H. A. LARSON.

FOLDING LUNCH BOX.

APPLICATION FILED NOV. 30, 1912.

1,131,638.

Patented Mar. 9, 1915.

Fig. 1.

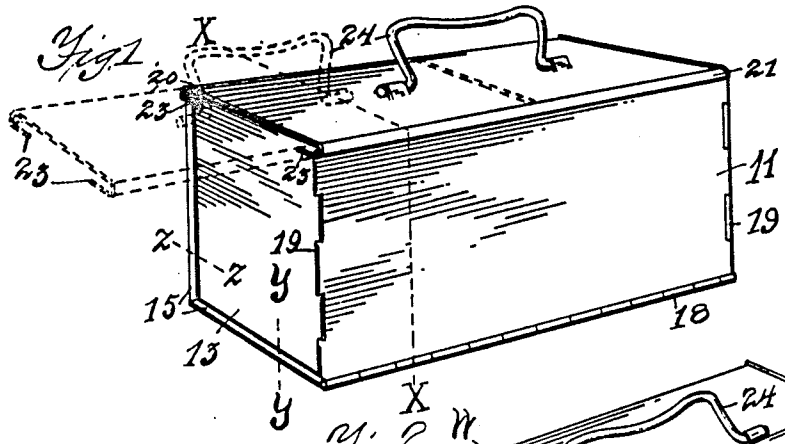


Fig. 2.

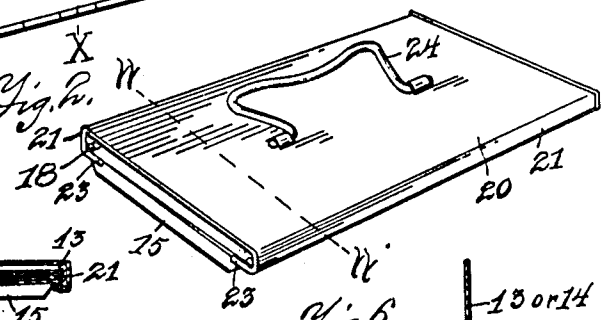


Fig. 3.

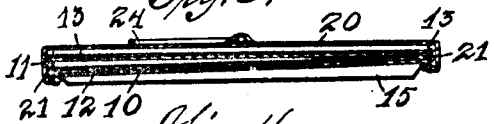


Fig. 6.

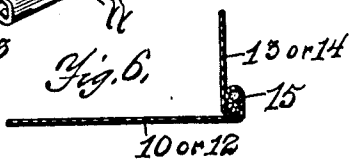


Fig. 4.

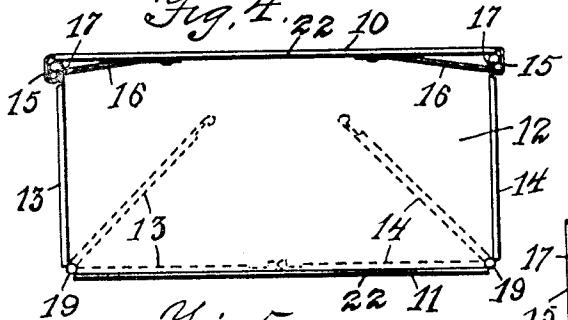


Fig. 7.

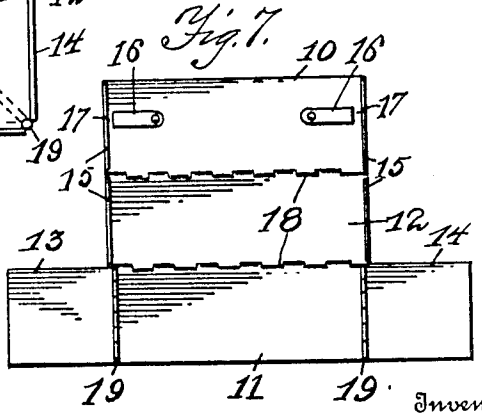
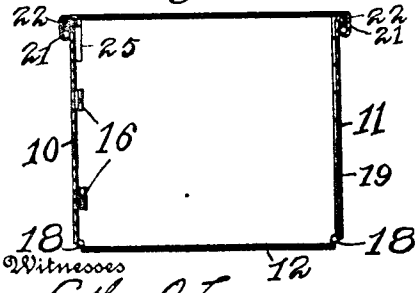


Fig. 5.



Witnesses

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THE NORRIS PETERS CO. PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

HENRY A. LARSON, OF JAMESTOWN, NEW YORK, ASSIGNOR OF ONE-HALF TO CONRAD T. JOHNSON, OF JAMESTOWN, NEW YORK.

FOLDING LUNCH-BOX.

1,131,638. Specification of Letters Patent. **Patented Mar. 9, 1915.**

Application filed November 30, 1912. Serial No. 734,273.

To all whom it may concern:

Be it known that I, HENRY A. LARSON, a subject of the King of Sweden, residing at the city of Jamestown, in the county of Chautauqua and State of New York, have invented certain new and useful Improvements in Folding Lunch-Boxes, of which the following, taken in connection with the accompanying drawings, is a specification.

