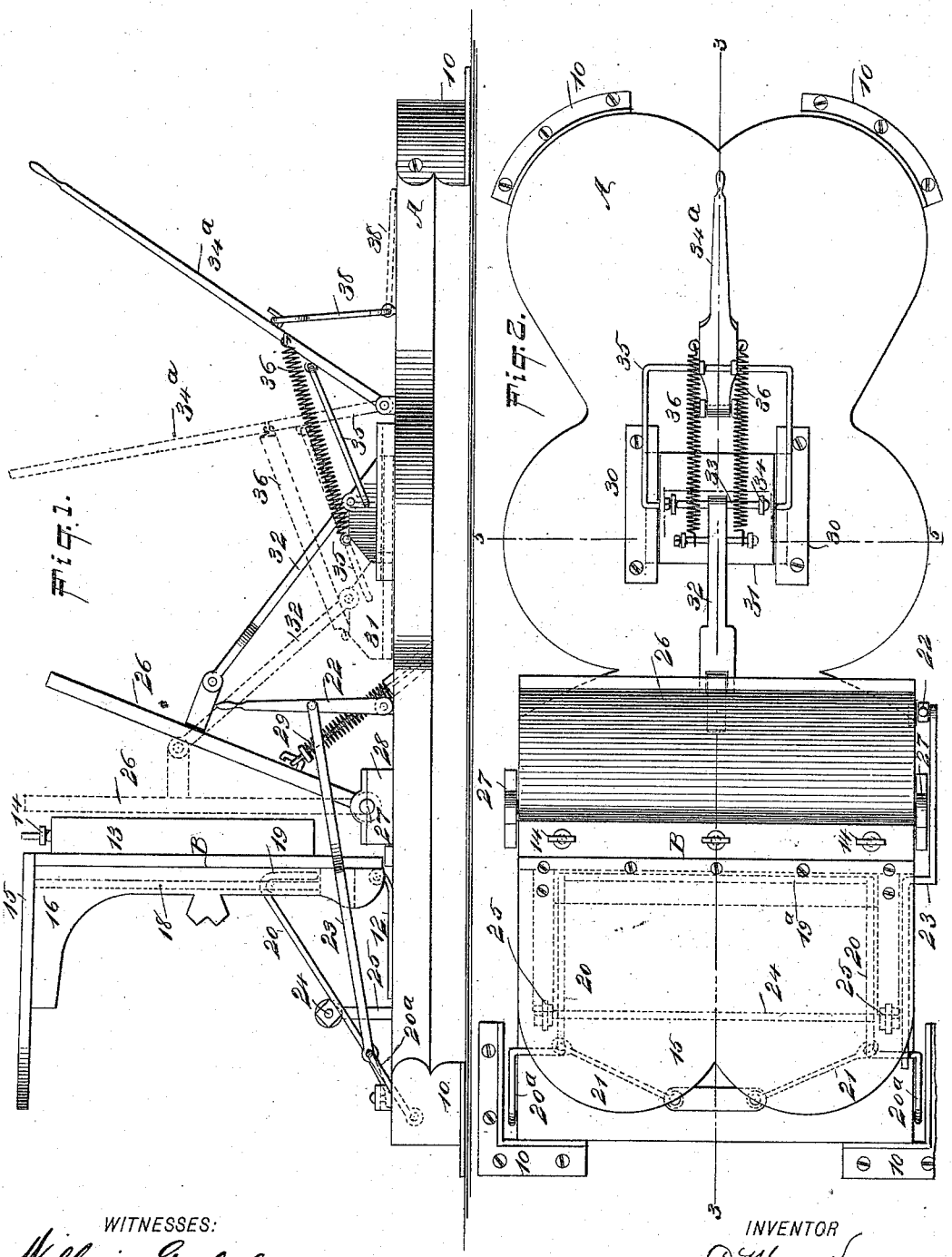
(No Model.) 2 Sheets—Sheet 1.

D. MAURER.

PRINTING PRESS.

No. 526,248. Patented Sept. 18, 1894.



WITNESSES:
William Goebel.
C. Sedgwick

INVENTOR
D. Maurer
BY Munn & Co
ATTORNEYS

(No Model.)

