Sept. 21, 1937. S. F. PRATT 2,093,926

BOX

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Fig. 1.

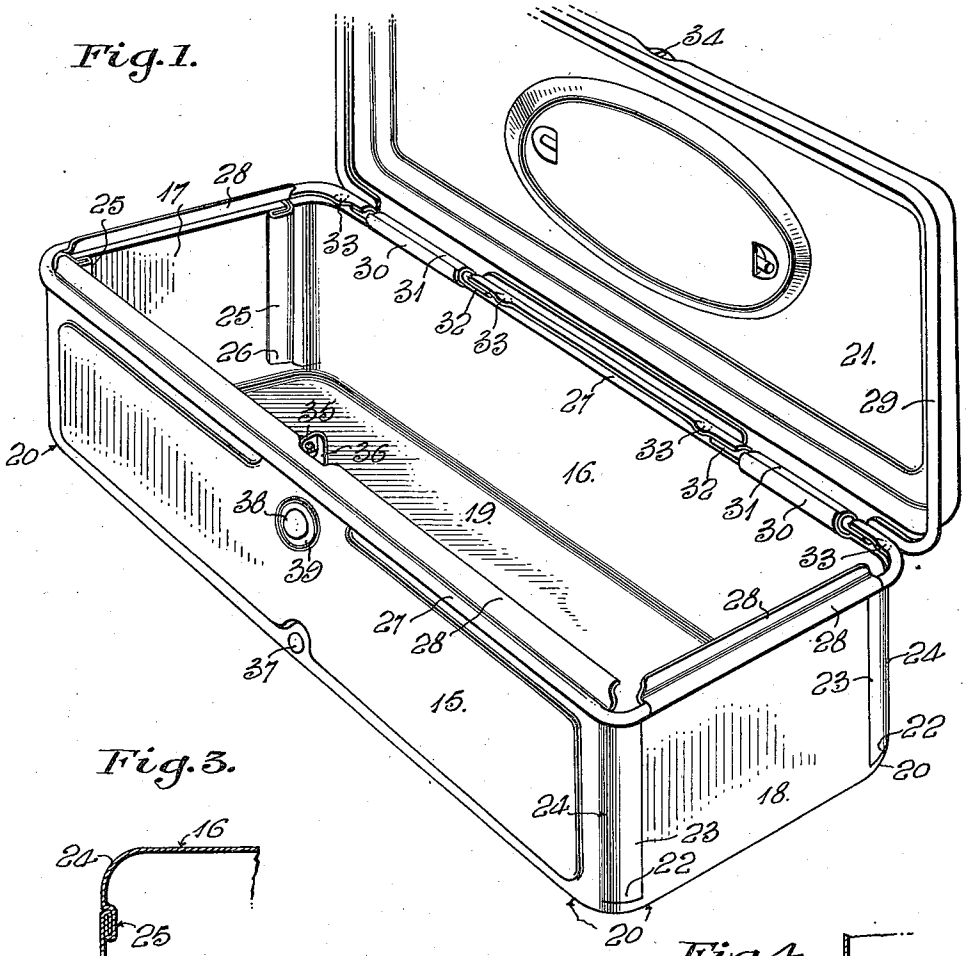


Fig. 3.

Fig. 4.

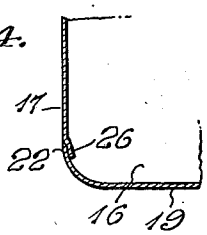
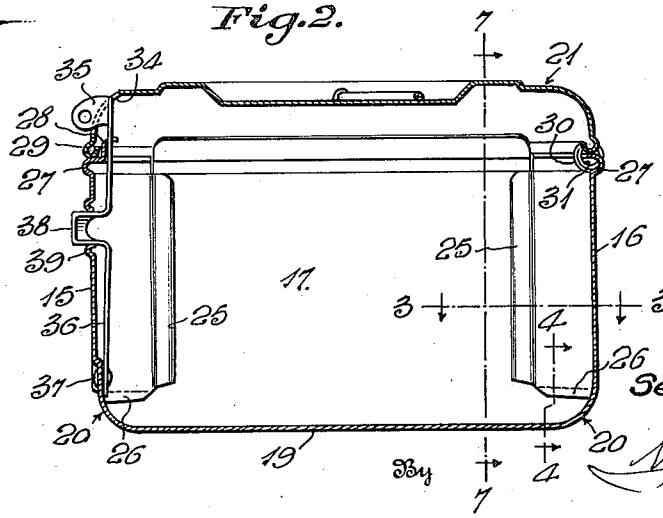


Fig. 2.



Inventor

Seely F. Pratt.

