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R. E. SMITH
COMBINATION CLAMP AND ANCHOR MEANS FOR
THE PLATES OF ROTARY PRINTING PRESSES
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1,961,797

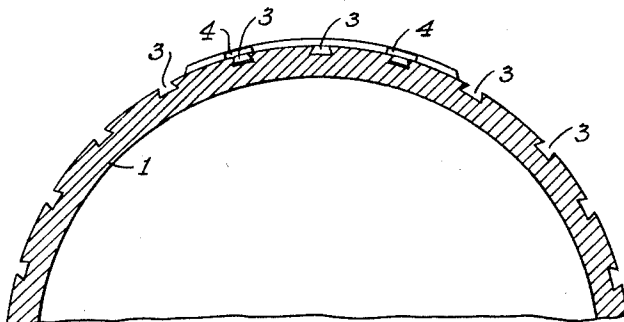


Fig. 1.

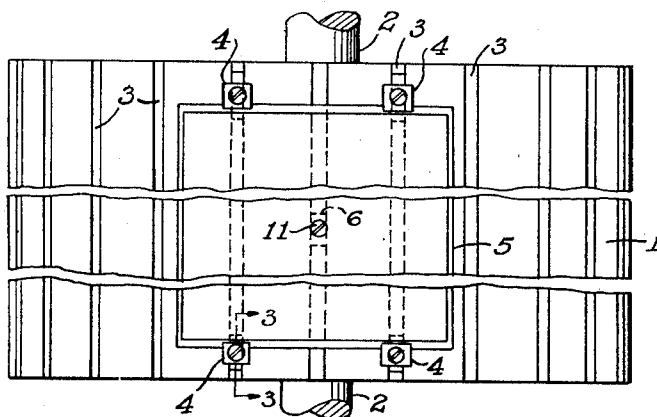


Fig. 2.

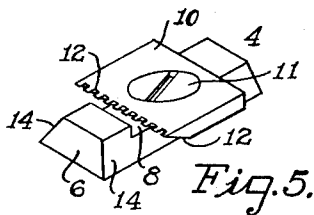


Fig. 5.

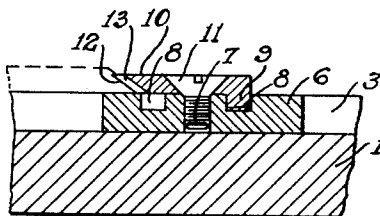


Fig. 3.

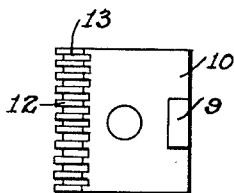


Fig. 6

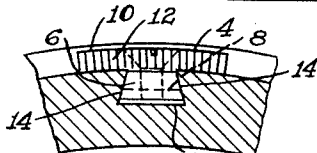


Fig. 4.

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COMBINATION CLAMP AND ANCHOR
MEANS FOR THE PLATES OF ROTARY
PRINTING PRESSES

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Application December 2, 1933, Serial No. 700,684

2 Claims. (Cl. 101—386)

My invention relates to the printing art and more specifically to a combination clamp and anchor for electrotpe and stereotype plates for rotary printing presses.

5 It is one of the principal objects of my invention to provide for a plate cylinder, a combination clamp and anchor that may be reversed without removal from the cylinder and which may be applied to either side of the plate to hold it firmly against slipping when rotated at high speed.

10 It is another object of my invention to provide a combination clamp and anchor that may be utilized as a plate anchor beneath the center portion of a large plate applied to a rotary press cylinder, to effectively resist the centrifugal forces that frequently cause a "slapping" sound when the cylinder is rotated.

15 It is another object of my invention to provide a clamp having a serrated face to render its gripping action more positive and to reduce the likelihood of slipping.

20 A further object of my invention is to provide a combination clamp and anchor that will permit a single plate, or a portion of a "set-up", to be removed or replaced without disturbing the other elements forming the composition on the cylinder, each plate being mounted independently of the others.

25 Other important and incidental objects of my invention will be set forth in the following specification and subjoined claims.

30 In the accompanying drawing illustrating my invention, I have shown it in its preferred form and in which Figure 1 is a fragmentary, cross-sectional view of the cylinder of a rotary printing press having axial dove-tailed slots for my combination clamp and anchor and showing an electrotpe attached to the cylinder. Figure 40 is a fragmentary plan view of the cylinder shown in Figure 1. Figure 3 is a longitudinal, sectional view taken on the line 3—3 of Figure 2.

