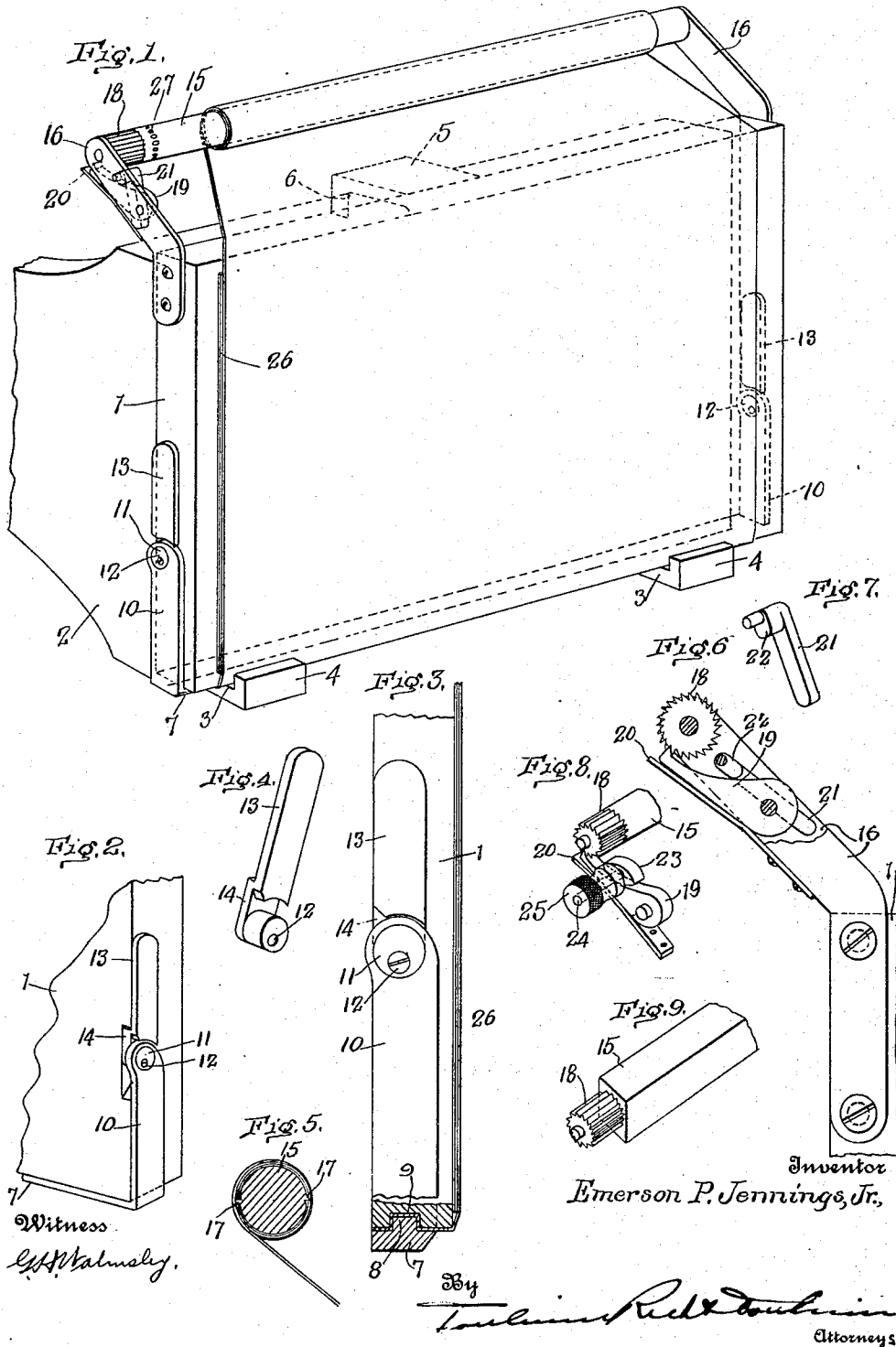


E. P. JENNINGS, JR.
 PLATEN FOR PRINTING PRESSES AND THE LIKE.
 APPLICATION FILED MAY 28, 1915.

1,206,115.

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UNITED STATES PATENT OFFICE.

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1,206,115.

Specification of Letters Patent.