Attorney

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Fig. 5.

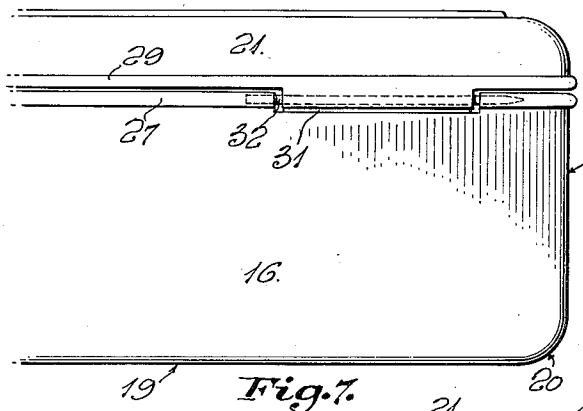


Fig. 6.

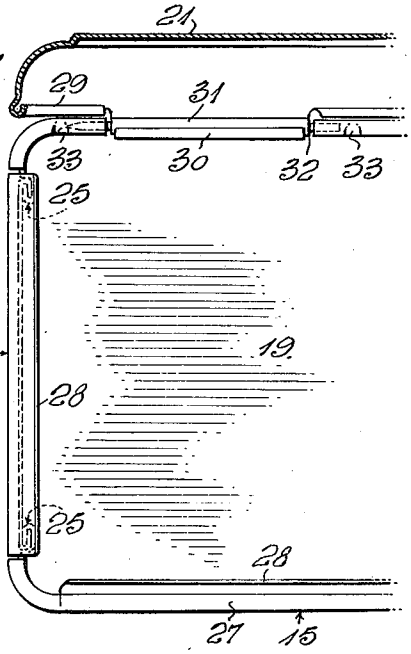


Fig. 7.

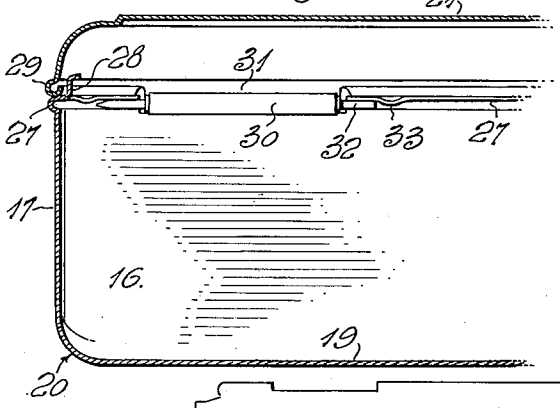
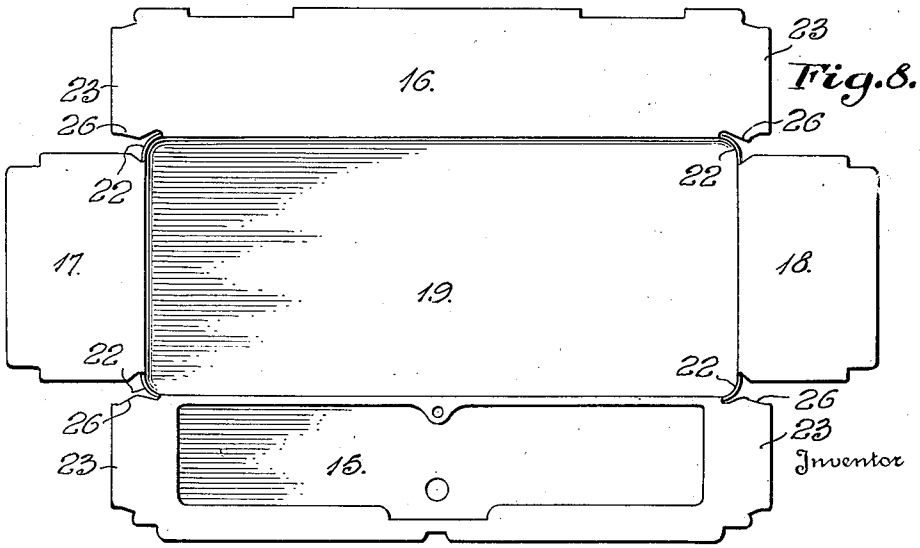


Fig. 8.



Inventor

Seely F. Pratt,

By

Attorney

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Fig. 9.

