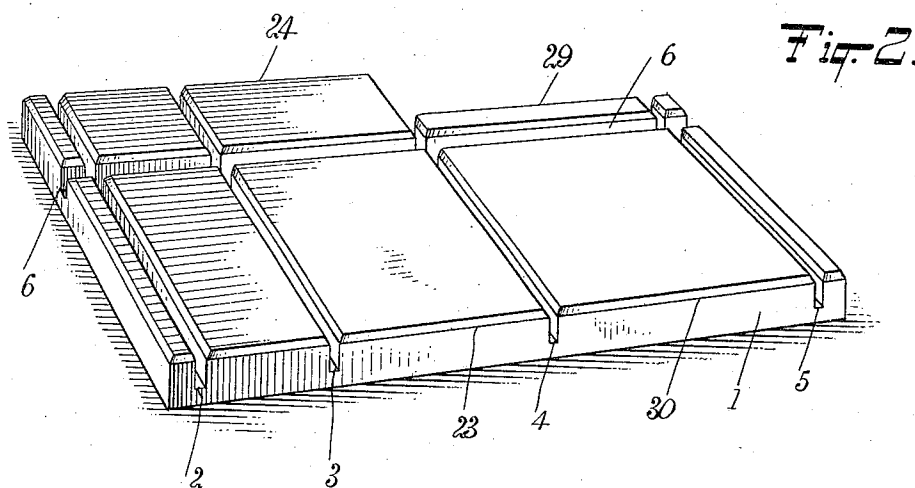
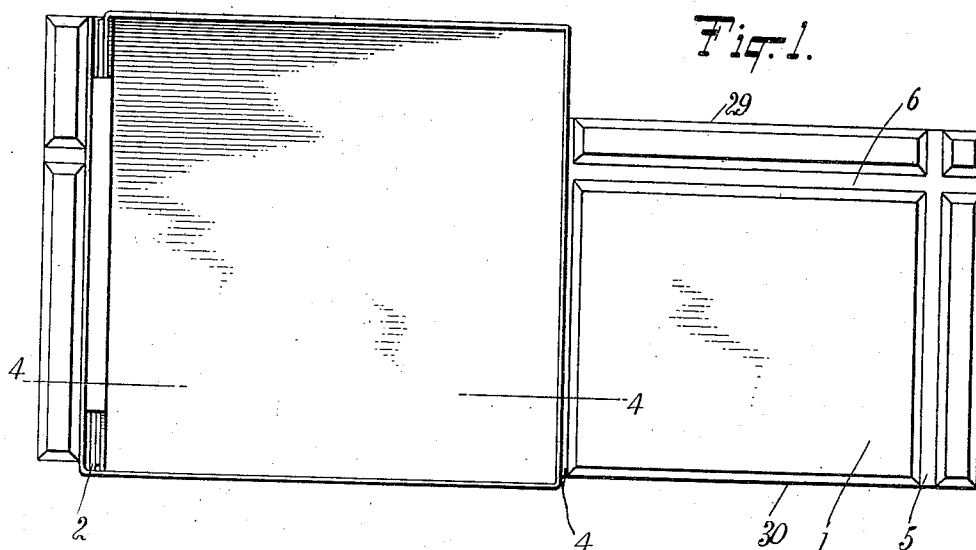


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BERRY BOX FORMER.
APPLICATION FILED APR. 9, 1912.

Patented Feb. 25, 1913.
2 SHEETS—SHEET 1.



WITNESSES

George Bamberg
A. L. Kitchin

INVENTOR
Willard H. Ellis

BY *Mum & Co*
ATTORNEYS

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2 SHEETS-SHEET 2.

Fig. 3.

