

No. 622,273.

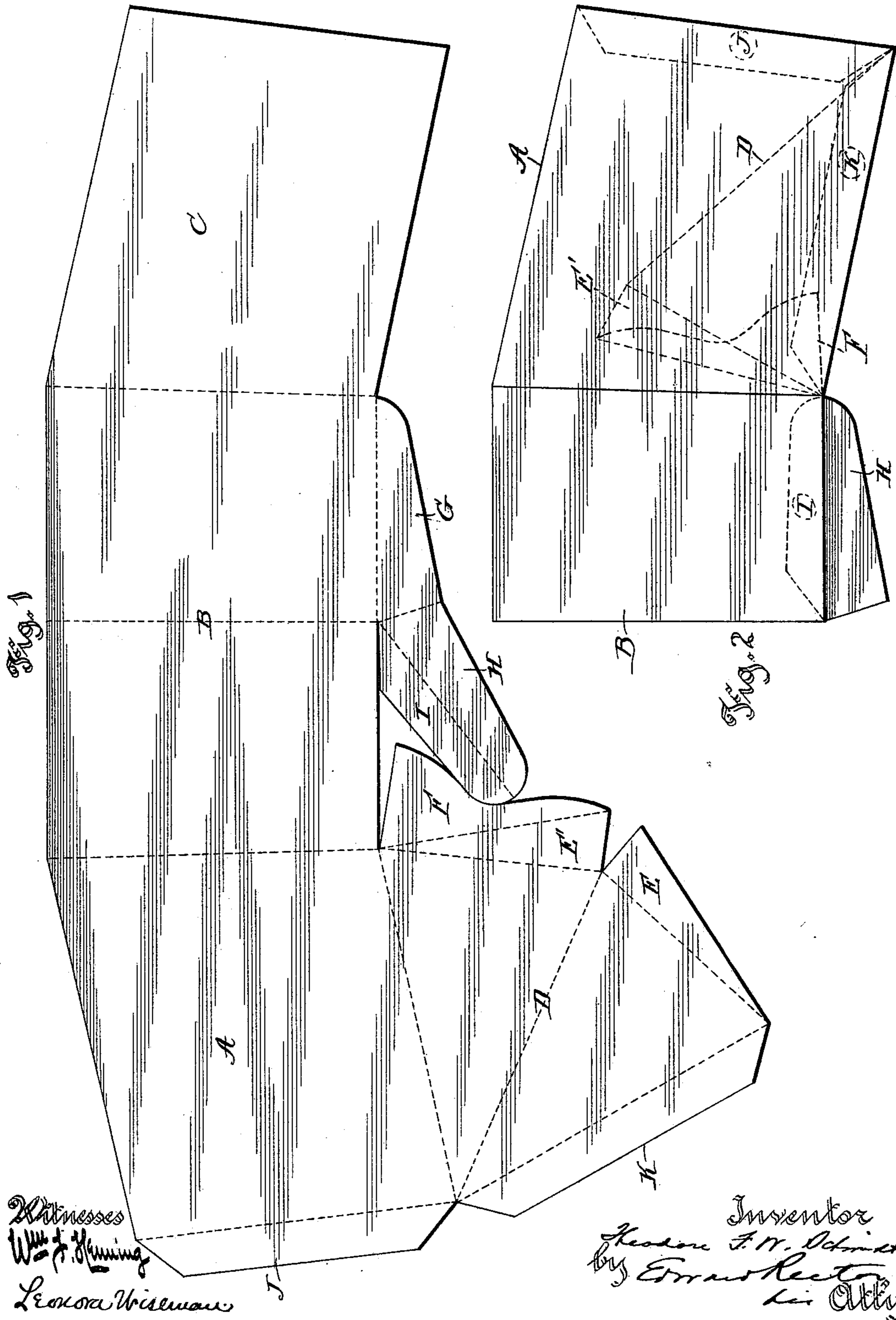
Patented Apr. 4, 1899.

T. F. W. SCHMIDT.
PAPER BOX.

(Application filed Mar. 9, 1898.)

(No Model.)