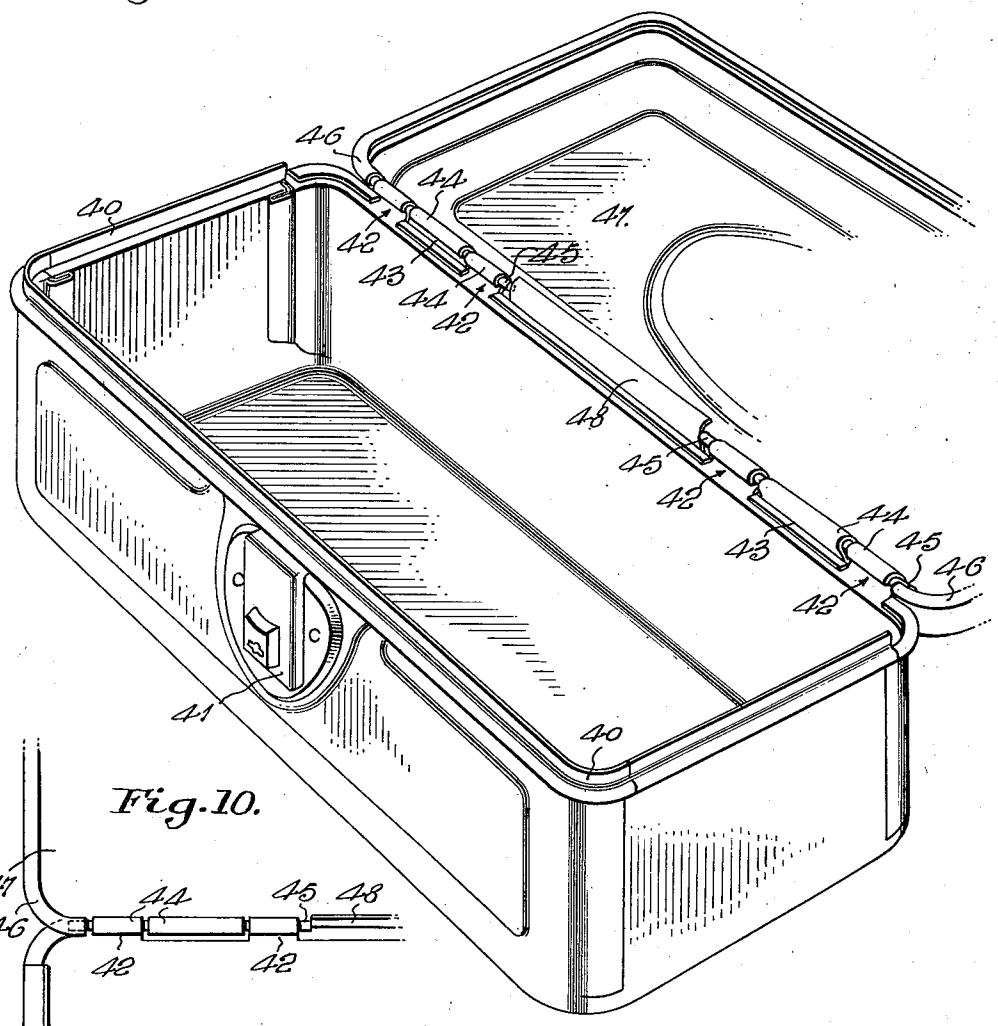


Fig. 10.

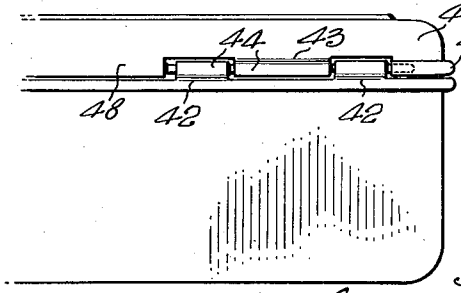


Fig. 11.

Inventor

Seely F. Pratt.

By

Attorney

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2,093,926

UNITED STATES PATENT OFFICE

2,093,926

BOX

Seely F. Pratt, Le Roy, N. Y., assignor to Union Steel Chest Corporation, Le Roy, N. Y., a corporation of New York

Application April 8, 1936, Serial No. 73,336

4 Claims. (Cl. 220—62)

The present invention relates generally to metallic receptacles and more particularly to boxes or chests for general utility purposes and of the type commonly having a hinged cover and one or more inner trays, the primary object of the invention being to provide such a box or chest of a construction which will promote a gracefully pleasing appearance of soft rounded outlines suggestive of streamlining as compared with the harsh, abrupt angles of the usual square cornered and edged products, and will for this reason considerably enhance the sale value, and defeat sales resistance, in its practical or commercial exploitation.

A further and important object of the invention is the provision of a box of the above type having its joints or seams so arranged as to conceal the same as nearly as possible to external view, and present the appearance, at least in front view, of a jointless or seamless construction.

