J. G. BAUER.

PROCESS FOR FORMING BOXES.

APPLICATION FILED JAN. 21, 1918.

1,277,176.

Patented Aug. 27, 1918.

2 SHEETS—SHEET 1.

Fig. 1.

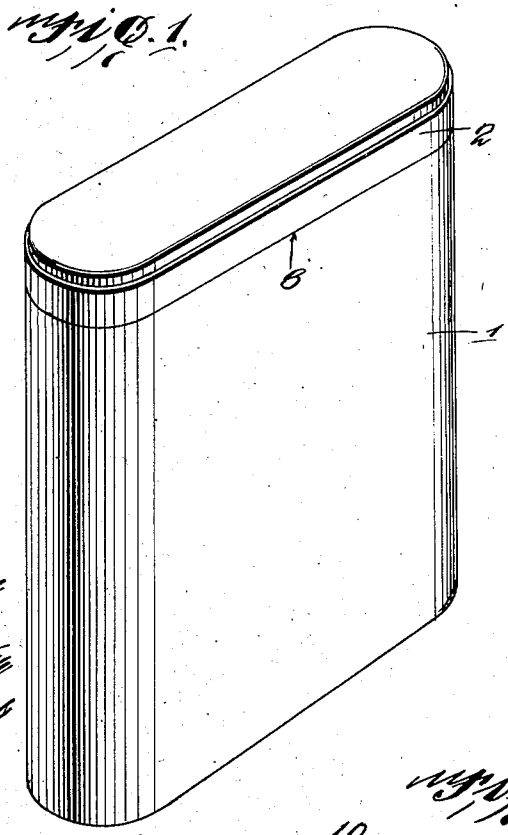


Fig. 12.

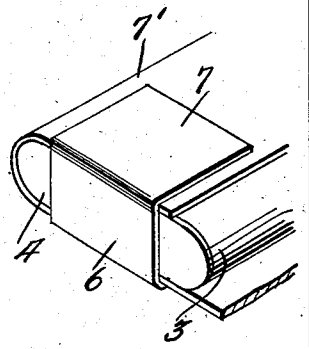


Fig. 2.

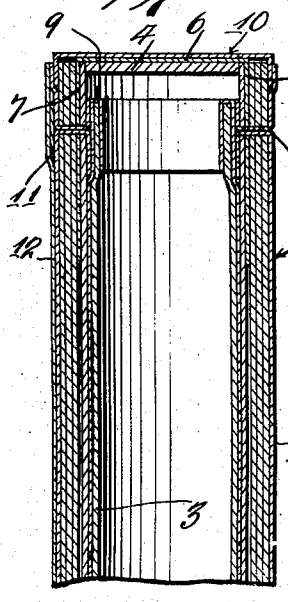


Fig. 4.

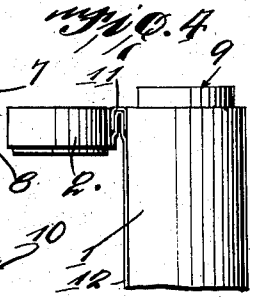


Fig. 3.

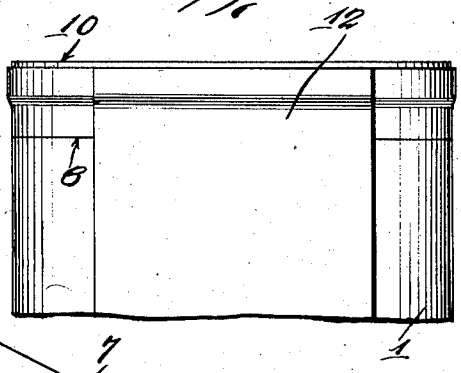
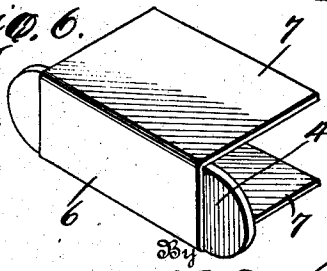


Fig. 6.



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2 SHEETS—SHEET 2.

FIG. 7.

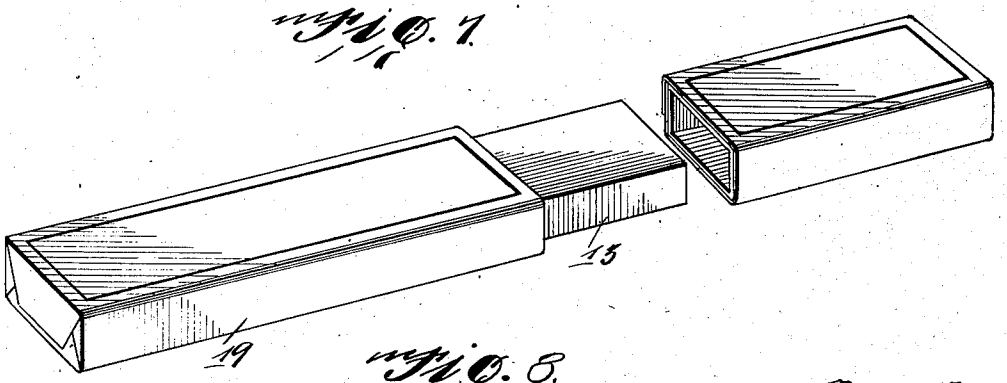


FIG. 8.