3 Sheets—Sheet 1



Witnesses
Wm. F. Hanning
Leonora Wiseman

Inventor
Theodore F. W. Schmidt
by Emma Hector
his Atty

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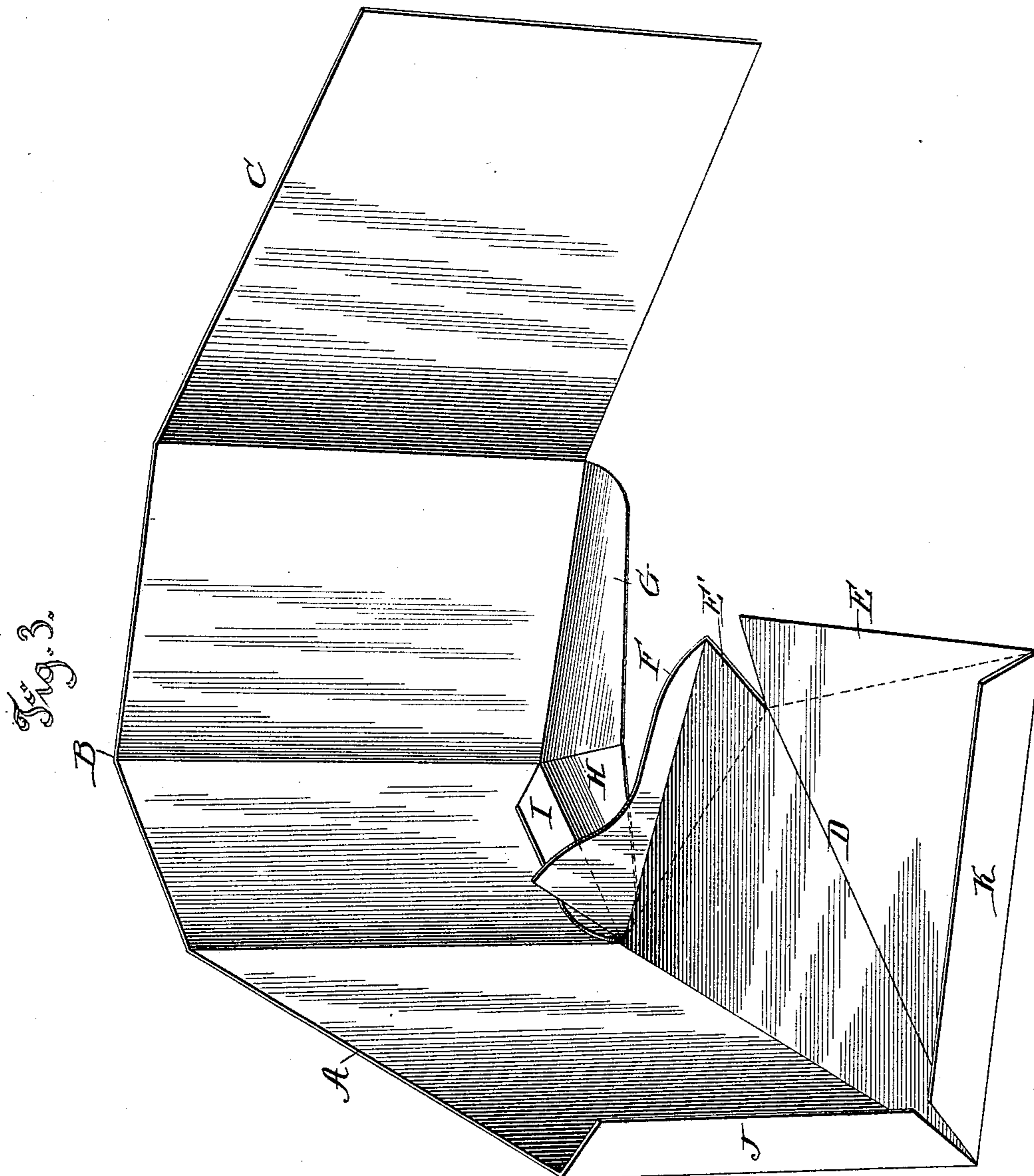
