(No Model.)

2 Sheets—Sheet 1.

H. S. MUNSON.

PAPER BOX.

No. 348,924. Patented Sept. 7, 1886.

Fig. 1

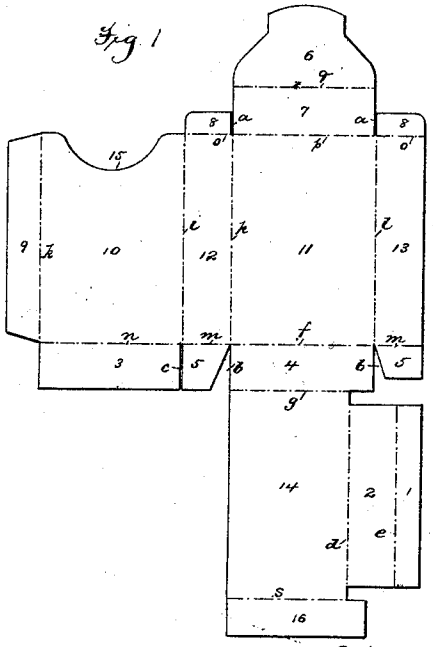


Fig. 3.

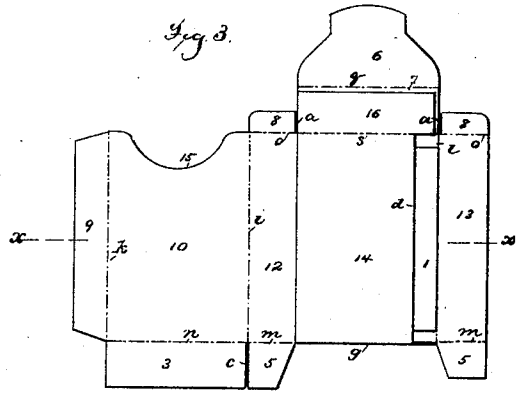


Fig. 4.

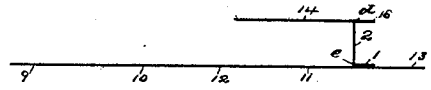


Fig. 2.

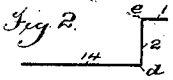


Fig. 8.

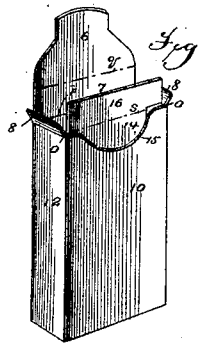


Fig. 5.

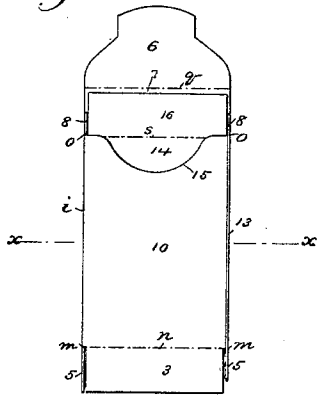


Fig. 9.

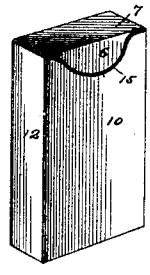


Fig. 6.

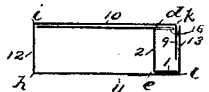
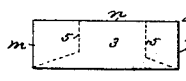


Fig. 7.



Attest:

Geo. H. Bottle.

J. A. Hovey

Inventor:

Harvey S. Munson

by

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N. PETERS. Photo-Lithographer, Washington, D. C.

(No Model.) 2 Sheets—Sheet 2.

H. S. MUNSON.

PAPER BOX.

No. 348,924. Patented Sept. 7, 1886.

Fig. 10.

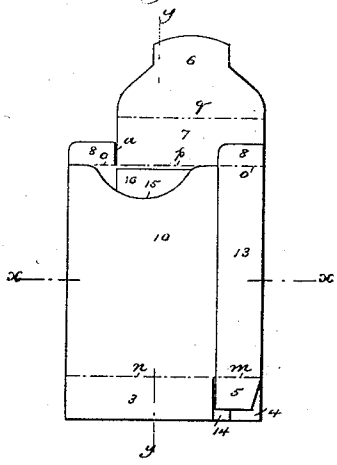


Fig. 12.



Fig. 11.

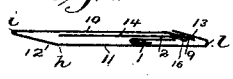


Fig. 13.