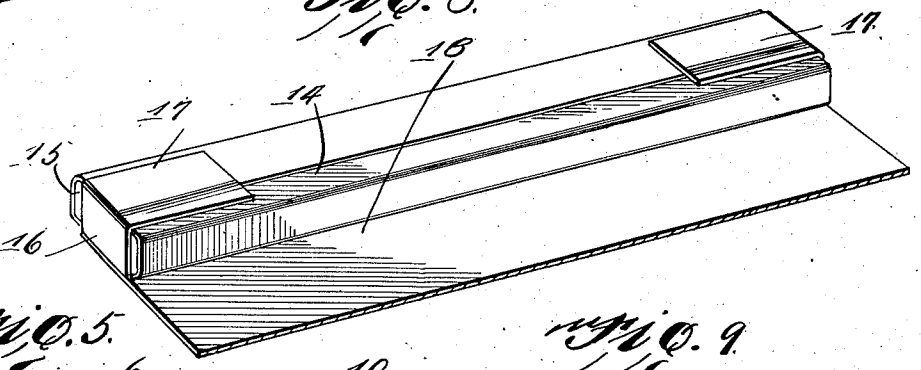


FIG. 5.

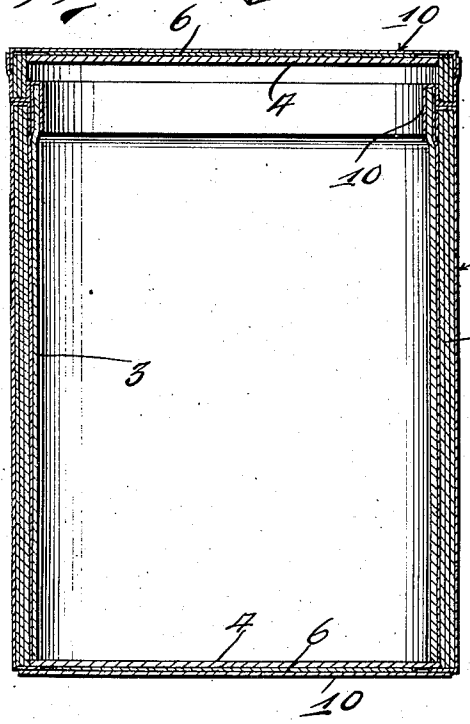


FIG. 9.

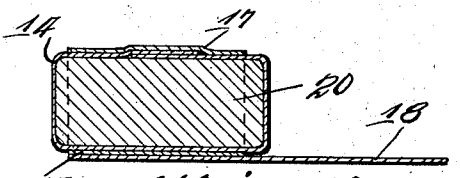


FIG. 10.

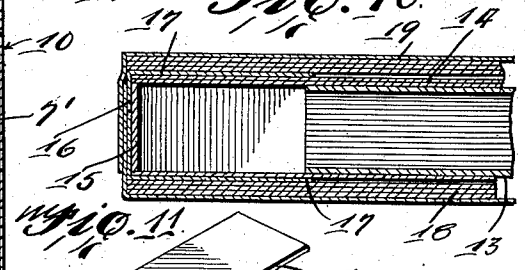
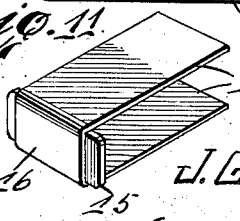


FIG. 11.



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UNITED STATES PATENT OFFICE.

JOHN G. BAUER, OF WARSAW, NEW YORK.

PROCESS FOR FORMING BOXES.

1,277,176. Specification of Letters Patent. Patented Aug. 27, 1918.

Application filed January 21, 1918. Serial No. 213,016.

To all whom it may concern:

Be it known that I, JOHN G. BAUER, a citizen of the United States of America, residing at Warsaw, in the county of Wyoming and State of New York, have invented certain new and useful Improvements in Processes for Forming Boxes, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to tobacco boxes and has for its principal object the production of a simple and efficient tobacco box which is formed entirely of paper, thereby greatly cheapening the construction and manufacture of the device.

Another object of this invention is the production of a simple and efficient process for forming or manufacturing the box.

With these and other objects in view this invention consists of certain novel constructions, combinations and arrangements of parts, as will be hereinafter fully described and claimed.

In the accompanying drawings:—

Figure 1 is a perspective view of the tobacco box, in its complete condition.

Fig. 2 is a vertical section therethrough, showing the manner of hinging the top and forming the several layers of the box.

Fig. 3 is a rear elevation of the upper portion of the box.

Fig. 4 is a side elevation of the upper portion of the box, showing the cover in an open position.

