

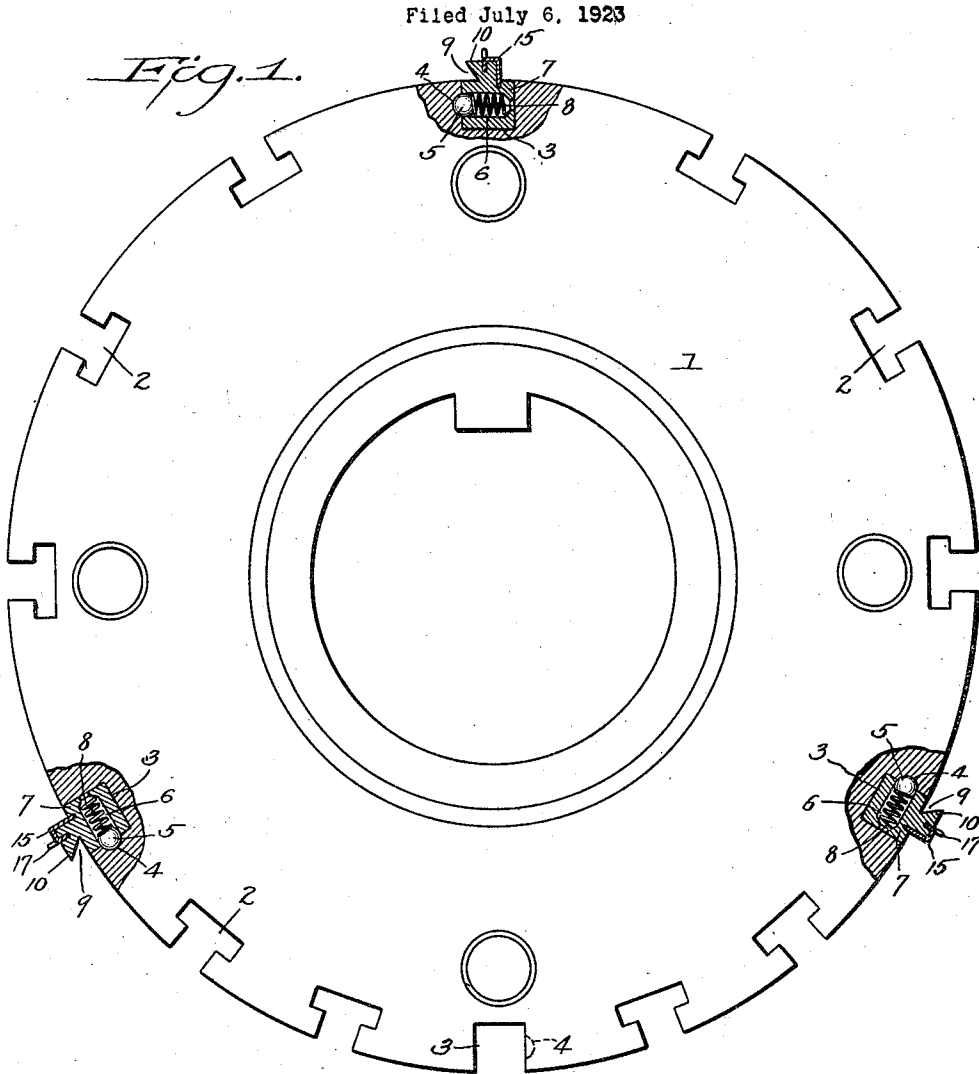
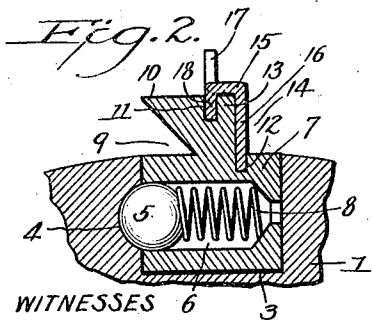
July 29, 1924.

1,503,074

G. W. SWIFT, JR

PLATE CLAMP AND HEADLINE MARKER FOR PRINTING PRESSES

Filed July 6, 1923



WITNESSES  
*Oliver K. Holmes*

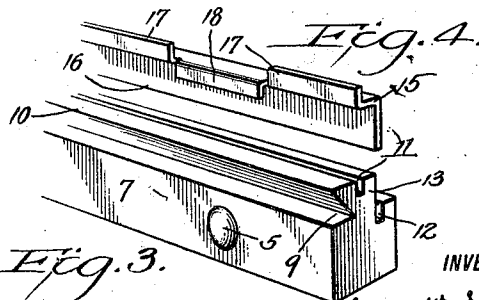


*Fig. 4.*

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# UNITED STATES PATENT OFFICE.

