## J. A. CARRUTH.

## PERFORATORS FOR PRINTING-PRESSES.

No. 193,482.

Patented July 24, 1877.

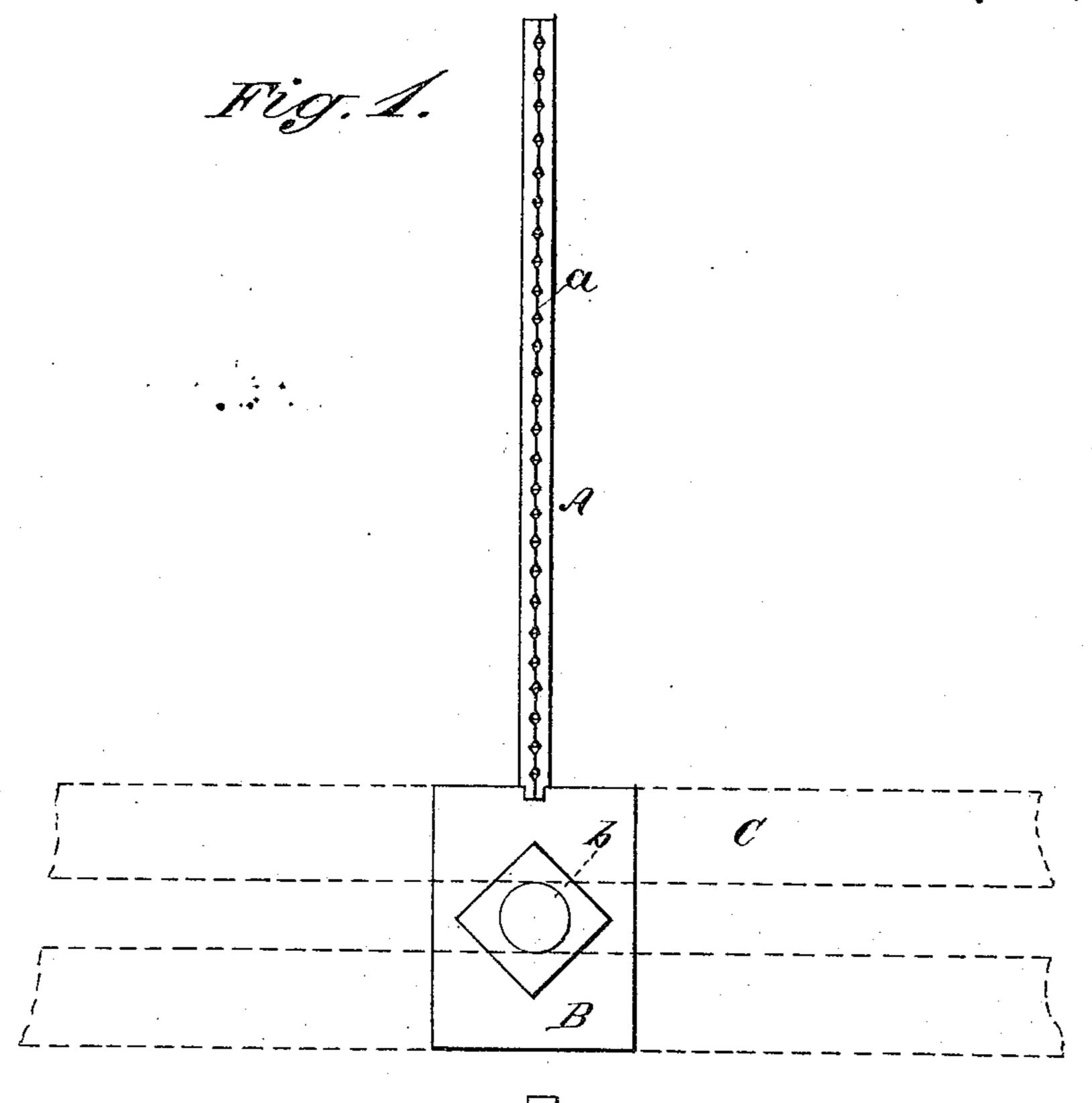


Fig. 2.

WITNESSES: H. Phydguist J. H. Scarborough INVENTOR:

A. Caruth

ATTORNEYS.

## UNITED STATES PATENT OFFICE.

JAMES A. CARRUTH, OF TOPEKA, KANSAS.

## IMPROVEMENT IN PERFORATORS FOR PRINTING-PRESSES.

Specification forming part of Letters Patent No. 193,482, dated July 24, 1877; application filed January 6, 1877.

To all whom it may concern:

Be it known that I, James A. Carruth, of Topeka, in the county of Shawnee and State of Kansas, have invented a new and Improved Perforator for Printing-Presses, of which the following is a specification:

Figure 1 is a front elevation of my improved perforator, showing a part of the nipper-frame to which it is attached. Fig. 2 is a side elevation.

Similar letters of reference indicate corresponding parts.

The invention consists in providing the frisket-finger of a printing-press with perforating-teeth, as hereinafter described.

Referring to the drawings, A is a perforator, which is triangular in cross-section, and is provided with a cutting-edge, a, that is serrated, and with a square end piece, B, through which a hole is bored for receiving a bolt, b, that secures it to the nipper frame, a portion of which is indicated by C, and shown in dotted lines.

The perforator moves with the nippers, and when the platen presses the paper against the face of the type, it also forces it against the serrated edge of the perforator which is backed up by the furniture of the chase. The paper is thus punctured along the line upon which it is to be separated, and the holes are more or less numerous, according as the serrations in the perforator are coarse or fine.

It will thus be perceived that my invention consists of a knife-like piece of metal with a serrated or notched front and broad back, for perforating paper so that the latter may be easily detached from a stub after binding, or for perforating tickets so that they may be easily detached from each other. The serrated edge is constructed with the perforators twice the length of intermediate notches. The perforator is engaged by a piece of furniture in the form which presses and drives the serrated edge into the paper.

I am aware that it is not new to use a notched knife on the tympan of a printing-press for cutting double-sized paper, and leaving a portion uncut by omitting some of the teeth, but my perforator is fastened only at one end, and serves as one of the nipping-fin-

gers.

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

In printing-presses, a frisket-finger provided with perforating-teeth, arranged on edge a, substantially as and for the purpose specified.

JAMES A. CARRUTH.

Witnesses:

E. P. HARRIS, HENRY N. FAREY.