No. 876,496. PATENTED JAN. 14, 1908.

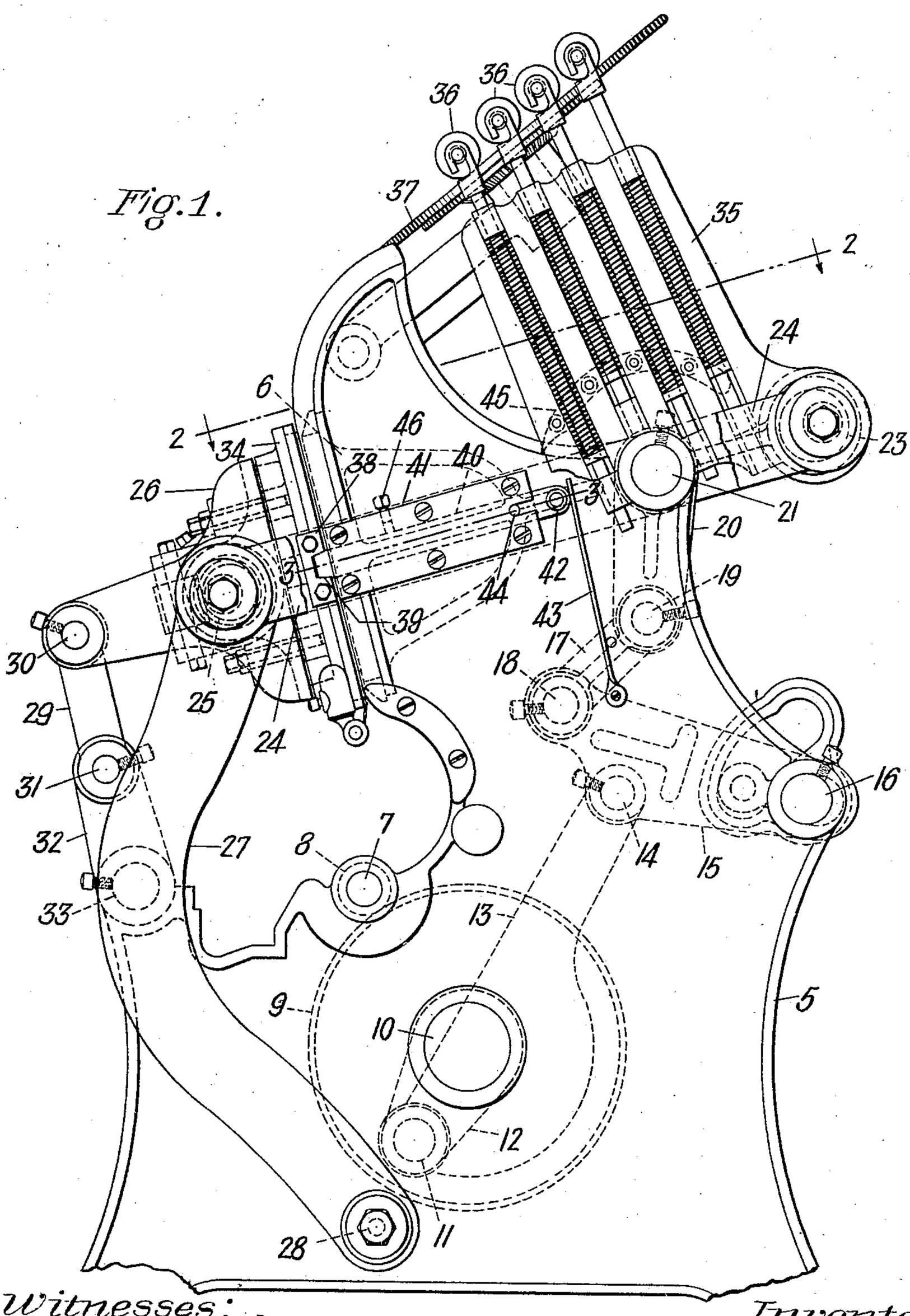
A. J. SEAMAN.

PLATEN LOCKING MECHANISM.

APPLICATION FILED APR. 4, 1907.

2 SHEETS—SHEET 1.

Fig. 1.



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2 SHEETS—SHEET 2.

Fig. 2.

