

(No Model.)

T. F. W. SCHMIDT.
PAPER BOX.

No. 483,502.

Patented Sept. 27, 1892.

Fig-1-

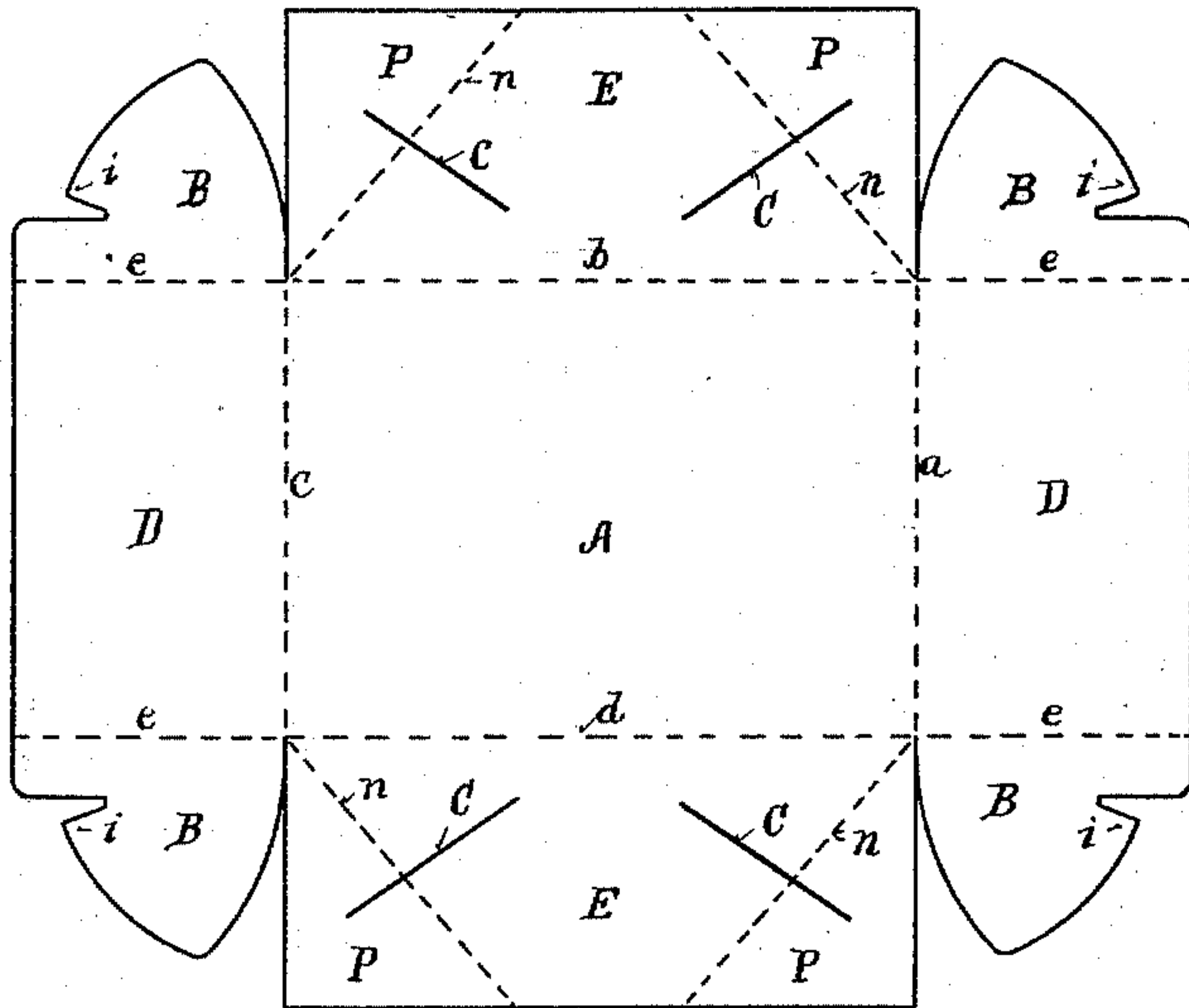
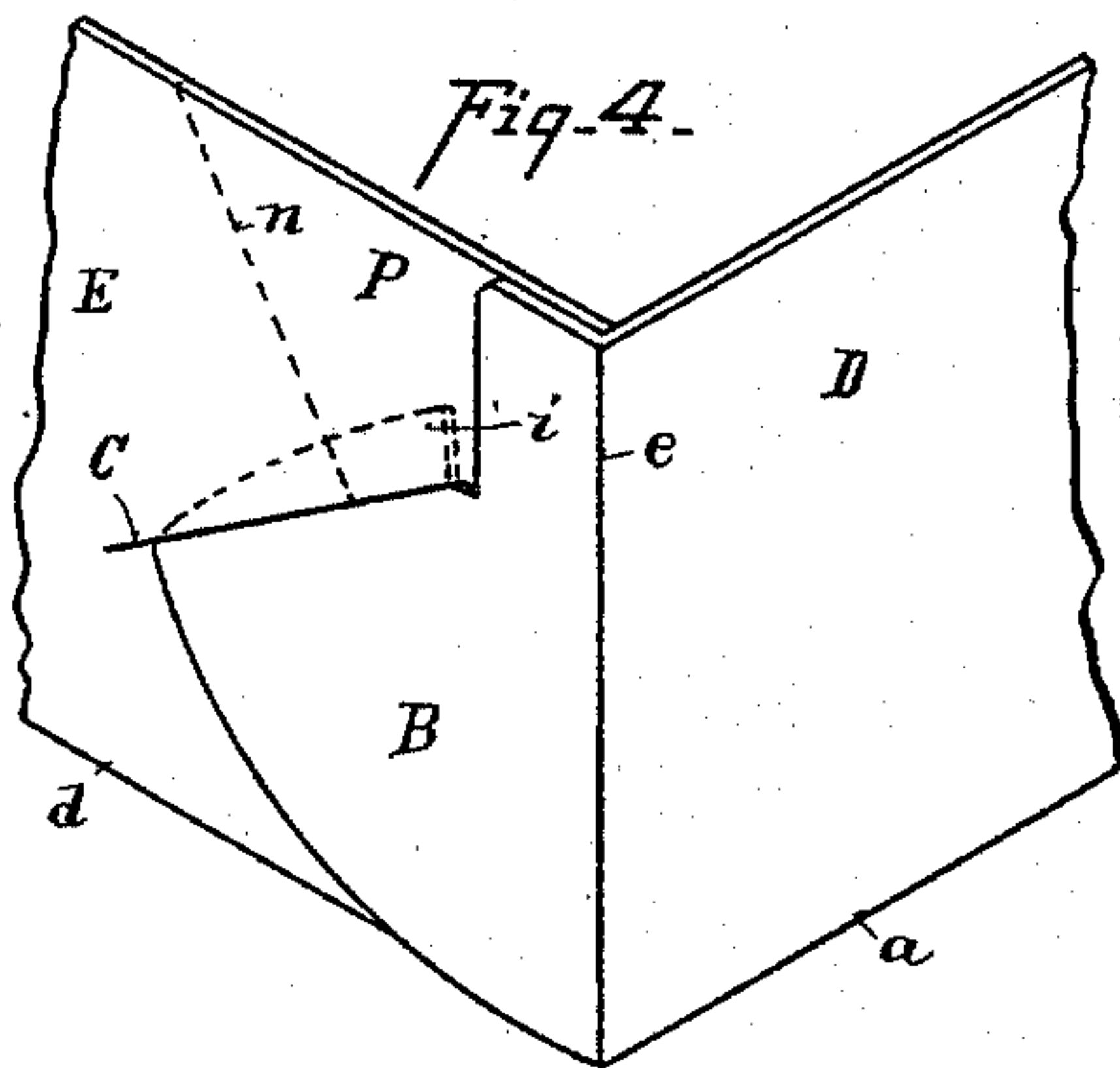
