

(No Model.)

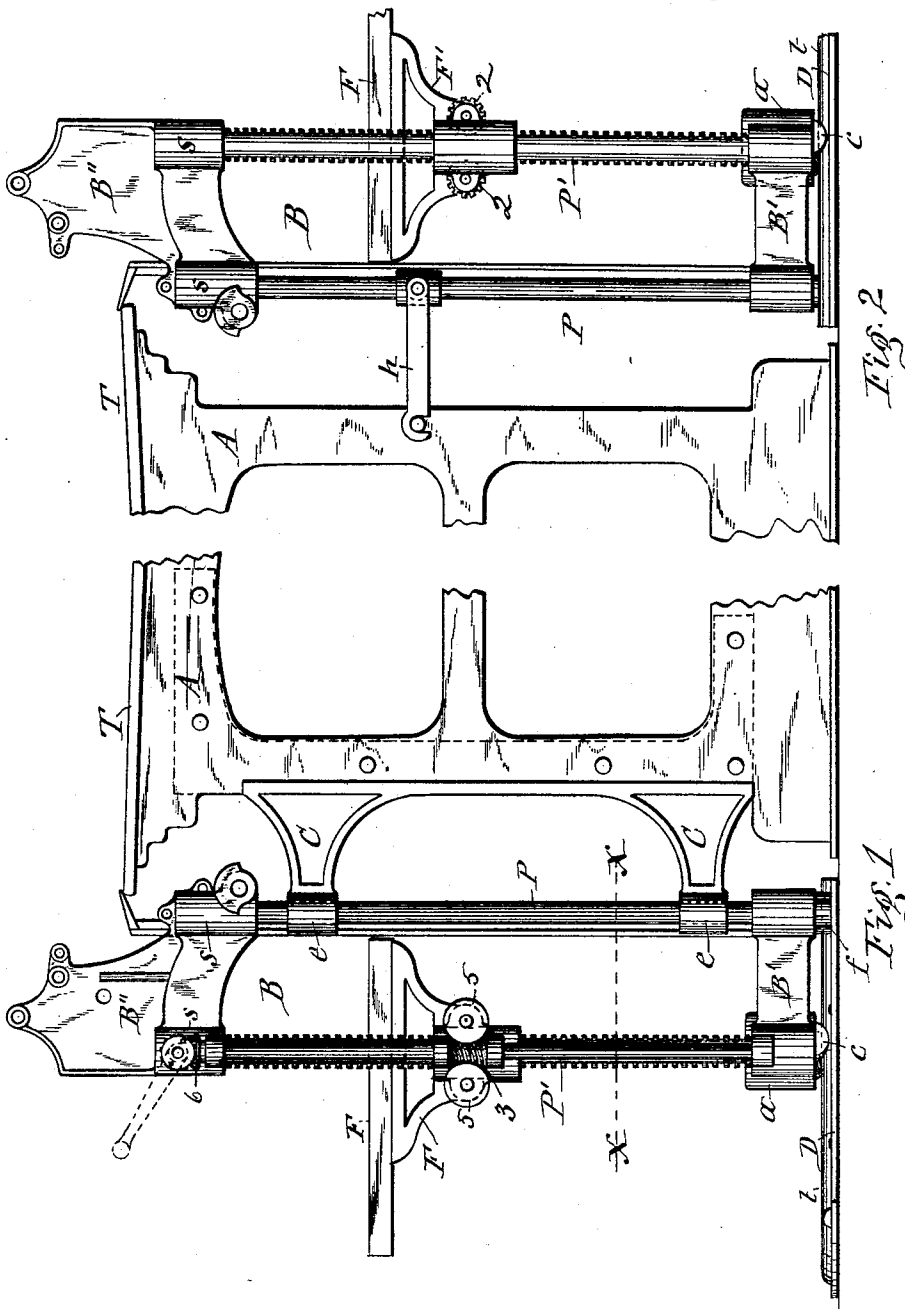
3 Sheets—Sheet 1.

T. A. BRIGGS.

FEED MACHINE ATTACHMENT FOR PRINTING PRESSES.

No. 480,448.

Patented Aug. 9, 1892.



WITNESSES:

Mark W. Dewey
L. Bendixon

INVENTOR:

Thomas A. Briggs
By *Smith, Lusk & Smith*
his ATTORNEYS.

(No Model.)

