No. 825,133. PATENTED JULY 3, 1906.

G. KLENK.

METAL BOX.

APPLICATION FILED SEPT. 13, 1905.

2 SHEETS—SHEET 1.

Fig. 1.

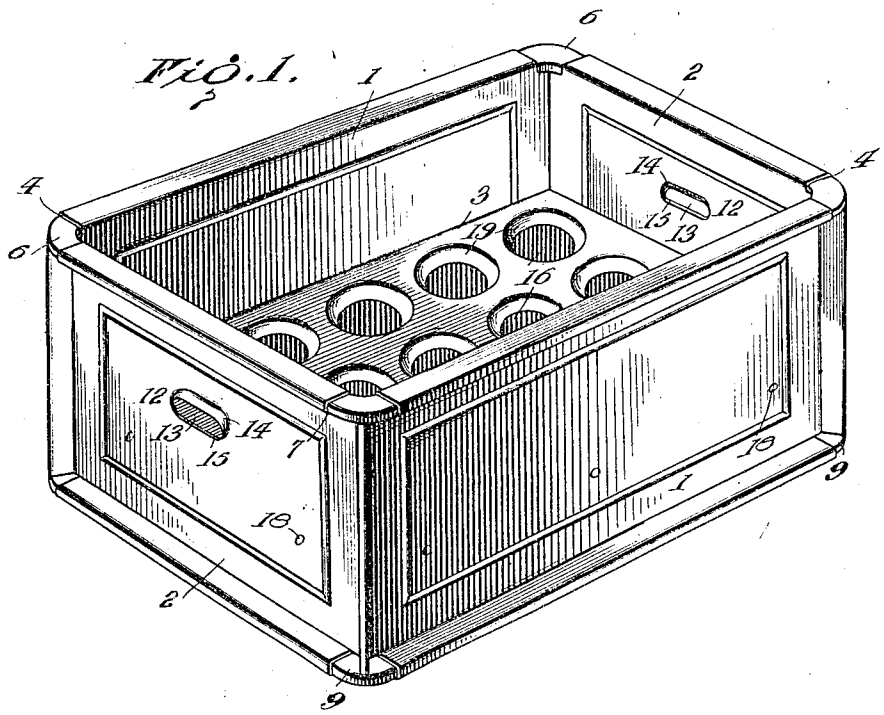
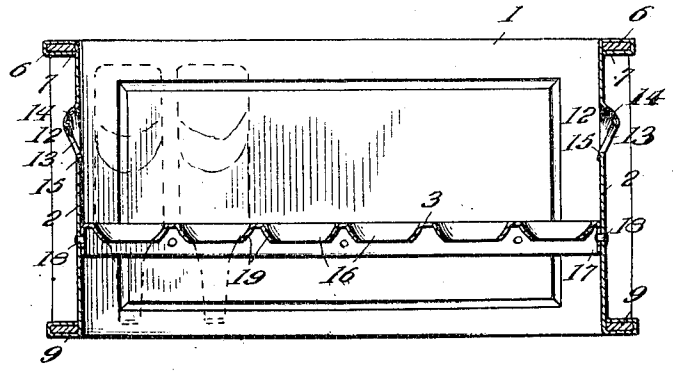



Fig. 2.




Witnesses

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2 SHEETS—SHEET 2.

Fig. 3.

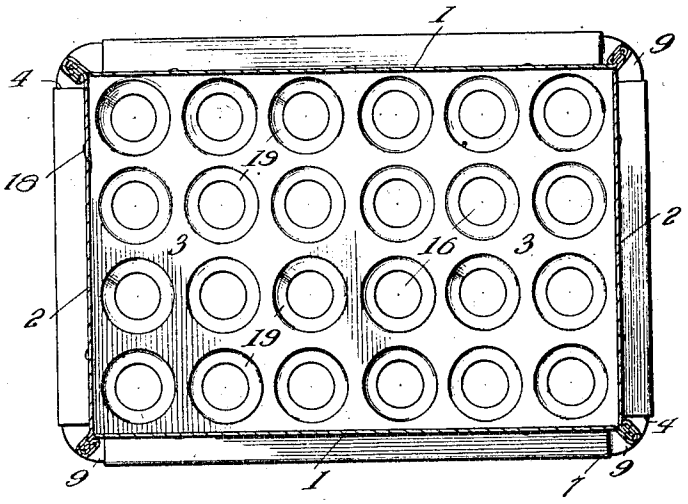
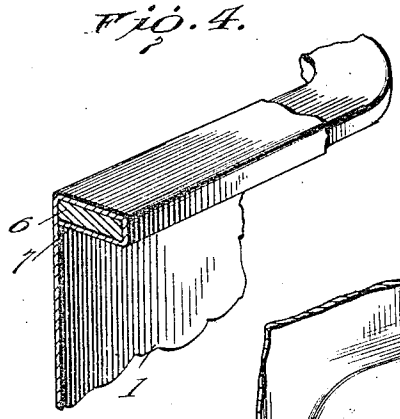



Fig. 4.