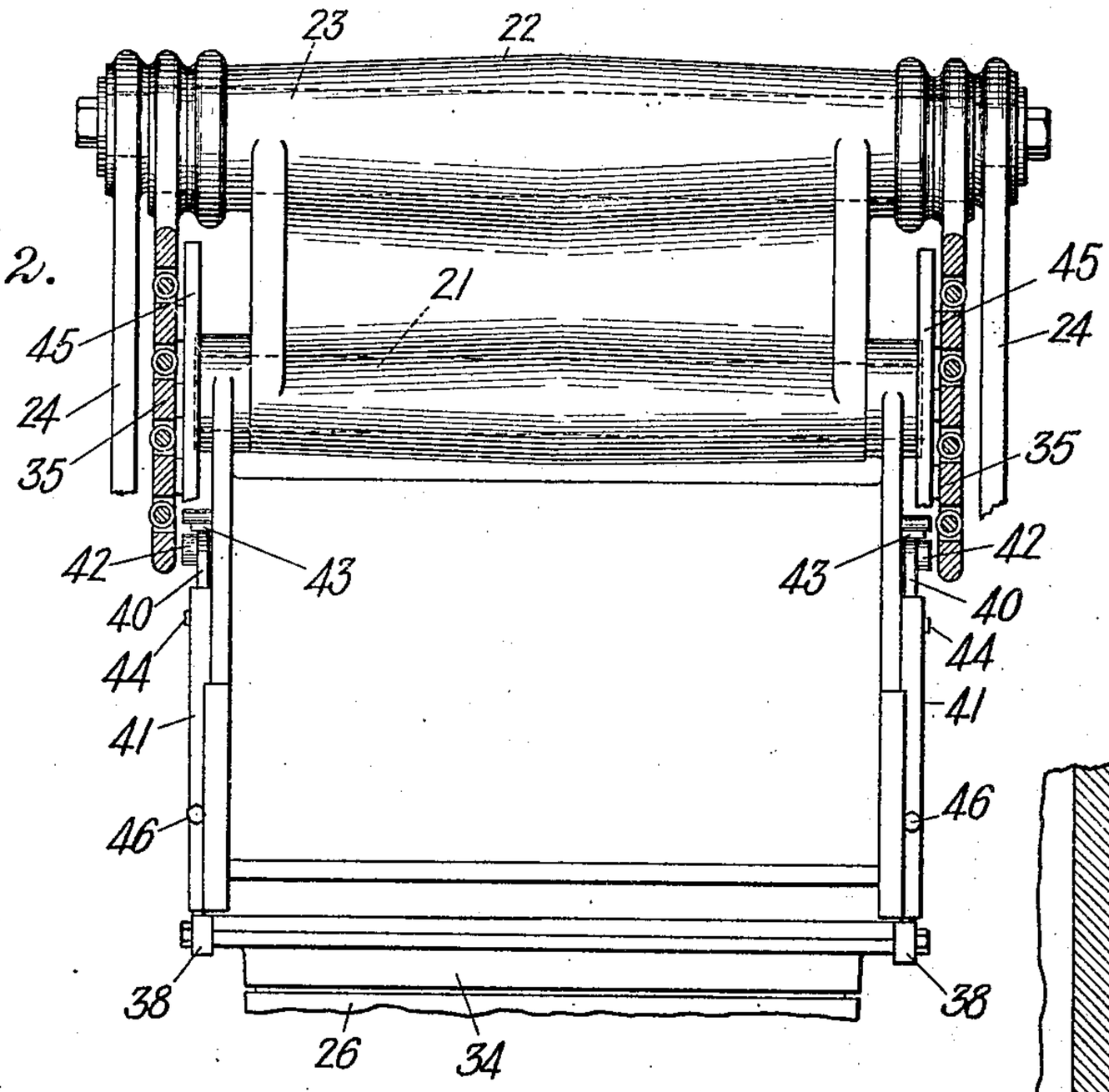
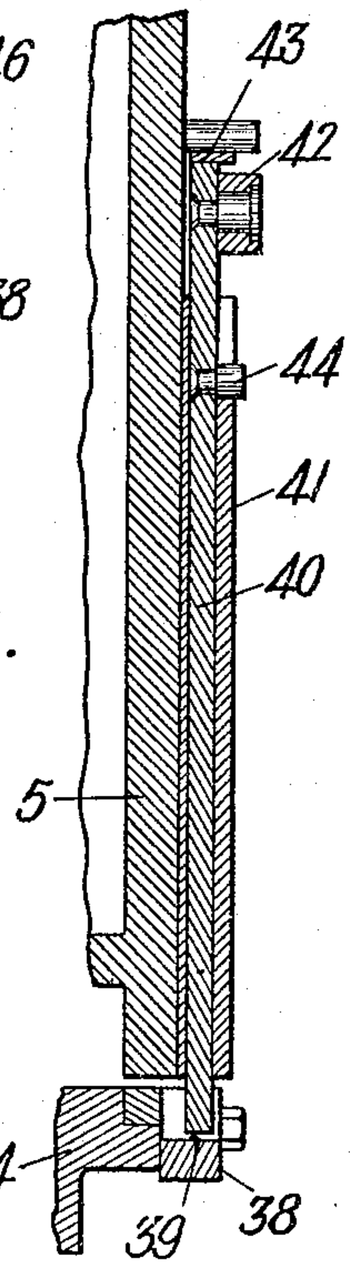


