

S. PALMER.
ATTACHMENT TO PRINTERS' PERFORATING RULES.
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929,702.

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Fig. 1.

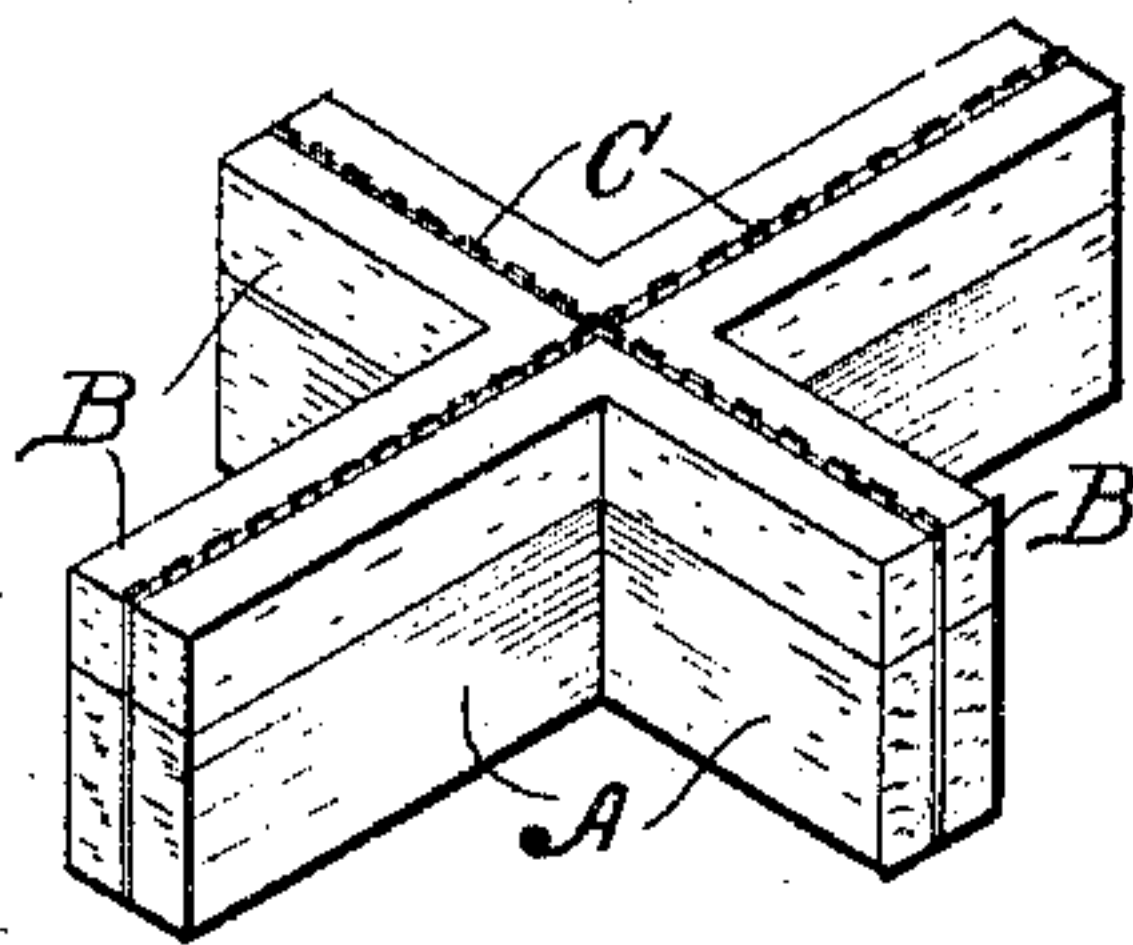
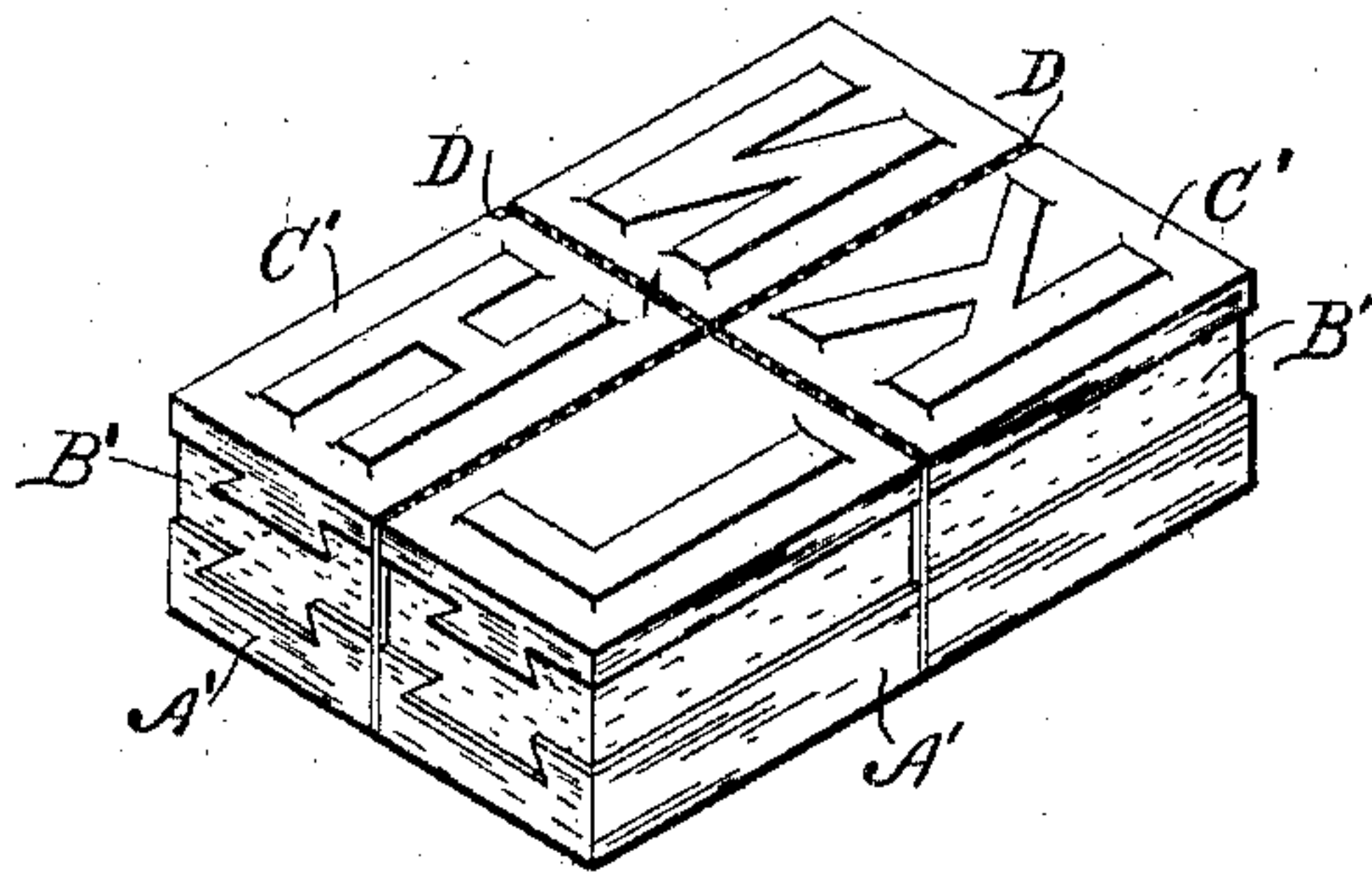


