(No Model.)

J. M. BOWMAN.

PERFORATING ATTACHMENT FOR PRINTING PRESSES.

No. 255,243. Patented Mar. 21, 1882.

Fig 3.

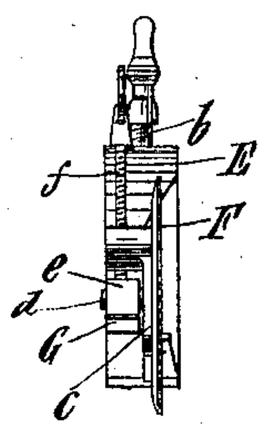


Fig 2.

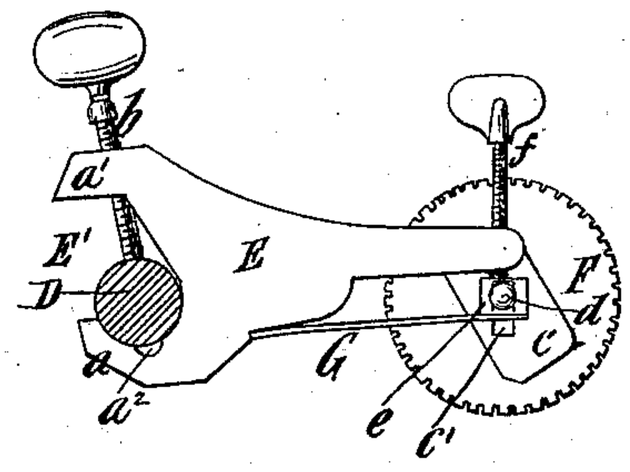
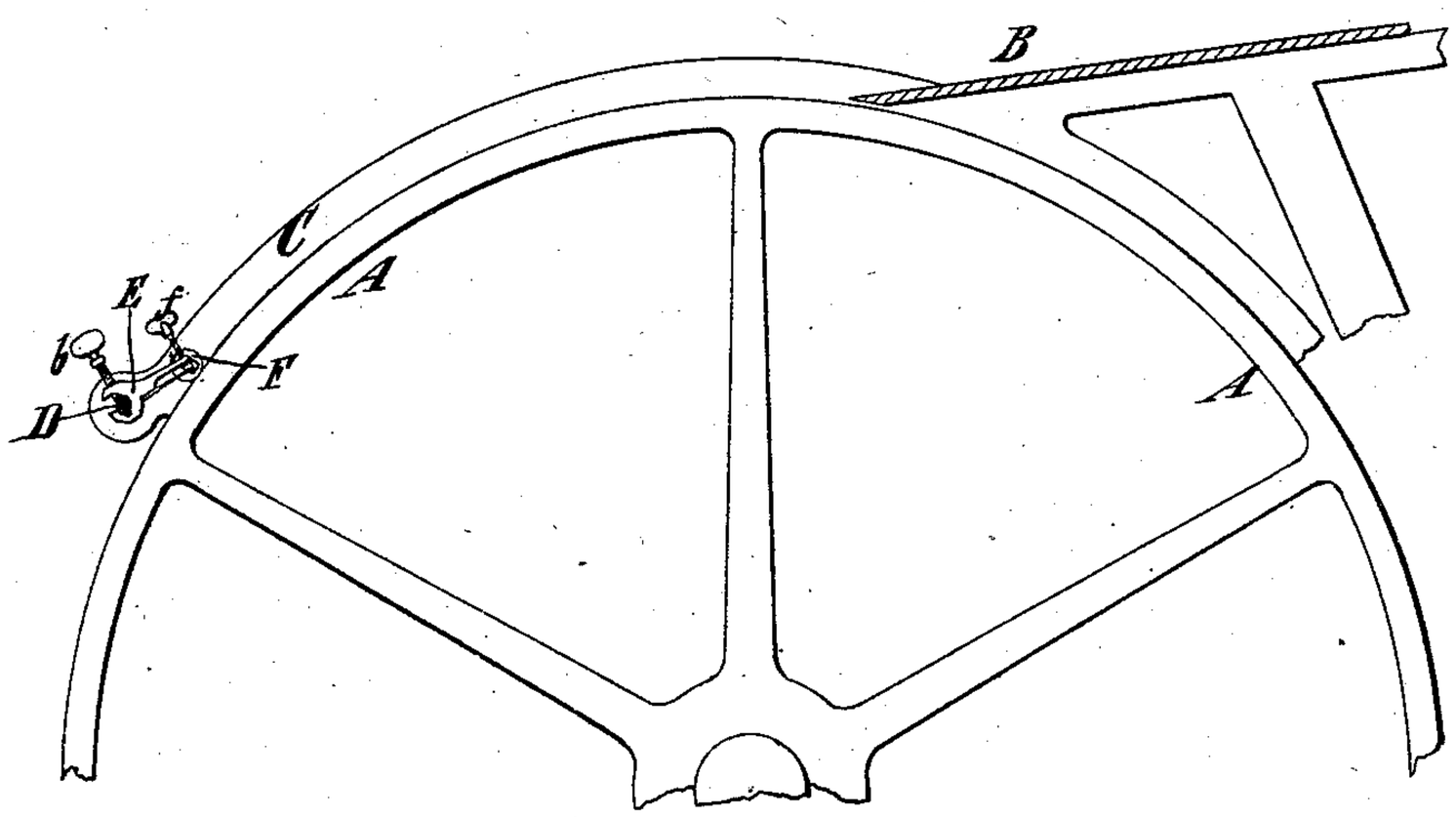


Fig 1.



