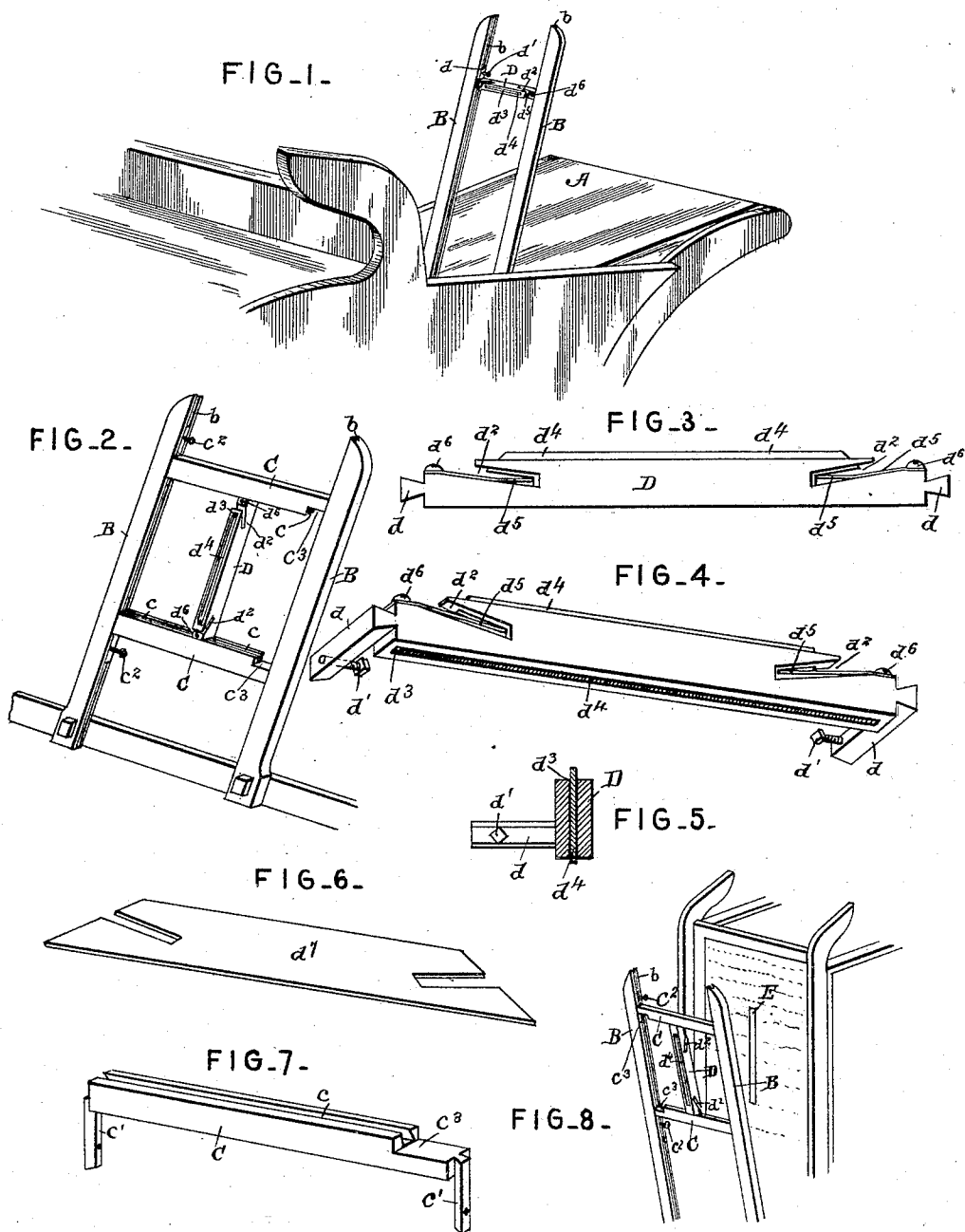


(No Model.)

J. E. TUCKER.
PERFORATING ATTACHMENT.

No. 473,483.

Patented Apr. 26, 1892.



Witnesses

Jas. K. McEachern
J. Edgar Smith

Inventor

J. E. Tucker

By his Attorneys,

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

JUNIUS E. TUCKER, OF MEMPHIS, TENNESSEE.

PERFORATING ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 473,483, dated April 26, 1892.

Application filed April 15, 1891. Serial No. 389,060. (No model.)

To all whom it may concern:

Be it known that I, JUNIUS E. TUCKER, a citizen of the United States, residing at Memphis, in the county of Shelby and State of Tennessee, have invented a new and useful Perforating Attachment, of which the following is a specification.

This invention is an improvement in perforating attachments for printing-presses, and has for its objects to provide an attachment for printing-presses by the use of which paper may be perforated at the same time that it receives the impress of the type; to provide a perforating attachment for printing-presses which may be used to perforate the paper at the same time that it receives the impress of the type, yet so to construct and arrange the perforating attachment that it will not come in contact with the inking-rollers, and therefore will neither cut said rollers nor ink the paper where the perforation is made, and to provide a perforating attachment for printing-presses which may be secured to the gripper-bars either horizontally or vertically, as desired.

The invention has for further objects the production of a perforating attachment for printing-presses which will be simple, durable, inexpensive, thoroughly efficient in use, and which will not tear the paper.

With these objects in view the invention resides in the various novel details of construction and in the combination of parts hereinafter fully described, and particularly pointed out in the claims.

