

June 10, 1924.

1,497,610

J. R. SURMANN

PACKING BOX

Filed Jan. 7, 1920

Fig. 1.

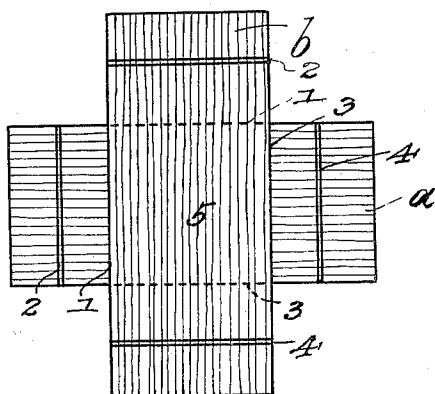


Fig. 2.

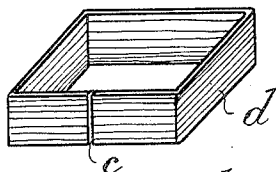


Fig. 3.

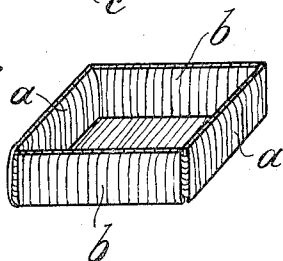
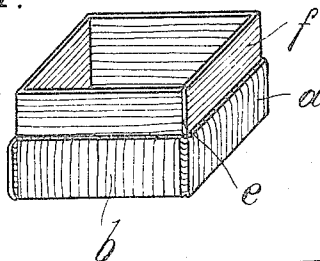


Fig. 4.



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UNITED STATES PATENT OFFICE.

JOHANNES RUDOLPH SURMANN, OF BREMEN, GERMANY.

PACKING BOX.

Application filed January 7, 1920. Serial No. 350,051.

To all whom it may concern:

Be it known that I, JOHANNES RUDOLPH SURMANN, a citizen of Bremen, residing at Bremen, 156/160, am Wall, Germany, have
 5 invented certain new and useful Improvements in Packing Boxes, of which the following is a specification.

The invention is directed to a packing box, constructed of cardboard or the like, where-
 10 in the various sections are so interfolded and associated as to provide a closed box of unusual strength and durability without the necessity of any fastening for holding the various sections together.

15 It has heretofore been proposed to manufacture boxes or containers of cardboard by folding strips or pieces of particular form together, and has been also proposed to employ cardboard strips laid crosswise for pack-
 20 ing goods. For example, it has been proposed to take a strip of cardboard and fold it into five portions at relative right angles, then place it at the joint upon the middle panel of a similar cardboard strip also folded
 25 into five portions, and then to slip the ends of the two strips under the middle panel of the first strip to form the box.

In accordance with the present invention, the cardboard strips are folded into five
 30 parts and are disposed at right angles or crosswise, with the middle panels of the two strips in registry. The ends are then folded around a frame to complete the box. If desired, and as contemplated, the frame
 35 be a strip folded into frame form with the ends disconnected and so arranged that such non-connected ends meet together in the middle of one of the sides of the main card-
 40 board strips, then the improved box may be constructed with the strips adapted to be arranged perfectly flat when not in box forming positions, to facilitate transportation.

The invention in its preferred form is
 45 illustrated in the accompanying drawings, in which:

Fig. 1 is a plan of the cardboard strips preferably corrugated in initial position.

Fig. 2 is a perspective view of the frame.

50 Fig. 3 is a perspective view of the completed box section.

Fig. 4 is a perspective view, showing the use of an additional frame structure, whereby the box of Fig. 3 is provided with a
 55 flange extension to receive a cover.

The improved box is preferably construct-
 60 ed of cardboard or the like, and primarily of two substantially identical sections *a* and *b*, scored or adapted for folding along the pre-determined lines 1, 2, 3, and 4 of each strip. The folding is such that between the lines
 65 1 and 3 of each strip, there is presented a panel 5 having a size commensurate with that desired for the box, the sections between the lines of fold 3 and 4 and between
 70 the lines of fold 4 and the free end of each strip are commensurate with the desired depth of the box. In conjunction with the strips *a* and *b*, the improved box contem-
 75 plates a frame *d* made up of cardboard and folded into rectangular form commensurate with the desired size of box, the meeting
 80 ends of this strip being preferably arranged mid-length one side, as at *c*.

In forming the box, the strips *a* and *b* are
 75 arranged with the panels 5 in registry. The frame *d* is laid upon the box overlying the edges of the aligned panels and the project-
 80 ing sections of the strips are folded around the edges of the frame in an obvious man-
 85 ner. Thus the box shown in Fig. 3 is completed.

If it be desired that a box be formed provided with a cover, it is only necessary to
 85 duplicate the box formation shown in Fig. 3, and to arrange in one of said box sections a strip *f*, formed of cardboard and of a size to snugly fit within one of the box sections and project above the upper edge of the
 90 same, thus providing a flange to receive the other box section, formed as previously described, as a cover. The strip *f* forming the flange is also made of an unconnected strip, the meeting edges of which are preferably
 95 arranged at one corner of the box section at which the flange is positioned, as for example, at *e*, Fig. 4.

I claim—

1. A separable cardboard box made up of
 100 three strips of card board having each four folding lines, two of which strips being arranged in super-imposed relation forming a

double bottom, and the third being bent to a rectangular frame and set upon the bottom, the outer portions of said two first strips being bent around the said frame so as to form triple closed side walls.

2. A separable card board box made up of three strips of card board having each four folding lines, two of which strips being arranged in super-imposed relation forming a double bottom, and the third being bent to a rectangular frame and set upon the bottom,

the outer portions of said two first strips having each a bight equal to the width of the said frame and being bent around the sides of the frame so as to form triple closed and fixed side walls.

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

JOHANNES RUDOLPH SURMANN.

Witnesses:

ALEXANDER VIFUTING,
WILH. LINDEMANN.