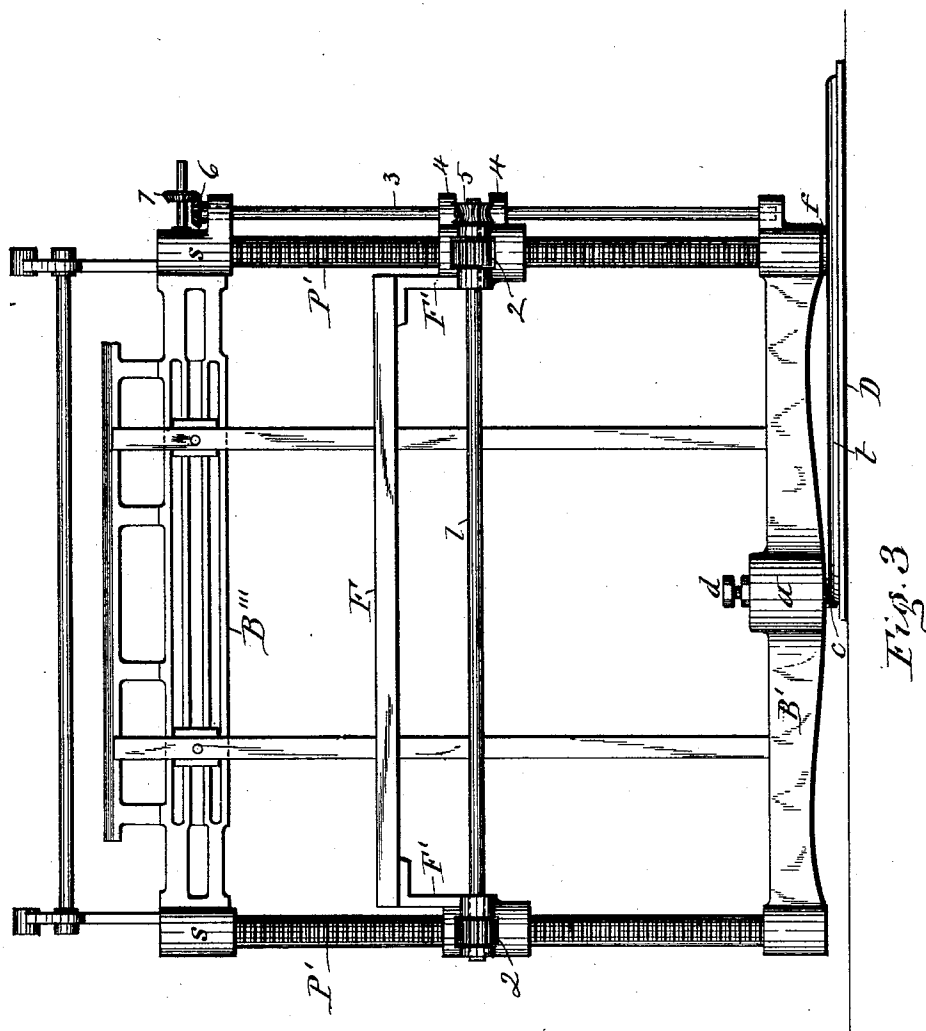
3 Sheets—Sheet 2.

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(No Model.)

