

No. 881,998.

PATENTED MAR. 17, 1908.

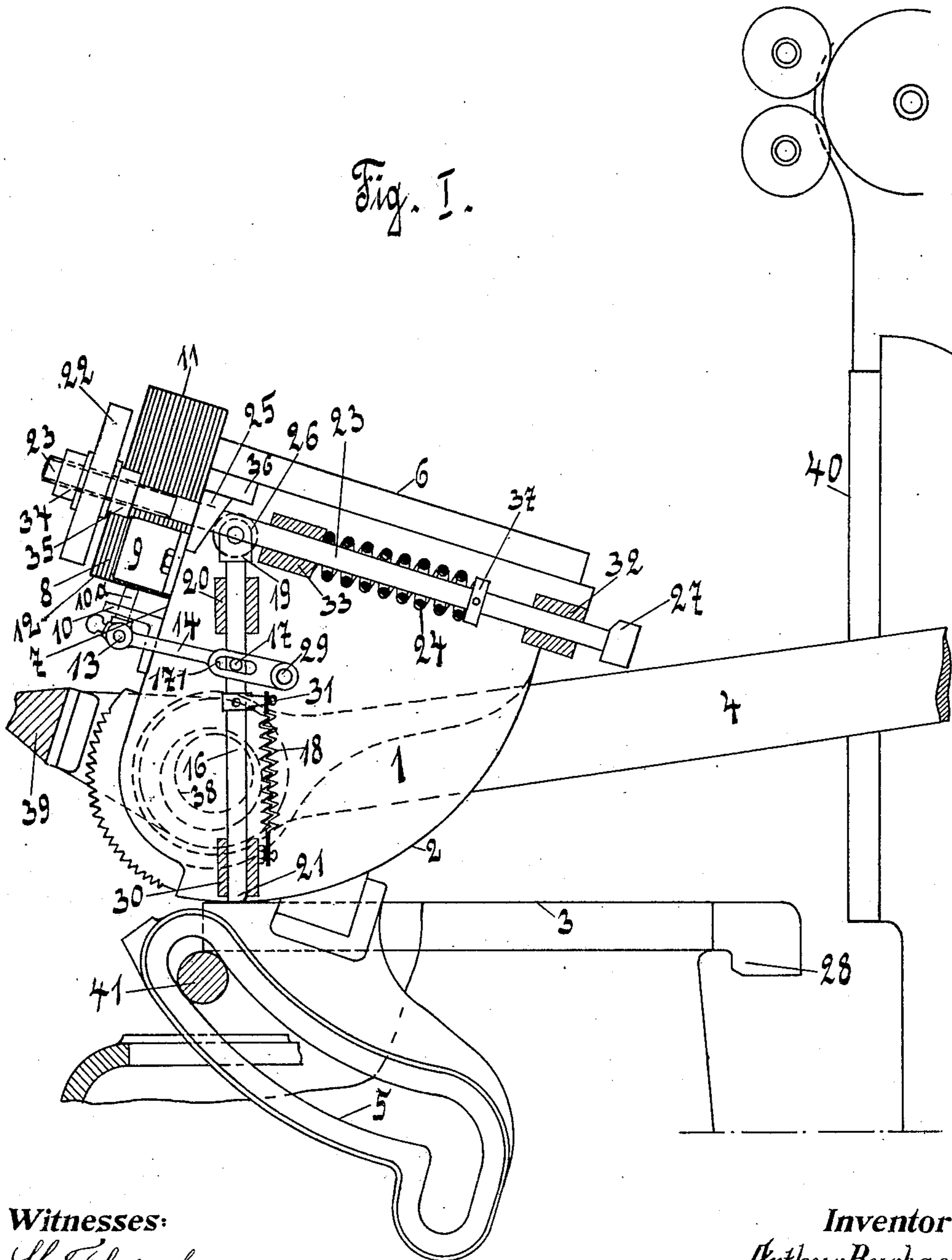
A. BURBACH.

PRINTING PRESS, ESPECIALLY OF THE BED AND PLATEN TYPE.

APPLICATION FILED SEPT. 26, 1906.

2 SHEETS—SHEET 1.

Fig. 1.