In the drawings, in which I have illustrated my invention, and in which like letters of reference indicate corresponding parts, Figure 1 is a perspective view of part of a printing-press, showing my device applied to the gripper-bars. Fig. 2 is a similar view. Fig. 3 is a side elevation of the perforator-bar. Fig. 4 is a perspective view of the same. Fig. 5 is a cross-section thereof; Fig. 6, a detail view of a scoring-blade, and Fig. 7 is a perspective view of a cross-bar; Fig. 8, a perspective view showing the device in front of a chase of type.

In the drawings the letter A designates the platen and B the gripper-bars of an ordinary printing-press. These gripper-bars B are provided on their inner edges with dovetailed

grooves *b*, which are provided for the purpose of affording a means of attachment for the perforating-bars and also for affording a means of attachment for the cross gripper-bars, which are marked by the letter C. These cross gripper-bars have their inner edges provided with dovetailed grooves *c*, similar and for a similar purpose to the grooves *b*. The ends of these cross-bars C are provided with dovetailed wings or lateral extensions *c'*, and each wing is provided with a small set-screw *c²* for the purpose of securing the cross-bar at any point along the length of the main gripper-bars B. Each cross-bar C is provided with a notch *c³* near one end for a purpose to be described.

D designates the perforating-bar itself, which is provided with lateral wings or extensions *d*, of a dovetailed shape, the said wings extending rearwardly in a direction perpendicular to the broad side of the perforator. These wings *d* are provided with small set-screws *d'*, for the purpose of securing the perforator-bar in the dovetailed grooves *b* or in those marked *c*. This perforator-bar is provided near either end with an inclined slot *d²*, which extends inwardly toward the center, and the body of the perforator-bar is provided with a slot *d³*, which extends through from one side to the other. Within the slot *d³* the perforating-knife *d⁴* is located, the said knife being held therein normally with its cutting-edge within the lower edge of the bar by means of the leaf-springs *d⁵*, which are secured to the said knife at one end and to the perforator-bar D at the other by means of the screws *d⁶*. Instead of having the perforating-knife *d⁴* located in the slot *d³* I may use wherever it is desirable the scoring-blade *d⁷* in place thereof.

E designates a bar of steel or other metal, which is designed to be locked up with the type in the frame in such a position that when the platen bears the gripper-bars up against the type the said bar E will press upon the upper edge of the perforating-knife *d⁴* or the upper edge of the scoring-blade *d⁷*, both of which upper edges in their normal position extend above the top of the bar D.

The steel bar E presses the perforating-knife *d⁴* downward, so that its teeth project

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beyond the lower edge of the bar D and cut into the paper secured upon the tympan-sheet.

In using my attachment the same is secured to the gripper-bars B in the manner already described, the position of the perforator-bar D in relation to the gripper-bars being determined by measurement with the copy of work to be done on the tympan. This arrangement is effected when the paper is to be perforated in a line perpendicular to the position taken by the gripper-bars when they touch the paper; but if it be desired to perforate the paper in a line at right angles to the former position—that is, in a line parallel to the position taken by the gripper-bars where they meet the paper—the cross gripper-bars C must be employed. These cross-bars C are first secured to the gripper-bars B with their inner grooved sides facing each other and at such a distance as the length of the perforator-bar B, approximately. The perforator-bar D is secured between the bars C by inserting one of the dovetailed wings d in each of the dovetailed grooves c through the notches c^3 , which are provided for the purpose of allowing the insertion of the perforator-bar D after the cross-bars C are in position.

It will be understood that the springs d^5 cause the perforating-knife d^4 to be retracted from the paper before the gripper-bars raise from the tympan-sheet, and thus the paper, which might stick to the teeth of the perforating-knife, is released from these teeth by the bottom edge of the bar D.

The use to which my improvement may be put is for perforating receipts, notes, drafts, coupons, railroad-tickets, and the like and for scoring invitations, fancy cards, and the like.

It is to be noticed that the perforator-bar may be secured in various positions between the bars C or between the bars B, as it is adjustable in these bars.

I do not claim, broadly, in a device for perforating paper, the combination, with the side arms of the gripper, of the perforating-bars longitudinally adjustable thereon, nor the combination, in a device for perforating paper,

of the rigid side arms with the perforating-bars, the said arms and bars being provided with means for attachment one to the other and being adjustable in relation to each other.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a perforating attachment for printing-presses, the combination, with the gripper-bars provided with dovetailed grooves on their inner sides, of a perforator-bar having dovetailed wings extending laterally from either end, the said wings being adapted to be secured within the grooves in the gripper-bars, substantially as and for the purpose set forth.

2. In a perforating attachment for printing-presses, the combination, with the gripper-bars provided with dovetailed grooves, of cross gripper-bars having dovetailed wings extending laterally from their ends, and means for securing said wings within the grooves in the gripper-bars, the said cross gripper-bars being provided with dovetailed grooves and with notches on their inner opposite sides, and a perforator-bar provided with lateral dovetailed wings adapted to be secured in the dovetailed grooves of the cross-bars, all substantially as and for the purpose set forth.

3. In a perforating attachment for printing-presses, the combination, with the perforator-bar D, vertically and longitudinally slotted at d^3 and provided with inclined slots d^2 , which connect with the vertical slot d^3 , of the knife d^4 , received in the slot d^3 and projecting at the ends into the slot d^2 and provided with inclined notches registering with said inclined slots, and the springs d^5 , arranged in the inclined slots d^2 and bearing against the knife within the inclined notches therein, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JUNIUS E. TUCKER.

Witnesses:

FRANK S. VAN HORN,
GEO. B. GRAHAM.