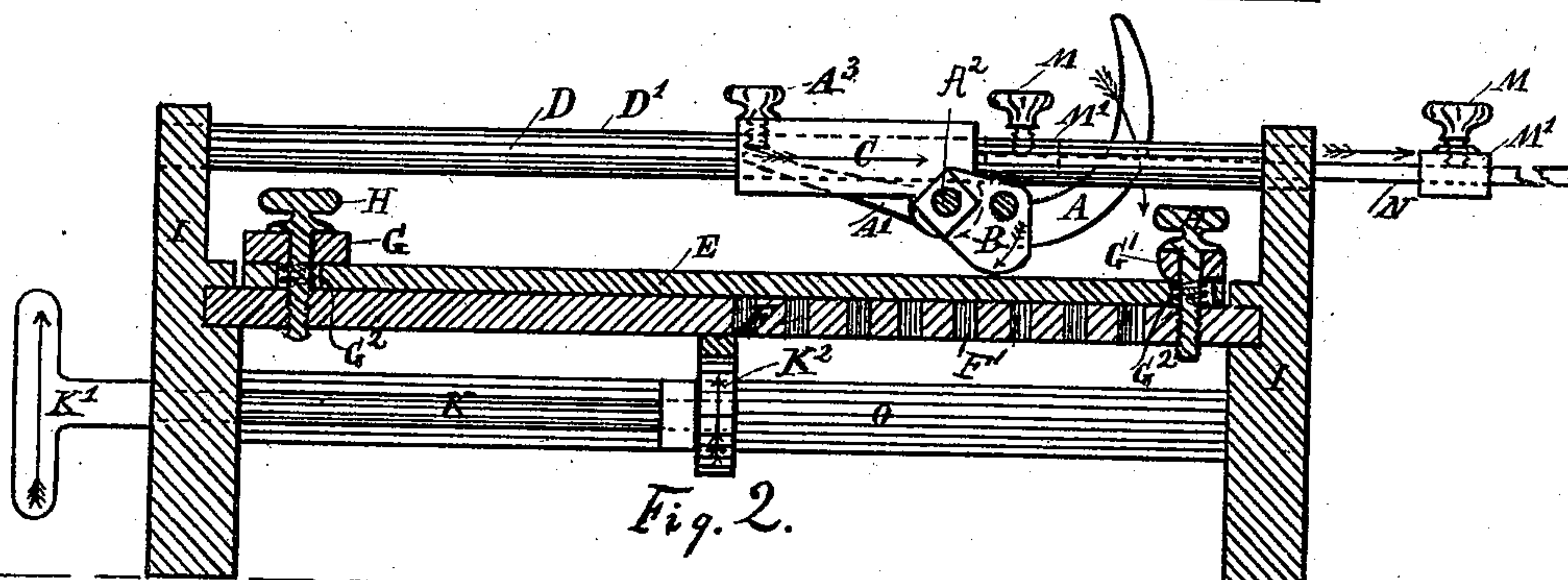
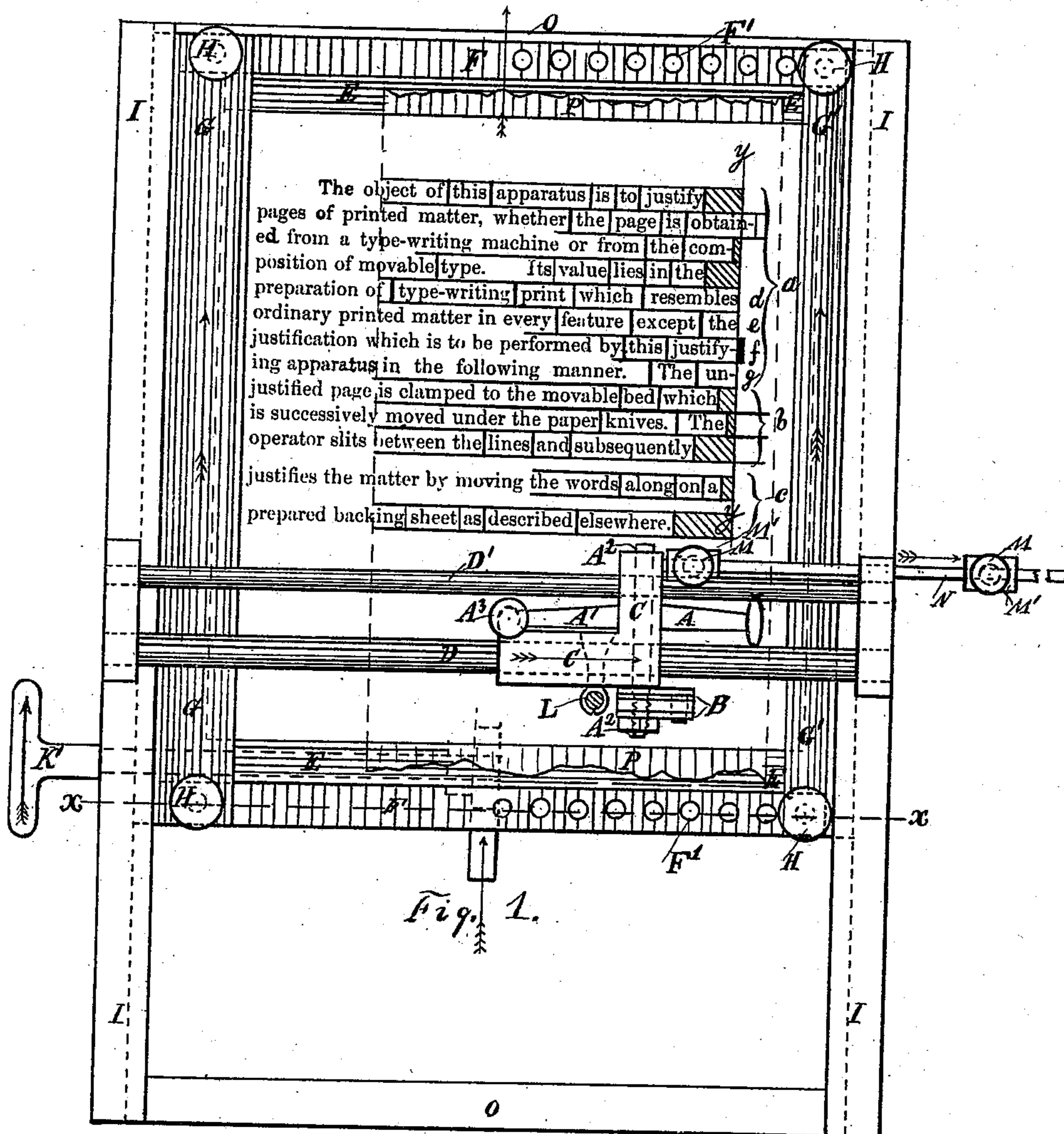


