

E. G. GEREKE.
FOLDING CARDBOARD BOX.
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1,383,929.

Patented July 5, 1921.

Fig. 1.

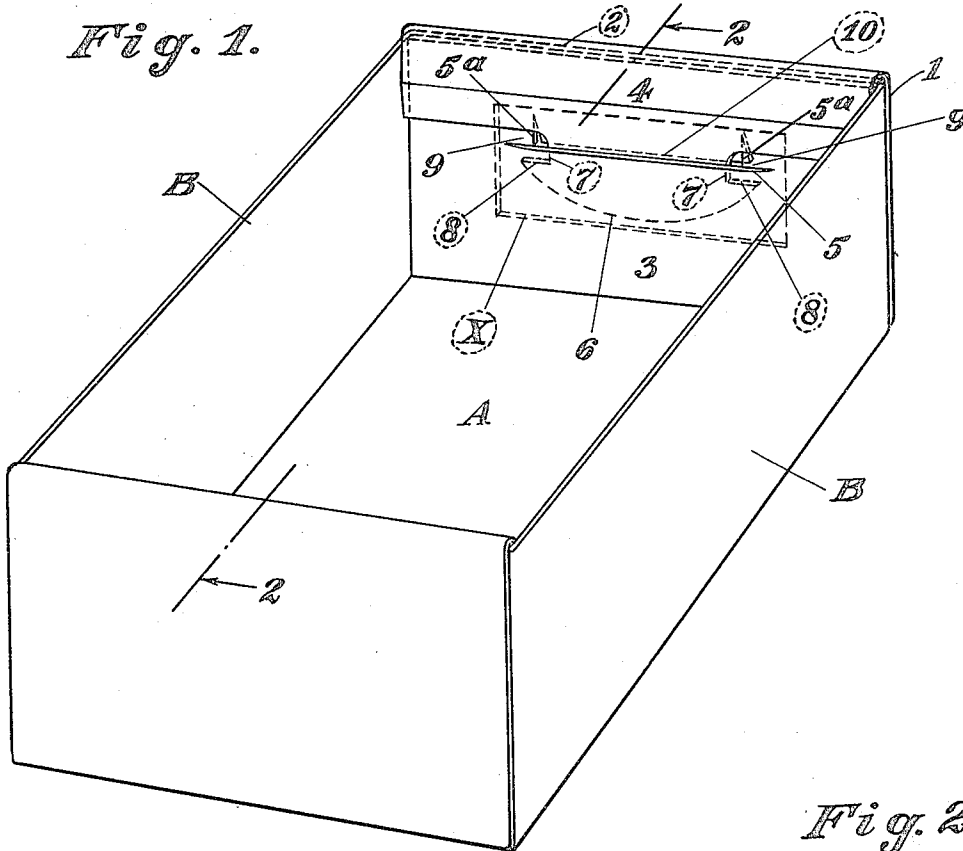
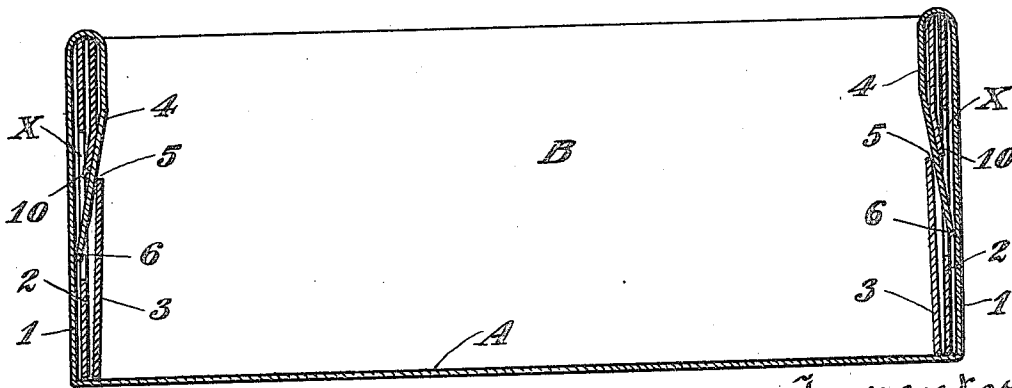


Fig. 2.