The invention relates to folding or collapsible lunch or bond boxes; and the object of the improvement is to provide a simple and strong construction of a box having hinged joints between the parts which permit of its being folded tightly together in convenient form for carrying in the pocket and which may be quickly and firmly set up by simply unfolding the parts and springing the ends into place; and the invention consists in the combination and arrangements of the parts as shown in this specification and the accompanying drawings and pointed out in the claims.

In the drawings, Figure 1 is a perspective view of the lunch box in the set up position, the sliding movement of the top being shown in dotted lines. Fig. 2 is a perspective view of the folded lunch box. Fig. 3 is a sectional view of the folded lunch box at line W W in Fig. 2. Fig. 4 is a plan view of the lunch box in the set up position without the cover, showing the interior of the box and the manner in which the box ends engage the sides, also showing the position of the box ends when folded. Fig. 5 is a crosswise sectional view of the set up box at line X X in Fig. 1. Fig. 6 is a sectional view of the set up joint at line Y Y in Fig. 1 and also illustrates the joint at line Z Z in Fig. 1 between the end plates and the side plate or bottom plate. Fig. 7 is a plan view of the inner side of the hinged parts of the box in the spread out position, showing the springs for holding the box ends.

Like numerals of reference refer to corresponding parts in the several views.

The numeral 10 designates one of the side plates of the box, and the numeral 11 the other. The side plates 10 and 11 are hinged along one edge to the bottom plate 12.

The end plates 13 and 14 are hinged to the opposite ends of the side plate 11. The ends 15 of the side plate 10 and bottom plate 12 are turned and wired a spaced distance from the corner of the box so as to receive the wired edge of the end plate 13 or 14 therewithin, as shown in Figs. 4 and 6 thereby firmly attaching the ends 13 and 14 to the bottom plate 12 and side plate 10.

In order to hold the end plates 13 and 14 firmly in the attached position leaf springs 16 are attached to the side 10 one to each end about midway of the height of the same with the end of each spring at a spaced distance 17 from the turned end 15 of the side 10. The spring 16 is bent inwardly from the point of attachment so that the end plates 13 and 14 may be sprung past the same into the space 17 thereby firmly holding the ends 13 and 14 against the turned ends or beads 15 and within the same, yet permitting of the release of the same by simply pressing the springs 16 flat upon the inner side of the plate 10. One spring to each end is sufficient for holding the end plates 13 and 14 for lunch boxes and similar constructions where it is not necessary to hold the ends with absolute firmness throughout their entire parts. For bond boxes it is preferable to place at least two springs 16 at each end, as shown in Fig. 5, thereby holding both the upper and lower corners of the end plate so that they cannot be sprung inward.

The hinged joints 18 between the bottom 12 and sides 10 and 11 permit of said side and bottom plates being turned in either direction in folding the same, while the hinged joints 19 between the end parts 13 and 14 and side plate 11 only permit of the inward turning of said end plates, and the length of said end plate 13 and 14 is so apportioned to the length of the box so that they lie flat upon the side plate 11, as shown in dotted line in Fig. 4.

The top 20 is made in a separate plate having downwardly inturned edges 21 which engage the beaded or wire edges 22 of the sides 10 and 11. The ends 23 of the wire across the ends of the top 20 extend in a return bend a short distance across the end of the box so that the ends 23 act as stops to prevent the top 20 from sliding off from the box except in one direction. A handle 24 is provided on the top 20.

In folding the box the ends 13 and 14 fold flat against the side 11. The side 10 is then folded against the underside of the bottom plate 12 and the side plate 11 with the ends 13 and 14 folded against the same is

then folded flat against the inner side of the side plate 10. The hinged ends 19 folding within the turned ends 15 of said plate 10 and pressing the springs 16 flat against said side plate 10. The cover is then slipped over the edges formed by the hinges 18 at each side of the bottom plate 12, the turned down edges 21 forming a tight joint therewith and holding all the parts firmly together.

It is obvious that all that is necessary to set up the box is to slip off the cover 20, turn the sides 10 and 11 to the opposite side of the bottom plate 12 and spring the ends 13 and 14 into conjunction with the turned ends 15 so that they are automatically engaged by the ends of the springs 16 within the spaces 17. The cover 20 is then slipped onto the beaded or wired up edges of the sides 10 and 11.

I claim as new—

A folding box comprising bottom and side plates hinged to each other, one side plate being of less length than the other side plate and bottom plate, end plates hinged to the ends of the shorter side plate and having their free ends formed with beads, beads formed upon the ends of the other side plate, leaf springs fixed to the longer side plate and having their free ends spaced from the beads of the longer plate, the beads of the end plates and beads of the longer side plate being adapted to interlock when the free ends thereof bear against the inner side of the longer plate and at which time the free ends of said springs engage the end plates to hold the interlocked beads against accidental disengagement, the beads of the longer side plate being extended beyond the ends of the shorter plate when said plates are folded against the bottom, a top having inturned edges for slidably engaging beneath the beads of the longer plate, and inwardly directed wire stops carried by the cover for engaging said beads to limit the sliding movement of said cover in one direction.

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

HENRY A. LARSON.

Witnesses:
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FRANK G. CURTIS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."