WITNESSES

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PERFORATING ATTACHMENT FOR PRINTING-PRESSES.

SPECIFICATION forming part of Letters Patent No. 255,243, dated March 21, 1882.

Application filed July 18, 1881. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH M. BOWMAN, of Jersey City, in the county of Hudson and State of New Jersey, have invented a certain new and Improved Perforating Attachment for Cylinder Printing-Presses, of which the following is a specification.

The object of my invention is to provide a simple device which can be attached in a fixed position to any cylinder printing-press for the purpose of perforating, at the time of printing, all kinds of paper or card-board for certificates, notes, drafts, receipts, checks, bills of lading, coupon or other tickets, and generally any printed matter requiring to be perforated.

My invention consists in a perforating attachment comprising certain novel features of construction, hereinafter particularly described and claimed, whereby facility is secured for readily securing the attachment to any cylinder printing-press and for adjusting the rotary perforating-knife so that it will cut or perforate the material more or less deeply.

In the accompanying drawings, Figure 1 represents an end view of a portion of the cylinder of a printing-press and my improved attachment applied thereto. Fig. 2 represents a side view of the attachment and a section of the rod or bar to which it is secured, upon a larger scale; and Fig. 3 represents an end view of the attachment upon the same scale as Fig. 2.

Similar letters of reference designate corresponding parts in all the figures.

A designates the cylinder, and B the feed-board, of any cylinder printing-press. C designates a portion of the side frame thereof, and between the two side frames there is arranged a rod or bar, D, which may be of any transverse section, but is here shown as round. The rod or bar D may be a separate one, designed specially for the purpose, and placed parallel with the cylinder and near to the same, or it may be an ordinary fender rod or bar, which occupies a similar position.

Referring now more particularly to Figs. 2 and 3, E designates the stock of the attachment, the shape of which is very clearly shown in Fig. 2. In the larger end of the stock E is formed an opening, E′, the sides of which form horns or lugs *a a′*. The horn or lug *a* may be concaved or rounded, as here shown, to fit upon the bar or rod D, and through the horn or lug *a′* is inserted a screw, *b*, adapted to bear upon the said rod or bar D, and serving as the means of securing the attachment rigidly upon said rod or bar. In the concave recess in the horn or lug *a* is a smaller notch, a^2, and if the concave recess in the horn *a* is slightly larger than the rod or bar D the edges of the notch a^2 will bite upon the rod or bar D and aid in firmly securing the attachment thereon.

The stock E might be secured to the rod or bar D in any other suitable manner, and as many of said attachments as are desired may be secured to said rod or bar. At its smaller end the stock E has a downward extension or lug, *c*, in which is a slot, *c′*; and F designates a perforating wheel, disk, or knife having a serrated or toothed beveled edge. The pivot or journal *d* of the wheel or knife F passes through the slot *c′*, and is fitted in a bearing, *e*, which is secured to the free end of a spring, G, which is secured at the other end to the stock E. Through the stock E is inserted an adjusting-screw, *f*, which bears upon the bearing *e*, and serves as a means of adjusting the bearing downward until the pivot *d* strikes the bottom of the slot *c′*, and when the screw is loosened the bearing *e* and the perforating-wheel are returned by the spring G. The adjustable bearing *e* enables the wheel or knife F to be moved toward or from the surface of the cylinder after the stock is rigidly secured to the rod or bar D, so as to regulate the depth of the perforations and cause them to be made wholly or only partly through the card-board. The attachment being secured in place, as seen in Fig. 1, and the wheel or knife F adjusted so as to bear upon the paper or card-board being printed, it is obvious that the said wheel or knife will be rotated by the paper or card-board as the latter is carried forward by the cylinder, and will perforate the same. More than one bearing might be provided for the pivot or journals of the perforating wheel or knife, if deemed desirable.

By my invention I provide a very simple and inexpensive perforating attachment, which may be readily applied to any cylinder-press so that it will not come in contact with the ink-

ing apparatus, and by the use of which all the objections incident to the use of the ordinary perforating-rules are obviated.

What I claim as my invention, and desire to secure by Letters Patent, is—

The perforating device or attachment herein described, comprising the stock E, having the opening E′ and clamp-screw *b*, to permit it to be detachably secured to a rod or bar, the wheel or knife F, the spring G, the bearing *e* upon said spring, and the screw *f* for adjusting said bearing, substantially as specified.

JOSEPH M. BOWMAN.

Witnesses:

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