Fig. 5 is a vertical section through the box, taken at right angles to that shown in Fig. 2.

Fig. 6 is a detail perspective of a portion of the box, showing the strips in their initial wrapping.

Fig. 7 is a perspective view of another form of box produced by the same process, as that used in connection with making the tobacco box.

Fig. 8 is a detail perspective of the razor box in its initial form of making.

Fig. 9 is a transverse sectional view taken through one end of the razor box, prior to the same being wrapped.

Fig. 10 is a longitudinal section through the razor box in its completed condition.

Fig. 11 is a detail perspective of one of the end strips used upon the razor box.

Fig. 12 is a detail perspective of one end of the tobacco box showing the same in its initial wrapping, prior to the wrapper being entirely wound around the same.

By referring to the accompanying drawings, by numerals, it will be seen that 1 designates the body of the box, which is provided with a hinged cover 2, at the upper end thereof. In forming the box, a suitable filling or other solid medium is placed within the interior of the box to form a core, and a stiff layer of card-board 3 is wrapped around the core, to form the block filler, for the box, and the end strips 4 are then placed so as to abut against the ends of the core. A suitable sheet of wrapping paper is glued or fixed to the core, and is then wound for one convolution around the box, whereupon adhesive strips 6 are wound over or glued to the end strips having their ends 7 overhanging the wrapper strip, to constitute an efficient seal for the respective ends of the box. A wrapper sheet is then coiled around the core, and is finally sealed along its edge to produce an efficient wrapper for the box. Each end of the box, is of course sealed in a similar manner. The wrapper is then cut along the line indicated by the numeral 8, for the purpose of forming the lid, to be readily removed from the box, and it should be understood that only the wrapper is cut and not the inner core, which is formed of stiff card-board or other suitable material. The cover, of course, may then be easily removed from the upper end of the core and the upper end of the core projects to formed the retaining flange 9, as shown clearly in Fig. 4 of the drawings. The entire box may then be covered with suitable paper covering, such as is indicated by the numeral 10 in Fig. 2 and the hinged strip 11 is employed for hingedly securing the covering 2 upon the body of the box. A rear hinge retaining strip 12 is secured to the rear ends of the box, and extends throughout the entire length thereof, and overhangs or extends over the hinged strip 11, shown clearly in Figs. 3 and 4 of the drawings. The box cover may therefore be swung to an open or closed position at the will of the operator and it should be understood that this outer paper covering 10 is adapted to pass over the entire box.

As shown in Figs. 7 and 8 of the drawings, the same process above outlined may be involved in making boxes for other purposes. In the structure shown in Figs. 7 and

8 a core 13 is employed and a winding strip of paper 14 is wound around the core and suitable end plates 15 which carry adhesive strips 16 have their ends 17 overhanging the outer wrapper 18. The outer wrapper is then wound around the core and is sealed along its outer end. The entire body is then covered by a suitable covering sheet 19 of any suitable or desired size. It should be understood that the core 13 is entirely independent of the core block 20, which may be inserted within the box to make the same more rigid while the box is being manufactured.

It should be understood that the steps in the process of the box is as follows: First place the core block within a core strip and form the core strip of suitable shape, then start the wrapper sheet around the core strip, then place the end strips over the ends of the core and secure the end strips by means of adhesive material to the wrapper strip, then wrap the entire wrapper strip around the core strip, and seal the edge thereof, then cut or trim the wrapper strip around the entire body, until the entire wrapper strip has been cut, for forming the end of the box. Remove from the core strip and then place a cover sheet over the entire wrapper strip for presenting a neat cover for the box. It of course should be understood that in the case of the tobacco box, a suitable hinged strip such as that shown and indicated by the numeral 11 may be employed. Where a razor box is used, it is of course obvious that no hinged strip is necessary. An outer covering strip 12 is also employed for covering up the hinged strip and this outer strip 12 extends through the entire length of the box.

What is claimed is:—

1. A process for manufacturing paper boxes, comprising the placing of a core strip around a suitable core, then starting a wrapper strip around the core, then placing two end strips upon the core, then sealing these end strips to the wrapper sheet by means of adhesive sealing tape, then tightly winding said wrapper strip around said core strip and sealing the edge thereof, then cutting the wrapper at a predetermined point down to the core strip and then covering the entire outer ends of the wrapper with a covering sheet.

2. A process for manufacturing paper boxes, comprising the placing of a core strip around a suitable core, then starting a wrapper strip around the core, then placing two end strips upon the core, then sealing these end strips to the wrapper sheet by means of adhesive sealing tape, then tightly winding said wrapper strip around said core strip and sealing the edge thereof, then cutting the wrapper at a predetermined point down to the core strip and then covering the entire outer ends of the wrapper with a covering sheet, then placing a hinged strip upon the rear of said box, for hingedly securing the cover of the body to the box, and then placing the cover strip over said hinged strip throughout the entire length of said body.

In testimony whereof I hereunto affix my signature.

JOHN G. BAUER.