Patented Nov. 28, 1916.

Application filed May 28, 1915. Serial No. 30,889.

To all whom it may concern:

Be it known that I, EMERSON P. JENNINGS, Jr., a citizen of the United States, residing at Lehighton, in the county of Carbon and State of Pennsylvania, have invented certain new and useful Improvements in Platens for Printing-Presses and the like, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to platens for printing presses and the like, and more particularly to means "for making ready" platens.

The object of the invention is to provide means whereby the make-ready may be quickly and easily applied to, and firmly held in position on, the platen.

To this end it is a further object of the invention to provide means for firmly securing the tympan to the platen and for adjusting the tension thereof.

Further, it is an object of the invention to provide a separable or auxiliary platen to which the tympan and make-ready are applied, and which constitutes "a tympan board"; and to provide this auxiliary platen at one edge with a clamp and at the opposite edge with an adjustable supporting device for the tympan.

It is a further object of the invention to provide these devices of such a character that they may be very quickly and easily operated to enable the tympan and make-ready to be applied to the platen and to so construct the devices that they will be of a strong, durable character, and not liable to be broken or disarranged in service.

In the accompanying drawings, Figure 1 is a perspective view of a platen showing my invention applied thereto; Fig. 2 is a perspective view of one corner of the platen, showing one end of the clamping device for the tympan; Fig. 3 is an end elevation, partly in section, of the platen, showing the clamping device for the tympan; Fig. 4 is a detail view of a clamping lever and its eccentric stud; Fig. 5 is a sectional view of the adjusting roller for the tympan; Fig. 6 is a sectional view showing in end elevation the holding and adjusting devices for the upper end of the tympan; Fig. 7 is a detail view of the pawl-actuating lever; Fig. 8 is a perspective view of a modified form of the pawl-actuating device; and Fig. 9 is a fragmentary view of a modified form of the adjusting roller.

In these drawings I have illustrated one

embodiment of my invention and have illustrated the same as embodied in a separable or auxiliary platen 1 which is mounted on the face of a main platen 2, the latter forming a part of a printing press of a standard type. This auxiliary platen carries the tympan and the make-ready and constitutes what is known as a "tympan-board." It may be secured to the main platen in any suitable manner. Preferably attaching devices are provided which will enable the auxiliary platen to be very quickly and easily attached to or removed from the main platen. As here shown, the main platen is provided at its lower edge with forwardly extending fingers 3 on which the lower edge of the auxiliary platen 1 rests. These fingers may, if desired, be provided at their outer ends with upwardly extending lugs 4 which serve to retain the auxiliary platen against accidental displacement. The auxiliary platen is provided at its upper end with an attaching device which is here shown as comprising a finger 5 extending rearwardly across the edge of the main platen and having at its rear edge a depending lug 6 to extend in the rear of the main platen. By the use of these hook-shaped attaching devices, it will be apparent that the platen can be dropped into or lifted from its position on the main platen without the use of tools of any kind and with but small effort.

Where the auxiliary platen or tympan-board is employed the tympan attaching and adjusting devices are mounted on such auxiliary platen, and they are so shown in the present drawings. The auxiliary platen 1 is provided at its lower edge with a tympan attaching device of such a character that it will clamp the lower edge of the tympan firmly against the lower edge of the platen in such a manner as to effectually prevent the accidental displacing of the tympan. The tympan may be of any suitable material, such, for example, as oiled paper, and is, of course, of a flexible character. The attaching device for the lower edge of the tympan is here shown as a bar 7 extending lengthwise of and substantially parallel with the lower edge of the auxiliary platen. This bar is mounted for swinging movement, to enable it to be swung into and out of the plane of the auxiliary platen and has a substantially radial movement to enable it to be moved toward and away from the edge of the auxiliary platen after it has