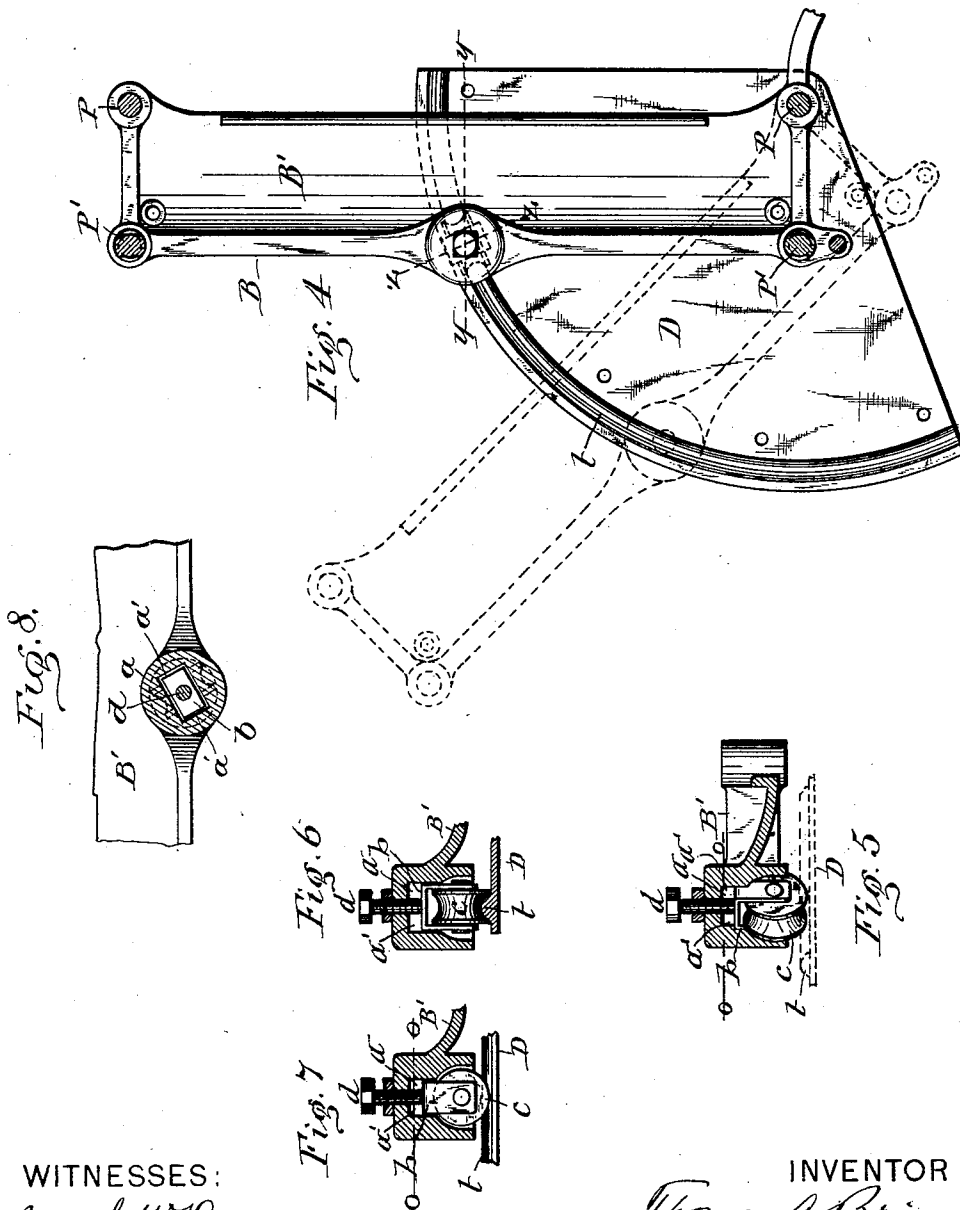
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WITNESSES:

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INVENTOR

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UNITED STATES PATENT OFFICE.

THOMAS A. BRIGGS, OF ARLINGTON, MASSACHUSETTS.

FEED-MACHINE ATTACHMENT FOR PRINTING-PRESSES.

SPECIFICATION forming part of Letters Patent No. 480,448, dated August 9, 1892.

Application filed November 24, 1891. Serial No. 412,990. (No model.)

To all whom it may concern:

Be it known that I, THOMAS A. BRIGGS, of Arlington, in the county of Middlesex and State of Massachusetts, have invented new and useful Improvements in Feed-Machine Attachments to Printing-Machines, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to the attachment of the supporting-frame of a paper-feeding machine to the frame of a printing-machine; and the object of this invention is to adapt the said paper-feeding machine to be readily attached to the frame of the printing-press and also readily detached therefrom when desired to feed the paper by hand to the printing-machine; and to that end the invention consists in the novel construction and combination of parts hereinafter fully described, and set forth in the claims.

In the annexed drawings, Figures 1 and 2 show opposite sides of the frame of the paper-feeding machine and its connection with the printing-machine. Fig. 3 is an end view of the same. Fig. 4 is a horizontal transverse section on line *x x*, Fig. 1. Figs. 5 and 6 are vertical transverse sections, respectively, on lines *y y* and *z z*, Fig. 4. Fig. 7 is a vertical transverse section of the socket which contains the frame-supporting roller, said section being taken in a plane at right angles to the axis of the roller; and Fig. 8 is a horizontal transverse section on line *o o* in Fig. 5.

Similar letters of reference indicate corresponding parts.

