No. 619,967. Patented Feb. 21, 1899.

C. L'ENFANT.

DIE FOR CUTTING BOOK COVER BLANKS.

(Application filed Sept. 14, 1898.)

(No Model.) 2 Sheets—Sheet 1.

Fig: 1.

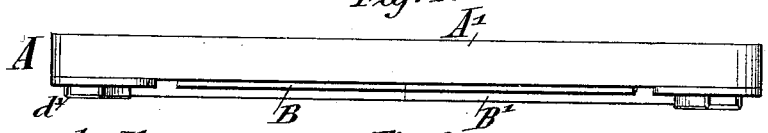


Fig: 2.

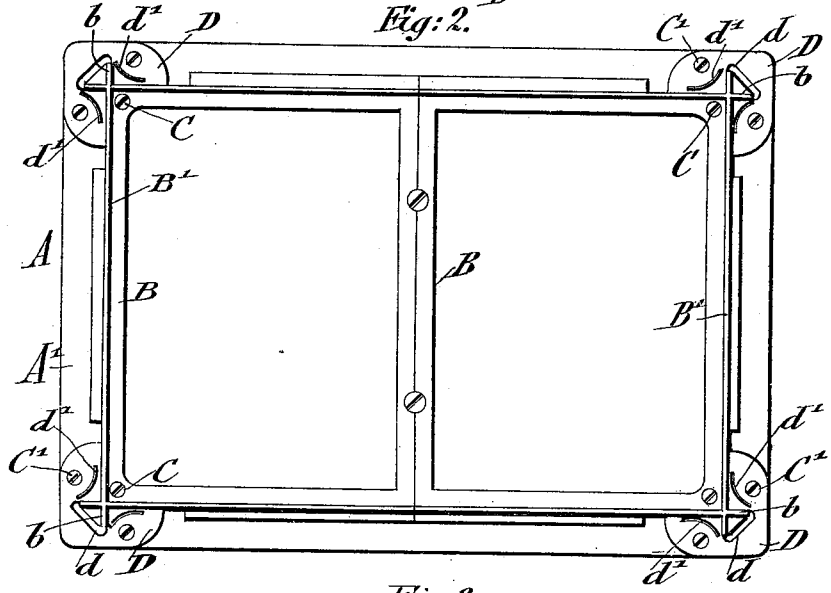
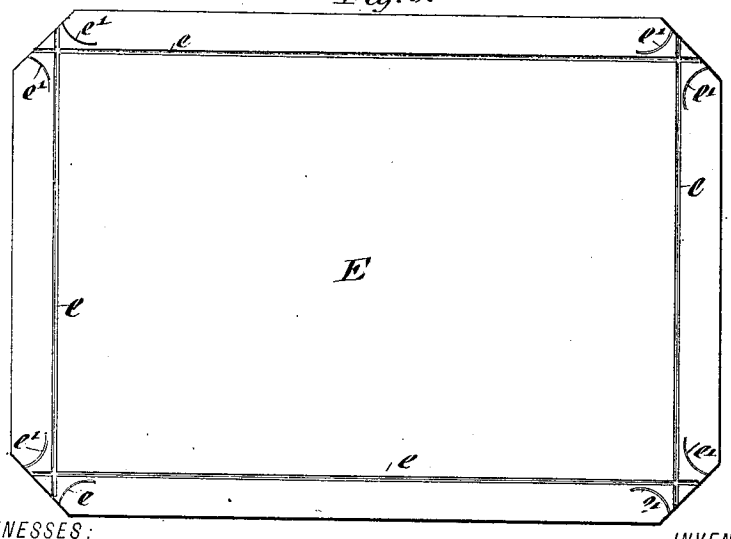


Fig: 3.



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(Application filed Sept. 14, 1898.)

(No Model.) 2 Sheets—Sheet 2.

Fig: 4.

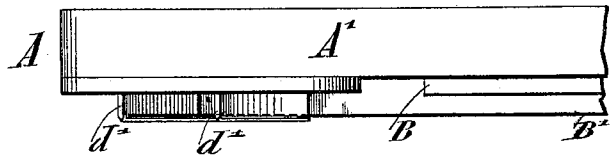


Fig: 5.

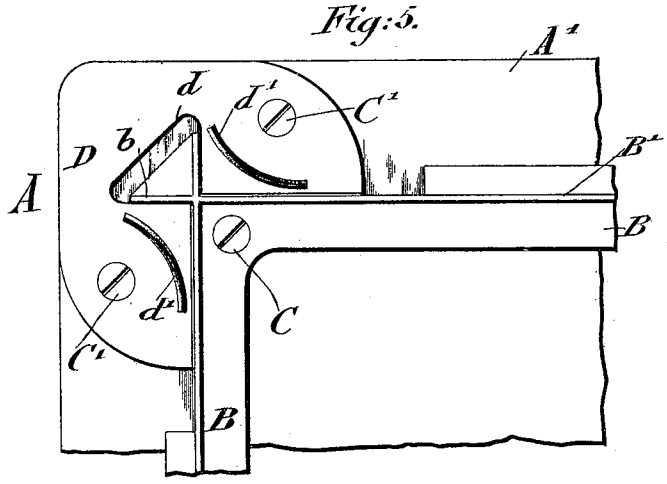
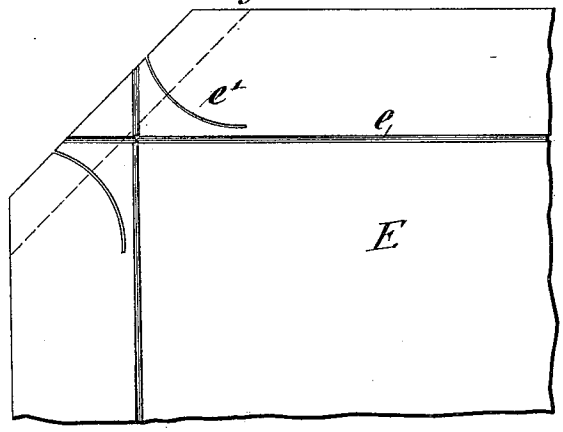


Fig: 6.



