No. 826,292. PATENTED JULY 17, 1906.

E. TRUXALL.

BOX.

APPLICATION FILED JAN. 26, 1905.

Fig. 1.

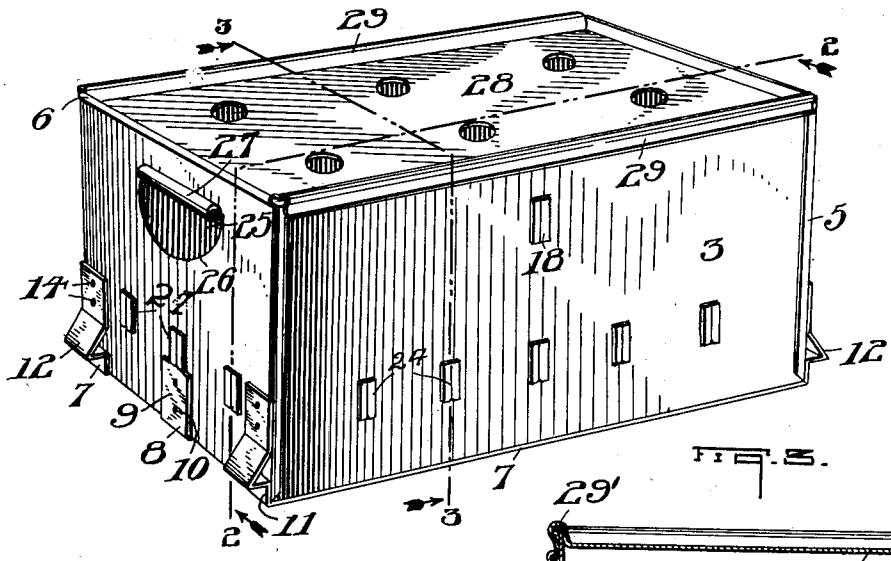


Fig. 3.

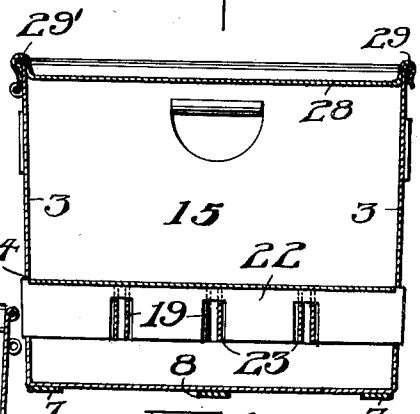


Fig. 2.

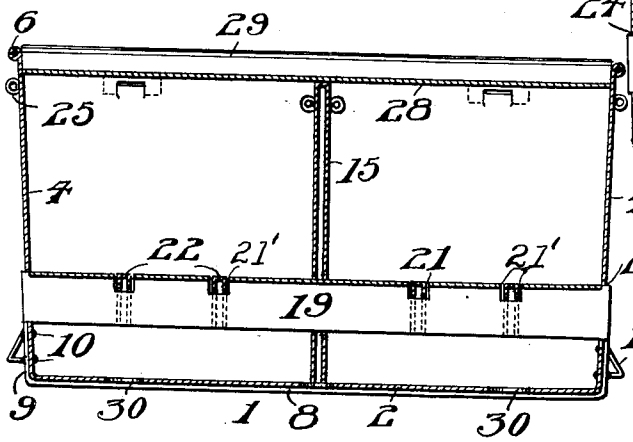


Fig. 4.

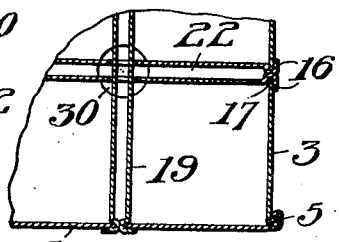
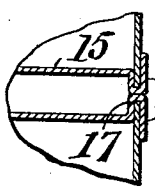


Fig. 5.



WITNESSES:

J. P. Appleman,

K. N. Butler

INVENTOR

Ephraim Truxall,

by H. C. Evert & Co.

ATTORNEYS

UNITED STATES PATENT OFFICE.

EPHRAIM TRUXALL, OF PITTSBURG, PENNSYLVANIA.

BOX.

No. 826,292. Specification of Letters Patent. Patented July 17, 1906.

Application filed January 26, 1905. Serial No. 242,723.

To all whom it may concern:

Be it known that I, EPHRAIM TRUXALL, a citizen of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Boxes, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in boxes for bottles and the like receptacles; and the invention has for its object to provide a novel form of metallic box which will be particularly adapted for beer or beverage bottles.

