(No Model.)

A. G. WILSON.

PAPER BOX.

No. 292,606. Patented Jan. 29, 1884.

Fig. 1.

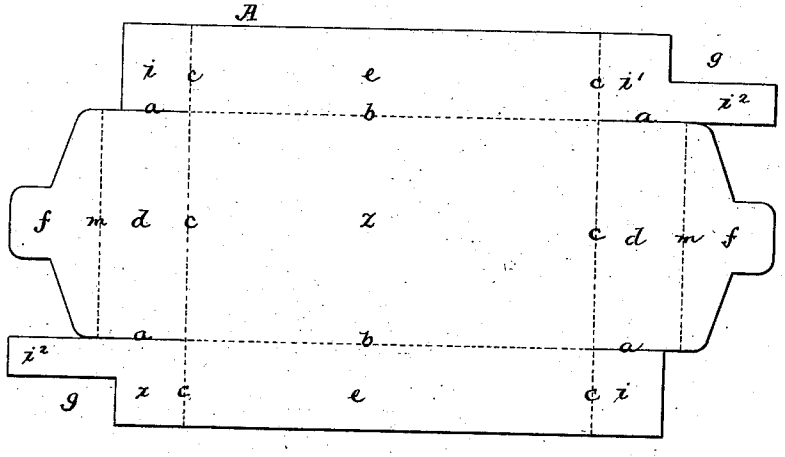


Fig. 2.

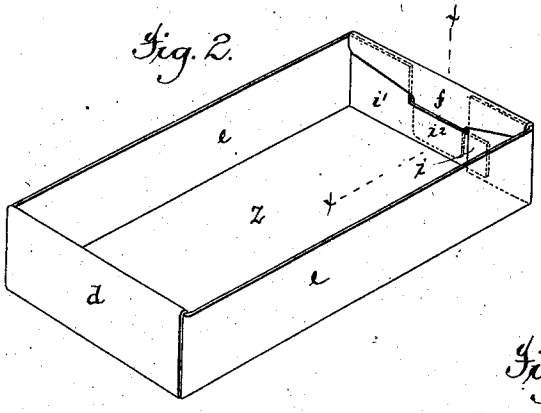


Fig. 3.

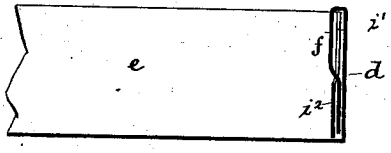
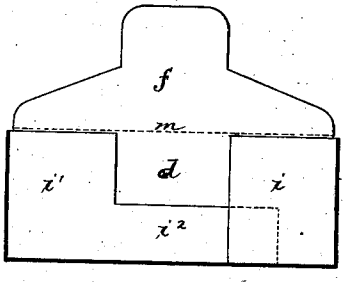


Fig. 4.



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UNITED STATES PATENT OFFICE.

ARTHUR G. WILSON, OF NEW YORK, N. Y.

PAPER BOX.

SPECIFICATION forming part of Letters Patent No. 292,606, dated January 29, 1884.

Application filed December 24, 1883. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR G. WILSON, of New York city, in the county of New York and State of New York, have invented a new and useful Improvement in Paper Boxes and Lids for Paper Boxes; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this application.

My invention relates to certain new and useful improvements in paper boxes and lids of boxes of the kind made the subject of Letters Patent granted to me on the 9th day of October, 1883, and numbered 286,360. I have found in practice that it is somewhat troublesome to speedily and at the same time nicely make small Manila-paper boxes from blanks of either of the forms shown in my said Letters Patent, and the difficulty seems to arise principally from the fact that the folded-over tongues have to be passed down through two notches or openings in the turned-in portions, which constitute part of the end of the box. In the manufacture from either of these blanks of boxes of the size generally used for cigarettes, I have found by experience that it is a matter involving considerable time and fine manipulation to simultaneously introduce the short folded-over tongues into and through both the notches or apertures of the turned-in end portions. If great care and skill are not exercised, one side or corner only of the tongue will enter one only of the said notches or openings and the other corner of the tongue will slip past and not enter the other of said notches or openings, which of course necessitates a withdrawal of the tongue and a repetition of the attempt to pass it into both the cutaways or openings in the turned-in portions at the same time. This pulling back of the tongue and rebending it in a renewal of the effort to successfully pass it into both the openings not only consumes a great deal of time, but usually so rumples and creases the tongue and bends the ends of the turned-in portions, besides often soiling the blank in the continued handling of it by the operative, that when the box has been completed it generally presents a rough and unclean appearance.

The object of my present invention or improvement is, in addition to the objects set forth in my Letters Patent above referred to, the production of a box of the kind referred to, which can be expeditiously put together or formed, and without liability of wrinkling, spoiling, or soiling the paper stock of which it is composed; and to these main ends and objects my invention consists in cutting or forming the turned-in end portions of the box or lid, so that when brought to their proper upright positions a part of one shall overlap a part of the other, and so that there shall be formed by the two at some locality between their top and bottom edges a single space or opening adapted to receive the folded-over-and-down tongue, all as will be hereinafter more fully explained.

