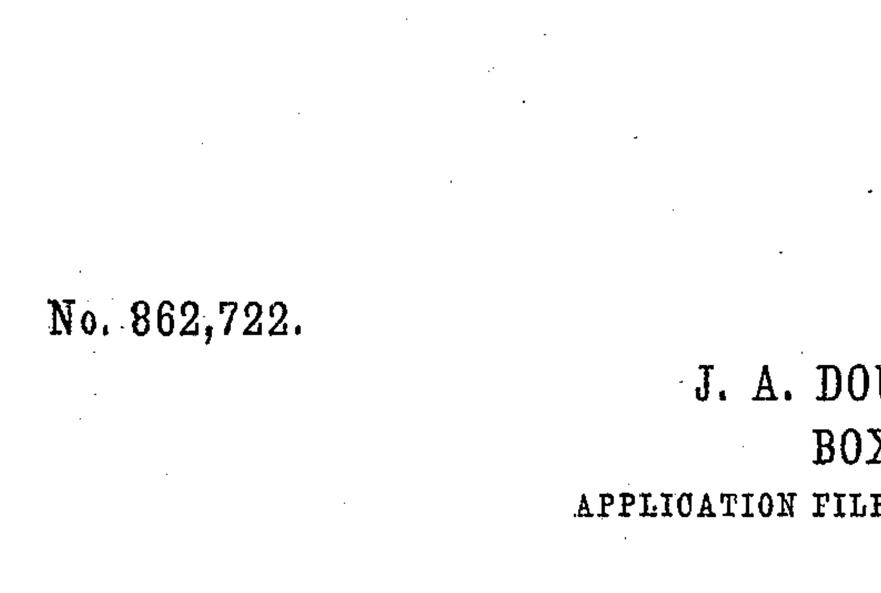
No. 862,722. PATENTED AUG. 6, 1907.

J. A. DOUGLAS.

BOX.

APPLICATION FILED MAR. 31, 1906.

Fig. 1.