2 Sheets—Sheet 2.

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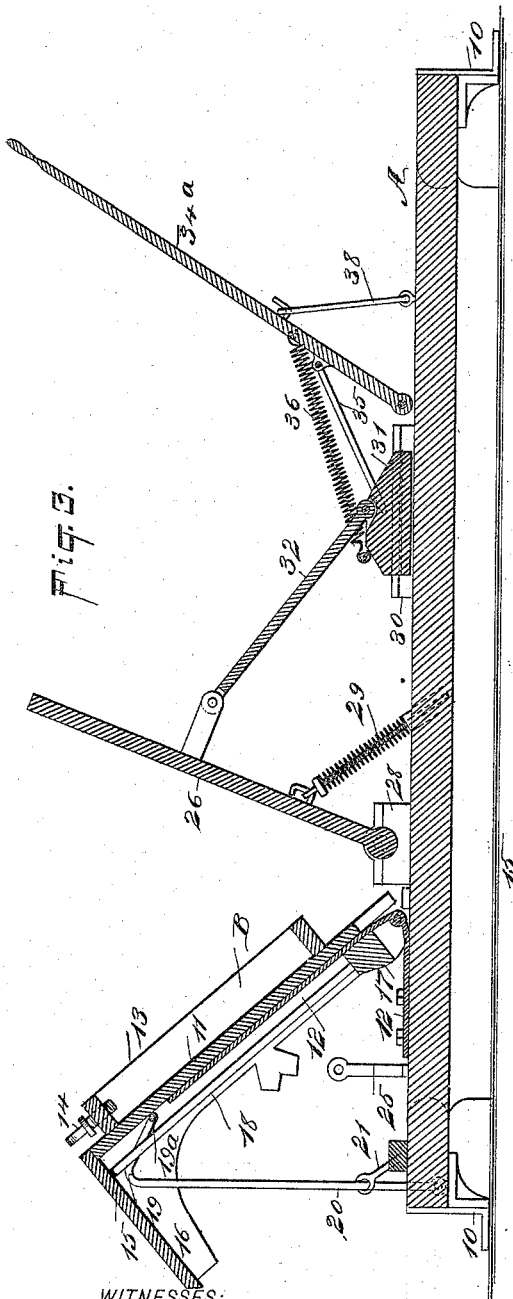

Fig. 3.

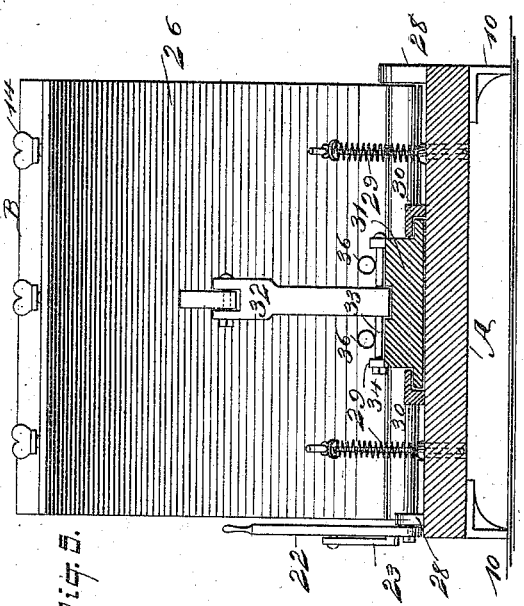

Fig. 5.

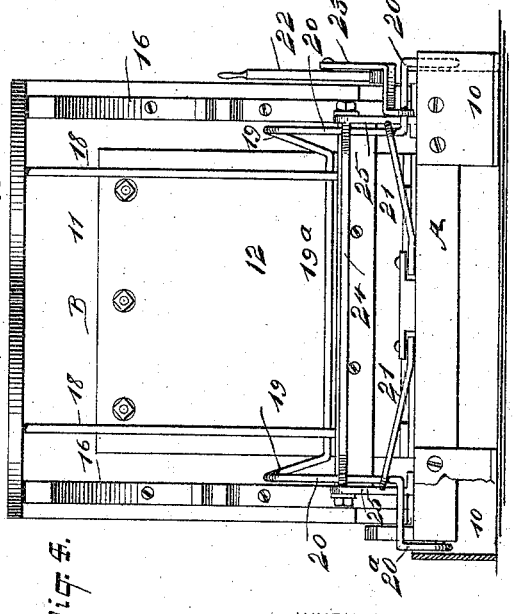

Fig. 4.

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UNITED STATES PATENT OFFICE.

DANIEL MAURER, OF MIDDLE VILLAGE, NEW YORK.

PRINTING-PRESS.

SPECIFICATION forming part of Letters Patent No. 526,248, dated September 18, 1894.

Application filed February 14, 1894. Serial No. 500,113. (No model.)

To all whom it may concern:

Be it known that I, DANIEL MAURER, of Middle Village, in the county of Queens and State of New York, have invented a new and Improved Printing-Press, of which the following is a full, clear, and exact description.

My invention relates to an improvement in printing presses, especially to an improvement in hand presses, and it has for its object to construct a press of that character in an exceedingly simple, durable and economic manner, and to provide for a rapid and effective handling of the platen of the press and likewise a convenient manipulation of the type bed.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures and letters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of the improved printing press. Fig. 2 is a plan view thereof. Fig. 3 is a longitudinal vertical section through the press, on the line 3—3 of Fig. 2. Fig. 4 is an end view; and Fig. 5 is a section taken practically on the line 5—5 of Fig. 2.

In carrying out the invention a base A is provided of any approved construction, which may be supported by legs 10, said legs being capable of resting upon or of attachment to a support of any character. The type bed B of the press is located upon the base between its center and rear end. This type bed consists of a plate 11, which is attached to the bed through the medium of a hinge 12, the hinge, as shown in Fig. 4, being made nearly as wide as the plate in order to afford the best possible support for the type bed. In addition to the plate 11 the type bed consists of a frame 13, secured to the front face of the plate, and in this frame the type is set, or the form is placed, the form or type being held in position through the medium of set screws 14, located in the upper portion of the frame, but if in practice it is found desirable, set screws may also be placed in the sides of the frame. An ink table 15 is secured to the top of the bed, or more properly the top of the back plate 11, and the said table extends rearward in a horizontal direction and may be given somewhat of an inclination if desired; and in order that the table may have proper support brackets 16, are usually secured to the table and to the back of the platen, the said brackets being connected at their lower ends by a cross bar 17. The brackets and the cross bar add materially to the strength of the type bed.