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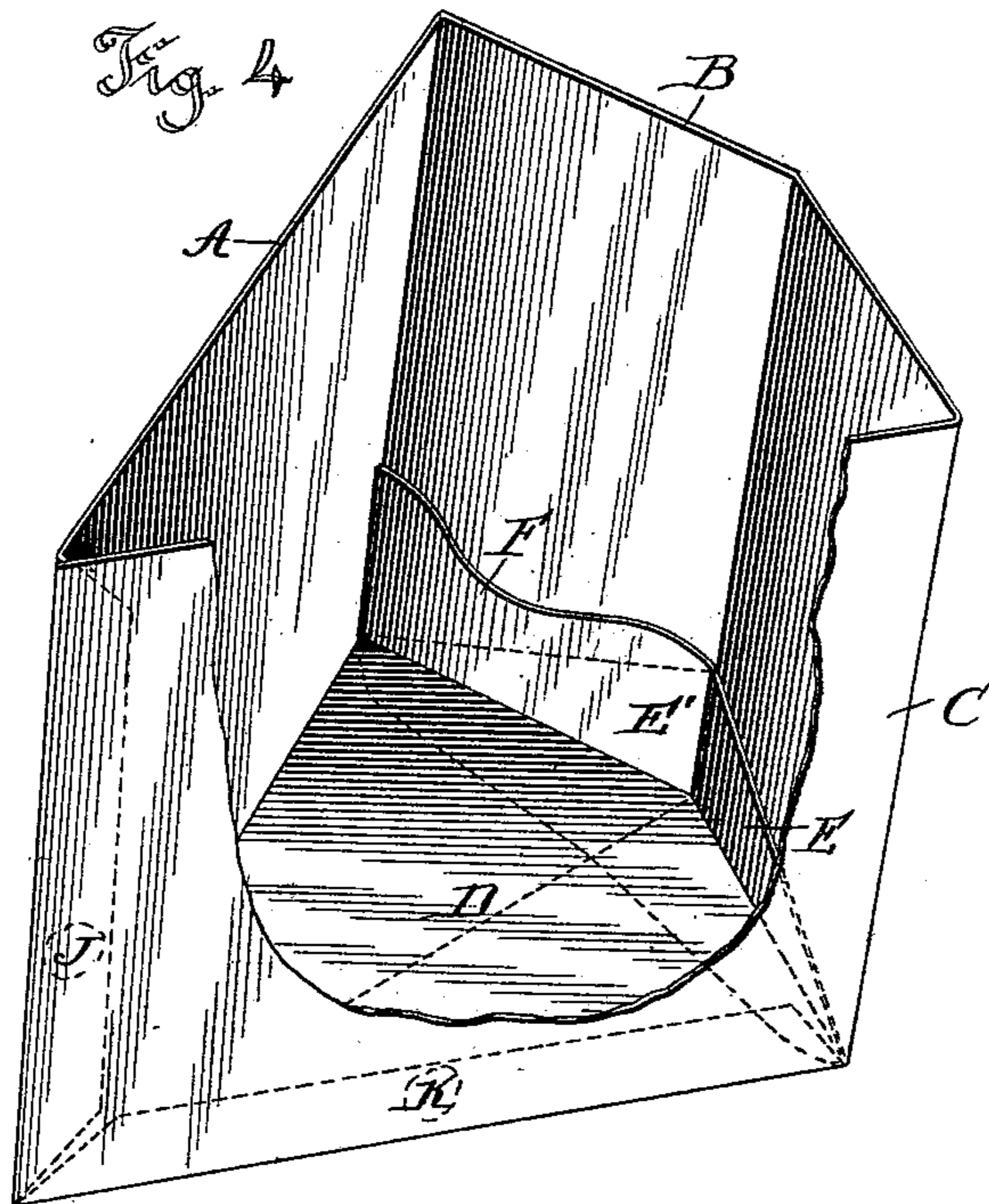
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UNITED STATES PATENT OFFICE.