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## PLATE CLAMP AND HEADLINE MARKER FOR PRINTING PRESSES.

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*To all whom it may concern:*

Be it known that I, GEORGE W. SWIFT, Jr., a citizen of the United States, residing at Bordentown, county of Burlington, and State of New Jersey, have invented certain new and useful Improvements in Plate Clamps and Headline Markers for Printing Presses, of which the following is a specification.

This invention relates more especially to plate clamps and headline markers for printing presses in which a plate cylinder or other printing plate support is provided with a series of slots or grooves whereby suitable securing means may be used for fastening the plates in position. One of the objects of the present invention is to provide a plate clamping bar of improved construction in virtue of which said bar may be automatically interlocked with its cylinder or other support or disengaged therefrom by a simple movement of insertion or removal. Another object of my invention is to provide a headline marker of improved construction which may be readily and economically manufactured and which may be readily inserted or removed or adjusted in position. Other and further objects will appear in the specification and be pointed out in the appended claims, reference being had to the accompanying drawings in which my invention is shown in a preferred embodiment.

In the drawings:—

Figure 1 is an end elevation of a printing press cylinder, parts being broken away and parts shown in section to show one adaptation of my invention;

Figure 2 is an enlarged fragmentary section of the same;

Figure 3 is a perspective view on an enlarged scale of one end of my improved plate clamping bar;

Figure 4 is a similar perspective view of one end of the headline marker detached.

In securing a number of stereotype plates upon a cylinder it is customary to arrange the plates equidistant upon the cylinder surface and to anchor them in position by means of bolts mounted in grooves which extend longitudinally of the cylinder. In some of these grooves are anchored headline bars which serve to secure the leading edges of the stereotype plates. At the present

time, it is the common practice to have these headline bars secured to the cylinder within counter-sunk grooves and in such a way that when a new set of plates or forms are to be placed upon the cylinder, it is necessary to remove a large number of securing screws before moving the bars and then to replace the screws for holding them solid. In large cylinders upon which a number of plates are mounted this taking off and putting back of headline bars requires a great deal of time. In some cases several hours are consumed in removing one set of plates and mounting another set. It is also common practice at the present time to mount headline markers upon these headline bars in various inconvenient ways. For example, tongues or strips of metal are fastened to one or more of the plate clamps at the edges of the forms and so shaped as to extend over the headline bars so as to make the desired indicating marks between printed forms produced by the press.

Referring now to the drawings, a printing press cylinder 1 is ordinarily provided with longitudinally extending T-slots or grooves 2 which are adapted to receive suitable bolts for clamping stereotype plates or the like in position upon the printing cylinder. According to the present embodiment of my invention this cylinder is provided with grooves 3 substantially rectangular in cross section, said grooves being arranged approximately equidistant from each other around the periphery of the cylinder. As shown best in Figure 2, a lateral wall of each of the grooves 3 is provided with a part circular recess 4 extending longitudinally of the groove 3 and conforming in cross section to a series of ball latches 5 which are arranged in cylindrical cells 6 at suitable intervals along and within a plate clamping bar 7. The ball 5 is confined within the recess 6 by having the opening into said recess made slightly smaller than the diameter of the ball. Preferably this may be done by peening over the metal around the edge of said opening after the ball has been inserted. In order to yieldably retain the ball in its outwardly displaced position, the helical spring 8 is interposed between the ball 5 and the end wall of said recess. As thus constructed, the plate clamping bar 7 is adapted to be introduced by an endwise

movement into the groove 3, this being the preferred arrangement according to the illustrated embodiment of my invention. As shown in Figures 2 and 3, the plate clamp bar 7 is provided with an undercut groove 9 to form a plate holding clamp 10. Said bar 7 is also provided with upwardly presented parallelly arranged grooves 11 and 12 between which is formed a tongue 13 which extends longitudinally of the bar for supporting a suitable headline marker to be presently described. As clearly shown in Figures 2 and 3, the grooves 11 and 12 are arranged at different distances from the bottom surface of the plate clamping bar 7. For this purpose, a rectangular recess 14 is formed in and extends thruout the length of said bar. The groove 12 is formed in the horizontal wall of this recess. The headline marker is preferably constructed of a single piece of resilient metal having a longitudinal bend 15 extending thruout its length. The lower edge 16 of this strip is adapted to slidably engage the outer lateral wall of the tongue 13 and to be socketed in the longitudinal groove 12. The other edge of said strip is provided with displaced portions 17 and 18, the former being presented upwardly to constitute the headline marker, the latter being presented downwardly and parallel to the edge 16 of the strip for constituting therewith yieldable clamping means for releasably engaging the tongue 13. From the foregoing description it will be obvious that the plate clamping bar 7 automatically interlocks with the cylinder or support 1 as it is being inserted into the groove 3 and may be as readily removed without the necessity of manipulating various fastening devices. It will be obvious furthermore that the headline marker yieldably grips the tongue 13 in such a way that it may be readily connected to or disconnected from the plate clamping bar by a simple movement and at the same time may be adjusted longitudinally thereof to meet any desired requirements.