Witnesses:

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Inventor:

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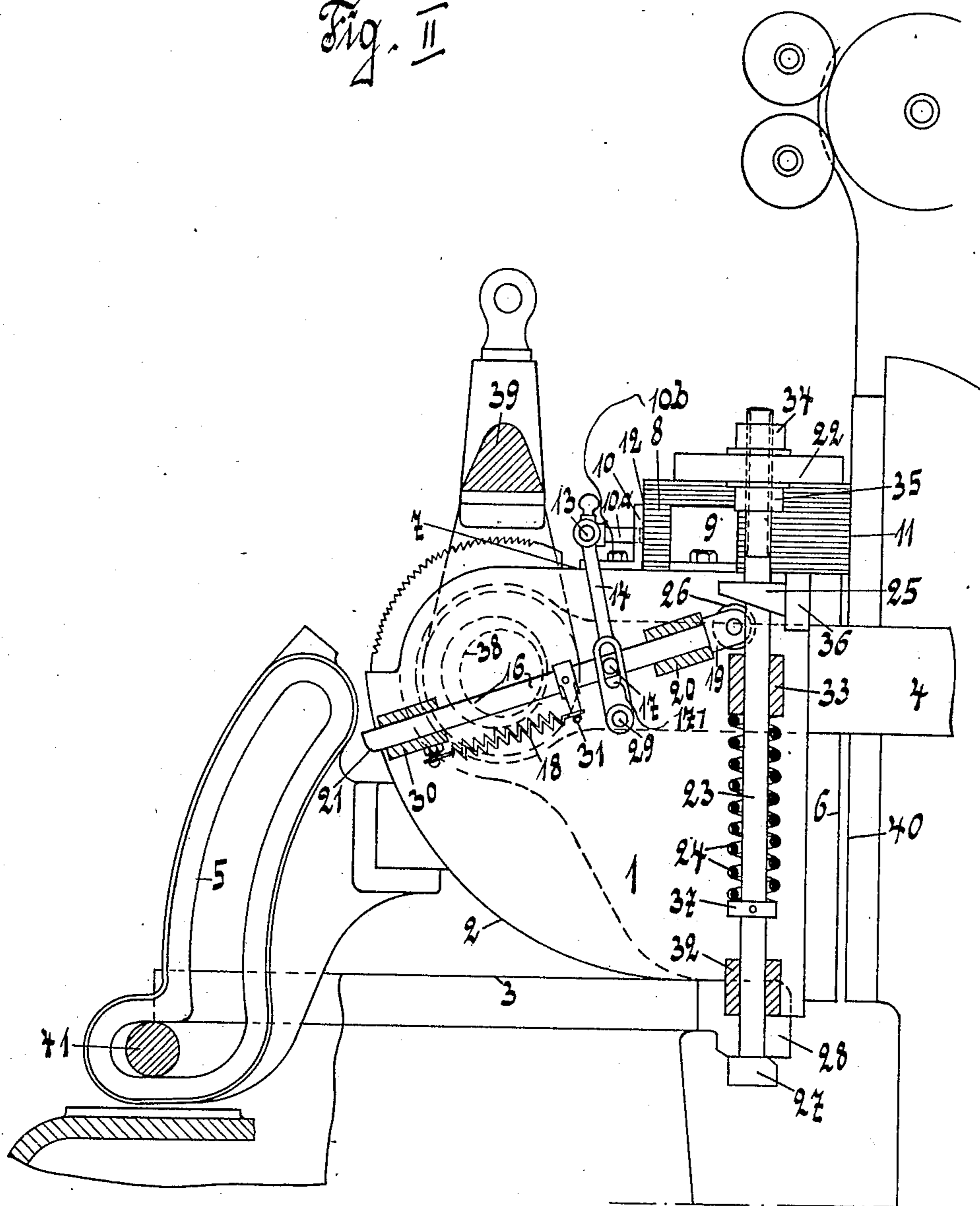
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PRINTING PRESS, ESPECIALLY OF THE BED AND PLATEN TYPE.

APPLICATION FILED SEPT. 26, 1906.

2 SHEETS—SHEET 2.

Fig. II



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UNITED STATES PATENT OFFICE.

ARTHUR BURBACH, OF LEIPZIG-SCHLEUSSIG, GERMANY, ASSIGNOR TO THE FIRM OF J. G. SCHELTER & GIESECKE, OF LEIPZIG, GERMANY.