A still further object is the provision of a box having a body of the above type which is proof against permeation by water and other liquids, strong, durable and admits of the use of a lighter gauge metal and a lesser quantity thereof for each box as compared to the requirements incident to a box of equivalent capacity with square edges and corners and having unsightly exposed seams.

With the foregoing general objects in view, further and more specific objects of the invention, as well as the resulting advantages thereof, will be better understood and more thoroughly appreciated in the course of the following detailed description and by reference to the accompanying drawings, which form a part of this specification, and in which,

Figure 1 is a perspective view of one of the boxes of this invention, the cover being raised.

Figure 2 is a central vertical transverse sectional view taken therethrough.

Figure 3 is a fragmentary detail horizontal sectional view taken along the line 3—3 of Figure 2.

Figure 4 is a fragmentary detail vertical sectional view taken along the line 4—4 of Figure 2.

Figure 5 is a rear elevation of a portion of the box, the cover being closed.

Figure 6 is a top plan view of a portion of the box, with the cover raised and in section.

Figure 7 is a vertical longitudinal sectional view taken through a portion of the box along the line 7—7 of Figure 2.

Figure 8 is a top plan view of the blank of the box body, showing the initially formed seamless base.

Figure 9 is a view similar to Figure 1, showing a slightly modified construction.

Figure 10 is a fragmentary top plan view with the cover open, and

Figure 11 is a fragmentary rear elevation, with the cover closed.

Referring now to these figures, and as seen particularly by a comparison of Figures 1, 2, and 8, the body of the present box includes a base portion from which the front, rear and side walls 15, 16, 17, and 18 rise. This base portion includes a rectangular bottom 19 and is stamped or drawn from the central portion of a blank as in Figure 8 so as to form around the bottom 19 seamless upwardly rounded shallow marginal portions 20 of a depth, however, to fully define externally rounded lower horizontal edges which, in the finished box, match the appearance of the stamped or drawn cover 21.

In the blank, as shown in Figure 8, it will be noted the walls 15, 16, 17, and 18 are integral extensions of those portions of the marginal upwardly rounded edges 20 of the base along the straight edges of the rectangular bottom 19, said marginal portions 20 also presenting curved corners 22 having free upstanding edges along horizontal lines. It will also be noted that the side walls 17 and 18 in the box blank are of less width than the space between the front and rear edges of the base portion, while the front and rear walls 15 and 16 are of substantially greater length than that of the base portion, being provided at their ends with extension wings 23 which, when the said walls are bent to upstand in vertical continuation of the straight edges of the base portion, are curved to form rounded upright edges 24 of the box body, and substantially overlap the upright edges of the side walls 17 and 18 for the formation of interlocking seams 25.

The seams 25, one of which is shown in detail in the section, Figure 3, are formed upon the inner surface of the box body, leaving the outer surface flush and even except for slight vertical grooves, and since the side wings 23 of the front and rear walls form the rounded upright edges 24, it is obvious even these grooves are offset from the said edges and show only at the sides of the box, the latter having the appearance in front view of a seamless construction throughout.

The wings 23 of the front and rear walls also are formed in the blank with inner lower edges 26 which are rounded as seen in Figure 8, and when the walls are bent upwardly depend below the free corner edges 22 of the base portion in inwardly overlapping relation as plainly seen by

a comparison of Figures 2 and 4. These edges **26** are subsequently bent, for instance, as seams **25** are formed, into inwardly offset relation, as seen in Figure 4, with edges **22** so that the outer surface will remain even and uniform and a sufficiently tight metal to metal contact will result whereby a colored lacquer or other coating applied to the finished body will complete sealed joints, rendering the body water-tight.

Around its upper edge, the box body has an external rib **27** and portions of this rib extend along the upper edges of the walls, forming internal grooves. In addition to the rib **27**, the front and side walls **15**, **17**, and **18** have upstanding inwardly offset lips **28** which guide the inwardly curled edge **29** of the cover into seating relation on the rib **27** when the cover is closed.

The rib **27** of the rear wall **16** is vertically slitted at spaced points adjacent to the opposite ends of the wall, and the material between these points is deflected inwardly at **30** to form spaces for the reception of offset tubular portions **31** of the rear edge of the cover **21**. These tubular portions **31** receive hinge or pintle pins **32** whose end portions project into those portions of the internal groove of the rear wall on opposite sides of the said spaces. The rib **27** of the rear wall **16**, as seen in Figure 1, is crimped at **33** adjacent to the ends of the hinge or pintle pins **32** to avoid all danger of accidental displacement of the same in a lengthwise direction. To hold the hinged connections thus formed, the deflected portions **30** of the rear wall are bent upwardly and curved to partially embrace the tubular portions **31** of the cover. The pintle or hinge pins **32** may be ordinary finishing nails, though straight sections of heavy wire will serve.