I claim:

1. In a headline marker for printing presses, the combination with a supporting bar, of a marker provided with resilient portions yieldably engaging said supporting bar and having headline marking portions projecting therefrom.
2. In a headline marker for printing presses, the combination with a supporting bar provided with parallel grooves, of a headline marker provided with resilient flanges yieldably engaging said bar within said grooves and having headline marking portions projecting therefrom.
3. In a printing press, the combination with a supporting bar provided with parallel grooves arranged at different distances from the bottom surface of said bar, of a

headline marker provided with resilient flanges of different depths yieldably clamping the tongue of material between said grooves and having headline marking portions projecting therefrom.

4. In a printing press, the combination with a removable supporting bar, of a headline marker resiliently engaging said supporting bar and provided with a headline marking portion terminating at the printing surface.

5. In a printing press, the combination with a removable supporting bar of a headline marker provided with resilient means yieldably gripping said bar and with a headline marker terminating at the printing surface.

6. In a printing press, the combination with a supporting bar provided with grooves arranged at different elevations with respect to the bottom of said bar, of a headline marker provided with resilient flanges yieldably engaging the walls of said grooves and with a headline marking portion extending to the printing surface.

7. In a printing press, the combination with a supporting bar provided with grooves arranged at different elevations with respect to the bottom of said bar, of a headline marker constructed of resilient metal and comprising a flange socketed in one of said grooves, a portion extending transversely between said grooves, and a second headline marking flange provided with a displaced portion thereof socketed in the other of said grooves.

8. A headline marker comprising in a single piece laterally spaced resilient flanges adapted to yieldably grip a suitable support therefor and a projecting flange constituting a headline marker.

9. A headline marker for printing presses consisting of a strip of resilient sheet metal having a longitudinal bend therein, the edge of said strip on one side of said bend having portions extending upwardly and downwardly and constituting respectively headline marking means and means cooperating with the other edge of the strip for yieldably gripping a suitable support.

10. A plate clamp and headline marker for printing presses comprising a plate-clamping bar provided with means for yieldably engaging a wall of a slotted support and a headline marker provided with resilient flanges for yieldably gripping said support.

11. In a printing press, a support provided with a slot, a plate clamping bar fitting into said slot and provided with means yieldably interlocking therewith, and a headline marking device yieldably gripping said plate-clamping bar.

12. In a printing press, the combination with a printing plate support provided with a groove, of a plate-clamping bar automati-

cally interlocking with said plate support as it is introduced into said groove, and a headline marker yieldably gripping said plate-clamping bar.

- 5 13. In a printing press, the combination with a printing plate support provided with a groove, of a plate-clamping bar automatically interlocking with said plate support as it is introduced into said groove, and a head-  
10 line marker yieldably gripping said plate-clamping bar, said headline marker having a slidable connection with said bar for permitting relative adjustment without removal from the bar.
- 15 14. In a printing press, the combination with a rotary plate cylinder provided with a longitudinal groove, of a plate-clamping bar slidable endwise into and out of said groove, and means automatically interlock-  
20 ing between said plate-clamping bar and a wall of said groove.

15. In a printing press, the combination with a printing plate support having a groove provided with a longitudinal recess, of a plate-clamping bar movable into and 25 out of position in said groove, a latch yieldably engaging said bar within said recess, and a headline marker yieldably gripping said bar.

16. In a printing press, the combination 30 with a printing plate support having a groove provided with a longitudinal recess, of a plate-clamping bar, a plurality of spring-pressed balls mounted in longitudinal series within cells formed in said bar, 35 said balls automatically interlocking with the wall of said longitudinal recess as the bar is positioned in said groove, and a headline marker carried by said plate-clamping bar.

GEORGE W. SWIFT, JR.