PRINTING-PRESS, ESPECIALLY OF THE BED-AND-PLATEN TYPE.

No. 881,998.

Specification of Letters Patent.

Patented March 17, 1908.

Application filed September 26, 1906. Serial No. 336,235.

To all whom it may concern:

Be it known that I, ARTHUR BURBACH, a subject of the King of Saxony, residing in Leipzig-Schleussig, Germany, have invented
5 certain new and useful Improvements in Printing-Presses, Especially of the Bed-and-Platen Type, of which the following is a specification.

This invention relates to printing presses,
10 especially of the bed and platen type.

The object of the invention is to provide means for securely supporting a book or other article on the platen member to be printed in various ways or embossed, or both, upon
15 the platen being brought against the printing bed.

A further object of the invention is to provide means whereby the book or other article to be printed on one of its edges will be
20 rigidly clamped in proper printing position when the platen reaches the end of its operative stroke or movement, and upon the platen returning the book or other article will be automatically released by the clamping
25 means, whereby its removal from the platen is greatly facilitated.

The invention further comprises means for supporting the book or article at the side or edge opposite the side to be printed in the
30 proper position at the end of the printing movement, which means, when the platen is returned after the printing operation, will automatically advance the book or article from such position and further facilitate the
35 handling of the book or article for removal from the platen.

In the drawings accompanying and forming a part of this application, representing an embodiment of the invention, Figure 1 is a
40 side elevation with the platen and operating members in the open or rear position, and Fig. 2 is a similar view with the platen at the end of its printing stroke, the book being in contact with the bed.

45 The platen 1 has its curved face 2 arranged to roll on the plane face 3 of the bed member, and is operated by a pair of connecting rods 4, only one of which is illustrated. The connecting rod may be attached to the platen 1
50 by the usual eccentric bearings 38, and which are adjustable by means of a connecting member 39 to cause the face 6 of the platen to vary its distance from the bed face 40 at the limit of the stroke. The platen is guided
55 by means of guiding-pins 41 operating in the

slot of a slotted member 5, such parts being in duplicate on opposite sides. This slot is so shaped that during the early part of its movement the platen will rock on its curved surface 2, and thereupon the pin will slide in
60 the transverse portion of the slot and the platen will move horizontally up against the bed 40.

The book or other article, represented by 8, is placed on the transverse face 7 of the
65 platen, which is at right angles to the printing face 6 of the platen. The book has its rear face 12 opposite the face 11 of the edge that is to be printed or embossed by the bed 40 supported by an adjustable bracket 10,
70 secured to the platen by means of a bolt 10^b. Means are provided for advancing the book when the platen is moved back after the printing stroke, which means are automatically operated by the press. In the con-
75 struction shown a number of pins 10^a slide in suitable apertures in the bracket 10. A pair of levers 14 are pivoted to the platen at 29, and are also pivotally connected with the
80 pins 10^a at 13; whereby rocking of the lever will reciprocate the pins to advance the book from the printing position, shown in Fig. 2, to the advanced position shown in Fig. 1. In the latter position the book or other article
85 can readily be grasped by the operator and its removal from the platen greatly facilitated. The next book or article can be in a similar manner grasped by its edge and placed in the same position.

The pins 10^a and levers 14 are automatic-
90 ally operated by means of a pair of slides 16 operating in socket members 20 and 30 on each side of the platen respectively. The extremity 21 of the slides 16 normally project beyond the curved face 2 of the platen,
95 as shown in Fig. 2. But when the platen is in its extreme rear position the end 21 will be engaged by the face 3 of the bed member and moved upward to the position shown in Fig. 1. This movement, by reason of the pins 17
100 engaging slots 17¹ in the levers 14, will rock the levers and advance the pins 10^a to move the book to the position shown in Fig. 1. But as soon as the press is operated from the connecting rods 4, the slides 21 being re-
105 leased from the bed surface 3, the slides will be retracted by coiled springs 18 connected between the sockets 30 and lugs 31 secured to the slides. Means are also provided for engaging the face of the book or article op- 110