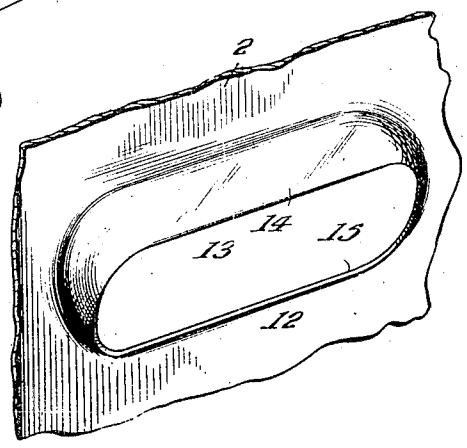




Fig. 5.

Witnesses

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# UNITED STATES PATENT OFFICE.

GOTTLIEB KLENK, OF DEFIANCE, OHIO, ASSIGNOR TO THE CLIPPER PLOW COMPANY, OF DEFIANCE, OHIO, A CORPORATION OF OHIO.

## METAL BOX.

No. 825,133. Specification of Letters Patent. Patented July 3, 1906.

Application filed September 13, 1905. Serial No. 278,304.

*To all whom it may concern:*

Be it known that I, GOTTLIEB KLENK, a citizen of the United States, residing at Defiance, in the county of Defiance and State of Ohio, have invented new and useful Improvements in Metal Boxes, of which the following is a specification.

This invention relates to improvements in metal boxes designed, primarily, for holding bottles or the like. In this class of boxes it is absolutely essential that the corners be strengthened as much as possible without adding too much weight. The partition which support the bottles must likewise be of such strength as will effectually withstand the downward pressure when the filled bottles are stored in the box.

My invention comprehends specific improvements in the box formation to meet the essential requirements. To resist the strain at the upper and lower edges, I provide flat horizontally-disposed strips, around which the metal-box sections are crimped. This peculiar relationship I regard as vital, because when the edges are struck the thrust is usually inward. Hence the strain is in line with the greatest area of metal.

The invention further comprehends improvements in the construction of the partition to properly strengthen it to resist the strain.

A further novel feature of the improvement resides in the peculiar manner of forming the handles.

Other objects and advantages will be hereinafter referred to, and be particularly pointed out in the claims.

In the drawings, Figure 1 is a perspective view of my improved box. Fig. 2 is a vertical section of the same. Fig. 3 is a horizontal sectional view. Fig. 4 is an enlarged detail perspective view of the means employed for strengthening the edges. Fig. 5 is a detail view of the handle.

The same numerals refer to like parts in all the figures.

1 indicates the sides, 2 the ends, and 3 the partition. The sides and ends are crimped at their meeting ends to form outwardly-extending reinforced flanges, and at the corners said sides and ends are cut out, as shown at 4.

At the top of the box is a practically-continuous flat strip of metal 6, the broadest surface of said strip being in a horizontal plane. The upper ends of the sides and ends are bent around the strip, as shown at 7, forming a reinforced flange, which extends wholly outside the outer plane of the box. A second flat strip 9 is located at the bottom, and the bottom ends of the sides and ends surround said strip in the same manner as above described.

The cut-away portion of the sides and ends are for the purpose of making neat corners, as will be readily appreciated by reference to the drawings.

The handles 12 are formed by pressing out the metal at the top of hand-openings 13, so as to form a pocket 14 for the fingers. The openings are surrounded by reinforcing-beads 15.

The partition 3 is formed with a series of openings 16 and downwardly-extending flanges 17, rivets or the like 18 passing through the latter to secure the partition to the sides and ends. Each opening 16 is round and formed with a surrounding depressed portion (indicated at 19) to receive the shoulder of a bottle. The depressed portion 19 is somewhat concave in cross-section to form a seat and at the same time add rigidity to the structure.

A box thus constructed possesses strength and rigidity, being reinforced in such manner as to effectually retard the strain at the points where it is most severe. By providing a flat strip at the edges and locating it so as to present the broadest surface in line with the strain I construct a strong and durable box.

What I claim is—

1. A metal box comprising sides and ends crimped at their meeting edges to form reinforced vertical flanges which extend outwardly from the box, flat metal strips at the upper and lower edges of the box, the ends and sides being bent around said strips to form reinforced flanges which extend outwardly from the box, the reinforced vertical flanges abutting against the strip around the upper and lower edges of the box.

2. A metal box comprising ends and sides, the meeting edges of the latter being crimped to form outwardly-projecting flanges, flat metal strips at the upper and lower edges of the sides and ends, the latter being bent around the strips to form outwardly-projecting parallel edge flanges, the corner-flanges and the parallel flanges being flush where they meet.

3. In combination with a sheet-metal box, a handle attachment consisting of an aperture in the box-body, the metal above said aperture being pressed outward to form finger-pockets and a bead around the edge of the outwardly-pressed portion, said bead being formed by folding a strip of the metal back upon itself.

4. A metal box comprising sides and ends crimped at their meeting edges to form reinforced vertical corner-flanges which extend diagonally outwardly from the box, flat metal strips at the upper and lower edges of the box, the ends and sides being bent around said strips to form flat reinforced flanges which extend outwardly from the box, said reinforced flat flanges resisting endwise strain at the top and bottom of the box, and the diagonally outwardly extending corner-flanges resisting downward strain at the corners of the box.

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

GOTTLIEB KLENK.

Witnesses:
HENRY B. HARRIS, Jr.,
HENRY B. HARRIS.