(No Model.)

V. F. LAKE & I. RISLEY.
MACHINE FOR JUSTIFYING MATRIX PAGES.

No. 510,032.

Patented Dec. 5, 1893.



WITNESSES:
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MACHINE FOR JUSTIFYING MATRIX-PAGES.

SPECIFICATION forming part of Letters Patent No. 510,032, dated December 5, 1893.

Application filed June 7, 1886. Serial No. 204,420. (No model.)

To all whom it may concern:

Be it known that we, VINCENT F. LAKE, residing at Pleasantville, in the county of Atlantic and State of New Jersey, and ISAAC RISLEY, residing at New York, in the county and State of New York, have invented certain Improvements in Machines for Justifying Matrix-Pages, of which the following is a specification.

This invention relates to an apparatus for justifying type written, printed, or matrix pages.

It consists of an apparatus for holding the printed page, or matrix page, of a knife or knives adapted to slit between the lines, or along a line the distance required for justifying, of a pasted or glued backing sheet to be placed under the portion of the page to be justified, and of an apparatus for cutting and sliding the words to the right or to the left within the guides formed by said slits, till the line is justified.

Heretofore in type writing and in matrix forming it has been necessary to prepare the matter in one continuous strip and subsequently cut it into lines and words and paste it upon a backing sheet in a justified page.

The objects of our invention are: first, to avoid writing the matter in a continuous strip; second, to avoid the liability to error in arranging the lines at the left of the page; third, to avoid the use of a page-form to keep the strips in position; fourth, to save pasting a line upon the backingsheet when it does not need justifying; and, fifth, to save the time necessary to page the matter before justifying. We do this in the following manner: We prepare the matter in an unjustified page by means of a type writing, or of a matrix-forming machine. We justify by slitting between the lines the required distance, and by subsequently sliding the words upon the pasted backing-sheet to the right or to the left in a guide-way formed by said slits. This secures accuracy in the alignment of the justified portion of the line—the other portion remaining as originally prepared.

