(No Model.)

A. G. HOHENSTEIN.

PAPER BOX.

No. 304,525. Patented Sept. 2, 1884.

Fig. 1.

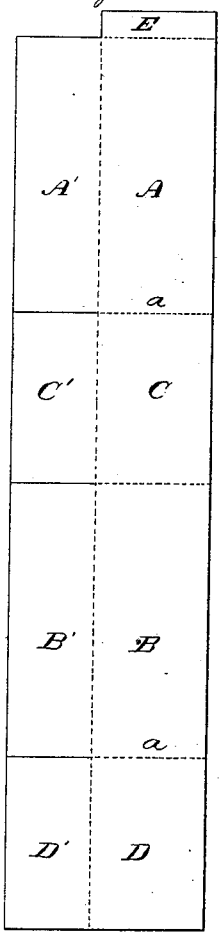


Fig. 2.

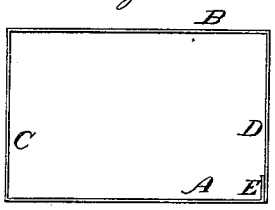


Fig. 3.

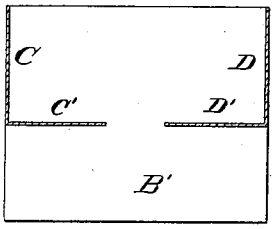


Fig. 4.

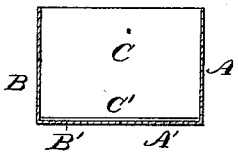


Fig. 5.

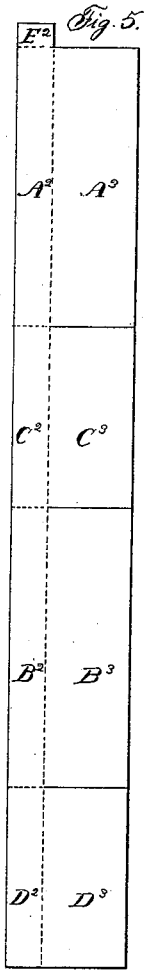


Fig. 6.

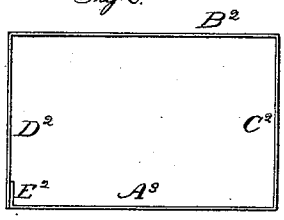


Fig. 7.

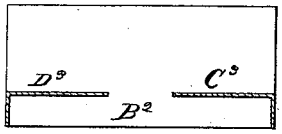


Fig. 8.

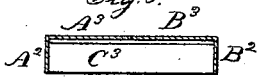
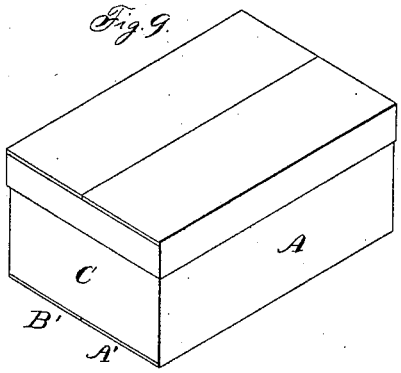


Fig. 9.



Witnesses.

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UNITED STATES PATENT OFFICE.

ARCHIE G. HOHENSTEIN, OF NEW HAVEN, CONNECTICUT.

PAPER BOX.

SPECIFICATION forming part of Letters Patent No. 304,525, dated September 2, 1884.

Application filed June 12, 1884. (No model.)

To all whom it may concern:

Be it known that I, ARCHIE G. HOHENSTEIN, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Paper Boxes; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, the blank from which the box is formed; Fig. 2, the blank bent at the angles, the two ends secured together; Fig. 3, a longitudinal section of Fig. 2, showing also two opposite flaps turned inward; Fig. 4, a transverse section of Fig. 2, showing also the other two flaps turned upon the first in the method of forming the bottom; Fig. 5, the blank from which the cover is formed; Fig. 6, the blank bent at right angles, the two ends secured together; Fig. 7, a longitudinal section of Fig. 6, showing also two opposite flanges turned inward; Fig. 8, a transverse section of Fig. 6, showing also the other two flanges turned inward upon the first in the method of closing the top of the cover; Fig. 9, a perspective view of the box complete.

This invention relates to an improvement in that class of paper boxes which are designed for putting up small packages of various classes of merchandise, particularly metal articles or hardware. These boxes require to be strong, and as they are made usually at some distance from the manufactory, it is necessary that they be constructed so as to be shipped in a flat condition and set up at the manufactory. These boxes have usually been made of a style called "folding boxes"—that is, such as are folded together and the ends secured by some interlocking device without the use of paste or other adhesive material; but such boxes are less firm than a full made—that is, a "non-folding"—box, and because of the liability of the fastenings to open, such boxes are not adapted to many articles of hardware. The non-folding boxes are usually made four sides in one piece, the bottom in a second piece, united to the body of the box by a strip or band of paper pasted upon the body of the box and turned over onto the bottom. This work necessitates a practical box-maker in putting the boxes together.