In the drawings which accompany this specification and form part thereof, Figure 1 represents a plan view of a paper or pasteboard blank cut and scored, pierced, or creased, and adapted to be folded up into a box embodying my invention. Fig. 2 represents an isometrical perspective view of a box which has been formed from a blank like that shown at Fig. 1. Fig. 3 is a vertical longitudinal section (increased scale) of a portion of the box shown at Fig. 2, taken at the line *x x*. Fig. 4 is a cross-section of the same, (increased scale,) showing the tongue or tuck turned up and exposing the space or opening formed by the turned-in portions, into which the tongue is to be passed.

In the several views like letters of reference indicate like parts.

The blanks are cut or severed along the full lines, and either scored, creased, or pierced along the dotted lines. At Fig. 1 the blank A is severed longitudinally at the full lines *a a a a*, and creased both lengthwise and crosswise at the dotted lines *b c*, respectively. By thus cutting and creasing the blank, the bottom, ends, sides, and turned-in portions of a box are provided for just as in the box made the subject of my aforesaid Letters Patent; and Z will be the bottom of the box, *d d* the end pieces proper, *e e* the sides, and *i i' i i'* the turned-in upright portions. The end pieces, *d d*, are formed or provided with tongues or tucks *f*, and one of the two of the turned-in portions *i' i'* (at each end of the blank) is

made longer than the other and has cut out of it a portion of the stock, as plainly seen at *g*, thus leaving a narrow strip or portion, i^2. To make up a box from a blank of this form, I would first turn up the sides *c c* on the dotted lines *b b* at right angles to the bottom Z, which operation would bring the portions *i* i' i^2 (formed integral with sides) into upright position and in line with the sides. Then I would turn in the upright portion *i* on the dotted line *c* at a right angle to the side *e*, then turn in in like manner on the dotted line *c* the upright portion i' i^2, and next turn or fold up on the dotted line *c* the end piece, *d*, flat against the outside faces of the turned-in upright portions. When the operations of folding have proceeded thus far, the partially-completed box will be in the condition represented at Fig. 4, with the tongue *f* (formed integral with the end piece, *d*) in an upright position and ready to be folded over and down to complete the box. Preferably I crease the stock at the line of union *m* of the tongue and end piece, *d*, so as to facilitate folding, and preferably make the tongue of the form shown—that is to say, with a root about as wide as the end piece, so as to completely cover and protect the upright edges of the turned-in portions, and with a point as large as or slightly narrower than the space or opening formed by the turned-in end portion, so that it may readily be inserted therethrough. It will be seen from this figure of the drawings, 4, that by cutting the portion i' so as to form the lip i^2, and by cutting the portion *i* shorter than the portion i' i^2 a single space or opening is created, (when the parts are folded into the condition represented,) and that the extreme end of the lip portion i^2 lies behind or laps under the part *i*, as shown in dotted lines. In folding over the tongue to finish the box it is turned inwardly on the dotted line *m* and the point thereof simply passed through the single space between the turned-in end portions and down in rear of the extension i^2 as far as it will go, thus bringing the root of the tongue down onto the upper edges of the turned-in portions and over so as to lap or embrace the upper portions of the parts *i* i', as plainly shown at Fig. 1. By passing the tongue down in front of the upper portions of the turned-in parts and in rear of the lip-like portion i^2, its natural tendency to fly open is resisted and prevented by the lip, and there is an interlocking of all the parts of the box, such that there is not the slightest liability of any accidental separation; and I have found in practice that boxes may be made from this form of blank more expeditiously, cheaply, and cleanly than from any other blank of this species that I am aware of.

My improvement may be applied at one end only of a box, while the other end may have some different mode of securement, and, instead of being of the open-tray-like form shown, may be provided with some sort of cover formed integrally therewith. Furthermore, the tongue may be provided with an extension and the latter be passed through an incision at the junction of the end and bottom of the box to the outside thereof, to facilitate pulling the box out of a tubular cover, as shown in Letters Patent granted to me March 29, 1881.

Of course various changes may be made in the cutting out of the turned-in portions without departing from the spirit of my invention, the gist of which has been already fully stated.

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

A paper box or lid of a box having two turned-in portions, a part of one overlapping a part of the other, and forming a single space or opening between the two, and an end piece provided with a tongue folded over the upper edges of the turned-in portions down through the opening described, and in rear of the lower lip-like portion, i^2, substantially as and for the purpose set forth.

In testimony whereof I have hereunto set my hand this 18th day of December.

ARTHUR G. WILSON.

In presence of—

JACOB FELBEL,

A. JAMES LASKE.