The invention aims to provide a box wherein certain novel features of construction are employed that provide a substantial box which will be extremely simple in construction, strong and durable, and comparatively inexpensive to manufacture. The box as constructed by me is preferably made of sheet metal, pressed and bent to conform to a retangular box; but in no wise do I care to confine myself to this particular form, as the invention is susceptible to structural changes, which will be hereinafter described.

The essential features of my invention are embodied in the construction illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of my improved box. Fig. 2 is a longitudinal sectional view taken on the line 2 2 of Fig. 1. Fig. 3 is a transverse sectional view taken on the line 3 3 of Fig. 1. Fig. 4 is a fragmentary horizontal sectional view of my improved box, and Fig. 5 is a detail sectional view of my improved box.

Throughout the several views of the drawings accompanying this application like numerals of reference designate corresponding parts, and the reference-numeral 1 designates a sheet of metal which is sheared or pressed and bent to form a box having a bottom 2, sides 3 3, and ends 4 4. The sides and ends are secured together by suitable lapped or interlocked seams 5, and the top edges of the sides and ends are provided with a wire-strengthening edge 6.

The box is formed with sides and ends that slightly taper, as clearly illustrated in Figs. 1 to 3, inclusive, and the object of these tapered sides will be presently described.

The bottom and ends of the box are strengthened, braced, and protected by strips of metal 7, 7, and 8, these strips being arranged longitudinally upon the bottom of the box, and the strip 8 is preferably arranged centrally of the box and has its ends bent upwardly upon the ends 4 4 of the box, as indicated at 9. A suitable fastening means, such as rivets 10, are employed for securing the strip 8 upon the box. The strips of metal 7 are arranged upon the bottom edges of the box, and the ends of these strips are bent upwardly, as indicated at 11, and are bent to form outwardly-extending brackets or lugs 12, the extreme ends of said strips being secured to the ends 4 4 of the box by rivets 14. The brackets or lugs 12 12 upon each end of the box form supporting means whereby one box can be packed upon the top of another, and they also protect the ends of the box from objects that may be moved or jammed into the ends of the box.

Centrally of the box is mounted a partition or wall 15, which is formed by bending a sheet of metal upon itself, providing a hollow wall or partition. In forming the wall or partition 15 the edges of the sheet of metal are sheared, whereby lugs 16 16 are formed upon the vertical edges of the partition, and the sides 3 3 of the box are provided with openings 17, through which the lugs 16 16 project, and are then bent outwardly or clenched, as indicated at 18 18, to prevent the wall or partition 15 from becoming detached from the box and also to add rigidity and strength to the partition.

In the present illustration I have shown a box adapted to contain a plurality of bottles, and to protect each bottle and provide a separate berth or compartment for each bottle I have employed transverse and longitudinally-arranged partitions, and these partitions are formed similar to the central wall or partition 15, with the exception that the depth of the partitions is just sufficient to maintain the bottles in a vertical position and separate one from the other.

The reference-numerals 19 19 designate the longitudinal partitions, which are mounted a short distance above the bottom 2 of the box, and the ends 4 4 of said box are provided with openings 20, in which the ends of the partitions 19 are mounted and secured therein by clenching the ends of the partitions, as indicated at 21, similar to the manner of securing the edges of the wall or partition 15 within the sides 3 3 of the box. The top edges of the longitudinal partitions 19 are cut away, forming a plurality of recesses 21',

which are adapted to support the transverse partitions 22. These partitions are formed similar to the longitudinal partitions and have their lower edges cut away, as indicated at 23, to receive the longitudinal partitions 19. The ends of the transverse partitions are secured in the sides 3 3 of the box, as indicated at 24, similar to the manner of securing the longitudinal partitions 19 and the edges of the vertical partition or wall 15.

The ends 4 4 of the box and the central partition or wall 15 are provided with suitable hand-grips 25, which are formed by shearing the metal, as indicated at 26, and bending the sheared portion of the metal into a roll, as indicated at 27, this roll forming a rounded edge, whereby the central partition or wall 15 or the ends 4 of the box can be conveniently gripped. These hand-grips 25 are preferably formed near the top edges of the ends 4 of the box and the central partition or wall 15, whereby the box can be conveniently carried by gripping the ends of the box with both hands or by carrying the box with one hand by the hand-grip formed in the central wall or partition 15. The hand-grip of the central wall or partition 15 is preferably used when the box contains empty bottles, which naturally reduces the weight of the box sufficiently that it can be carried with one hand.