THEODORE F. W. SCHMIDT, OF ANDERSON, INDIANA, ASSIGNOR OF ONE-HALF
TO THE J. W. SEFTON MANUFACTURING COMPANY, OF SAME PLACE AND
CHICAGO, ILLINOIS.

PAPER BOX.

SPECIFICATION forming part of Letters Patent No. 622,273, dated April 4, 1899.

Application filed March 9, 1898. Serial No. 673,254. (No model.)

To all whom it may concern:

Be it known that I, THEODORE F. W. SCHMIDT, a citizen of the United States of America, residing at Anderson, in the county of Madison, in the State of Indiana, have invented a certain new and useful Improvement in Paper Boxes, of which the following is a description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to a well-known form or style of paper boxes which are of approximately triangular shape in horizontal cross-section, have open tops and closed bottoms, and are adapted to fit together side by side around a central point, the outer sides of the boxes forming approximately a circle, such boxes being largely used for packing and shipping candy and being adapted to fit within a circular wooden pail or receptacle for handling and shipment. My improved box of this character is formed from a single sheet of paper, and the empty boxes are adapted to be collapsed and pressed out flat, so that they may be handled and shipped in compact form.

My invention has for its object the improvement and simplification of boxes of this character and the lessening of their cost of manufacture by so shaping the blanks that there is less waste of paper than heretofore in cutting them from the stock.

In the accompanying drawings, Figure 1 represents a properly cut and creased blank for forming my improved box. Fig. 2 shows the completed box when collapsed and pressed out flat; Fig. 3, a perspective view showing the blank of Fig. 1 partly folded into box form, and Fig. 4 a perspective view of the complete box with part of the rear wall of the box broken away to expose the interior of the box.

The same letters of reference are used to indicate corresponding parts in the several views.

Referring to Fig. 1, A, B, and C represent the three sides of the box separated from each other by vertical creases (indicated by

the dotted lines) and the side B also having a middle vertical crease, as indicated, along which that side of the box is folded upon itself when the completed box is collapsed and pressed flat for shipment, as in Fig. 2.

D represents the triangular bottom of the box, in the present instance depending from and hinging upon the lower edge of the side A and separated into two equal triangular halves by a crease across its middle, along which the middle of said bottom bends upward, and its halves fold inward against each other when the box is collapsed, as in Fig. 2. The two halves are provided at what may be termed their "rear edges" with narrow extensions or flaps E E', separated from the bottom D by the creases indicated by the dotted lines, and the flap E' is in the present instance provided with a further extension or second flap F, separated from the flap E' by another crease, (indicated by a dotted line.)

Depending from the lower edge of the right-hand half of the side B in Fig. 1 is an extension or flap G, provided at its left-hand end with a longitudinal extension separated by a middle longitudinal crease into two portions or halves H and I. The part I forms a pasting-flap adapted to be pasted to the inner surface of the left-hand half of the side wall B, along its lower edge, as hereinafter explained, Fig. 3, and the parts G and H constitute a support for the rear edge of the bottom D of the box, as also hereinafter explained.

The side wall A is provided at its left-hand edge with a pasting-flap J, adapted when the blank is folded into box form to be pasted to the inner surface of the side wall C, along its side edge, as shown in Fig. 4. The bottom D is likewise provided along its left-hand edge with a pasting-flap K, which is adapted to be pasted to the inner surface of the side wall C, along the lower edge of the latter, as also shown in Fig. 4.

With the foregoing description of the blank shown in Fig. 1 the manner of forming the completed box will be readily understood

