

K. M. SCHLUETER & F. SCHLUETER, JR.
 PLATE HOLDER FOR PRINTING PRESSES.
 APPLICATION FILED OCT. 31, 1910.

992,266.

Patented May 16, 1911.

Fig. 1.

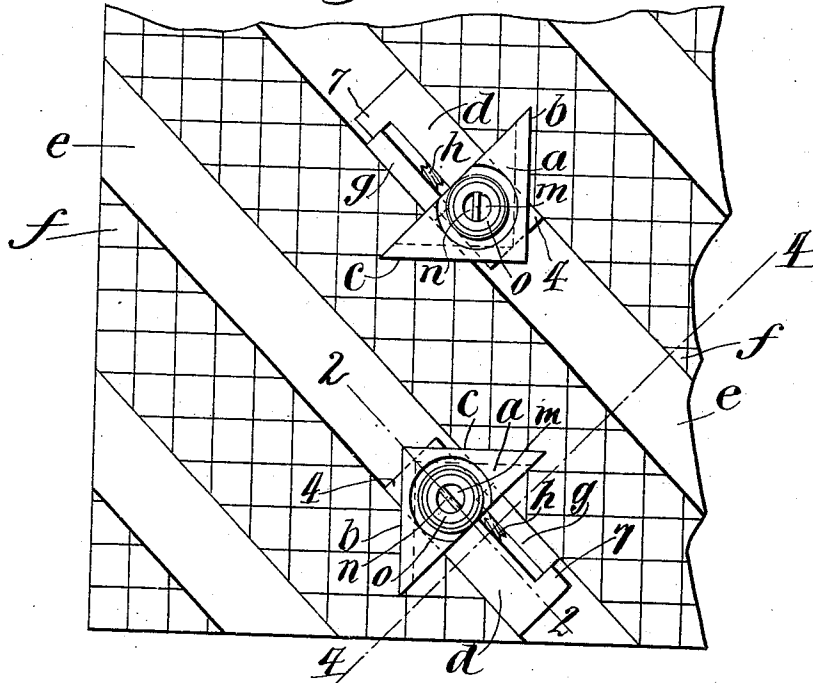


Fig. 2.

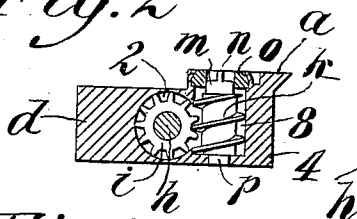


Fig. 4.

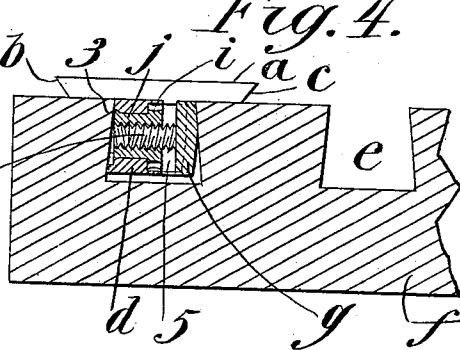
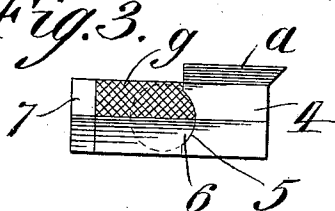


Fig. 3.



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PLATE-HOLDER FOR PRINTING-PRESSES.

992,266.

Specification of Letters Patent.

Patented May 16, 1911.

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To all whom it may concern:

Be it known that we, KARL M. SCHLUETER and FERDINAND SCHLUETER, JR., citizens of the United States, and residents of New York, county of New York, and State of New York, have invented certain new and useful Improvements in Plate-Holders for Printing-Presses, of which the following is a specification, reference being had to the accompanying drawing, forming a part thereof, in which similar letters of reference indicate corresponding parts.

This invention relates to plate holders for printing presses of the character having a grooved base for supporting bevel-edged printing plates.

The object of the invention is to provide a device of this character which obviates liability of accidental loosening and detachment after it is placed, and which may be readily operated by means of a screw driver or other tool; the device comprising laterally expansible clamping-members, and means for operating them comprising a worm, a toothed wheel, and a horizontal screw, all of said parts being located and inclosed within the structure and below the surface of the base. Thus providing a device which, when fixed to the base, remains rigidly in place.

The invention will be hereinafter fully described and specifically set forth in the annexed claims.