Fig. 2.



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ATTACHMENT TO PRINTERS' PERFORATING-RULES.

No. 929,702.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, SPENCER PALMER, a citizen of the United States, residing at Fond du Lac, in the county of Fond du Lac and State of Wisconsin, have invented a new and useful Improvement in Attachments to Printers' Perforating-Rules, of which the following is a specification.

The present invention relates to the art of printing, and more particularly to a novel and improved perforating device by means of which a sheet may be perforated with two or more series of perforations running at an angle to each other at the same time and at one impression.

The invention further contemplates a device of this character which enables the sheet to be printed at the same time that it is perforated, the inking roller being prevented from coming into contact with the teeth of the perforating rule and all cutting or injuring of the inking roller being thereby obviated. The device also operates to liberate the sheet after the impression has been made and to prevent the perforating rule from sticking to the sheet.

For a full understanding of the invention and the merits thereof and also to acquire a knowledge of the details of construction and means for effecting the result, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a perspective view of one embodiment of the invention, Fig. 2 is a similar view of a modified form of the invention.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

Specifically describing the embodiment of the invention shown in Fig. 1, the letter C designates a pair of perforating rules which intersect and are arranged at substantially a right angle to each other, the said perforating rules consisting of strips of brass or steel which are about an inch in height and are provided along one edge with a series of teeth. A solid backing A is arranged upon both sides of each of the perforating rules at the bottom thereof and supported by this backing is a solid strip B of some yielding material such as rubber. These yielding strips B normally project outwardly either flush with the teeth of the perforating rules or slightly beyond the same and serve to prevent the inking roller coming into con-

tact therewith when the sheet is printed upon at the same time that it is perforated. When an impression is made, these yielding strips B are forced inwardly so as to expose the teeth of the perforating rules C and the said rules operate in the usual manner. As soon however as the pressure ceases to act upon the strips B they again expand and assume their normal shape, thereby liberating the sheet from the teeth and preventing it from adhering thereto.

In the form of the invention illustrated in Fig. 2, the letters D designate a pair of intersecting perforating rules similar to those shown in Fig. 1. Arranged in each of the angular spaces between these perforating rules, is a solid backing plate A' having a layer B' of some yielding material such as rubber dove-tailed thereto. This yielding layer B' in turn has a plate C' dove-tailed to the outer surface thereof, the said plate C' being formed with a printing surface. The printing surfaces of the several plates C' normally project outwardly either flush with or slightly beyond the teeth of the perforating rules so that when the inking roller is passed over the printing surfaces it will not come in contact with the perforating teeth. However, when an impression is made and pressure applied to the plates C', the yielding layers B' will be compressed and the teeth of the perforating rules exposed so as to operate in the usual manner. It may also be mentioned that after the impression has been made, the plates C' will be again forced outward into their normal position so as to liberate the sheet from the perforating teeth and prevent it from adhering thereto. With this latter construction the sheet can be perforated at the same time it is printed, while with the construction shown in Fig. 1 this cannot be done as the inking roller would come in contact with the strips B and cause them to print as well as the type.

Having thus described the invention, what is claimed as new is:

1. In a printer's perforating device, the combination of a pair of intersecting perforating rules of flat formation, the said rules being provided at their outer edges with perforating teeth, a solid backing arranged in each of the angles between the intersecting perforating rules, and solid strips of rubber supported upon the backings upon opposite sides of the rules, the said strips

of rubber being adapted to be compressed to expose the teeth of the perforating rules when an impression is made.

2. In a perforating device, the combination of a perforating rule, a solid backing at one side of the rule, a layer of yielding material dove-tailed to the solid backing, and a plate dove-tailed to the yielding layer and provided with a printing surface normally projecting outwardly beyond the edge of the

perforating rule, the said yielding material being adapted to be compressed to admit of the plate moving rearwardly to expose the teeth of the perforating rule when an impression is made.

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