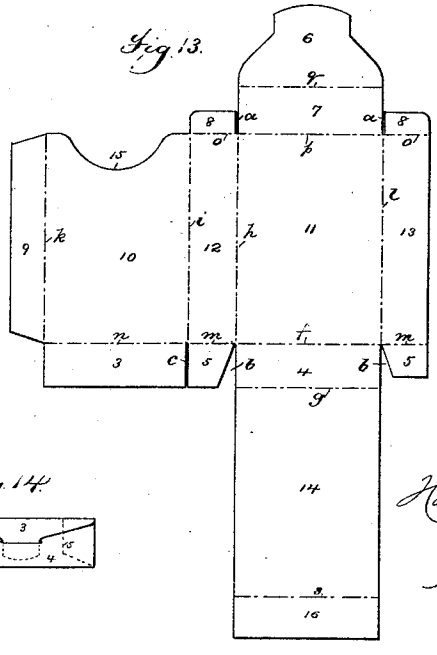


Fig. 14.

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UNITED STATES PATENT OFFICE.

HARVEY S. MUNSON, OF NEW HAVEN, CONNECTICUT.

PAPER BOX.

SPECIFICATION forming part of Letters Patent No. 348,924, dated September 7, 1886.

Application filed July 3, 1886. Serial No. 207,066. (No model.)

To all whom it may concern:

Be it known that I, HARVEY S. MUNSON, a citizen of the United States, residing at New Haven, county of New Haven, and State of Connecticut, have invented certain new and useful Improvements in Paper Boxes, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

My invention relates to that general class of boxes which are known as "knockdown" boxes, but more particularly to those boxes which are made from a single blank or piece of material which is so formed and folded that one or both of the ends of the box is or are closed by loose flaps, which are so arranged as to permit the box to be opened and reclosed as often as it is desired to gain access to its contents.

The improvements constituting my invention have particular reference to the arrangement of the flaps for closing the ends of the box, it being the object of the invention to effect a more perfect closing of the ends of the box than has been secured by the constructions heretofore in use.

As an understanding of the invention can be best given by a description of a box embodying the same, such description will be given, reference being had to the accompanying drawings, in which—

Figure 1 is a view of the blank from which the box is made, the lines upon which the paper is folded in the formation of the box being indicated by the dotted lines. Figs. 2 to 6 are views illustrating the different steps in the formation of the box, Figs. 4 and 6 being sections taken on the line *x x* of Figs. 3 and 5, respectively. Fig. 7 is a view of the bottom of the completed box. Fig. 8 is a perspective view of the completed box, showing its top open. Fig. 9 is a similar view showing the top of the box closed. Figs. 10, 11, and 12 illustrate the manner in which the box may be knocked down for shipment, Figs. 11 and 12 being sections taken, respectively, upon the lines *x x* and *y y* of Fig. 10. Fig. 13 is a view similar to Fig. 1, illustrating a modification in the form of a blank, which will be hereinafter explained; and Fig. 14 is a view similar to Fig. 7, showing another modification in the form of the blank.

Referring to said drawings, it is to be understood that the box therein shown as containing the invention is especially designed for containing cigarettes, and it is therefore provided with a longitudinal partition by which there is formed a small side compartment for the reception of a cigarette-holder or similar article. The invention may, however, be applied to boxes which are designed for other uses, and in such cases the partition may be omitted.

The box when provided with the partition referred to is made from a single piece of material or blank of the form shown in Fig. 1. This blank is provided with cuts *a b c*, by which there are formed the free flaps 3 5 and 7 8, which, together with the portion 4 and flap 16, serve to close the ends of the box, as will be presently explained. The blank will preferably also be creased, as indicated by the dotted lines, so as to define the lines of the folds made in its formation. The blank thus formed will first be folded on the lines *d e*, so as to carry the portion 2 up at right angles to the portion 14 and the portion 1 out at right angles to the portion 2, as indicated in Fig. 2. The blank will then be folded on the lines *f g*, so as to carry the end portion, 4, up at right angles to the body portion 11, and the portions 14 16 21 over at right angles to the portion 4 and above the portions 11 7, as indicated in Figs. 3 and 4. The blank will then be folded on the lines *h i k l*, so as to carry the body portion 12 and flaps 5 8 up at right angles to the portion 11, the body portion 10 and flap 3 over at right angles to the portion 12 and outside of the portion 14, the flap 9 down at right angles to the portion 10, and the body portion 13 and flaps 5 8 up at right angles to the portion 11 and outside the flap 9, as indicated in Figs. 5 and 6. When the blank is in this condition, the flap 9 and portion 13 will be cemented or otherwise secured together. This will form the blank into a tubular body having a longitudinal partition formed by the portion 2, by which the box will be divided into two compartments, as best shown in Fig. 6, the larger of which compartments will serve as a receptacle for the cigarettes, while the smaller or side compartment will serve as a receptacle for a cigarette-holder or similar article. The portions 1 and 14 will