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To all whom it may concern:

Be it known that I, EDWARD G. GEREKE, a citizen of the United States, residing at St. Louis, Missouri, have invented a certain new and useful Improvement in Folding Cardboard Boxes, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to folding boxes made of cardboard or other similar material.

One object of my invention is to provide a folding box having a wall composed of a plurality of overlapped portions, one of which is cut away so as to form a space for receiving a tongue that extends through an opening in an adjacent portion of the wall.

Another object is to provide a folding cardboard box of novel construction that is equipped with a tongue which can be inserted in a slit in one portion of the box and locked in position without the necessity of deforming said tongue or spreading said slit preparatory to the insertion of the tongue. Other objects and desirable features of my invention will be hereinafter pointed out.

I have herein illustrated my invention embodied in a folding cardboard box of the kind in which each end wall of the box is composed of a plurality of portions that are held in overlapped relation by a flap on one of said portions provided with a tongue that is adapted to be inserted in an opening formed in the portion of the end wall over which the flap laps; but I wish it to be understood that my broad idea is not limited to a box of the particular kind herein illustrated, but, on the contrary, is applicable to various forms of folding boxes that comprise a tongue that is adapted to be positioned between parallel or overlapped portions of the box.

Figure 1 of the drawings is a perspective view of a folding cardboard box constructed in accordance with my present invention; and

Fig. 2 is a longitudinal, vertical-sectional view, taken on the line 2—2 of Fig. 1.

Referring to the drawings which illustrate the preferred form of my invention, A designates the bottom of a folding cardboard box and B designates the sides of the box. Each end wall of the box is preferably formed by three overlapped portions 1, 2 and 3 arranged in parallel relation, as shown

in Fig. 2, the portion 1 that forms the outer side of the end wall being preferably integrally connected to the bottom of the box, the portion 3 that forms the inner side of said end wall being integrally connected to one of the sides B and the intermediate portion 2 of said end wall being integrally connected to the other side B of the box. The portion 1 of the end wall has a flap 4 that is adapted to be folded inwardly over the portion 3, and said flap 4 is provided with a tongue that is adapted to be inserted through a horizontally-disposed slit 5 in the portion 3 and then forced downwardly into an open space x formed in the intermediate portion 2 of the end wall. Said tongue is preferably provided with a head portion 6 that is connected by means of a neck or reduced portion 7 to the lower edge of the flap 4, thus forming horizontally-disposed shoulders 8 at opposite sides of the neck 7 of the tongue which cooperate with parts 9 on the inner portion 3 of the wall to lock said tongue in operative position and prevent accidental withdrawal of same from the slit 5 in the inner portion 3 of the end wall. Vertically-disposed slits 5^a are formed in the portion 3 at the upper side of the horizontally-disposed slit 5 so as to divide this part of the end wall portion 3 into an intermediate section 10 and two end sections 9, which end sections 9 form the locking elements on the inner portion 3 of the end wall that prevent accidental withdrawal of the tongue on the flap 4. The head portion 6 of the tongue is of such width that it can be inserted in the horizontally-disposed slit 5 without folding said head portion or deforming same, and the open space or hole x in the intermediate portion 2 of the end wall is of such size that it permits the part of the portion 3 located at the upper side of the horizontal slit 5 to flex or spring outwardly into said open space x during the operation of inserting the tongue in the slit 5.

In setting up the box the portions 1, 2 and 3 are arranged in overlapped relation, the flap 4 is then folded inwardly over the portion 3 and the tongue on said flap is then inserted in the slit 5 in the portion 3 and forced downwardly into the open space x in the intermediate portion 2 of the end wall. Owing to the fact that there is an open space (the hole x in the intermediate part 2) at the rear side of the section 10 of