from Figs. 3 and 4, where it will be seen that the flap I of the bottom support H is pasted to the lower end of the left-hand half of the side wall B, while in Fig. 4 the pasting-flaps J K of the side wall A and bottom D are respectively pasted to the inner surface of the side and bottom edges of the wall C of the box. When, as in Fig. 4, the bottom D of the box is pressed downward to horizontal position, its rear edge rests upon and is supported by the flaps G H, projecting horizontally from the lower edge of the wall B, and the extensions E E' of the bottom fit snugly against the vertical faces of the wall B and form a close joint between the rear edge of the bottom of the box and said wall. The left-hand or wide end of the flap F is cut at such an angle that when the flap is brought to vertical position against the face of the wall B of the box, as in Fig. 4, the end of the flap fits tightly against the inner face of the wall A, and the friction between the two serves to hold the bottom of the box in horizontal position against the tendency of it to spring upward, which tendency it acquires from being collapsed and pressed out flat. In prior boxes of this character with which I am familiar the triangular bottom D of the box has been provided neither with the flaps E E' nor the flap F, in the absence of which the joint between the rear edge of the bottom D and wall B was left more or less open, according to the accuracy of the fit between them, with the result that the contents of the box would frequently work down between the rear edge of the bottom D and wall B and get under the bottom of the box. In such prior boxes also when the bottom of the box was pressed downward to horizontal position there was nothing to hold it in such position against its tendency to spring upward along its middle crease, and it had to be held down with one hand while the box was filled or partially filled with the other. In my improved box, owing to the provision of the flaps E E', and particularly of the flap F, when the bottom of the box is pressed downward to horizontal position it is retained in such position and does not require to be held by the hand while the box is being filled.

When the box is to be collapsed and pressed out flat, the flap F folds over upon the face of the flap E' and rear edge of the corresponding half of the bottom D, as indicated by the dotted lines in Fig. 2. It will of course be understood that this flap F may be formed upon the extension E of the bottom D instead of upon its extension E', in which event it would cooperate with the side wall C of the box in the same manner that it now cooperates with the side wall A.

It will be understood from the foregoing description that I am aware that boxes of this same general character are in common use and that my invention relates to certain spe-

cific improvements upon such boxes, such improvements consisting chiefly in the addition of the flaps E E' and F to the bottom D of the box and in the employment of the narrow supporting-flaps G H, projecting from the lower edge of the side wall B, by means of which (in place of the double bottom or support heretofore employed in boxes of this character) I am enabled to cut the blank for my box more advantageously from the stock than has heretofore been possible. My improvements therefore lessen the cost of manufacture and also increase both the efficiency and the utility and convenience in use of boxes of this character.

Having thus fully described my invention, I claim—

1. The herein-described collapsible paper box formed from a single sheet of paper and composed of the three side walls A, B and C, triangular bottom D, and narrow supporting-flaps G H projecting from the lower edge of the side wall B and adapted to support the rear edge of the bottom D, said bottom D and side wall B and support G H being provided with coincident middle creases adapting the box to be collapsed upon itself and pressed out into flat condition for packing and shipment, substantially as described.

2. The herein-described collapsible paper box formed from a single piece of paper and composed of the side walls A, B, and C, triangular bottom D having the extension-flaps E and E', and the bottom-supports G H projecting from the lower edge of the side wall B, the rear edge of the bottom D being adapted to rest upon and be supported by the parts G H, and the extensions E E' of the bottom D being adapted to fit against the inner face of the wall B, said wall and bottom and bottom-support being provided with coincident middle creases adapting the box to be collapsed and pressed out flat for packing and shipment, substantially as described.

3. The herein-described collapsible paper box formed from a single sheet of paper and composed of the side walls A, B and C, bottom D having the extensions E E', and the extension E' having the flap F, and the bottom-support G H projecting from the lower edge of the side wall B, the rear edge of the bottom D being adapted to rest upon and be supported by the parts G H, and its extensions E E' to fit against the inner face of the side wall B, and the flap F adapted to cooperate at one end with the vertical side wall of the box to retain the bottom D in position when pressed downward thereto, said bottom and the side wall B and support G H being provided with the coincident middle creases to permit the box to be collapsed and pressed out flat for packing and shipment, substantially as described.

4. In a box of the character described, the triangular bottom D having the two exten-

sions or flaps E and E', the latter provided with a second extension or flap F, the flaps E and E' being adapted to fit against the respective halves of the vertical side wall B and
5 the end of the flap F being adapted to bear against the inner face of one of the other side walls adjacent its line of junction with the

wall B, substantially as and for the purpose described.

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Witnesses:

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