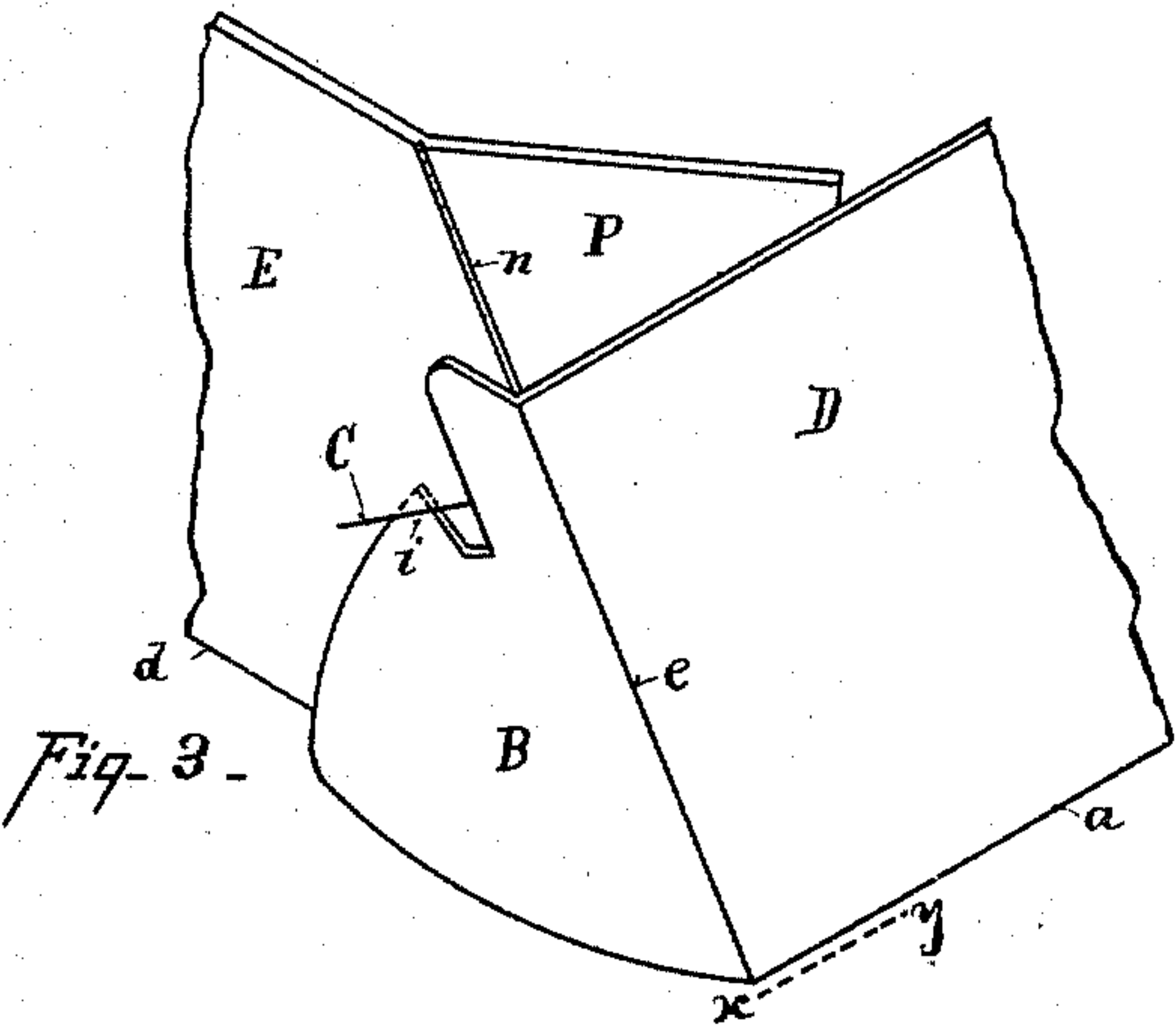
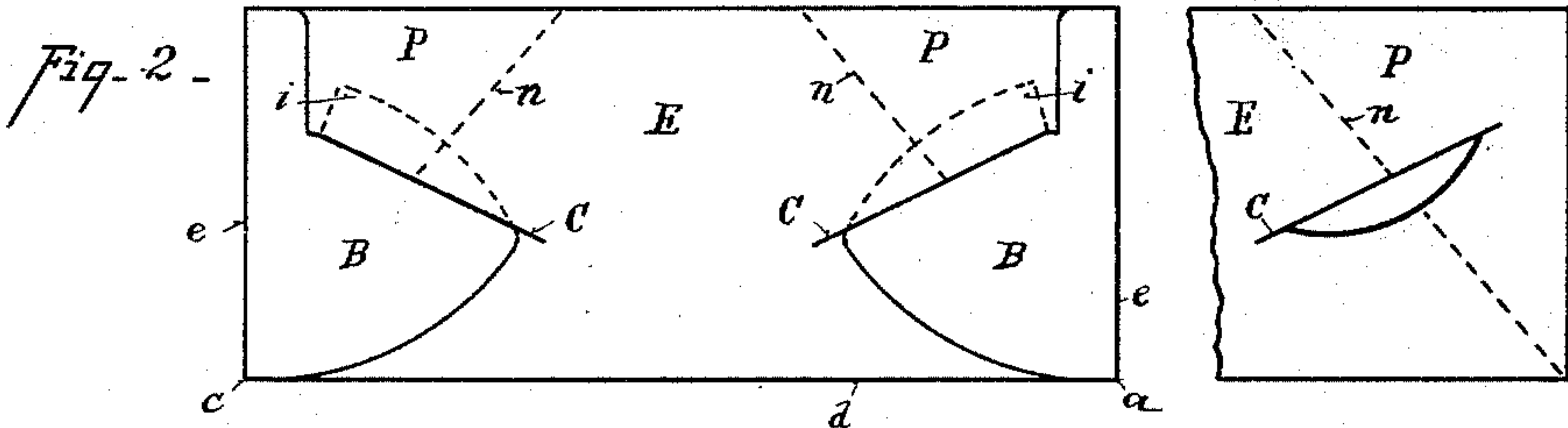