Fig. 3.



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UNITED STATES PATENT OFFICE.

ALBERT J. SEAMAN, OF FANEUIL, MASSACHUSETTS, ASSIGNOR TO THE IMPERIAL ART PRESS CO., A CORPORATION OF MAINE.

PLATEN-LOCKING MECHANISM.

No. 876,496. Specification of Letters Patent. Patented Jan. 14, 1908.

Application filed April 4, 1907. Serial No. 366,314.

To all whom it may concern:

Be it known that I, ALBERT J. SEAMAN, a citizen of the United States, residing at Faneuil, in the county of Middlesex and State of Massachusetts, have invented new and useful Improvements in Platen-Locking Mechanism, of which the following is a specification.

This invention relates to improvements in platen locking mechanism for printing presses.

It is well known that while an impression is being made any movement of the platen in a direction substantially parallel to the type faces no matter how slight such movement is causes a blurring of the impression and the object of this invention is to lock the platen against such movement so that an impression free from blurring or smutching is obtained.

In the present embodiment of my invention I have shown my platen locking mechanism as applied to a press substantially like that disclosed in U. S. Letters Patent to George W. Prouty, "Printing press", No. 731,497, dated June 23, 1903.

Referring to the drawings: Figure 1 is a side elevation, partly broken away, showing the press with my improved platen locking mechanism applied thereto, the portions of the press which are non-essential to the illustration of this invention being omitted. Fig. 2 is a detail plan section, partly broken away, taken on line 2—2 of Fig. 1. Fig. 3 is an enlarged detail plan section, partly broken away, taken on line 3—3 of Fig. 1.

Like numerals refer to like parts throughout the several views of the drawings.

In the drawings, 5 is the frame of the press and 6 is the type bed formed integral therewith. A type form may be secured to the type bed 6 in any desired manner. A main shaft 7 is journaled in suitable bearings in the frame 5 and intermediate of its ends and within said frame two pinions 8, 8, one only of which shows in Fig. 1, are fast to the shaft 7. Each of the pinions 8 meshes into a gear 9 fast to a shaft 10, said shaft being journaled in suitable bearings in the frame 5. A crank pin 11 fast to a crank 12 is connected by a link 13 to a pivotal pin 14, said pivotal pin being carried by an arm 15, said arm being fast to a rock shaft 16. A link 17 is pivotally connected at 18 to the arm 15 and is pivotally connected at 19 to one arm of a bell crank lever 20, said bell crank lever being fast to a rock shaft 21 mounted in suitable bearings in the frame 5. The other arm of the bell crank lever 20 terminates in a long tubular hub 22 which extends transversely of the machine and has mounted therein a shaft 23 on each end of which is mounted a draw-bar 24, the front draw-bar shown in Fig. 1 being partly broken away to better disclose the platen locking mechanism to be hereinafter described.

The draw-bars 24, 24 are pivotally connected to a shaft 25 upon which a platen bridge 26 is adapted to rock. The shaft 25 is carried by two arms 27 pivoted at 28 to the frame 5, only one of said arms being shown in the drawings. A link 29 is pivotally connected at 30 to the platen bridge 26 and is also connected at 31 to an arm 32, said arm being fast to a shaft 33, fast to the frame 5. A platen 34 is fast to the platen bridge 26. The mechanism hereinbefore described is adapted to move the platen 34 toward and away from the type bed 6. Two inking roller frames 35, 35 are mounted on the shafts 21 and 23 just inside the drawbars 24, 24. Inking rolls 36, 36 are carried by the frames 35, 35 in a well known manner, said rolls being adapted to receive ink from a disk 37. As the shaft 21 is rocked, the inking rolls 36 move across the face of the type form in a well known manner.