In the accompanying drawings forming part of this specification, Figure 1, is a plan view of part of a printing press base having two of our improved plate holders attached thereto; Fig. 2, a longitudinal sectional elevation taken on the line 2—2, of Fig. 1; Fig. 3, a side view of the device; and Fig. 4, is a cross sectional view taken on the line 4—4 of Fig. 1.

As illustrated by the drawings, we employ for directly holding the printing plate a metallic clamping-plate *a*, which is triangular in contour and has two beveled-edges *b* and *c*, extended at right angles from each other, these are for successive engagement with any of the four beveled-edges of printing plates. Said clamping-plate *a*, forms part of a laterally extended and downwardly directed member *d*, having a side contour adapted for snugly registering with one of the side walls of a groove, as *e*, formed in the base *f*. In the drawings we have shown a base having dove-tailed

grooves, but our device is susceptible of successful operation in connection with bases having other shaped grooves, as grooves having vertical side walls and grooves having compound-curved side walls. In such cases it is simply necessary to provide the member *d*, and the plate *g*, hereinafter described, with outer surfaces of a contour adapted to register with the side walls for the groove employed.

Extended parallel with the member *d*, is a plate *g*, having a horizontal screw *h*, formed integral therewith, on this screw is threaded a toothed wheel *i*, which is formed integral with a sleeve *j*, which is in pivotal engagement with the member *d*, said member *d*, having a recess 2, for accommodating the toothed wheel *i*, the head 3 of the sleeve *j*, also being countersunk whereby said head does not contact with the side walls of the grooves of the base when the device is attached, and the toothed wheel *i*, is protected and not susceptible of being accidentally turned. The said plate *g*, has a side surface formation adapted to register with the side wall of the groove employed, whereby the device may be securely clamped and held within said groove. The part 4, of the member *d*, is provided with a groove 5, which engages a tongue 6, of the plate *g*, and said member *d*, also has a laterally extended flange 7, for engaging the plate *g*, whereby said plate is maintained in alinement while the device is being operated.

As a means for turning the wheel *i*, a worm *k*, is located within a recess 8, of the part 4, of the member *d*, said worm having a cylindrical extension *m*, which is journaled within a bearing *o*, secured within a recess of the plate *a*, the worm being further provided with a depending cylindrical extension *p*, which is journaled within an opening leading through the bottom of the part 4, of the member *d*. A head *n*, which is preferably of rectangular contour, is formed integral with the extension *m*, and located below the surface of the plate *a*; this said head is adapted for engagement with a bifurcated screw driver whereby the worm may be rotated.

In the operation and use of the invention, by turning the worm *i*, in one direction the screw *h* and its clamping plate *g*, will move away from the member *d*, thus expanding the device and securely clamping the member *d*, and the plate *g*, within the groove *e*,

of the base *f*. To remove it a few turns of the worm in an opposite direction is all that is necessary. The direct and positive horizontal movement of the clamping parts admits of securely fastening the device within a groove of the base, and owing to the inclosed arrangement of the means for operating the device it is not susceptible of accidental displacement.

10 While we have illustrated the device in connection with a flat base, it is also susceptible of use, in slightly modified form, in connection with a grooved cylindrical base.

15 Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is:

1. The combination, with a plate holder comprising a bevel-edged plate having an integrally formed depending and laterally extended member adapted for engagement within a groove of a printing press base, and a parallel clamping-member having a horizontal screw, of a toothed wheel pivotally engaging first named member and threaded on said screw, and an inclosed worm for operating said wheel, substantially as shown and described.

2. A printing plate holder comprising a bevel-edged clamping-plate for engaging the printing plate, said clamping-plate having a depending, integrally formed and laterally extended member, and a parallel clamping-member, having a horizontal screw, and a

toothed wheel engaging said screw and countersunk within and in pivotal engagement with the first named member, and an inclosed worm engaging said wheel, the holder adapted to be expanded, by turning said worm, and clamped within a groove of a printing press base by direct horizontal movement of said screw and its clamping-member, substantially as shown and described.

3. The combination, with a printing-plate holder comprising a clamping-plate having an integrally formed, depending and laterally extended member, a toothed wheel in pivotal engagement with and countersunk within said member, and a horizontally movable screw threaded through said wheel and having a clamping-member on the free end thereof which is parallel with the first named member; of a base having parallel grooves, the holder clamped within one of said grooves, and the clamping-plate bearing on the surface of said base, substantially as shown and described.

In testimony that, we claim the foregoing as our invention, we have signed our names in the presence of two witnesses, this 25th day of October, 1910.

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Witnesses:

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