A represents the feeding end of the main frame of a printing-machine, and T denotes the usual feed-table, over which to pass the sheets of paper to the printing-machine. To the feeding end of the frame I attach removably a supplemental frame B, consisting, mainly, of four posts P and P', two on each side of the frame, and tied to each other by a broad cross-bar B' at the bottom, heads B'' B'' respectively at opposite sides of the frame B and provided with sockets *s s* for the reception of the upper ends of the posts, and a cross-bar B''', tying said heads to each other, as shown in Fig. 3 of the drawings. I prefer to hinge said supplemental frame to one

side of the feed end of the frame A by firmly securing to the latter the brackets C C, which are formed with vertical sleeves *e e*, and through these sleeves passes the post P of the supplemental frame, said post constituting the pivot on which the supplemental frame can be swung to or from the feed end of the printing-machine, as may be desired. The opposite side of the supplemental frame is detachably connected to the main frame A by means of a suitable strap or hook *h*, as shown in Fig. 2 of the drawings.

Under the supplemental frame is a base-plate D, which is formed with a socket *f*, in which is stepped the post P, by which the supplemental frame is hinged to the main frame. This base-plate is also formed with a segmental track *t*, concentric to the socket *f* and extending underneath the frame B, preferably at the center of the width thereof and rearward therefrom, as best seen in Fig. 4 of the drawings. Upon this track is mounted a roller *c*, which supports the supplemental frame B at the center of its width, and is adjustably connected thereto by means of a vertical yoke *b*, to which the roller is pivoted and which is seated in vertical grooves *a' a'* in opposite sides of a socket *a*, formed in the under side of the cross-bar B', as shown in Figs. 5, 6, and 7 of the drawings. Through the top of the cross-bar B', central over the yoke *b*, is a screw-threaded eye, through which passes a set-screw *d*, which bears with its lower end on top of the yoke and thereby supports the supplemental frame on the roller *c*. By turning the said set-screw the frame B can be raised or lowered and properly adjusted to its upright position.

F represents the table upon which is piled the sheets of paper to be fed to the printing-machine. This table is mounted on brackets F', which are adjustably connected to the rear posts P' P' of the supplemental frame B, so as to allow said table to be raised or lowered, as may be required. Said adjustable connection may be made in any suitable manner, and is in this case shown in the same form as represented in another application for Letters Patent of the United States of even date herewith and bearing the Serial No. 412,989, and consists of two horizontal

shafts 1 1, extending across the frame B and journaled in the brackets F' F' in front and rear of the posts P' P', which latter are provided with cogs forming two vertical racks on each post. To each of the said shafts are secured two pinions 2 2, which engage the racks on the front and rear of the posts. At the outer side of one of said posts is a vertical worm-shaft 3, journaled to the frame B, and in ears 4 4 on the bracket F' and in front and rear of the worm-shaft are worm-wheels 5 5, fixed to the shafts 1 1. To the upper end of the worm-shaft 3 is attached a miter-pinion 6, meshing with a similar pinion 7, pivoted to the side of the frame B. The latter pinion may be rotated either by a hand-crank, as indicated by dotted lines in Fig. 1 of the drawings, or receive motion from the paper-feeding mechanism, as shown in my other application for United States patent hereinbefore referred to. The rotation of the worm-shaft imparts rotary motion to the shafts 1 1, which by means of the engagement of their pinions 2 2 with the vertical racks on the posts P' P' raise or lower the table, according to the direction in which the worm-shaft is rotated.

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

1. On a printing-machine, the combination, with the main frame, of a supplemental frame hinged to one side of the feeding end of said main frame, a paper-supporting table carried on said supplemental frame, a segmental track under the latter frame and concentric to the hinge thereof, and a roller connected

to the supplemental frame and traversing on the aforesaid track, as set forth and shown.

2. On a printing-machine, the combination, with the main frame A, of the supplemental frame B, hinged to one side of the feeding end of the main frame and formed with a cross-bar B' and with the socket *a* in the under side of said cross-bar and having vertical grooves *a' a'* in opposite sides of said socket, the yoke *b*, seated movable vertically in said grooves, the roller *c*, pivoted to said yoke, and the set-screw *d*, passing through the top of the cross-bar and bearing on top of the yoke, substantially as described and shown.

3. The combination, with the main frame A, of the brackets C C, attached to one side of the feeding end of said frame and provided with the vertical sleeves *e e*, the supplemental frame B, provided with sleeves *e' e'*, the post P, passing through the aforesaid sleeves and hinging the supplemental frame to the main frame, the base-plate D, provided with the socket *f*, having stepped therein the post P and formed with the track *t* concentric to said socket, the roller *c*, mounted on said track and supporting the central portion of the supplemental frame, and the table F, connected to the post P' adjustably in its elevation, substantially as described and shown.

In testimony whereof I have hereunto signed my name this 16th day of November, 1891.

THOMAS A. BRIGGS. [L. S.]

Witnesses:

WILLIAM H. H. TUTTLE,
ARTHUR W. SIM.