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UNITED STATES PATENT OFFICE.

CHARLES L'ENFANT, OF NEW YORK, N. Y.

DIE FOR CUTTING BOOK-COVER BLANKS.

SPECIFICATION forming part of Letters Patent No. 619,967, dated February 21, 1899.

Application filed September 14, 1898. Serial No. 690,916. (No model.)

To all whom it may concern:

Be it known that I, CHARLES L'ENFANT, a citizen of the United States, residing in the city of New York, borough of Manhattan, and State of New York, have invented certain new and useful Improvements in Dies for Cutting Blanks for Flexible Book-Covers, of which the following is a specification.

This invention relates to an improved die for cutting, by one operation and without the use of skilled labor, the blanks for flexible book-covers, for which Patent No. 553,530 was granted to me January 28, 1898, said die being so constructed that the blank is not only cut into the proper shape, but also creased at the same time, so as to facilitate the folding over of the edges of the blank without a special pattern and the finishing of the flexible book-cover with rounded-off corners and overlapping edges without requiring skilled hands for this purpose.

The invention consists of a die for cutting the blanks for flexible book-covers, said die consisting of a die-plate, a creasing-frame attached to the under side of said die-plate, said creasing-frame being provided with rectangular extensions at the corners, and curved cutting-knives applied to the die-plate at both sides of the corners of the creasing-frame, so as to cut the curved slits in the blank.

The invention consists, further, of a blank for flexible book-covers, provided with creases at some distance from the edge, said creasing-lines extending beyond their intersections and curved slits cut into said blank near the intersections of the creasing-lines, as will be fully described hereinafter and finally pointed out in the claims.

In the accompanying drawings, Figure 1 represents a side elevation of my improved die for making the blanks for flexible book-covers. Fig. 2 is a bottom view of the same. Fig. 3 is a top view of the blank made by my improved die. Figs. 4 and 5 are respectively a side elevation and bottom view of one corner of my improved die, drawn on a larger scale; and Fig. 6 is a top view of the corner of my improved blank after the same has been acted on by the die.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents the die for making blanks for flexible book-covers of the construction shown in my prior patent heretofore referred to. The die consists of a die-plate A′, which is applied to a power-press of any approved construction in the usual manner. To the under side of the die-plate A′ is applied a creasing-frame B, which is provided with rectangular creasing-ribs B′, that are arranged in oblong shape in such a manner that they intersect at the corners, said ribs at *b* extending slightly beyond the corners, for a purpose to be hereinafter mentioned. The extensions of said ribs *b* are useful for the purpose of making creases for guiding the worker while paring off the corners of the blank, which creases form guides for the eye, because the worker will see that in paring the lengths of said extensions are the same. Further, they bring the points of meeting of the creases formed by the ribs *b* out more prominently, so that the worker will not pare into the corners. The creasing-frame is preferably made of brass or other suitable material and secured by means of screws C to the under side of the die-plate.

At the corners of the creasing-frame B are arranged the steel plates D, which are by screws C′ secured to the corners of the die-plate A′ and are provided with openings *d* near the extensions of the creasing-frame B and with curved and sharpened cutting-knives *d′*, that are arranged close to and at both sides of the intersections of the creasing-frame, as shown clearly in Figs. 2 and 5, said curved cutting-knives cutting the slits in the blanks, as shown in Fig. 6. The cutting-knives are arranged symmetrically to the extensions of the creasing-frame, so as to produce symmetrical slits.

The reason of making the openings *d* larger than the corner extensions of the creasing-frame B is to permit of the accurate placing of the steel plates D in position, because if the corner extensions of the creasing-frame were of different sizes or if there were irregularities in the same the accurate application of the corner-pieces, and hence the proper position of the cutting-knives *d′*, could not be produced.

The blank E, of leather or other material for

the cover, is cut to the required size and is then placed in the press and exposed to the action of the die. The lowering of the die produces simultaneously the creasing of the blank at *e* by the creasing-frame and the cutting of the slits *e'* by the curved cutting-knives, whereby the blank is finished by one operation. This blank is then trimmed and pared at the corners, which is facilitated by the creasing-lines, and the rounded-off corner is finally produced according to my patent referred to.

The dotted line shown in Fig. 6 indicates the point at which the paring off of the corners ends.

Each size of book-cover requires a die of corresponding size. The use of the dies permits the rapid and absolutely uniform production of the blanks for my improved flexible book-covers, so that the manufacture of the same is considerably facilitated and cheapened.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A die for making blanks for flexible book-covers, consisting of a die-plate, a creasing-frame on said die-plate, said creasing-frame being made of oblong shape and provided with extensions at its corners, and curved cutting-knives arranged near the corners of the creasing-frame and outside of the same, substantially as set forth.

2. A blank for flexible book-covers, provided with rectangularly-intersecting creases at some distance from the edges and with curved slits near the corners and outside of said creases, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

CHARLES L'ENFANT.

Witnesses:
PAUL GOEPEL,
GEO. L. WHEELOCK, Jr.