serve to hold the partition 2 in place without the use of cement or other fastening means. After the blank has been reduced to the tubular form shown in Figs. 5 and 6, it is only necessary to fold in and secure the flaps 3 5 and 7 8 16 to close the ends of the tube and complete the box.

If the box is to be shipped or stored before it is filled, it may be knocked down into a flat condition, so as to occupy but little space. To do this the portions 1 2 will be folded in under the portion 14, as indicated in Fig. 11, and the portions 14 16 folded down onto the portions 4 11, as indicated in Fig. 12. The portions 10 9 13 can then be readily folded down flat against the portions 12 14 16, as indicated in Figs. 10, 11, 12.

When the box is to be filled, the blank will be restored to the condition shown in Figs. 5 and 6, and the flaps 5 will be folded inward on the lines *m* and cemented to the portion 4, as indicated in Fig. 7, and the flap 3 will be folded over on the line *n* and cemented on the outside of the portion 4 and flaps 5, as also shown in Fig. 7. This will close the bottom of the box and put it in condition to receive its contents, as shown in Fig. 8. After the box is filled the other end is closed by folding inward the flaps 8 16 on the line *o s* and then folding the flap 7 over on the line *p*, and securing it in position by folding the tongue 6 downward on the line *q* and tucking it into the pocket formed between the portions 10 14, as shown in Fig. 9. The box thus formed can be readily opened at any time by simply withdrawing the tongue 6 from between the portions 10 14, and to facilitate the withdrawal of the tongue 6 the portion 10 will preferably be cut away, as shown at 15, to give freer access to the tongue. The interior portion, 14, serves not only to stiffen the box and provide a pocket for the reception of the tongue 6, but also to prevent the tongue from coming into contact with and injuring the cigarettes or other contents of the box.

It will be observed that the flaps 3 16 are important in closing the ends of the box, for although the ends would be closed by the flaps 5 8 and the portions 4 7, they would not be closed sufficiently tight to prevent leakage if the box were used to contain powdered or granulated substances. By the addition of the flaps 3 16, however, perfectly tight ends are formed, which render the box well suited for containing powdered or granulated substances, and especially adapts it for use as a mailing-package. In some cases, however, the flap 16 may be omitted.

When the box is to be used for putting up cigarettes or similar articles, it will usually be most desirable to provide it with the partition 2, as already described; but this partition may be omitted, if preferred or if in any case it is not needed. In such case the blank will be of the form shown in Fig. 13, which is the same as shown in Fig. 1, except that the portions 1 2 are omitted and the portion 14 is made of the same, or substantially the same, width as the portion 11. The operation of folding the blank to form the box will in this case be the same as already described, except as regards the folds on the lines *d e*.

If it should be desired to so construct the box that both of its ends can be closed without the use of paste or cement, the flap 3, instead of being of the form shown in Figs. 1, 3, 5, 10, and 13, may be made of the form shown in Fig. 14, and be provided with a tongue, which can be tucked through a slit formed in the portion 4. In such case the flaps 5 will be tucked inside of the portion 4, as indicated by the dotted lines in Fig. 14.

What I claim is—

1. The herein-described box, having the pocket-forming portion 14 extending from the end portion, 4, and the flaps 3 5 extending from the body-forming portions and arranged to fold over and be secured to the portion 4, substantially as described.

2. The herein-described box, having the pocket-forming portion 14 extending from the end portion, 4, the flap 16 extending from the end of the pocket-forming portion 14, and the flaps 3 5 7 8 extending from the body-forming portions and arranged to fold inward to close the ends of the box, substantially as described.

3. The herein-described box, having the pocket-forming portion 14 extending from the end portion, 4, and the partition 2 extending from the side of said pocket-forming portion, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

HARVEY S. MUNSON.

Witnesses:

EDWARD B. MUNSON,

EDSON S. BEACH.