Referring to the accompanying sheet of drawings, Figure 1, is a top view of the appa-

ratus, showing the movable table, F F, carrying the slitting-board E, E, and the prepared page. The prepared page is clamped to the slitting-board, E E, by means of clamps G, G', and thumb-screws H. Springs G², hold the guides G, G', up so the paper can readily be placed in position. The clamp G, is wide enough to serve as a guide for the left margin of the page. By means of the knob K', axle K, and friction roller, or cog-wheel K², the bed F F, with the printed page is moved under the slitting knives B, B, for the purpose of bringing line after line under the knives. The knives B, B, are attached to the axle A², and arm A. They are held above the paper by a suitable spring. When the operator pulls on arm A, the knives B, B, are depressed till arm A', comes in contact with the adjustable stop A³. The carriage, C, is then drawn to the right the desired distance by means of the lever A; after which it is returned to the left, and the bed, F F, advanced by knob K', for another line. The guides, D, D', are attached to frame pieces I, I, and serve as a guide to the carriage, C. L, is a pencil or a knife for indicating the right hand margin, Y Y, of the justified page. This is accomplished by depressing the pencil and moving the bed beneath it, thus making a vertical line at the right hand margin of the page. The rod N, and the adjustable stops, M', serve as stops for the cutting knives when slitting, also for governing the position of the pencil when indicating the right-hand margin of the page. The guide G', is adjustable in holes F', for different widths of pages. O, and I, are frame pieces of the apparatus.

Fig. 2 is a vertical section on line X X, Fig. 1.

Operation: The printed or matrix page having been secured to the bed, E, E, the operator proceeds to slit between the lines, using the knife or knives B, B, till the page is slitted by either of the methods shown at a, b, c. a is produced by using a single knife, B, slitting between each line the required distance. b is produced by making an incision on each side of a line simultaneously by using two knives secured together. c is similar to a, with two knives instead of one, the knives being placed

so as to leave an uncut guide strip between the lines. Having thus slitted the lines to be justified, the operator places the glued backing-sheet, P P, under the portion of the page to be justified, and lightly presses the slitted page upon it; then by means of a suitable knife or knives, he proceeds to cut the words apart and to slide them along the slitted guide-ways upon the moistened backing-sheet to the position required to form justified lines as shown in lines *d, e, f, g*. All lines of proper length are neither slitted or moved upon the backing-sheet. As soon as dry the matter is ready to be transferred to a lithographic stone; or if a matrix page, it is ready for the stereotyper. The backing-sheet may extend under the whole page.

While it is preferred to retain the details of construction herein described, it is apparent that the mechanism for imparting motion to the bed F F, and knives B, B, and the mechanism for clamping the paper, may be modified in various details which will suggest themselves to the skilled mechanic without departing from the limits of our invention.

Having thus described our invention, what we claim is—

1. In an apparatus for justifying a printed or matrix page, the combination of the paper clamp and left-hand margin guide G, adjustable paper clamp G', adjusting screws H, and springs G², with the slitting-board, E E, substantially as shown and described and for the purpose set forth.

2. In an apparatus for justifying a printed or matrix page, the knife-carriage C, guide rails D, D', lever A, screw-stop A³, in combination with one or more adjustable knives substantially as set forth.

3. In an apparatus for justifying a printed

or matrix page, the combination of the movable bed F, F sliding in ways I, I, mechanism for moving said bed, in combination with knife carriage C sliding on rails D, D', lever A, stop A³, knives B, B, pencil holder L, and margin stop mechanism N, M', M', substantially as shown and described for the purpose set forth.

4. In an apparatus for justifying a printed or matrix page, the marked holding device L in combination with the knife carriage C, and margin stops M', and movable bed F, F, for the purpose set forth.

5. The combination, in an apparatus for justifying a printed or matrix page, of the movable table on which is mounted the printed or impressed matter, and a transverse frame carrying a pencil or cutter to mark or indicate the right-hand margin of the justified page, substantially as described.

6. In an apparatus for justifying a printed or matrix page, the combination of a movable support for the page, clamping devices, and a knife arranged to slit between the lines, substantially as described, whereby the matter is prepared for justifying.

7. The method of justifying a printed or matrix page, consisting of slitting with one or more slits between the lines the distance necessary, securing the same upon a backing-sheet, cutting between the words and moving them endwise, to the right or to the left, upon the backing-sheet into the position required for a justified line.

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