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J. R. BLAINE

PRINTING PRESS BLANKET CLAMP

Filed Feb. 28, 1927

Fig 1

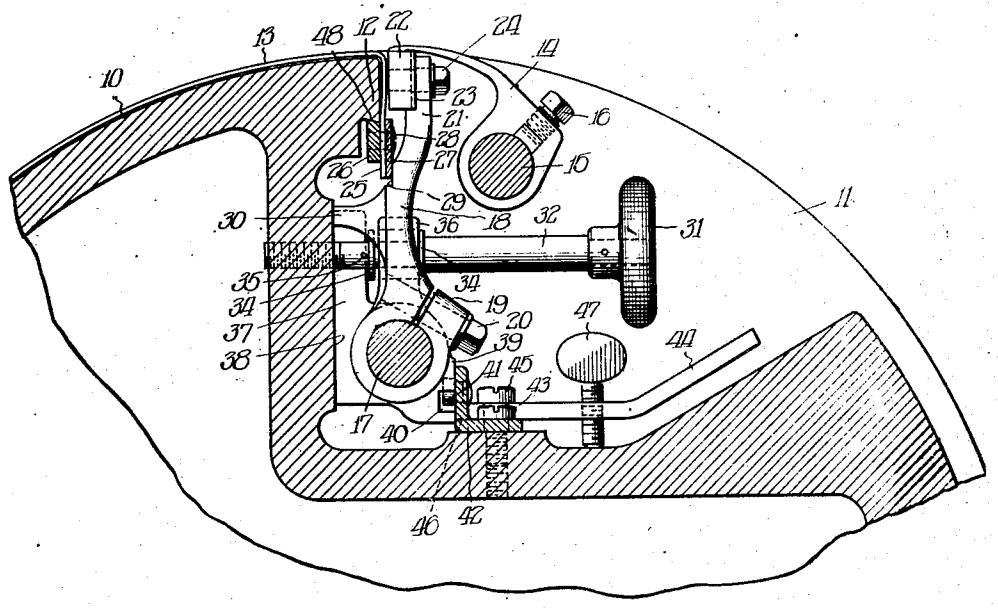
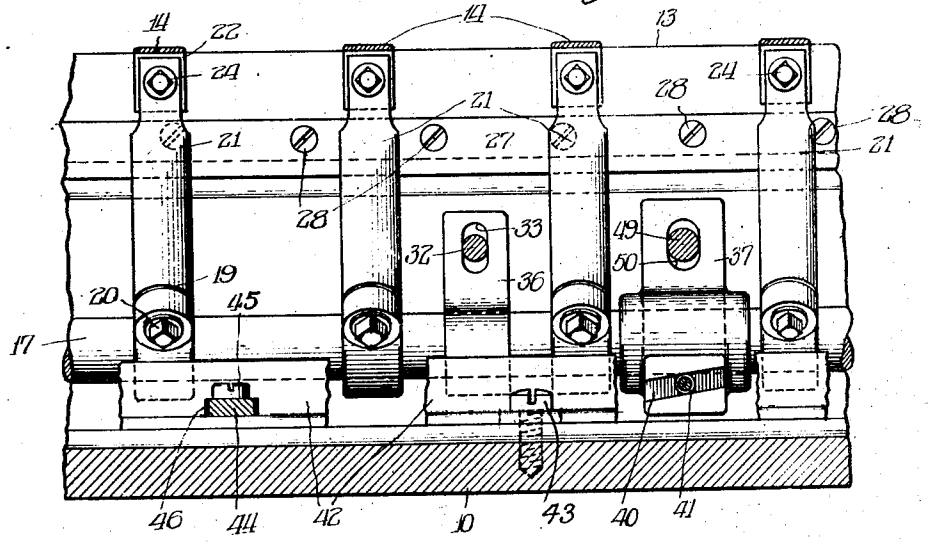


Fig. 2.



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PRINTING-PRESS BLANKET CLAMP.

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The present invention relates to means for clamping a blanket to a cylinder such for example as an impression cylinder of an offset press.

The principal object of the invention is to provide a simple, reliable and efficient combination in which the edge of a rubber blanket or the like is securely locked in its operative position on a cylinder.

A further object of the invention is to eliminate the necessity of providing independent mechanism for securely clamping the edge of such rubber blanket in position.

Another object of the invention resides in the provision of mechanism which is simple and effective in its operation and limited to a minimum of parts.

These and other objects are accomplished by the combination of parts described in the following description and illustrated in the accompanying drawings, in which:

Figure 1 is a cross sectional view of an impression blanket cylinder of a lithographic press; while

Figure 2 represents a partial elevation of the gripper mechanism and associated parts shown in Figure 1.

The reference number 10 denotes an impression blanket cylinder of an offset printing press and formed in its periphery with a recess or cut away portion indicated at 11, within which are arranged the gripper mechanism and associated parts, forming the subject of the present invention. 13 indicates a rubber blanket stretched taut over the impression surface of the cylinder 10, one of its edges being clamped to a projecting or locking ledge 12 provided on the cylinder 10. The sheet engaging grippers 14 which, however, do not form part of this invention, are adjustably mounted in the usual manner on the gripper shaft 15 by means of set screws 16.

The shaft 17 supports a series of gripper pad supporting brackets 18, the bearing portions of which are slotted at 19 so that they can be readily adjusted on and clamped to the shaft 17 by means of the locking bolts 20. On the arm 21 of the bracket 18 is arranged a gripper pad in the usual manner such as for example by means of a bolt 24 which securely retains the pad within the recessed portion 23 provided in the bracket 18.

