

No. 637,838.

Patented Nov. 28, 1899.

F. R. VERNON.
FOLDING BOX.

(Application filed Aug. 4, 1898.)

(No Model.)

Fig. 1.

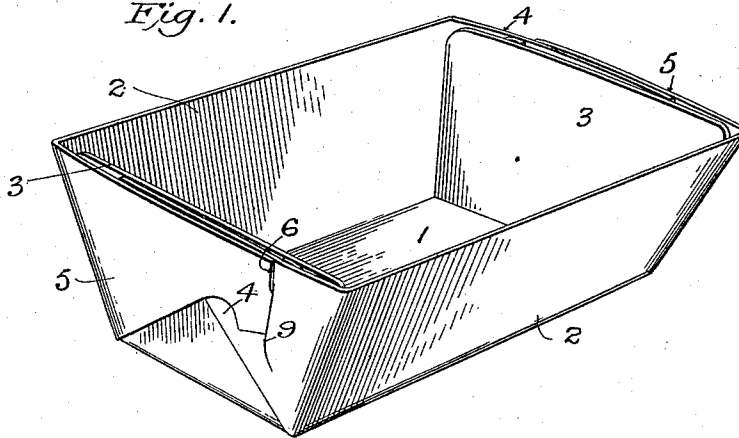


Fig. 2.

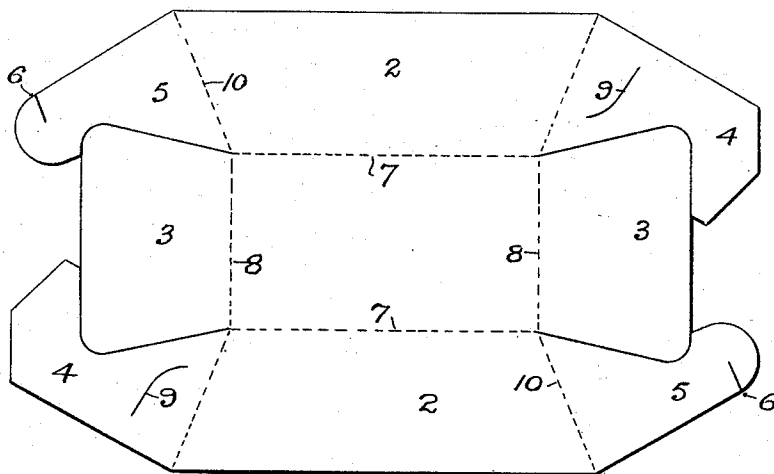
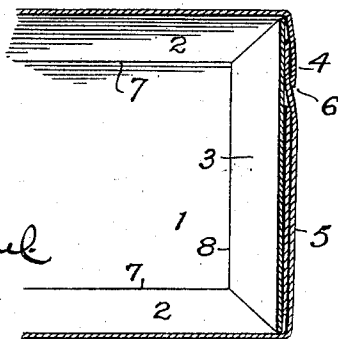


Fig. 3.



WITNESSES

James F. Duhamel
John D. Hall

INVENTOR

Frederick R. Vernon

BY

Raymond & Hanson

ATTORNEYS

UNITED STATES PATENT OFFICE.

FREDERICK R. VERNON, OF NEW YORK, N. Y.

FOLDING BOX.

SPECIFICATION forming part of Letters Patent No. 637,838, dated November 28, 1899.

Application filed August 4, 1898. Serial No. 687,692. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK R. VERNON, a citizen of the United States, and a resident of New York, in the county of Kings and State of New York, have invented certain new and useful Improvements in Folding Boxes, of which the following is a specification.

In the drawings, Figure 1 is a perspective view of the box. Fig. 2 is a plan of the blank. Fig. 3 is a sectional view showing the ends of the box joined together.

The object of my invention is to provide a paper box which shall be useful for the same purposes as the wooden boxes now commonly in use for holding butter, lard, fruit, or any desired substance for which such boxes are commonly used.

The objection to paper boxes heretofore used has been the amount of paper necessary in making same and the fact that the fastening devices in common use have required too much time and care in order to properly manufacture the blank to form boxes. These defects I obviate by my present invention.