posite to the face resting on the surface 7 of the platen. In the construction illustrated a pair of rods 23 are arranged, one on each side of the platen and slidable in socket members 5 32 and 33. At the upper end the rods are connected by a clamp bar 22, which is adjustable thereon by means of nuts 34 and 35 to accommodate different thicknesses of books or other articles. The clamp rods 10 when released are caused to press the bar 22 on the book by means of coiled springs 24 on the rods 23, interposed between lugs 37 on the rods and the sockets 33. When the platen is in the closed position, as shown in 15 Fig. 2, the springs are free to act and clamp the book. But as the platen is drawn back to its open position the clamp rods are moved upward away from the book by means of a roller 26 on the end of each slide 16, engag- 20 ing a wedge member 25 fast on each of the rods 23. By this means the rods and clamp plate are moved upward to the position indicated in Fig. 1. This will permit the ready removal of the book in the open position. 25 But as soon as the platen is operated toward the closed position, upon the slides 21 being free from the bed face 3, the slides being retracted by the springs 18, will release the rods and the springs 24 will cause the clamp 30 blade 22 to securely engage the hook and retain it in proper position for printing or embossing. Additional means are also provided for rigidly locking the rods 23 to hold the book in printing position. In the ar- 35 rangement shown the beveled edge blocks 27 are secured on the lower end of each rod 23 and engage beveled edge projections 28 on the bed member. As the platen approaches the printing position these beveled surfaces 40 will engage and draw the clamp blade 22 downward to engage the book, and thereupon parallel faces of the said members 27 and 28 will engage and retain the clamp rod in its locking position. 45 Having thus described my invention, I claim:

1. In a press, the combination of a bed member having a printing face, and having a face extending perpendicular to the printing 50 face, a platen member having a curved face by which the platen can roll over the said perpendicular face of the bed member, the platen member having a face extending transversely to the printing face of the bed 55 when the platen is in the printing position, a support adjustably mounted on said transverse face of the platen to engage the side of a book or article opposite the side to be printed by the said face of the bed, means 60 connected with said support and movable to engage the article to advance it from the support, said means having a member normally projecting beyond the curved face of the platen to engage the bed and thereby cause 65 the support to advance the article, and

means for retracting the support and said means.

2. In a press, the combination of a bed member having a printing face, and having a face extending perpendicular to the printing 70 face, a platen member having a curved face by which the platen can roll over the said perpendicular face of the bed member, the platen member having a face extending transversely to the printing face of the bed 75 when the platen is in the printing position, a support adjustably mounted on said transverse face of the platen to engage the side of a book or article opposite the side to be printed by the said face of the bed, means 80 connected with said support and movable to engage the article to advance it from the support, said means having a member normally projecting beyond the curved face of the platen to engage the bed and thereby cause 85 the support to advance the article, means for retracting the support and said means, and clamping means arranged to lock the article in its printing position.

3. In a press, the combination with a bed 90 member having a printing surface, and a platen movable toward and from said surface, of a support secured on a face of the platen extending transversely to the printing 95 face of the bed in the printing position of the platen, whereby to engage a book or other article on its side opposite the side to be printed, means automatically operated by the platen to advance the book beyond its 100 printing position upon the platen being retracted after the printing operation, and means for engaging the book or article on the side opposite the said transverse side of the platen, said means being automatically 105 operated in a direction parallel with the printing surface of the bed during the movement of the platen to clamp the book when the platen is in the printing position, and to release the book when the platen is retracted 110 from the printing position.

4. In a press, the combination with the bed member having a printing surface and a platen movable to and from the printing sur- 115 face and provided with a face extending transversely to the printing surface when in the printing position, of a supporting member on said transverse face arranged to en- 120 gage the side of a book or article opposite the side to be printed, and a clamping member carried by the platen and automatically operated in a direction parallel with the 125 printing surface of the bed to engage the book or article to press it against said transverse face when the platen is in the printing position, and to release the book or article 130 when the platen is retracted from the printing position.

5. In a press, the combination with the bed member having a printing surface and a platen movable to and from the printing sur- 130

face and provided with a face extending transversely to the printing surface when in the printing position, of a supporting member on said transverse face arranged to engage the side of a book or article opposite the side to be printed, a clamping member carried by the platen and automatically operated to engage the book or article to press it against said transverse face when the platen is in the printing position, and to release the book or article when the platen is retracted from the printing position, resilient means organized to operate the clamping member toward its clamping position, and a positive locking means arranged to secure the clamp in its final clamping position.

