(No Model.)

A. L. MUNSON.

SLIDE PAPER BOX.

No. 422,032. Patented Feb. 25, 1890.

Fig. 1

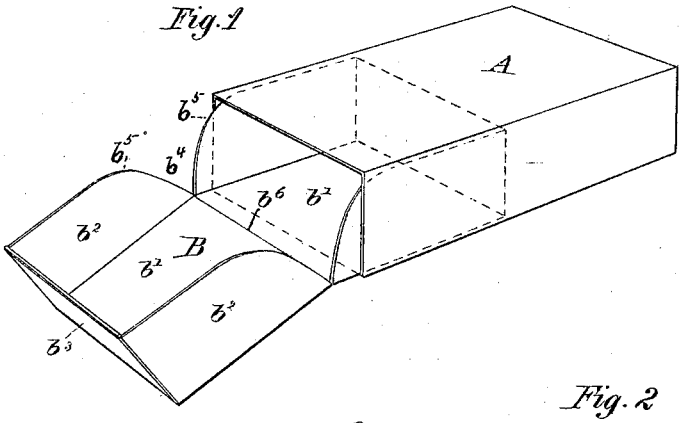


Fig. 2

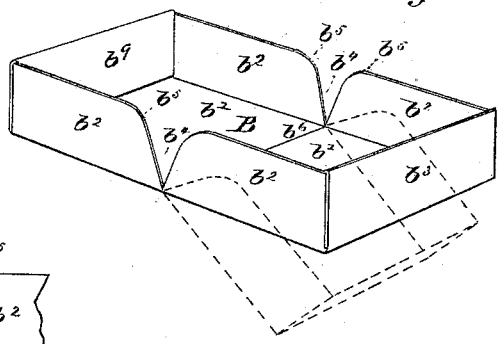


Fig. 4

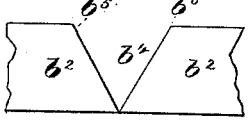
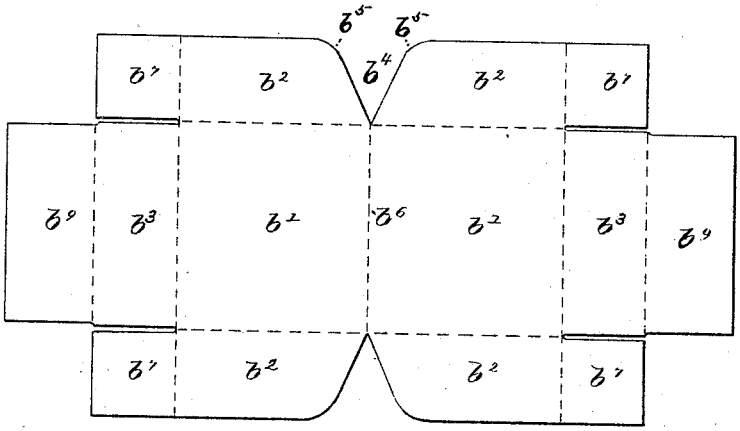


Fig. 3



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ALBERT L. MUNSON, OF NEW YORK, N. Y.

SLIDE PAPER BOX.

SPECIFICATION forming part of Letters Patent No. 422,032, dated February 25, 1890.

Application filed September 17, 1889. Serial No. 324,218. (No model.)

To all whom it may concern:

Be it known that I, ALBERT L. MUNSON, a citizen of the United States, residing at New York city, in the county and State of New York, have invented a new and useful Improvement in Paper Boxes, of which the following is a specification.

This invention relates to that class of paper boxes particularly designed for use in packing cigarettes. The particular style of box usually adopted for that purpose consists of two parts—a cover and a sliding tray fitting inside of such cover. An approved form of cigarette-box of this character should satisfy the following requirements: It should open easily by a push on the slide from either end. When the slide is projected from the end of the cover, it should present the ends of the cigarettes entirely free, so as to permit one or more to be easily removed and without risk of injuring the others. The box should close readily without necessitating any complicated operations, and when closed should hold the cigarettes well confined, and prevent them or any loose fragments of tobacco escaping. Further, the box should be of such form as to be readily inserted in the pocket.

It is the object of this invention to fully meet these desideratums.

In the accompanying drawings, which form a part of this specification, Figure 1 is a perspective view of the box with the slide partially exposed. Fig. 2 is a perspective view of the slide. Fig. 3 shows the form of the flat blank from which the slide is formed, and Fig. 4 is a detail of the construction.

Similar reference-letters marked on the various figures indicate corresponding parts.