The edge 25 of the blanket 13 is securely engaged by means of clamping bars 26 and 27, preferably locked together by means of screws 28. In order to hold the edge 25 in position, the bracket 18 is preferably provided with an abutment surface 29 which engages the bar 27 when the respective parts are in their assembled position. The bracket 18 is also formed with a projection 30 which bears against the surface 38 formed in the cylinder frame for the purpose of limiting the movement of the bracket 18 towards the wall of the recess 11, so that that portion of the blanket which extends between the ledge 12 and the pad 22 will remain free, i. e. will not be clamped against said ledge by the pad 22 when the bracket 18 is locked in its operative position by means of the hand wheel 31 mounted on the shaft 32. The reduced portion of said shaft is threaded into the cylinder frame, and carries collars 34 held in position, preferably by means of a pin 35, and engaging a bracket 36 formed with an elongated slot 33 which serves to receive and guide the shaft 32. The bracket 36 is rigidly secured to the shaft 17. The latter also supports a bracket 37 adapted to slide over the surface 38 and is formed with a projection 39 provided with an inclined slot 40 within which engages a stud 41 riveted or otherwise secured to an angle bar 42 which is slidably mounted on the base of the recess 11 by means of one or more bolts 43 engaging within longitudinal slots formed in the angle bar 42.

The bracket 37 together with the shaft 17 and parts mounted thereon can be readily adjusted by actuation of the lever 44 pivoted to the base of the recess 11 by means of a bolt 45 which passes through an elongated slot provided in the angle bar 42. The lower, free end of said lever 44 engages in a slot 46 whereby the angle bar 42 can be moved to and fro after the thumb screw 47 has been loosened to release the lever 44.

With reference to Figure 2, it will be readily understood that when the angle bar 42 is moved to the left, the bracket 37 and associated parts will be moved upwardly due to the engagement of the stud 41 within the slot 40. The bracket 37 is guided by means of a stud 49 which operates within an elongated recess 50 formed in the base portion of the bracket.

In order to place the edge 25 of the

blanket with the locking bars 26 and 27 thereon in operative position, the threaded shaft 32 is released by turning the hand wheel 31 to the left so that the gripper pad supporting bracket 18 will move away from the locking ledge 12 of the cylinder sufficiently as to permit the insertion of the locking bars between the ledge 12 and bracket 18. The bar 26, as shown in Fig. 1, is preferably provided with an inclined surface which cooperates with a correspondingly inclined locking surface 48, so as to avoid any possibility of the blanket clamping bars becoming accidently disengaged from the locking ledge 12.

It will be understood that there may be various constructional modifications embodied in the mechanism described, without, however, departing from the spirit of the invention; therefore, it is my intention to cover any such modifications that will come within the scope of the appended claims.

I claim as my invention:

1. In a printing press, the combination of a support, a blanket carried thereby, and a gripper pad support for locking said blanket to said first mentioned support, without clamping the blanket against said first mentioned support.

2. In a printing press, the combination of a support, a blanket carried thereby, a clamping element secured to the edge of said blanket, and a gripper pad support cooperating with said clamping element for locking said blanket to said first mentioned support.

3. In a printing press, the combination of a support, a blanket carried thereby, locking means for holding the blanket in position, a gripper pad carried by said locking means, clamping means secured to the edge of said blanket, and means provided on said locking means being adapted to engage said clamping means to hold said blanket in its operative position.

4. In a printing press, the combination of a support, a blanket carried thereby, locking means for holding the blanket in position, a gripper pad carried by said locking means, clamping means secured to the edge of said blanket, and means provided on said locking means comprising an abutment surface adapted to engage said clamping means to hold said blanket in its operative position.

5. In a printing press, the combination of a support, a blanket carried thereby, locking means for holding the blanket in position, a gripper pad carried by said locking means, a pair of clamping bars secured to the edge of said blanket, and an abutment surface provided on said locking means adapted to engage said clamping bars to hold said blanket in its operative position.

6. In a printing press, the combination of a support, a blanket carried thereby, locking means for holding the blanket in position, a gripper pad carried by said locking means, clamping means comprising a plurality of clamping bars between which one edge of said blanket is secured, and means comprising an abutment surface on said locking means adapted to engage one of said clamping bars to hold said blanket in its operative position.

7. In a printing press, the combination of a support, a blanket carried thereby, locking means for holding the blanket in position, a gripper pad carried by said locking means, clamping means comprising a plurality of clamping bars between which one edge of said blanket is secured, means comprising an abutment surface on said locking means adapted to engage one of said clamping bars to hold said blanket in its operative position, and means comprising a manually operated member for releasing the locking engagement of said locking means with said clamping bar.

8. In a printing press, the combination of a support, a blanket carried thereby, locking means for holding the blanket in position, a gripper pad carried by said locking means clamping means comprising a plurality of clamping bars between which one edge of said blanket is secured, means comprising an abutment surface on said locking means adapted to engage one of said clamping bars to hold said blanket in its operative position, means comprising a manually operated member for releasing the locking engagement of said locking means with said clamping bar, and means to limit the movement of said locking means so that when the respective parts of the mechanism are in their operative position, the rubber blanket will not be clamped against the cylinder wall by said gripper pad.

Signed at Chicago, Illinois, this 25th day of February, 1927.

JOSEPH R. BLAINE.