For latching the cover **21** in closed position, it may have a transverse slot **34** centrally between its ends, at the front thereof, to receive the upper angular apertured end **35** of a latch member **36**. This latch member consists of a single length of spring material riveted or otherwise anchored at its lower end as at **37** to the lower portion of the front wall **15** and upstanding along the inner surface of said wall as most plainly seen in Figures 1 and 2. Intermediate its ends, this latch member or bar **36** has an integral stamped thimble **38** extending laterally and forwardly through an opening in the front wall **15** of the box body, preferably surrounded by a rolled edge **39**, since the thimble **38** is, in use, pressed inwardly to shift the angular upper end of the latch bar **36** inwardly of the box body free of the cover slot **34**.

As seen in Figures 9 to 11, inclusive, certain slight changes may be made, and among these may be mentioned continuation of the upstanding lip of the body around the front upright curved edges of the box body, as seen at **40** in Figures 9 and 10, and the substitution of a lock **41** securely fastened to the front wall to receive a keeper (not shown) carried by the cover, in a manner well known in the art, where a lock is desired rather than simply a latch.

Moreover, the hinge feature may be varied to the extent of upstanding ears **42** in spaced pairs adjacent to opposite sides of the upper edge of the rear wall, each pair to receive between them an ear **43** of the cover. These ears have aligned tubular portions **44** to receive hinge or pintle pins **45** and the outer ends of the pins in this instance extend into the rolled edge **46** of the cover **47**. The edge **48** of the cover between its above-mentioned ears **43** is curved inwardly and upwardly in the arc of swinging movement of the cover between the inner ends of the pintle or hinge pins **45** and thus the latter are effectively held in place and prevented from endwise displacement.

These are but examples of changes which may be made, it being obvious that the formation of the box body is the same as previously described whereby the said body is rendered waterproof and external appearance is greatly improved by reason of the curved or rounded corners and edges, both horizontal and vertical, and without apparent seams.

What is claimed is:

1. A box including a box body consisting of a base and upright side and end walls in a single piece, said base including a rectangular drawn bottom and upwardly rounded marginal portions having rounded upstanding free edges horizontally thereof at the corners of the bottom, said walls upstanding from the sides and ends of said marginal portions and having vertically seamed adjoining side edges spaced from the corners, and certain of said walls having laterally rounded side extensions at the corners of the body provided with lower horizontally disposed edges inwardly offset and vertically overlapping the said free corner edges of the marginal portions.

2. A rectangular box body comprising a seamless drawn base including a bottom and upwardly drawn marginal portions continuously therearound forming rounded lower horizontal edges and corners, upstanding walls integral with the sides of said marginal portions and certain thereof having extensions forming rounded corners, and interlocking seams connecting the vertical edges of said walls arranged interiorly of the box body and offset from the corners, said rounded corners of the walls and the upstanding rounded corners of the base having vertically overlapping portions at the upper edge of the marginal portion of the base substantially vertically spaced above the bottom, one of said overlapping portions being offset within the box body to form a seam having an exteriorly flush surface.

3. A rectangular box body comprisng a seamless drawn base including a bottom and upwardly drawn marginal portions continuously therearound forming rounded lower horizontal edges and corners, upstanding walls integral with the sides of said marginal portions and certain thereof having extensions forming rounded corners, interlocking seams connecting the vertical edges of said walls arranged interiorly of the box body and offset from the corners, said rounded corners of the walls and the upstanding rounded corners of the base having vertically overlapping portions at the upper edge of the marginal portion of the base substantially vertically spaced above the bottom, one of said overlapping portions being offset within the box body to form a seam having an exteriorly flush surface, and an exterior coating on said body forming sealed joints at said seams.

4. A box body including a generally rectangular base and upstanding side and end walls all in a single piece, said base consisting of a drawn bottom having an upwardly rounded marginal portion continuously therearound, the side and end sections of which marginal portion merge into the side and end walls, and the corner sections of which marginal portion present upwardly projecting horizontal edges, certain of said walls

having laterally rounded extensions at the corners of the box body whose lower edges are inwardly offset in vertically overlapping relation with said upstanding corner edges of the base at points substantially vertically spaced above the bottom to form fluid tight joints and an even continuous external surface, the side edges of said side extensions having internally seamed connection with the adjacent side edges of the adjoining walls along vertical lines laterally beyond the said vertically overlapping corner joints.

SEELY F. PRATT.