been moved into alinement therewith. Preferably, the edge of the platen and the face of the clamping bar 7 are provided with cooperating gripping devices, and, as here shown, the bar and platen are provided, respectively, with a tongue 8 and a groove 9 adapted to be moved into and out of interlocking relation by the radial movement of the clamping bar. The clamping bar 7 may be supported in any suitable manner, but, preferably, it is secured at its ends to two arms 10 arranged at the respective ends of the auxiliary platen and pivotally connected thereto at their upper ends. The pivotal connection is formed by mounting the arms upon studs 11 projecting from the ends of the platen and about which the arms have a free swinging movement. To enable radial movement to be imparted to the arms 10 and the clamping bar 7, I preferably mount the studs 11 for movement about eccentric axes, and, as here shown, each stud is mounted on a pin 12, arranged eccentrically thereof and extending into the end of the platen to support the stud and the parts carried thereby. The studs 11 are actuated by means of levers 13 rigidly secured thereto. These levers preferably have offset portions, as shown at 14, mounted on the pins 12 between the studs and the respective ends of the platen, and by means of this offset arrangement the levers are arranged close to the ends of the platen.

The lower edge of the tympan is inserted between the clamping bar and the lower edge of the auxiliary platen, and the clamping device is actuated to clamp the tympan firmly to the edge of the platen, as shown in Fig. 3. After the lower edge of the tympan has been so fastened to the platen the tympan is carried upward over the face of the platen and has its upper end attached to a supporting and adjusting device, which, in the present construction, comprises a bar or roller 15 rotatably mounted at its ends in arms 16 rigidly secured to the respective ends of the auxiliary platen. The upper portions of these arms preferably extend rearwardly from the auxiliary platen so that the roller or bar 15 is arranged some distance in the rear of the face of the platen. Consequently, when the tympan is drawn taut by means of the adjusting device, it is also drawn snugly against the face of the platen. The bar may be either round, as shown in Figs. 1 and 5, or it may be angular, as shown in Fig. 9. Where a round bar is used it is preferably provided with spurs, as shown at 17, to hold the tympan against slipping. Where the angular bar is used, corners of the bar will answer the same purpose. The rotatable bar is provided at one end with a ratchet wheel or drum 18 which coöperates with a detent or pivoted pawl 19 to hold the bar against rotation in a direc-

tion to release the tympan or reduce the tension thereon. A spring 20 tends to hold the pawl in engagement with the ratchet wheel, and a suitable device is provided for actuating the pawl to release the ratchet wheel and permit of the unwinding movement of the bar. As shown in Figs. 1, 6 and 7, this releasing device comprises a lever 21 pivotally mounted on the arm 16 adjacent to the ratchet wheel and having an eccentrically arranged shoulder 22 arranged above the pawl. Normally the radius of the shoulder extends lengthwise of the pawl, but, when it is desired to actuate the pawl, the lever is operated to cause the radius of the shoulder to extend transversely to the pawl, thus moving the pawl out of engagement with the ratchet wheel and retaining the same in this position until the lever is returned to its normal position.

In Fig. 8 I have shown a slightly modified form of actuating device for the pawl. As here shown, a double nosed cam 23 is mounted on a shaft 24, extending through the arm 16 adjacent to the pawl, and having secured thereto on the opposite side of the arm 16 a knurled head 25, by means of which it may be rotated to cause the cam 23 to actuate the pawl.

In making ready the platen, the auxiliary platen or tympan-board is first removed from the main platen and placed where it is readily accessible. The clamping device 7 is then spaced away from the lower edge of the platen, the lower edge of the tympan inserted between the bar and the platen, and the clamping device is actuated to firmly secure the tympan to the lower edge of the platen. The tympan is then carried upward, as has been explained, and wound about the adjusting bar 15. While the tympan is supported in this position, but is in a slack condition, the inner tympan, 26, is placed in position and the make-ready applied. After this operation has been completed, the outer tympan is drawn taut by rotating the adjusting bar 15, either by grasping the same by the hand or by the use of a pin which may be inserted in any one of a circumferential series of holes 27.

It will be apparent from the foregoing description that by the use of my invention the platen can be very quickly and very easily made ready for the printing operation. It will be further apparent that the tympan attaching devices are of such a character that they can be very quickly and easily operated to attach the tympan to the platen and that they may be manipulated to retain the tympan in position with the desired amount of slack during the application of the make-ready.

While I have shown and described one embodiment of my invention, I wish it to be understood that I do not desire to be

limited to the details of construction shown and described, for obvious modifications will readily occur to a person skilled in the art.