The cover A is made in the usual manner generally adopted in sliding boxes, and needs no distinct description here. It is therefore to the slide exclusively that this invention relates, although the cover forms an essential part of the complete combination required to make a finished box.

Referring to Figs. 2 and 3, it will be seen that the slide B consists of a bottom b' and four vertical sides b^2 b^2 and b^3 b^3. In the center of both of the longitudinal sides b^2 b^2 is formed a cut b^4, which has the form of an isosceles triangle with its apex at the bottom of the box. The two upper corners b^5 of this triangular cut may, if preferred, be rounded off, as shown in Figs. 1, 2, and 3, this for the purpose of preventing the angular points of the other form from catching the ends of the cover when the slide is being pushed in. Either form will answer, and I do not limit my invention to either. By means of these triangular cuts b^4 both of the longitudinal sides are entirely divided into two exactly equal and similar parts. The finished slide itself is also consequently divided into halves, which are merely held together by the bottom b'. Transversely across the bottom is a scored or creased line b^6, connecting the lower corners of the cuts b^4 b^4, this scored or creased line acting as a hinge for either end of the slide as it is projected from either end of the cover, as shown in Figs. 1 and 2. It is obvious that in case the creased line were omitted the slide, by pressure when projected from the cover, would readily bend down in the same direction, thereby forming a spring. It is plain also that after bending it a few times a broken line would form itself, thereby bringing it to the same condition as if the line had been formed there in the first instance. I therefore do not confine my invention to the use of a prepared scored or creased line, as I simply wish to form the equivalent of a hinge for the two halves of the slide to bend or swing on as either half projects from the cover up to the line b^6. The form of the blanks from which these slides are formed is shown in detail on Fig. 3. These blanks are by means of suitable dies cut into shape and scored or creased on the various lines, as shown by broken lines in the figures, and are afterward folded into shape and glued by hand or by suitable machines adapted to that purpose.

It will be seen (see Fig. 3) that the ends b^3 of the finished slide will consist of three layers or plies, the short ends b^7 will fold into the center, portions b^3 b^3 will fold up against them, and the pieces b^9 b^9 will bend over and fold over and down on the inside and be secured by gluing to the pieces b^7 b^7. As a last process in the manufacture of these slides, they are usually bent to a further extent on line b^6 than is indicated by dotted lines in Fig. 2, and nested one upon the other in suitably-sized packages. By this simple means the slides

gain a tendency to remain in this bent position when loosened from the package. It will now be understood that if the box, as herein described, is filled with cigarettes and the slide is pushed out at either end so far as to bring the line b^6 outside of the cover the projecting half of the slide will of its own volition, or by slight pressure of the fingers, bend down or drop so as to expose the ends of the cigarettes free and clear on all sides.

When pushing the slide back into the cover the base-points of the triangle (on either side) first enter the cover, and as the motion is continued the angular sides gradually press inwardly as they enter until the points b^5 are passed. It is obvious that the angular form is essential to enable the slide to re-enter the cover, which it would not readily do were the cut perpendicular or at all approaching it. Such construction would cause the sides to bulge out sidewise, and of course prevent them from entering the cover. Therefore the important element necessary to the success of my invention is embodied in the peculiar form of the angular cut in the center of the longitudinal sides of the slide.

I claim as my invention—

1. A slide for use in a tubular cover, having in the center of its longitudinal sides a vertical cut in the form of an isosceles triangle, all substantially as and for the purposes herein described and shown.

2. A slide for use in a tubular cover, having in the center of its longitudinal sides a vertical cut in the form of an isosceles triangle, and a scored or creased line transversely across its bottom from the apexes of said cuts, all substantially as herein shown and described, and for the purposes set forth.

3. The combination of a tubular cover open at both ends, and a slide having in the center of its longitudinal sides a vertical cut in the form of an isosceles triangle, all substantially as and for the purposes herein set forth and described.

4. The combination of a tubular cover open at both ends, a slide having in the center of its longitudinal sides a vertical cut in the form of an isosceles triangle, and a scored or creased line transversely across its bottom from the apexes of said cuts, all substantially as herein shown and set forth.

5. The slide B, adapted for insertion in a tubular cover A, which slide consists of the bottom b' b', ends b^3 b^3, and sides b^2 b^2, provided with isosceles triangular cuts b^4 at their centers, all substantially as and for the purposes herein shown and set forth.

6. The slide B, adapted for insertion in a tubular cover A, consisting of a bottom b' b', ends b^3 b^3, end pieces b^9 b^9, and sides b^2 b^2, each provided with an isosceles triangular cut b^4, and having the transverse hinge-line b^6 across the bottom, all substantially as and for the purposes herein shown and set forth.

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