6. In a press, the combination of a bed member having a printing face, and having a face extending perpendicular to the printing face, a platen member having a curved face by which the platen can roll over the said perpendicular face of the bed member, the platen member having a face extending transversely to the printing face of the bed when the platen is in the printing position, a support adjustably mounted on said transverse face of the platen to engage the side of a book or article opposite the side to be printed by the said face of the bed, a member connected with said support and movable to engage the article to advance it from the support, slide members on the platen normally projecting beyond the curved face thereof and retained in such position by resilient means, whereby the projecting end of the slide will engage the said perpendicular face of the bed to be operated thereby, levers carried by the platen and connected with the slides and with the advancing members on the support, whereby the latter members are advanced and retracted upon the said projecting end of the slides engaging and disengaging the bed.

7. In a press, the combination of a bed member having a printing face, and having a face extending perpendicular to the printing face, a platen member having a curved face by which the platen can roll over the said perpendicular face of the bed member, the platen member having a face extending transversely to the printing face of the bed when the platen is in the printing position, a support adjustably mounted on said transverse face of the platen to engage the side of a book or article opposite the side to be printed by the said printing face of the bed, a member connected with said support and movable to engage the article to advance it from the support, slide members on the platen normally projecting beyond the curved face thereof and retained in such position by resilient means, whereby the projecting end of the slide will engage the said perpendicular face of the bed to be operated thereby, levers carried by the platen and connected with the slides and with the

advancing members on the support, whereby the latter members are advanced and retracted upon the said projecting end of the slide engaging and disengaging the bed, rods slidable on the platen member, a clamping plate secured to said rods and arranged to press the book or article against the transverse face of the platen, and means on said slide members arranged to operate said rods.

8. In a press, the combination of a bed member having a printing face, and having a face extending perpendicular to the printing face, a platen member having a curved face by which the platen can roll over the said perpendicular face of the bed member, the platen member having a face extending transversely to the printing face of the bed when the platen is in the printing position, a support adjustably mounted on said transverse face of the platen to engage the side of a book or article opposite the side to be printed by the said printing face of the bed, a member connected with said support and movable to engage the article to advance it from the support, slide members on the platen normally projecting beyond the curved face thereof and retained in such position by resilient means, whereby the projecting end of the slide will engage the said perpendicular face of the bed to be operated thereby, levers carried by the platen and connected with the slides and with the advancing members on the support whereby the latter members are advanced and retracted upon the said projecting end of the slides engaging and disengaging the bed, a pair of slides movably supported on the platen, a clamping bar secured to the slide and arranged to engage the outer face of the article to clamp it on the transverse face of the platen, wedge members carried by the said rods, rollers on the end of said slides arranged to engage the wedge members and shift the rods to move the clamp bar away from the article, and springs arranged between the rods and the platen tending to retain the rods in the clamping position.

9. In a press, the combination of a bed member having a printing face, and having a face extending perpendicular to the printing face, a platen member having a curved face by which the platen can roll over the said perpendicular face of the bed member, the platen member having a face extending transversely to the printing face of the bed when the platen is in the printing position, a support adjustably mounted on said transverse face of the platen to engage the side of a book or article opposite the side to be printed by the said printing face of the bed, a member connected with said support and movable to engage the article to advance it from the support, slide members on the platen normally projecting beyond the curved face thereof and retained in such

position by resilient means, whereby the projecting end of the slide will engage the said perpendicular face of the bed to be operated thereby, levers carried by the platen and
 5 connected with the slides and with the advancing members on the support whereby the latter members are advanced and retracted upon the said projecting end of the slides engaging and disengaging the bed, a pair
 10 of slides movably supported on the platen, a clamp bar secured to the slide and arranged to engage the outer face of the article to clamp it on the transverse face of the platen, wedge members carried by the said rods, rollers on
 15 the end of the said slides arranged to engage the wedge members and shift the rods to

move the clamp bar away from the article, springs arranged between the rods and the platen tending to retain the rods in the clamping position, heads carried by the said
 20 rods and provided with an inclined face and also a face parallel with the said perpendicular face of the bed member, and an extension on the bed member having inclined faces
 25 and also faces parallel with the said perpendicular face of the bed, whereby the rods are positively moved to clamp the book and thereupon locked in the clamping position.

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Witnesses:

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