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

1. The combination with a platen, of a clamping device supported adjacent to one edge of said platen, said platen and said clamping device having cooperating tongue and groove, and actuating means for moving said clamping device toward and from said platen to cause said tongue and said groove to cooperate to secure one edge of a tympan to said platen and to release the same therefrom.

2. The combination with a platen, of a clamping bar supported near one edge of said platen for swinging movement into and out of the plane thereof, means to move said bar radially toward and from said platen to cause it to clamp a tympan between the same and the edge of said platen, and an adjustable attaching device supported near the opposite edge of said platen to support the adjacent portion of said tympan and regulate the tension thereof.

3. The combination with a platen, of a clamping bar extending parallel with one edge of said platen, said platen and said bar having interlocking clamping parts, arms secured to the respective ends of said bar and pivotally connected to said platen to permit said bar to be moved into and out of the plane of said platen, and means to impart longitudinal movement to said arms to move one of said clamping parts into and out of interlocking relation with the other of said clamping parts.

4. The combination with a platen, of a clamping bar extending parallel with one edge of said platen, said platen and said bar having interlocking clamping parts, arms secured to the respective ends of said bar and pivotally connected to said platen to permit said bar to be moved into and out of the plane of said platen, means to impart longitudinal movement to said arms to move one of said clamping parts into and out of interlocking relation with the other of said clamping parts, and an adjustable supporting device arranged at the opposite edge of said platen to support the adjacent portion of said tympan and to regulate the tension of said tympan.

5. The combination with a platen, of a clamping bar arranged parallel with one edge of said platen, arms secured to the respective ends of said bar, eccentric studs rotatably mounted on the respective ends of said platen and forming centers about which said arms swing, and means to rotate said eccentric studs to impart longitudinal movement to said arms.

6. The combination with a platen, of a

bar arranged parallel with one edge of said platen, said bar and said edge of said platen having parts adapted to be moved into and out of interlocking engagement, studs eccentrically mounted on the ends of said platen, arms rotatably mounted on said studs and rigidly secured to the respective ends of said bar, and means for actuating said eccentric studs to impart longitudinal movement to said arms, whereby said bar may be moved into the plane of said platen and may then be moved into interlocking engagement with said platen.

7. The combination with a platen, of a clamping bar arranged parallel with one edge thereof, studs mounted on eccentric axes on the opposite ends of said platen, operating levers rigidly secured to the respective studs, arms rigidly secured to the respective ends of said bar and journaled on said studs, whereby said bar may have a swinging movement about said studs and said studs may be moved about their axes to impart longitudinal movement to said arms.

8. The combination with a platen, of a pivotally supported clamping bar arranged parallel with one edge thereof, means to impart both swinging and radial movement to said bar to move the same into and out of the plane of said platen and toward and from the same, a rotatable attaching device arranged at the opposite edge of said platen, means for retaining said rotatable device in adjusted positions, and means for releasing said rotatable device from said retaining means.

9. The combination with a platen, of a bar rotatably supported adjacent to one edge of said platen, a ratchet wheel secured to said bar, a pawl cooperating with said ratchet wheel to hold the same in adjusted positions, and an actuating device having a cam shaped portion arranged to engage said pawl to move the same out of engagement with said ratchet wheel.

10. The combination with a platen, of a bar rotatably supported adjacent to one edge of said platen, a ratchet wheel secured to said bar, a pawl cooperating with said ratchet wheel to hold the same in adjusted positions, and a lever having a cam shaped portion arranged to engage said pawl to move the same out of engagement with said ratchet wheel.

11. The combination with a main platen having supporting devices projecting beyond its face at the lower edge thereof, of an auxiliary platen, a bar movable toward and away from the lower edge of said auxiliary platen to clamp a tympan against said edge and adapted when in clamping position to rest upon said supporting devices, means arranged at the ends of said auxiliary platen to control the movement

of said clamping bar, an attaching device
extending rearwardly from the upper edge
of said auxiliary platen to engage the up-
per portion of said main platen, an adjust-
5 able tympan securing device arranged above
said attaching device and in the rear of the
face of said auxiliary platen.

In testimony whereof, I affix my signa-
ture in presence of two witnesses.

EMERSON P. JENNINGS, Jr.

Witnesses:

ELIZABETH B. GASSNER,
P. M. GRAUL.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
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