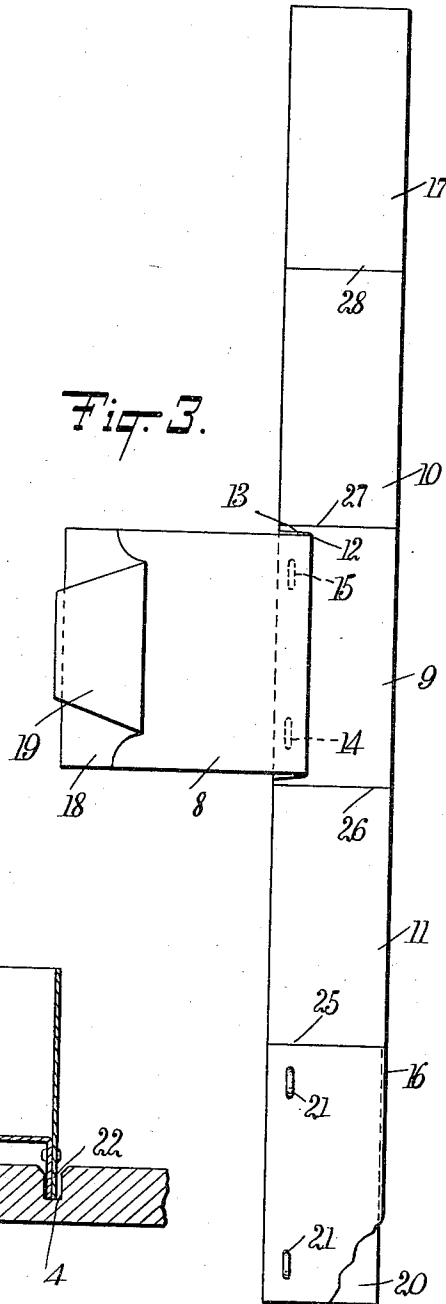
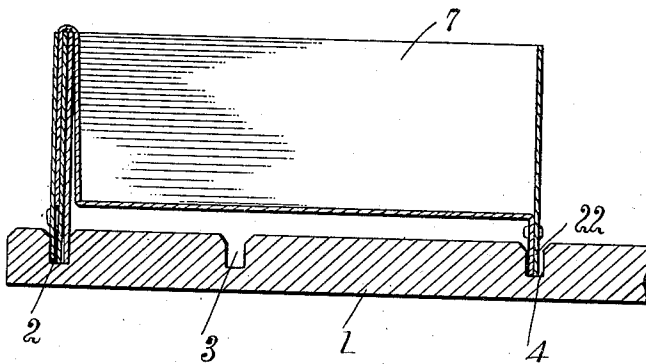


Fig. 4.



WITNESSES
George Bamby
A. L. Kitchen

INVENTOR
Willard H. Ellis
BY Munn & Co
ATTORNEYS

UNITED STATES PATENT OFFICE.

WILLARD H. ELLIS, OF COEUR D'ALENE, IDAHO.

BERRY-BOX FORMER.

1,054,521.

Specification of Letters Patent.

Patented Feb. 25, 1913.

Application filed April 9, 1912. Serial No. 689,666.

To all whom it may concern:

Be it known that I, WILLARD H. ELLIS, a citizen of the United States, and a resident of Coeur d'Alene, in the county of Kootenai and State of Idaho, have invented a new and Improved Berry-Box Former, of which the following is a full, clear, and exact description.

This invention relates to improvements in box formers, and particularly to formers for berry boxes which are shipped flat and are folded into box form just previous to use, and has for an object the provision of an improved structure which will permit the quick folding or assembling of berry boxes of various sizes without breakage or distortion.

A further object of the invention is the provision of a former constructed with a plurality of grooves designed to receive the lower edges of a box during the forming or folding thereof whereby the box is held properly in position and is squared properly so as to give the proper shape and proper size for the particular box desired.

A still further object of the invention is to provide a former arranged with intersecting grooves for holding the edges of a box to be folded. These grooves are formed so as to accommodate or hold boxes of various sizes whereby one former will permit the assembling or forming of boxes of different sizes without adjustment, the different sized boxes of course using the particular grooves or slots for the particular box desired.

In carrying out the objects of the invention, a base member is formed having a plurality of transversely arranged slots with beveled walls for permitting the ready entrance of the boxes, and a longitudinal groove intersecting the transverse grooves, whereby the base is divided into compartments or spaces around which different sized boxes are adapted to be folded or assembled. The grooves do not form strictly speaking compartments but rather projecting rectangular blocks around which the box being assembled is folded, whereby the box is formed rectangular and of the size desired, each box being folded the same way and the same size. This permits the boxes to be nested without difficulty as is the case where boxes are formed manually without the use of the former or guiding device.