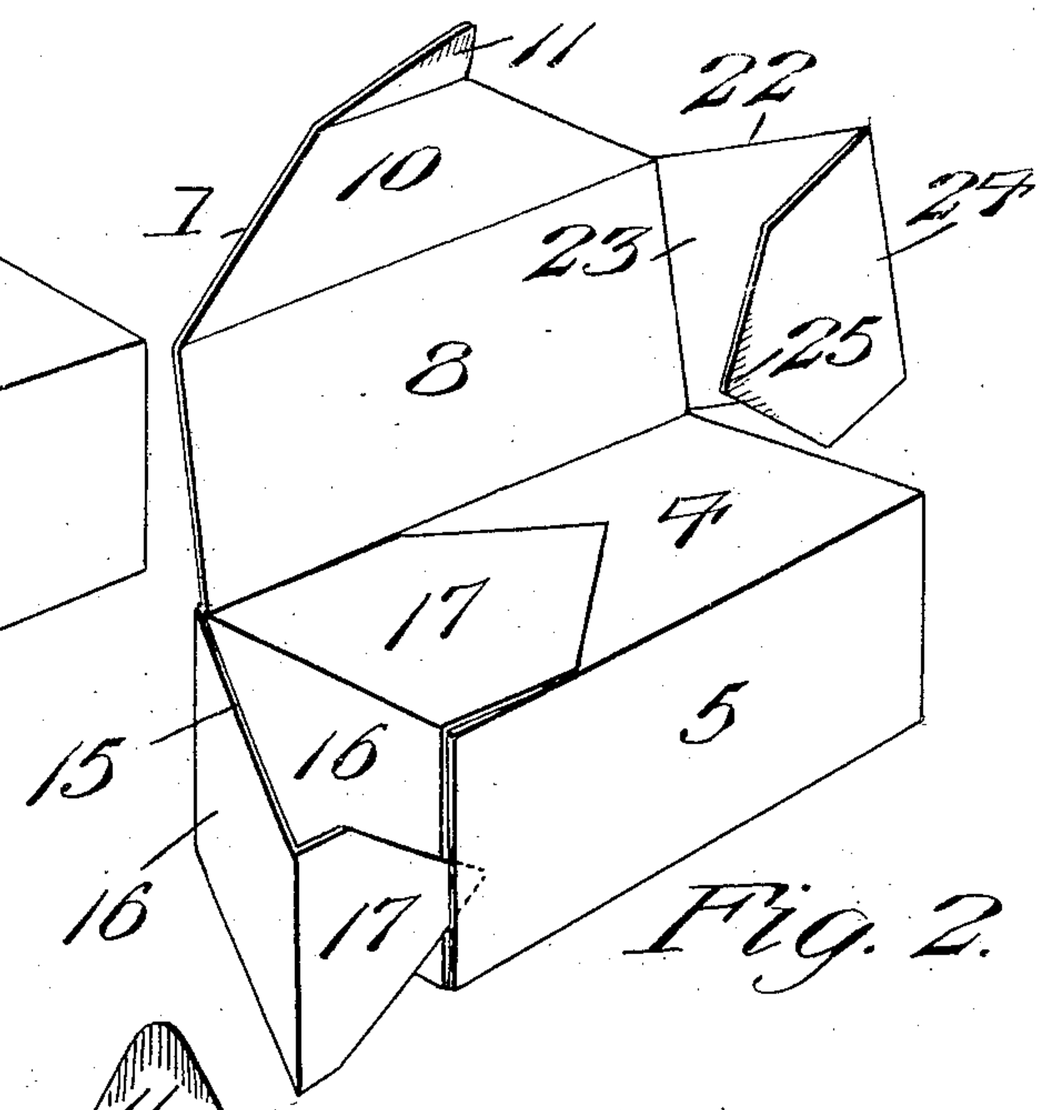
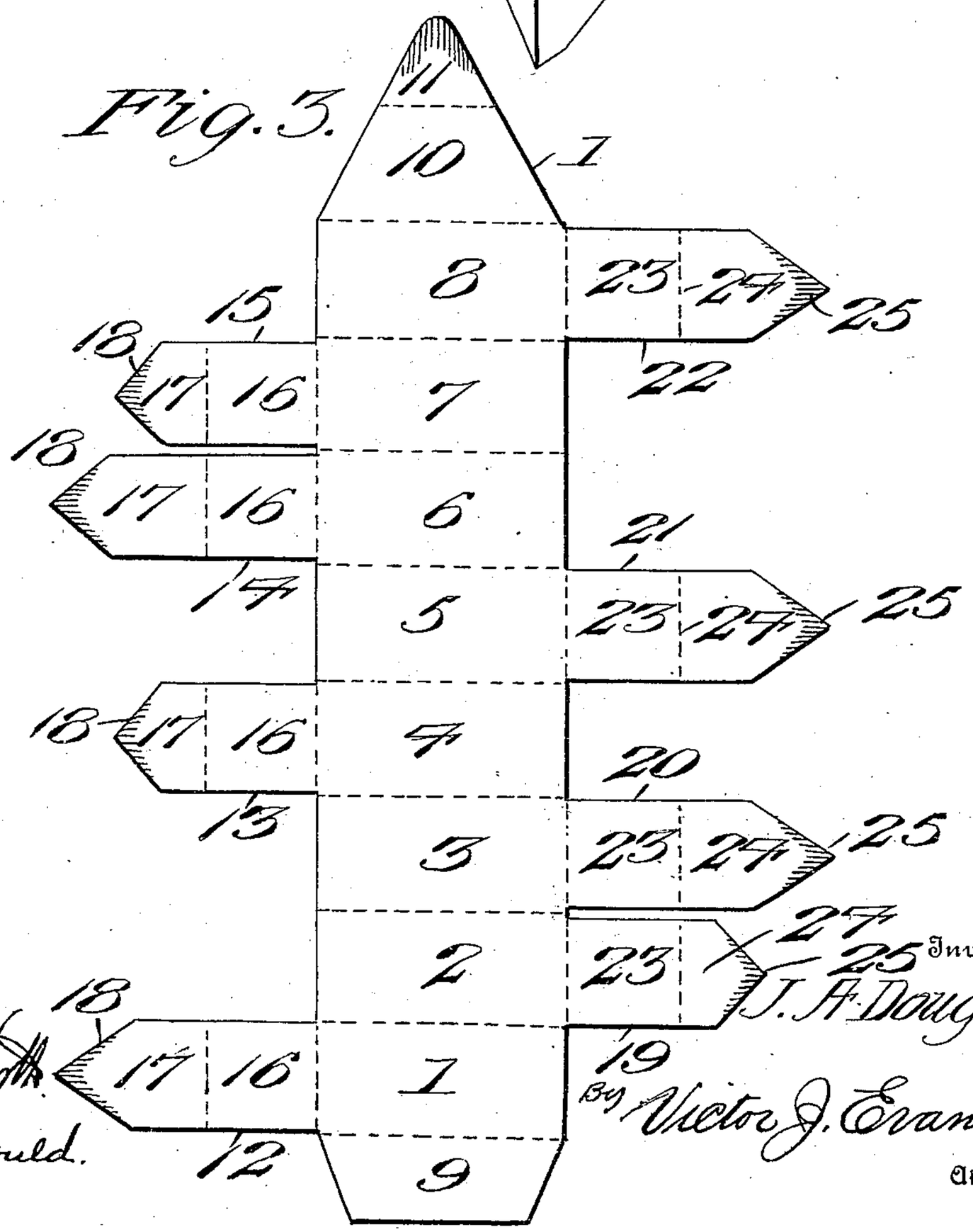


