

(No Model.)

S. CRUMP.
METHOD OF FORMING DIES.

No. 348,549.

Patented Sept. 7, 1886.

Fig. 1.

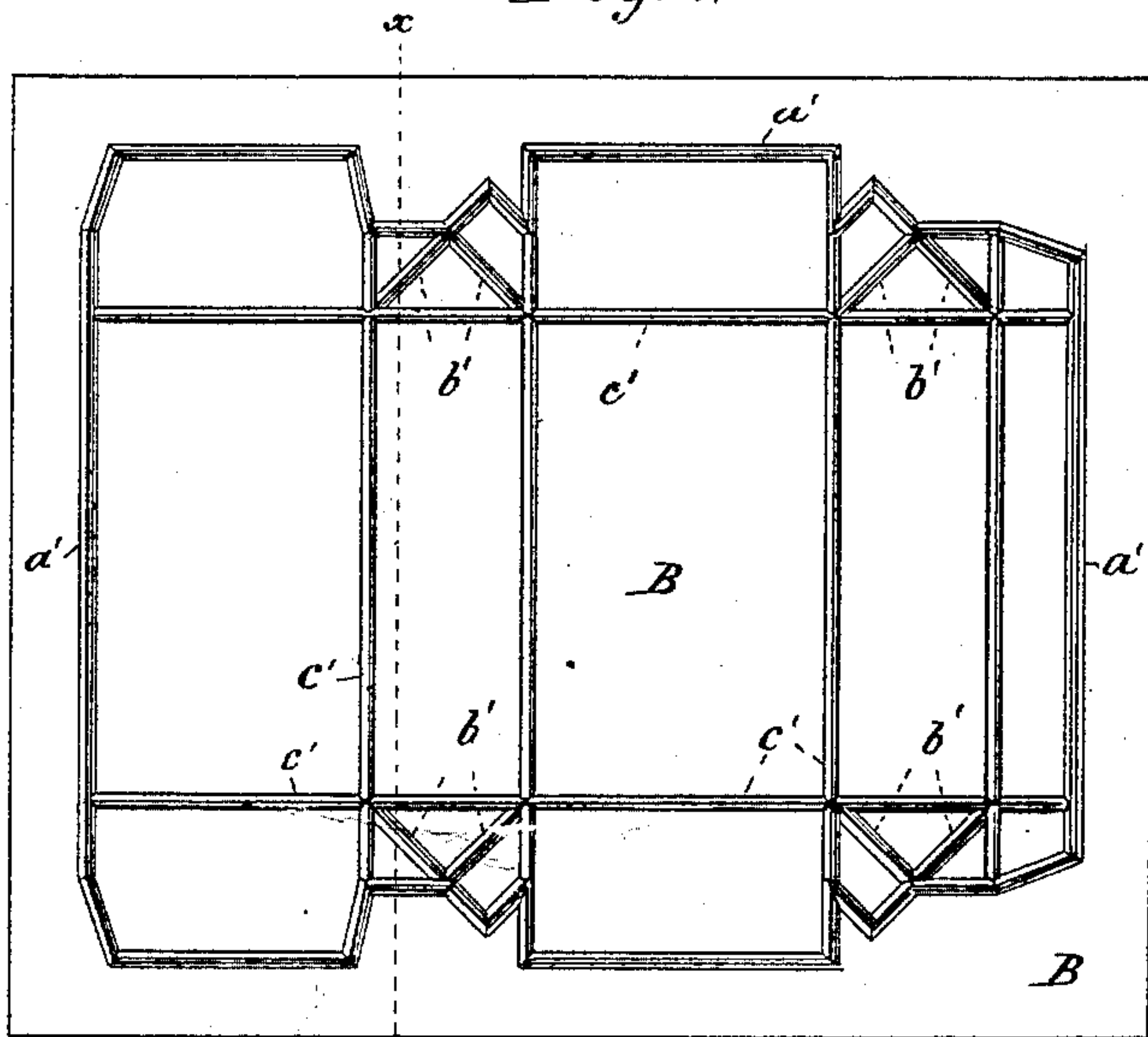
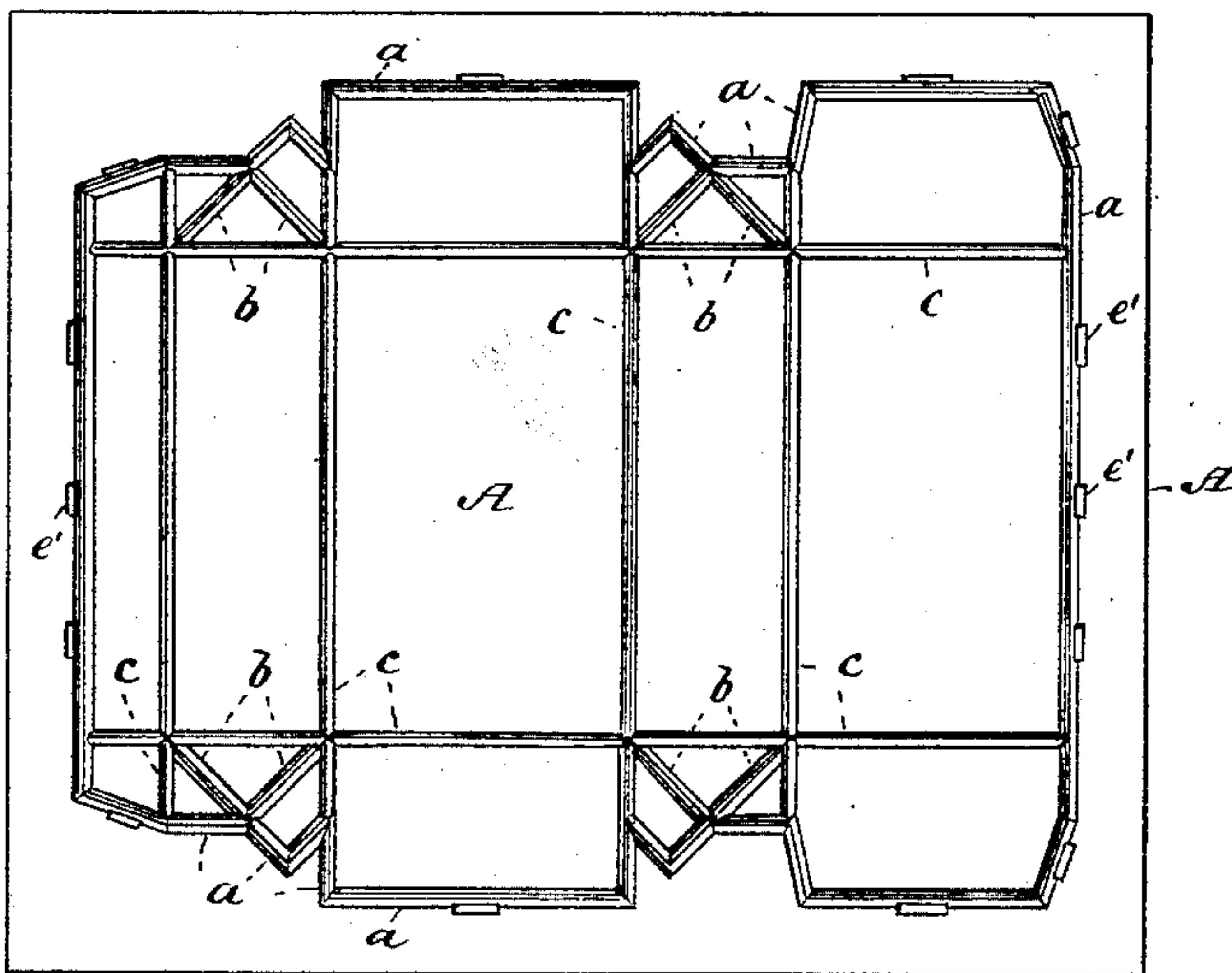