The object of my invention is the construction of a box the blank of which may be shipped flat, but set up at the manufactory, and make a firm non-folding box; and the invention consists in a box the body and cover of which are made from blanks in length equal to the four sides, scored at the angles, and provided with a lap at one end, to be pasted to the other end, the four sides constructed with a flap projecting from the same edge of each, scored so as to be turned into a plane at right angles to the sides of the box, two of the opposite flaps in depth equal to half the width of the box between the two sides to which the said flaps are attached, and so that the other two flaps turned inward, and then these two flaps turned over those will meet at the center and close the bottom of the body and top of the cover of the box, the flaps being glued together, as more fully hereinafter described.

In Fig. 1 I show the blank for the body of the box as cut complete. A represents one side, B the opposite side, C one end, and D the opposite end, the length of the blank being equal to these four sides, and with the usual score, *a*, between the respective parts, whereby the angle is indicated and easily formed. At one end—say A—an extension is made to form a lap, E, which is pasted to the opposite end of D, as seen in Fig. 2. From the lower edge of the sides A and B a flap, respectively A′ B′, extends, each equal in width to one-half the width of the box between the two sides A B. From the ends C D a like flap, C′ D′, extends, and for economy in cutting, these flaps C′ D′ are of the same width as the flaps A′ B′. The flaps are cut on the line of the score of the angles, and a score is run between the sides and ends and their respective flaps to indicate or form the angle at the bottom or bend. This finishes the blank, and it will be observed that it is of equal width throughout, and cut without waste. After the lap E has been pasted to its end D, the flaps C′ D′ are turned inward, as seen in Fig. 3, into the same plane. Then the flaps A′ B′ are turned over upon the flaps C′ D′, their edges meeting, as seen in Fig. 4—that is, the two outer flaps just meet each other and completely cover the surface—

the inner surface of the flaps A′ B′ being first coated with paste or other adhesive material, and so that when pressed down upon the flaps C′ D′ they will firmly adhere thereto and form a fixed and rigid bottom for the box. The blank for the cover of the box is cut in the same manner as for the body of the box. The depth of the sides of the cover may be more or less. Such a blank is seen in Fig. 5, A^3 and B^3 representing the sides of the cover corresponding to the sides A and B of the box. C^3 and D^3 represent the ends of the cover corresponding to the ends C D of the box; E^2, the lap by which the sides and ends of the box are secured together; A^2, the flap on the side A^3 of the cover; B^2, the flap on the side B^3 of the cover, corresponding, respectively, to the flaps A′ and B′ of the body, and the flaps C^2 D^2 corresponding, respectively, to the flaps on the ends C D of the body of the box. The sides and ends of the cover are united, as seen in Fig. 6, the same as the body. The flaps C^2 and D^2 are turned inward and downward, and then the flaps A^2 and B^2 turned upon those flaps and pasted the same as for the bottom. It will be understood that the blank for the cover is cut so much larger than the body of the box that it may set thereon, as seen in Fig. 9. The top and bottom of the box being double and pasted, it is very stiff and strong. All the angles of the box are well protected, and the box is of the firmest possible character, and because the two edges of the outer flaps meet, the surfaces of the bottom and top are perfectly flat and smooth, thus facilitating the packing of a number of filled boxes, for were the two outer flaps to lap upon each other they would form a ridge through the center of the box, and the outer flap would present a shoulder materially interfering with packing several filled boxes together.

The blanks may be shipped flat, the same as common folding boxes, and set up at the factory, it only being necessary to paste the parts, as hereinbefore described, which may be done by the most inexperienced persons, and the box, when completed, is even stronger than a common non-folding paper box. The box therefore possesses the advantages of the compactness in shipping of a folding box and at least all the rigidity of a non-folding box.

I am aware that a box-blank has been formed by forming flaps upon both sides of the body of the blank, which, when turned inward, two of them will form the lining, and the other two overlapping the outside, of both the bottom and the top of the box, and therefore do not claim, broadly, such method of cutting a blank or a box made from such a blank.

I claim—

A paper box composed of a body and a cover, both the body and the cover having the sides A B and ends C D cut in a continuous strip, and with a flap, E, at one end, by which the four sides are secured together, each of the sides of both the body and the cover having a projecting flap turned inward into a plane at right angles to the said sides and ends, the flaps on two opposite sides of both the box and cover equal in width to one-half the width of the box, the flaps from the ends of both the box and cover being inside and the two half-width flaps being turned inward over the first two, and so as to bring the edges of the said half-width flaps together in a central line, the said flaps on both box and cover being pasted together, substantially as described.

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Witnesses:
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