

UNITED STATES PATENT OFFICE.

JOHN F. LYONS, OF SPRINGFIELD, MASSACHUSETTS.

FOLDING LUNCH-BOX.

No. 868,350.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN F. LYONS, a citizen of the United States of America, residing at Springfield, in the county of Hampden and State of Massachusetts, have invented a new and useful Folding Lunch-Box, of which the following is a specification.

My invention relates to improvements in collapsible boxes so arranged that they can be folded into a comparatively flat condition convenient for carrying in the pocket and particularly useful as receptacles for food, and said invention consists essentially of such a box made out of a single piece of press-board or other suitable material properly cut, bent and creased, and having two of its ends united to complete the box, with straps attached to two of the end pieces and adapted to be fastened over the cover of the box, and other details of construction, all as hereinafter set forth.

The object of my invention is to produce a single-piece folding box which is simple and inexpensive in construction, can be easily and quickly collapsed and expanded, is comparatively strong and rigid when full and with the cover strapped down, can be folded quite flat, and is free from conspicuous joints formed by pasting, gluing, cementing, or riveting. I attain this object by the means illustrated in the accompanying drawings, in which—

Figure 1 is a view of a blank out of which my box may be made, showing the necessary cuts and indicating where the different folds and creases come; Fig. 2, an enlarged front view of a box formed out of said blank, expanded and fastened; Fig. 3, a longitudinal vertical section of said box; Fig. 4, a transverse vertical section of the same, the cover being partly open and a portion of the end flap of said cover and of the inner end piece of the box at this end of the latter being broken away to disclose parts which would otherwise be hidden, and Fig. 5, a plan view of the box as it appears when folded or collapsed, the free ends of the straps being removed.

Similar figures refer to similar parts throughout the several views.

In order to make this box, a piece of the material which is to enter into its composition is stamped out, the shape being substantially that shown in Fig. 1, cut at 1 and 2—2, creased at 3—3, and folded to form the following pieces of the box—the cover 4 with its front flap 5 and its end flaps 6—6, the back 7, the inner bottom 8, the joint flap 9, the outer ends 10—10, the front 11, the outer bottom 12, and the inner ends 13—13. Straps 14—14, adapted to have their free ends fastened together as by the buckle 15, are permanently attached to the end pieces 13. The left-hand end piece 10 and the flap 9 are securely fastened together by the rivets 16, or they may be pasted, glued, cemented or otherwise joined or united. The bottom piece 8 has an indentation 17 in its front or top edge, according to the position

of said piece dependent upon whether the box is expanded or collapsed, to facilitate raising such piece with the thumb or finger preparatory to folding the box. The creases 3—3 are in the end pieces 10—10 and mark the vertical centers of such pieces. The front piece 11 may be provided with a catch 18 adapted to enter an eye 19 in the cover flap 5 and to hold such flap with the cover in place.

To fold the box, assuming that the straps 14 are unbuckled and that the flap 5 is unfastened, first flatten the flaps 5 and 6 against the inside face of the cover 4, turn said cover backward and downward against the back 7 and turn up the bottom piece 8 against said back, next turn the end pieces 13 down onto the bottom piece 12 and turn said bottom piece 12 with said end pieces up against the inside face of the front 11, and then bend inward the end pieces 10 at the creases 3 between the pieces 8 and 12, leaving the parts arranged as shown in the last view.

To expand the parts so as to form the box shown in Fig. 2, straighten the end pieces 10, press down the bottom piece 12, raise the end pieces 13, and press down the bottom piece 8. The straps 14 should be arranged to hang out over the ends of the box while the latter is being filled; after the box is full the cover is closed with the flaps 6 inside and the flap 5 outside, the flap 5 is fastened, and the straps are brought over the cover and buckled together to serve not only as a securing means but also as a convenient handle with which to carry the box and contents.

In a folding box of the character of that herein referred to which is more especially adapted and designed to be used as a lunch box, it is very desirable that the box should be so constructed as to be conveniently folded so as to take up as little space as possible, and so constructed that when expanded to the box form and used as such all crevices should be closed to prevent the passage of dust, sand, etc., into the box; and as boxes of this character in order to be made economically must be made of a material such as cardboard or press-board more or less flexible and liable to become warped thus leaving a crevice between the cover and front and end side walls I, in order to overcome this objectionable feature and to make the box practically tight, provide the cover with the end flap pieces 6 the same being adapted to be turned on the score lines between said part 6 and the body portion of the cover so that said end flaps will enter the box on the inside of the inner end walls 13, thus effectively closing the crevices which would otherwise exist between the cover and the top portion of the end walls of the box. In order to enable me to fold the box within the smallest area I provide the outer end walls 10 with the score lines 3 so that said end walls, when the box is folded to its smallest compass, will be folded entirely within the area of the front and back walls of the box, said end walls having what

may be termed a bellows on said score lines 3 and folding inwardly, as above explained, so that when the box is completely folded the total area is covered by the area of the front wall of the box, and the thickness of the 5 folded box is that of the total thickness of all the parts going to make up the walls of the box. It will be readily seen, therefore, that the employment of the score lines in the outer end walls enables me to make a box which will fold into a smaller space than any here- 10 tofore made, and that the employment of the end flaps upon the cover enables me to produce a box from which dust and dirt will be excluded and the contents more thoroughly protected than if unprovided with any improvement for that purpose.

15 What I claim as my invention, and desire to secure by Letters Patent, is—

The combination, in a folding box, of a back piece 7, a cover 4 and a bottom piece 8 connected with the longitudinal edges of and adapted to fold against opposite sides 20 of said back piece, such bottom piece having a thumb or finger indentation therein, a front piece 11, an outer bot-

tom piece 12 connected with one of the longitudinal edges of said front piece, inner end pieces 13 connected with the transverse edges of said outer bottom piece 12 and adapted to fold onto said piece 12 and with the latter to be folded 25 against the inside of said front piece, an outer end piece 10 connecting adjacent transverse edges of the front and back pieces, a second outer end piece 10 and a joint flap 9 connected with the opposite transverse edges of the front and back pieces and with each other, said outer end 30 pieces having central vertical creases therein and being adapted to be folded inward between the front and back pieces, end flaps 6 on the cover adapted to enter the box and a front flap 5 on the cover adapted to remain outside 35 of the box, such flaps being for the purpose of closing the crevice between the cover and front and end walls of the box, and straps fastened to said inner end pieces and adapted to emerge from the box outside of the cover flaps 6 and to be connected over the top of the box to serve in the double capacity of a securing means and a handle, 40 substantially as shown and described.

JOHN F. LYONS.

Witnesses:

ALLEN WEBSTER,
F. A. CUTTER.