular portion 19 of the slot, thereby drawing the locking-bolts out of engagement with the recesses. The bail 28 is now turned in a direction to bring its opening at right angles

to its former position, by which the boss 21 is brought athwart of the circular opening and the locking-bolts thereby held in their withdrawn position.

Of course the particular U-shaped form of locking mechanism herein shown and described whereby two locking-bolts are provided need not necessarily be employed, inasmuch as other forms may be devised wherein only one bolt is used or more than two.

For convenience in removing the cover I also provide on the top of the same another pivoted but non-turnable bail 29.

It will be seen from the drawings that the box is composed of an upper and lower section, the intermediate partition being in one piece with the upper section and the bottom piece being in one with the lower section. It will also be seen from the drawings that the metal at the lower edges of the upper section is bent upwardly and then extended horizontally to form the intermediate partition 10, the said intermediate partition therefore being in one piece with the upper section. The same is true of the lower section of the box—*i. e.*, the lower edges thereof are bent upwardly slightly and then extended horizontally to form the bottom piece 7, which is integral with the lower section, the upward bend of the lower section serving to raise the bottom piece, so that the bends of the metal form a supporting-rim extending downwardly a slight distance below the bottom piece. In this approved form of construction the upper edges of the lower section lie next to the inner sides of the upward bend at the lower edges of the upper section, and the two parts are secured together by means of rivets 30.

The sides of the box or receptacle are preferably flared downwardly in order to promote convenience in stacking or placing the crates one on top of the other. The pivoted bails of the covers of the several crates to be stacked are turned down to horizontal positions and the depending rim at the lower edges of one of the crates is fitted over the upwardly-extending flange of the cover of the crate therebeneath, the downward flare permitting this to be readily done.

I prefer that the intermediate partition 10 and the bottom piece 7 be provided with small openings 31 and 32, respectively, whereby water or other liquid which may accumulate in the box will have an opportunity to freely discharge therefrom.

From the foregoing description of my invention it will be seen that I provide a most convenient form of crate for bottles in which the danger of breakage is reduced to the minimum, as the bottles are not only supported at their lower ends by the bottom piece, which is raised above the lower edge of the box, and hence cannot come into direct contact with a flooring or other support when the box is forcibly dropped, but also the bottles are sup-

ported against lateral movement at a point intermediate of their ends not only by the openings in the intermediate partition 10, but also by the spring-fingers 12, which latter effectually retain the bottles firmly in the openings without danger of the said bottles striking or jarring against the bordering edges of the said openings.

What I claim as my invention is—

1. In a bottle-crate, the combination with a box or receptacle consisting of an upper and a lower section, the lower section provided with a bottom piece and the upper section turned upwardly at its lower edges and extending horizontally to form an integral horizontal partition, the said partition provided with openings for the passage of the bottles therethrough, and the upper edge of the lower section of the box being fitted against and secured to the upturned bend at the lower edges of the upper section, of means within the box for supporting the lower ends of the bottles.

2. In a bottle-crate, the combination with a box or receptacle consisting of an upper and a lower section, the lower section provided with a bottom piece and the upper section turned upwardly at its lower edges and extended horizontally to form an integral horizontal partition, the said partition provided

with openings for the passage therethrough of the bottles, and the bordering edges of said openings having spring-fingers depending therefrom, and the upper edge of the lower section of the box being fitted against and secured to the upturned bend at the lower edge of the upper section, of means within the box for supporting the lower ends of the bottles.

3. A bottle-crate consisting of a box or receptacle comprising an upper and a lower section, the lower section having its lower edges bent upwardly and extended horizontally to form an integral raised bottom piece adapted for supporting the lower ends of bottles, and the upper section turned upwardly at its lower edges, and extended horizontally to form an integral horizontal partition, the said partition provided with openings for the passage of the bottles, and the upper edge of the lower section of the box being fitted against and secured to the upturned bend at the lower edge of the upper section.

In testimony whereof I affix my signature in presence of two witnesses.

FRANK SOCHUREK, SR.

Witnesses:

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ANNA F. SCHMIDTBAUER.