Bars or keepers 18, are preferably located at the back of the bed, passing from the table 15 into the lower cross bar 17; and a cross bar or member 19^a is connected to parallel rods 19, and passed back of the rods 18; and arms 20, are projected rearward from the upper ends of the rods 19, and said arms are carried downward and are given a crank formation at their lower ends, as shown at 20^a in Fig. 4, the crank extensions of the arms being pivotally connected with the sides of the base A. The arms 20, 20^a and rods 19 constitute rocking levers connected by means of the cross bar 19^a so as to form a rocking yoke.

Guide arms 21, are pivotally attached to the upper face of the base at its rear, as illustrated in Fig. 4, and to the arms 20 extending from the rocking levers 19, in order that the movement of the arms may be in a measure guided. Through the medium of the rocking levers and their pivotal connections with the base, the type bed may be given a rearward inclination to facilitate the setting of the type in the frame 13, or the placing in position of the form; or the said type bed may be carried to the vertical position it occupies when the press is in position for printing.

The manipulation of the type bed is preferably accomplished through the medium of a lever 22, located for example at the left-hand side of the base, the said lever being connected by a link 23 with one of the crank extensions 20^a of the rock shaft. When the type bed has been placed in its vertical position, it is maintained in that position against pressure exerted upon it at the front, through the medium of a tie rod 24, which rod is made to engage with the extension arms 20 of the rocking levers 19, resting upon the rear face of said arms, and the tie bar is passed through brackets 25, rigidly attached

to the base, the bar being provided at its ends with suitable nuts and washers.

The platen 26 is pivotally connected at its lower end to the base A in front of the type bed, and a predetermined distance therefrom. Usually the platen is pivoted by projecting from the lower portions of its ends studs 27, which are held to turn in brackets or bearings 28. The platen is held normally in such position that it will bear against the frame of the type bed, through the medium of series of springs 29, which are secured to the base and to the front lower portion of the platen, the springs exerting constant pressure in a rearwardly direction. Any number of these springs may be employed. Forward of the platen, slide-ways 30 are constructed upon the base A, and in these slide-ways a block 31 has free forward and rear movement; and a connection is effected between this block and the platen through the medium of an arm 32, which is pivotally connected with the platen at or near the central portion of its forward face and is also pivoted upon the block, the latter pivoting being usually effected by passing a pin 33 through the arm and through brackets 34, located on the block, as shown in Fig. 2, the pin being provided with a head at one end and with a nut at the other in order that it may be removed and quickly replaced when necessary. A hand lever 34^a, is pivoted at its lower end upon the base in front of the sliding block 31, and this hand lever is connected by a yoke or link 35 with the block, the connection of the latter being usually made at or near the center of its end portion, as is likewise shown in Fig. 2. A further connection is made between the hand lever 34^a and the block, and this latter connection consists usually of two springs 36, which are secured to the hand lever above its attachment to the link or yoke 35, the other ends of the springs being secured to the block 31 near the rear portion of said block, one at each side of the connecting arm 32 of the platen. The tendency of the springs 36 is to draw the hand lever in direction of the platen and assist the springs 29 attached directly to the platen, to keep said platen up against the type bed. When it is desired to hold the platen away from the type bed, or to give it a forward inclination, the hand lever is drawn downward and engaged by a latch 38 carried by the bed, as shown in Figs. 1 and 3.

In the operation of this press, when the type is to be set, or a form is to be placed in the type bed, the latter through the medium of the lever 22, is carried rearward to the position shown in Fig. 3. After the type has been placed in position and inked, the type bed is brought to its vertical or working position, as shown in Fig. 1, and ink may be placed upon the table 15 for use in inking the type when required. The material to be printed upon is placed upon the inner face of the platen, and the hand lever 34^a, is then drawn forward and downward a proper distance, whereby the springs 29 and 36 are put under tension and when said lever is released the springs 29 and 36, will cause the platen to approach the type bed with a quick movement, and the impression of the type upon the material to be printed upon will be obtained; or, if desired, the hand lever may be permitted to approach the type bed slowly by retaining a grasp upon the lever.

This press is exceedingly simple in its construction and it is so made that each and every part may be replaced should any part become worn or otherwise unfit for use.

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

In a printing press, the combination, with a type bed, of a platen pivoted to move to and from the bed, springs exerting pressure upon the platen in direction of the bed, a sliding block, a pivotal connection between the block and the platen, a hand lever, a connection between the hand lever and the block, and springs carried by the block and attached to said lever, exerting tension thereon in direction of the platen, as and for the purpose set forth.

DANIEL MAURER.

Witnesses:
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LOUIS MÜLLER.