The creased lines on which the folds are made are indicated in Fig. 2 by dotted lines, while the slit or cut portions of the blank are shown in full lines. Part 1 forms the bottom of the box, and parts 2 the sides thereof, and parts 3 form the ends of the box. Parts 4 show one portion of the locking device, and parts 5 the other. The ends 3 of the box are cut off straight, the corners being slightly rounded, while the sides of the said end piece are cut at an angle. The part 4 is cut at an angle on the edge which comes uppermost when the box is formed, the general shape of this part of the locking device being clearly shown in Fig. 2. In each of these parts 4 is a slit 9 of the shape shown in Fig. 2. Parts 5, which form the other portion of the locking device, are cut in the shape shown, and near the outer end of each is a slit running from the edge to some distance in, as shown at 6, Fig. 2. In slitting the paper for this locking device none of the material is removed. The location of the parts of the locking device is such that they will be engaged by the natural motion of folding the pieces. In order to construct the box from this blank, the end pieces 3 are first slightly raised, folding on the dotted lines 8. The side pieces are then raised up, forming the sides of the box.

The pieces 4 and 5 are then brought together, folding on the dotted lines 10. The end of the part 5 is inserted through the slot 9, the slit 6 in the part 5 engaging with the body of the part 4 at the upper end of the slit 9, thus securely locking the portions of the box in position. As the locking parts are engaged by the natural motion of folding and as the parts of the locking device are not moved backward by the locking motion, it will be seen that the act of locking the fastening devices will raise the ends of the boxes to the finished position and no farther. Consequently said ends always bear tightly against the folding flaps, making a tight box. It will be noted that by these means of forming the box a minimum amount of paper is required and an excellent holding-joint is secured, and no great amount of play of the locking device is necessary to secure the parts together. It will be noted that as the width of the tongue is less than the length of the slot the said tongue is caused to enter the slot by the natural operation of setting the box up. A very slight motion after the tongue is in the slot causes the interlocking of the parts, and with such construction it is easy to knock the box down without any danger of injury to the fastening devices. It will also be evident that the form of the tongue and slot may be varied. It will also be noted that the top of the box when so formed is perfectly straight and of an even height all around. This form of box also requires a minimum amount of paper in its construction. This whole result is secured by the peculiar form of the end pieces 3 and the locking-pieces 4 and 5. The slot in which the tongue is inserted is placed near the folding-line 10. Consequently the end of the box has three thicknesses of material for practically its entire width, thus making the end very solid and strong.

In boxes intended for fruit or any substances which require free circulation of air the sides or bottoms of the box may be perforated or slitted in the ordinary manner.

Instead of making the slot 9 of the shape shown in Fig. 2 it may be made perfectly straight, this form being found equally efficient with the curved slot.

Other styles of box can be made by using my locking device without departing from my invention. The creasing of the material

may be omitted, if desired, in such forms of boxes as are of the cheaper styles intended for lard, &c. It will be observed that but three motions are necessary in order to construct the box from its blank and that even the most unskilful hand can perform the operation successfully, which is of the highest importance.

By making the interlocking portions of the fastening device without removal of any of the material of which the box is composed I am enabled to utilize the natural resiliency of the material to assist in holding the box in its closed position. This is of great practical importance, as in the ordinary type of boxes now in use some special means must be adopted to prevent the fastening devices from becoming unlocked.

What I claim, and desire to secure by Letters Patent, is—

A folding box having sides and ends integral with its bottom, the sides having extensions constituting locking-pieces each of the length of the ends and overlapping each other and the ends of the box, one part of each pair of locking-pieces having an opening near its base and the other having at its free end a tongue of less width than the length of the opening and having a device at the side of the tongue interlocking with the opening, as and for the purpose set forth, substantially as described.

Signed at New York, in the county of New York and State of New York, this 1st day of August, A. D. 1898.

FREDERICK R. VERNON.

Witnesses:

E. M. HARMON,
H. A. LEWIS.