By observing Fig. 2 of the drawings it will be noticed that I have formed the central wall or partition 15 of a less depth than the side walls and ends of the box, and this partition 15 is so constructed to accommodate a lid or cover 28, that can be conveniently employed in connection with my improved box. This lid or cover is formed of a sheet of metal, and the one longitudinal edge is bent to form a spring gripping edge 29 to engage the side 3, while the other edge is hinged, as at 29′. This construction provides a concave lid or cover that exposes the upper edges of the ends 4 4 of the box, and this particular form of lid or cover is employed, whereby a plurality of boxes can be nested or piled one upon the other. The tapering sides of the box permits of the brackets or lugs 12 of one box engaging the top edges of the ends of the next succeeding box, and the concavity of the lid or cover 28 is adapted to receive that portion of the bottom of the box remaining below the lugs or brackets 12.

The reference-numerals 30 30 designate a plurality of apertures which are formed in the bottom 2 of the box, these apertures being arranged between the metallic strips 7, 7, and 8, and they are employed to drain the box of any liquid that may accumulate or become spilled within the metallic box.

From the foregoing description, taken in connection with the drawings, it will be observed that I have provided a novel form of metallic box which is particularly adapted as a box for bottles, and the construction which I have employed in connection with the box enables me to manufacture the same at a comparatively small cost, and this construction also provides a box having great rigidity and strength which will withstand the rough usage to which boxes of this character are generally subjected.

While I have herein shown the preferred manner of constructing my improved box, it is obvious that the same may be made of various sizes and provided with a plurality of partitions, whereby it could hold a larger number of bottles, and it of course will be understood that my improved box can be made of any desired shape.

It will be noted by referring to Fig. 1 of the drawings that the ends of the partitions 19 and 21 protrude through the side and end walls of the box and form projections or lugs when they are clenched, these lugs or projections assisting in protecting the side and end walls of the box from indentations or any injury which the box is liable to receive. This is also true of the edges of the central wall or partition, and, together with the metallic strips arranged to embrace the bottom of the box, a rigid construction is provided which will add to the general merits of my improved metallic box.

By providing a plurality of metallic-lined compartments the partitions of which are formed of two-ply metal I have provided means for separating the bottles which my improved box may contain, and these metallic partitions will withstand the placing and replacing of bottles within the compartments without becoming worn or damaged by said bottles.

It will be observed by referring to Fig. 1 of the drawings that I have provided the lid with a plurality of openings, these openings serving to thoroughly ventilate the box and reduce the weight of the box in its entirety.

It will be noted that various changes may be made in the details of construction without departing from the general spirit and scope of the invention.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A metallic box, comprising a bottom, side walls, and end walls made from a single piece of material, a dividing-partition of less height than the side and end walls and having lugs projecting through the side walls and clenched therewith, and intersecting transverse and longitudinally-extending bottle-separating partitions having their ends projecting through the end walls and side walls, respectively, and clenched therewith, substantially as described.

2. A metallic box having tapering sides and ends, hand-grips carried by the ends of said box, brackets carried by the ends of said box, a partition arranged within said box, a

plurality of partitions mounted within said box and supported by the ends, sides and first-named partition, a lid having spring edges adapted to be secured upon said box, substantially as described.

3. A metallic box, comprising sides and ends and a bottom made from a single piece of material, the sides and ends extending at substantially right angles to the bottom, and the edges of said ends being secured to the ends of the sides by overlapped seams and a top having a depressed body portion hinged along its rear edge to one of the sides, and having on its other edge a spring gripping-flange to engage with the opposite side.

4. The combination with a metallic box having tapering sides, the bottom of said box having a plurality of apertures formed therein, of brackets carried by the ends of said box adjacent to the bottom thereof, a plurality of compartments formed within said box, a lid, the edges of said lid being bent upwardly and formed to engage the sides of said box, substantially as described.

5. A metallic box having tapering sides and ends and an apertured bottom, metallic strips carried by the ends of said box and embracing the bottom of said box, brackets carried by the ends of said strips, a metallic partition arranged transversely within said box, a plurality of compartments formed within said box, the ends of said box and said metallic partition having hand-grips formed therein, and a lid adapted to fit upon said box, substantially as described.

6. A metallic box, embodying tapering side walls and end walls, and a bottom, a central transverse dividing-partition rigidly secured at its ends to the side walls, intersecting transverse and longitudinally-extending bottle-separating partitions, secured at their ends to the side walls and end walls respectively, the longitudinally-extending partitions passing through the central dividing-partition, substantially as described.

7. A metallic box having tapering sides, metallic strips arranged upon the bottom of said box, brackets carried by said strips, a metallic wall or partition arranged within said box, a plurality of metallic-lined compartments formed intermediate of said wall and the ends of said box, said partition or wall and said ends having hand-grips formed therein, a metallic lid, means to secure said lid upon said box, and means to support said compartments within said box, substantially as described.

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

EPHRAIM TRUXALL.

Witnesses:
K. H. BUTLER,
E. E. POTTER.