I will now proceed to describe the subject matter of my present invention. Two female members 38, 38 are fast to opposite sides, respectively, of the platen 34, said members being provided with notches 39, 39, respectively, said notches being slightly V-shaped. Two male members 40, 40 are slidably mounted in guides 41, 41 fast to opposite sides, respectively, of the frame 5. Two cam rolls 42, 42 are rotatably mounted on the members 40, 40, respectively. Two springs 43, 43 fast to the frame 5 and bearing against the members 40, 40, respectively, are adapted to normally hold the members 40, 40 in the position shown in the drawings. Stop-pins 44, 44 are adapted to limit the movement of the members 40, 40 toward the left. Two cams 45, 45 fast to the frames 35, 35 are adapted to engage the cam rolls 42, 42, respectively, and thereby withdraw the male members 40, 40 from the female members 38, 38, respectively, against the tension of the springs 43, 43, respectively. When the platen 34 is moved toward the type bed 6 to make

the impression, it will be seen that the male members 40, 40 will enter the notches 39, 39, respectively, and will thereby lock said platen against movement up or down, and consequently, a clear impression free from blurring is obtained. When the platen 34 is moved away from the type bed 6 after the impression has been made, the inking rolls 36 pass across the face of the type form and before said rolls reach said type form the cams 45, 45 acting on the rolls 42, 42, respectively, withdraw the male members 40, 40 from the path of movement of the inking rolls 36 and upon the return movement of said inking rolls toward the position shown in Fig. 1, the springs 43, 43 act to return said male members to their normal position. Two set screws 46, 46 may be employed to retain the male members 40, 40, respectively, in their retracted position against the tension of the springs 43, 43, respectively, if at any time it is desired to do so.

Having thus described my invention, what I claim and desire by Letters Patent to secure is:

1. In a printing press, a frame, a type bed supported on said frame, a platen, mechanism for moving said platen toward and away from said type bed, an inking roll movable across the face of said type bed, a female member provided with a V-shaped notch, said member being fast to said platen, a male member adapted to enter and fit said female member, said male member normally extending part way across the path of said inking roll, and mechanism for moving said male member out of the path of said inking roll.

2. In a printing press, a frame, a type bed supported on said frame, a platen, mechanism for moving said platen toward and away from said type bed, an inking roll movable across the face of said type bed, two female members each provided with a V-shaped notch, said members being fast to opposite sides, respectively of said platen, two male members adapted to enter and fit said female members, respectively, said male members normally extending part way across the path of said inking roll, and mechanism for moving said male members out of the path of said inking roll.

3. In a printing press, a frame, a type bed supported on said frame, a platen, mechanism for moving said platen toward and away from said type bed, an inking roll movable across the face of said type bed, two female members each provided with a V-shaped notch, said members being fast to opposite sides, respectively, of said platen, two male members adapted to enter and fit said female members, respectively, said male members normally extending part way across the path of said inking roll, two springs adapted to move said male members, respectively, into the path of said inking roll, and mechanism for moving said male members out of the path of said inking roll.

4. In a printing press, a frame, a type bed supported on said frame, a platen, mechanism for moving said platen toward and away from said type bed, an inking roll movable across the face of said type bed, two female members each provided with a V-shaped notch, said members being fast to opposite sides, respectively, of said platen, two male members adapted to enter and fit said female members, respectively, said male members being slidably mounted on said frame, two springs adapted to move said male members, respectively, into the path of said inking roll, and two cams adapted to move said male members, respectively, out of the path of said roll.

5. In a printing press, a frame, a type bed supported on said frame, a platen, mechanism for moving said platen toward and away from said type bed, an inking roll movable across the face of said type bed, a female member provided with a V-shaped notch, said member being fast to said platen, a male member adapted to enter and fit said female member, said male member normally extending part way across the path of said inking roll, mechanism for moving said male member out of the path of said inking roll, and means for holding said male member out of the path of said inking roll.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ALBERT J. SEAMAN.

Witnesses:
LOUIS A. JONES,
EDWARD SHORE.