Fig. 2.

Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

JAMES A. DOUGLAS, OF YATES LANDING, ILLINOIS.

BOX.

No. 862,722. Specification of Letters Patent. Patented Aug. 6, 1907.

Application filed March 31, 1906. Serial No. 309,163.

To all whom it may concern:

Be it known that I, JAMES A. DOUGLAS, a citizen of the United States, residing at Yates Landing, in the county of Pulaski and State of Illinois, have invented certain new and useful Improvements in Boxes, of which the following is a specification.

The invention relates to an improvement in boxes constructed from a single blank and designed primarily as an inclosure for articles to be mailed.

The main object of the invention is the production of a box constructed from a single blank of comparatively light material, the blank being so formed and folded as to provide for a thorough interlocking of the sides and ends of the box, while at the same time forming said sides and ends of a plurality of thicknesses of the material.

The invention will first be described in the following specification, reference being had particularly to the accompanying drawings, in which;—

Figure 1 is a perspective view of the box constructed in accordance with my invention, Fig. 2 is a similar view showing the box blank in partly folded position, Fig. 3 is a view of the formed blank.

Referring to the drawings my improved box is constructed of a single blank 1, of suitable material, as cardboard, heavy paper or the like, which is of a width equal to the length of the desired box. The blank is divided transversely to provide a series of sections 1, 2, 3, 4, 5, 6, 7, and 8, which are respectively equal to each other in size and equal in dimensions longitudinally of the blank to the height and width of the desired box. The blank is preferably scored or otherwise marked between the sections to permit convenient folding. An additional section 9 extends longitudinally beyond the section 1, the latter section forming one end of the blank and having its edges inclined to reduce the free end thereof. Beyond the section 8 the blank is shaped to provide sections 10 and 11, the former being equal in longitudinal dimensions to the remaining sections, while the side edges of the sections 10 and 11 incline toward the longitudinal center of the blank, whereby the sections 10 and 11 are primarily adapted for flap sections as will be later apparent.