A practical embodiment of the invention is represented in the accompanying draw-

ings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a top plan view of a former embodying the invention, a complete box being shown positioned thereon; Fig. 2 is a perspective view of the former shown in Fig. 1, the box being removed; Fig. 3 is a plan view of a blank from which the box shown in Fig. 1 is made; and Fig. 4 is a section through Fig. 1 on the line 4—4.

Referring to the accompanying drawings by numerals, 1 indicates a base having a plurality of transverse grooves 2, 3, 4, and 5, and a longitudinal groove 6. All of these grooves are beveled at their upper edges so as to more easily accommodate the edges of the box 7 when the same is being folded or formed. It will be evident that a greater or less number of longitudinal and transverse grooves could be provided for increasing or decreasing the capacity of the former, the construction shown in the drawing being designed to form or fold only four different sizes of boxes.

In operation or use a blank such as shown in Fig. 3, is applied to the former by having some of the lower edges thereof positioned in some of the grooves of the former and the side members and bottom member adjusted to their proper positions. It will be evident that the former could be used with various kinds of boxes or blanks, that shown in Fig. 3 being one form which is especially adapted to the former. Referring more particularly to Fig. 3, 8 indicates the bottom of the box, 9 one end, and 10 and 11 the sides. The bottom 8 is bent at 12 so that the portion 13 is folded over beneath the bottom 8 when the blank is spread out flat, this portion 13 being rigidly secured to the end 9 by rivets or staples 14 and 15. The end of the box comprises members 16 and 17, and also an up-standing end member 18 projecting from the bottom 8, and an over-hanging engaging lip 19. The end member 16 is formed from a continuation of the side member 11 and an auxiliary member 20 rigidly secured thereto by staples 21.

When it is desired to fold the blank shown in Fig. 3, the strip containing the members 16, 11, 9, 10, and 17, is turned from the position shown in Fig. 3 so that the lower edge of the end member 9 and the portion 13 of the bottom 8 will act as a leg 22 (Fig. 4). This leg is designed to rest in the groove 4,

and the side members 11 and 12 are designed to fold along the sides 23 and 24 of the former 1, and finally the end 13 is folded into the slot 2 and then the end 16 is folded into the slot 2, the end 17 being positioned on the inner side. After this has been done, the interlocking tongue 19 is passed over the upper edges of the end 17 and the end 16, but between the end 16 and the member 20, as clearly shown in Fig. 4, whereby the sides and bottom of the box are locked together.

If desired, the blank shown in Fig. 3 may be scored on lines 25, 26, 27, and 28, for more easily folding the box on the former 1.

It will be evident that the larger size box is arranged to engage the sides 23 and 24 and with the leg members positioned in the grooves 2 and 4. The next sized box is designed to be folded against the sides 29 and 30 with the leg members positioned in the grooves 4 and 5. The third larger sized box is positioned so that the side members will engage the sides 30 and part of the groove 6 opposite the side 30, and also grooves 4 and 5. The smaller sized box is designed to engage part of the groove 6, the side 23 and grooves 3 and 4. The remaining blocks or marked off portions may be used for various small boxes if desired, but are usually not used, the same being formed simply by the tool forming the various grooves passing entirely across the base 1 during the operation thereof.

Having thus described my invention I

claim as new and desire to secure by Letters Patent:

1. A berry box former comprising a base formed with a squared portion of a particular size and a squared portion of a smaller size, a groove dividing said portions formed with a beveled upper portion, a transverse groove arranged near the edge of said smaller portion formed with a bevel in its upper edge, a pair of transverse grooves having beveled upper edges arranged in the larger squared portion, and a single longitudinal groove having beveled upper edges and intersecting all of said grooves.

2. A berry box former comprising a base formed with a squared portion of a particular size, and a squared portion of a smaller size extending from one edge of said larger portion, a groove arranged in said portions and dividing the same, a transverse dividing groove arranged near the edge of said smaller portion, a pair of transverse dividing grooves arranged in said larger portion, and a single longitudinal groove extending through both of said portions and intersecting all of said grooves.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLARD H. ELLIS.

Witnesses:

ELLA C. WILSON,
JOHN CHRIST.