45 Figure 4 is a sectional view of a portion of a rotary press cylinder, showing one of the axial, dove-tailed slots in which my combination clamp and anchor is received. Figure 5 is a perspective view of my combination clamp and anchor, and Figure 6 is a view of the lower face of the clamp employed with my combination clamp and anchor.

50 Referring now to the accompanying drawing for a detailed description of my invention, I have shown a conventional printing cylinder 1 having shaft projections 2 at each end thereof. The surface of this cylinder is provided with a plu-

5 rality of axially parallel dove-tailed slots 3, whose spacing may be varied as desired. These slots are adapted to receive from either end of the cylinder my combination clamp and anchor 4.

60 In Figures 1 and 2, I have indicated a curved electrotpe 5 of sufficient circumferential length to span several of the slots 3. This plate is secured at its opposite marginal edges to the surface of the cylinder by my combination clamp and anchors 4 that are received by those slots 3 spanned by the electrotpe.

65 My combination clamp and anchor 4 consists of a rectangular base 6 loosely received by the slots 3 and adapted to be shifted to a desired position adjacent the marginal edges of an electrotpe. At the center of each base 6 I have provided a threaded hole 7. Between the latter and each end of the block, transverse rectangular slots 8, 8 are formed in its top face, to receive in either of its adjusted axial positions, a key 9 formed on the inner face of a flat clamp member 10.

70 The clamp member 10 is also provided at its center with a countersunk hole to receive a flat head machine screw 11 that passes through the clamp 10 into the threaded hole 7 in the base. (See Figures 3, 4 and 5). The end of the clamp opposite the key 9 is formed with an inverted beveled face 12 having therein a series of closely spaced, rectangular serrations 13.

75 As shown in Figures 1, 2 and 3, when it is desired to attach an electrotpe to a printing cylinder, the screws 11 are loosened and the clamps adjusted to the desired position at the beveled sides of the electrotpe. Then, when the screws 11 are again tightened, the serrations will "bite" into the beveled sides of the electrotpe, while the tapering sides 14 of the base 6 will engage the sides of the dovetailed slots to quickly and firmly secure the plate against slipping.

80 When desired, the clamp 10 and screw 11 may be removed and the base shifted under the electrotpe to an opposite side of the latter. Then, with its position in respect to the base reversed, the clamp may be re-employed, the key 9 engaging the opposite slot 8.

85 When large electrotypes are employed, or when the press is operated at an excessive speed, trouble is frequently experienced, due to the springing or flexure of the plate. By positioning the base 6 under the center of the electrotpe and passing a screw 11 through the latter into said base, the electrotpe may be secured anchored at its center. (See Figure 2.)

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small diameters, I have found it desirable to form the clamps to a curvature similar to that of the cylinders, as shown in Figure 4, in order that the projecting edges thereof will not project above the type face.

From the foregoing description it will be evident to those versed in the art that I have provided an extremely simple and dependable clamp and anchor co-acting with axial dove-tailed slots in the face of a printing cylinder to effectively and economically secure various sized electrotypes to it.

While I have shown my combination clamp and anchor in its preferred form, I do not wish to be limited thereto, and any modifications or changes may be made therein within the scope of the following claims.

Having described my invention, I claim:

1. In a rotary printing press, a plate-receiving cylinder provided with axially parallel dove-tailed slots, an electrotpe positioned on said cylinder, an anchor slidably retained in said slots, said anchor formed with a threaded aperture in its face and positioned radially with respect to said cylinder, said anchor also contain-

ing circumferential slots in its face and oppositely disposed with respect to said threaded aperture, a threaded member insertible in said threaded aperture, a clamp member mounted on said threaded member, said clamping member having formed on one side a beveled face, a key formed at the opposite end of said clamp and adapted to enter a selected one of said circumferential slots in said anchor, and serrations formed in the beveled face of said clamp member and adapted to engage said electrotpe when said threaded means is tightened to lock said anchor in said dove-tailed slot.

2. In a rotary printing press, a plate-receiving cylinder, having axially parallel dove-tailed slots extending transversely thereof, an electrotpe positioned on said cylinder and partially covering said slots, an anchor member slidably movable in said slots, and positioned beneath said electrotpe, said anchor member formed with a threaded aperture, and threaded means passing through the electrotpe into said anchor means to secure said electrotpe against flexure between its otherwise retained edges.

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