the inner portion 3 of the end wall, said section will yield or spring into the open space x when the head portion 6 of the tongue exerts pressure on said section 10 during the operation of inserting the tongue. As the end portions of the head on the tongue move downwardly over the parts 9 at the ends of the section 10, said parts 9 will also yield or flex into the open space x during the downward movement of the head on the tongue, but as soon as the head of the tongue passes below the horizontal slit 5 in the portion 3, the parts 9 will spring forwardly back toward their former position, thus securely locking the tongue, due, of course, to the fact that any upward movement of the tongue is resisted by the shoulders 8 on the tongue coming in contact with the parts 9 on the inner portion 3 of the end wall. It will thus be seen that with a box of the construction above described it is not necessary either to deform the tongue or open up the slit which receives the tongue by means of a spreading device, preparatory to inserting the tongue in said slit. On the contrary, the pressure that the operator's finger exerts on the tongue in guiding the tongue toward the slit 5, causes the section 10 at the upper side of the said slit to bend or flex into the open space x in the intermediate portion 2 sufficiently to cause the slit to open automatically and receive the end of the head 6 on the tongue. In other words, with a box of the construction above described the natural movement of the operator's finger in moving the head 6 of the tongue downwardly over the inner portion 3 of the end wall causes the slit 5 to open automatically, thereby permitting the tongue to be moved into operative position and also locked by a single operation.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A box formed of cardboard or the like and having a wall composed of a plurality of overlapped portions, one of which portions is provided with an opening through which a tongue is adapted to be inserted and the adjacent portion having an open space or hole for receiving said tongue.

2. A box formed of cardboard or the like provided with a wall comprising a plurality of overlapped portions, one of said portions having a slit through which a tongue is adapted to be inserted and the adjacent portion of the wall being provided with means which permits part of the slitted portion to yield or flex during the operation of inserting the tongue.

3. A box formed of cardboard or the like and having a wall comprising a portion provided with an open space, a tongue that is adapted to be inserted in an opening in one face of said wall and positioned in said open

space, and cooperating means on said tongue and wall for preventing accidental withdrawal of said tongue.

4. A box formed of cardboard or the like and provided with a wall composed of a plurality of overlapped portions, one of said portions having an opening and the adjacent portion being provided with an open space, a tongue that is adapted to be inserted in said opening and then forced through same into said open space, and parts on the portion of the wall in which said opening is formed that cooperate with parts on said tongue to prevent accidental withdrawal of the tongue.

5. A folding cardboard box provided with a wall composed of a plurality of overlapped portions, a retaining flap on one of said portions provided with a tongue that is adapted to be inserted in an opening in one of the other portions of said wall, and an open space or hole in an intermediate portion of the wall for receiving said tongue when it reaches its final position.

6. A folding cardboard box provided with a wall composed of a plurality of overlapped portions, a retaining flap on one of said portions provided with a tongue that is adapted to be inserted in an opening in one of the other portions of said wall, an open space or hole in an intermediate portion of the wall for receiving said tongue when it reaches its final position, and cooperating means on said tongue and said wall for preventing accidental withdrawal of said tongue.

7. A folding cardboard box provided with a wall composed of a plurality of overlapped portions, a retaining flap on one of said portions provided with a tongue that is adapted to be positioned within said wall, one portion of the wall having a slit through which said tongue is inserted and the adjacent portion of the wall having an open space for receiving said tongue, and parts on the portion of the wall in which said slit is formed that cooperate with shoulders on said tongue to prevent accidental withdrawal of the tongue.

8. A folding cardboard box having a wall composed of a plurality of overlapped portions, a flap on the outer portion of the wall that laps over the inner portion of the wall, a tongue on said flap, the inner portion of the wall having a slit through which said tongue can be inserted and the adjacent portion of the wall having an open space which permits said slitted portion to flex or bend slightly during the operation of inserting the tongue, locking shoulders on said tongue, and parts on the slitted portion of the wall that cooperate with said shoulders to prevent accidental withdrawal of the tongue.

9. A folding cardboard box provided with an end wall composed of three overlapped

- portions, a flap on the outer portion that laps over the inner portion of the wall, a tongue on said flap provided with a head, a neck portion and shoulders located at the sides of said neck portion, the inner portion of the wall having a horizontally-disposed slit through which the head of the tongue is adapted to be inserted and a yielding section at the upper side of said slit whose length corresponds approximately to the width of the neck portion of the tongue, and the intermediate portion of the wall having an open space or hole for the purpose described.
10. A folding cardboard box having a wall composed of three overlapped portions, a retaining flap on the outer portion of the wall that laps over the inner portion of the wall, a tongue on said flap, the inner portion of the wall having a slit through which said tongue is adapted to be inserted, co-operating locking means on said tongue and on the intermediate portion of the wall for preventing accidental withdrawal of the tongue, and means in the intermediate portion of the wall which permits the part of the inner portion of the wall located at the upper side of the slit therein to flex or bend out of its normal plane during the operation of inserting the tongue.

EDWARD G. GEREKE.