So far described the blank comprises an elongated body approximately rectangular in shape and transversely divided or scored to provide a series of equal sections. The sections 1, 4, 6, and 7 are provided with tongues 12, 13, 14, and 15 respectively, said tongues extending laterally of the blank in alinement with the respective sections. Each of the tongues are scored transverse of their lengths to provide a section 16 adjacent the edge of the blank section, which is equal in length to the width of one of the blank sections. Beyond the sections each tongue is extended to form a flap 17, the free ends of which are reduced in width and preferably provided, during manufacture of the blank with a suitable adhesive as 18. The blank sections 2, 3, 5, and 8, are also provided with projecting tongues 19, 20, 21, and 22, extending in alinement with the respective sections and transversely scored to provide tongue sections 23 corresponding in length to the width of the blank sections. These latter tongues are also projected beyond the respective sections to provide flaps 24, the ends of which are reduced and provided with a suitable adhesive, as at 25.

As will be noted from the drawings the tongues 12 to 15 inclusive project from one edge of the blank, while the tongues 19 to 22 inclusive project from the opposite edge of the blank. By preference the tongues 12 and 14 on one side of the blank and the tongues 20 and 23 on the opposite side of the blank are of somewhat greater length so far as their projecting flap ends are concerned than the remaining tongues.

The blank thus formed is manipulated to provide the box in the following manner. The part 9 is folded at right angles to the section 1 and the latter bent upward at right angles to the section 2, this operation being continued until the free edge of the section 9 contacts with the blank between the sections 3 and 4. In this position the tongues 16, folded on its scored line is bent at right angles to the section 1 to project the flap portion thereof beneath the section 3, in which position it is secured by the adhesive 18. The tongue 19 is bent at right angles to the section 2, and its flap portion projected in front of and in contact with the section 9, and secured thereto. The tongue 20 is bent at right angles to the section 3 with its flap projected above and secured in contact with the section 1. In this position of the various parts of the blank a complete box is practically formed, the sections 9, 1, 2 and 3, forming the sides, top and bottom of the box, while the tongue 20 forms one end, the tongue 19 forming the opposite end reinforced by the tongue 20. The blank is again folded to arrange section 3 at right angles to section 4, the tongue 13 being now bent upwardly and secured upon the section 2. This operation is continued, the blank being folded upon the successive lines between the sections until the structure rests upon the sections 7 as a base. In this position the section 8, which is the cover section is folded upward against the end of the box, the flap 15 is folded up against the end of the box, and the flap portion thereof inserted beneath the section 5, which in this position is the end section of the box. The tongue 22 is folded about the end of the box with its flap inserted beneath the section 4, after which the section 10 is folded in place and the section 11 is folded down and sealed in place.

The specific arrangement of the tongues disclosed by the drawing is important in the formation of the

completed article, as thereby each tongue not only serves as a closure for the exposed ends formed by the flaps, but each being as such relation to the adjacent tongues that in the completed article they will overlie and reverse said adjacent tongues. Furthermore, by the projection of the tongues in the same relative directions, the connecting end of one tongue will, in the completed article, be arranged at a right angle to the connecting end of the adjacent tongue.

The box thus constructed has sides and ends of duplicate thicknesses of material, providing a rigid inclosure capable of withstanding ordinary uses and mail transmission and permitting the box as a whole to be constructed of comparatively light inexpensive material.

The box is, of course, to be made of any material desired, and the blank to be of a length and width to provide a box of the required size.

Having thus described the invention what is claimed as new, is:—

A box blank comprising a strip divided transversely to provide a series of duplicate sections sufficient in number to form double top walls, double bottom walls, and double side walls, the end sections of the strip being each provided with a tongue projecting in opposite directions from the respective sections, the pair of sections adjoining each respective end section being each provided with tongues projecting in the same direction from each section of the pair and oppositely to the tongues of the remaining pair of sections, the intermediate sections of the strip being each provided with a tongue projecting in opposite directions from the respective sections.

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

JAMES A. DOUGLAS.

Witnesses:
J. W. JONES,
THOMAS B. ECHOLS.