Fig. 2.



Fig. 3.



WITNESSES:

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METHOD OF FORMING DIES.

SPECIFICATION forming part of Letters Patent No. 348,549, dated September 7, 1886.

Application filed March 20, 1886. Serial No. 195,939. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL CRUMP, a citizen of the United States, and a resident of Montclair, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in the Method of Forming Dies, of which the following is a specification.

My invention relates to an improved method of forming dies for cutting blanks of paper boxes, the object being to form a die in practically one piece, and in such manner as to effect a great saving in the cost thereof and in the time required in making the several parts and arranging them in their proper positions.

With these ends in view my invention consists in a certain method hereinafter fully described, and set out in the claims.

In the accompanying drawings, Figure 1 is a top plan view of a die constructed in accordance with my invention. Fig. 2 is a sectional view thereof taken on the line *xx* of Fig. 1. Fig. 3 is a top plan view of the templet.

In constructing my improved die I first form the templet A, which consists of a plate made of metal or other material and formed with the outer groove, *a*, preferably by a ruling-machine, and adapted to receive the wires *a'*, for cutting the outer edge of the blank. This groove is of such depth as will contain a wire of slightly greater thickness than the material of which the blank is composed, in order to insure such wire cutting entirely through the material. The templet is also formed with grooves *b c*, somewhat more shallow than the grooves *a*, for respectively containing the cutting-wires *b'* and scoring-wires *c'*. By thus placing the wires *b'* they will serve to cut only partially through the material on lines on which the blank is to be folded. After the wires have been properly placed within the grooves, a coating or layer of metal, B, celluloid, or other substance, is applied to the surface of the templet A, such surface, if necessary, being first treated with soapstone or other material for preventing the coating substance from adhering thereto. The upper edges of the groove formed in the templet are slightly beveled or recessed, as at *e'*, in order that the coating substance B may partially enter the

grooves and grasp the wires and securely hold the same. After the material B has been applied, a base-plate, C, is placed thereon and the whole then subjected to heat and pressure, either or both, in accordance with the material employed, which serves to securely unite the wire and plate C and form a die of practically one piece. It may be preferable, however, to dispense with the base-plate, the material used in grasping and holding the wires sufficing.

I do not wish it to be understood that I in anywise limit myself to the use of any particular substance for holding the wires in position, but would recommend the use of the composition described in the patent granted to me, assignee, No. 336,590, and dated February 23, 1886, which may be spread on the templet in a powdered form, and when subjected to heat and pressure forms a solid metal and serves as a firm and secure anchorage for the wires. Nor do I make any claim for the die herein described, as such has been made by me the subject-matter of a separate application filed herewith; but

What I claim is—

1. The method hereinbefore described of forming dies for cutting paper or card-board, which consists, essentially, in forming a templet with suitable grooves, placing the cutting and scoring wires therein, and applying a coating or layer of suitable substance over the templet for holding the wires in position.

2. The method hereinbefore described of forming dies for cutting blanks for paper boxes, which consists, essentially, in forming a templet with suitably-arranged grooves, arranging the cutting and scoring wires therein, applying a coating or layer of suitable material to said templet for grasping and retaining said wires, placing on said coating a plate, and finally subjecting the whole to heat and pressure.

Signed at New York, in the county of New York and State of New York, this 16th day of March, A. D. 1886.

SAMUEL CRUMP.

Witnesses:

GEORGE COOK,
HERMAN GUSTOW.