Fig-5-



Attest—
C. W. Miles—
Secretary—

Inventor—
Theodore F. W. Schmidt—
By Wood & Boyd Attys.

UNITED STATES PATENT OFFICE.

THEODORE F. W. SCHMIDT, OF DAYTON, OHIO, ASSIGNOR OF ONE-HALF TO
THE DAYTON PAPER NOVELTY COMPANY, OF SAME PLACE.

PAPER BOX.

SPECIFICATION forming part of Letters Patent No. 483,502, dated September 27, 1892.

Application filed April 7, 1892. Serial No. 428,165. (No model.)

To all whom it may concern:

Be it known that I, THEODORE F. W. SCHMIDT, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Paper Boxes, of which the following is a specification.

My invention relates to that class of paper boxes which are cut and formed of one piece and fastened at the corners by tongue-and-groove locks. In the form of box shown in Letters Patent No. 377,640, granted me February 7, 1888, I have shown one form of lock for this purpose, which is termed a "spring-lock." The use of this form of lock strains the folded corners of the box adjacent to the lock and is liable to break them down in unskillfully applying force to spring the lock into position. My present invention obviates this difficulty. The major portion of the strain is removed by temporarily folding over the corners of two sides of the box before engaging the lock, which fold is brought back and held in position by the tongue-piece with the engagement of the lock.

The features of my invention are fully set forth in the description of the accompanying drawings, making a part of this specification, in which—

Figure 1 is a plan view of the blank cut and scored ready for folding. Fig. 2 is a side elevation showing the form of the box when put together. Fig. 3 is a perspective view showing the position of the side and end parts for the initial engagement of the lock. Fig. 4 is a similar view showing the said movement completed. Fig. 5 is a detail of a modification.

A represents the blank.

a b c d represent scored lines upon which the sides and ends of the box are bent up.

e represents the scored lines on which the locking-tongue B is bent and folded around the corner to the slit or slot in the adjacent side.

C represents the slits or slots into which the locking-tongues engage.

n represents scored lines for bending over the corners of the sides of the box, so as to enable it to be easily locked.

Method of construction: The blank is cut out and scored, preferably, by dies, so as to have the lines uniform and symmetrical. D represents, say, one end of the box, which is bent upon the line *a*, and E the side of the box containing the slits or slots C, bent up on the line *d*. The corner-pieces P are then bent inward far enough (see Fig. 3) to allow the end pieces D to follow inward on an incline until the locking-tongue B, which has been folded around the corner, has moved downward until the point *i* is below the slit C, when a slight pressure on the end of this tongue forces the paper beneath the slit inward and the point *i* of the tongue enters the slit. It is then moved up into position. The tongue B passes up inside the bent corner P and brings it back and locks it in position. By reason of the bending in of the corner P the strain on the side D to bring the tongue in position in the slit is across the entire end of the box and not merely across the short line *x y*, (shown in Fig. 3,) which is the case in other forms of locked boxes. This strain on the line *x y* will break or tear the box at that point unless very strong paper or card-board is used; but the partial folding in of the corner P permits the end to follow inward, as shown in Fig. 3, whereby the strain is distributed across the entire end of the box on the line *a*, and the tendency to break or tear the corners apart is practically avoided.

It is obvious that the cover and body of the box can both be made in the same manner. I have shown only the body and in one form. The lines and angles of inclination can be variously modified and still accomplish the same result as when formed on the lines herein shown and described. Where the material of which the boxes are constructed is heavy, I prefer to cut away a por-

tion of the material upon the under side of the slit C, as illustrated in Fig. 5, as the setting up of the box is greatly facilitated thereby.

5 Having described my invention, what I claim is—

A paper box formed from a folded blank, having at each end of two opposite sides the notched tongues B, and the slits C, projecting

across the folding lines *n* of the corners P, 10 whereby each tongue B can readily engage with a slit C, substantially as specified.

In testimony whereof I have hereunto set my hand.

THEODORE F. W. SCHMIDT.

Witnesses:

J. C. PATTERSON,

M. A. JOHNSTONE.