

K. M. & F. SCHLUETER.
 PLATE HOLDER FOR PRINTING PRESSES.
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979,035.

Patented Dec. 20, 1910.

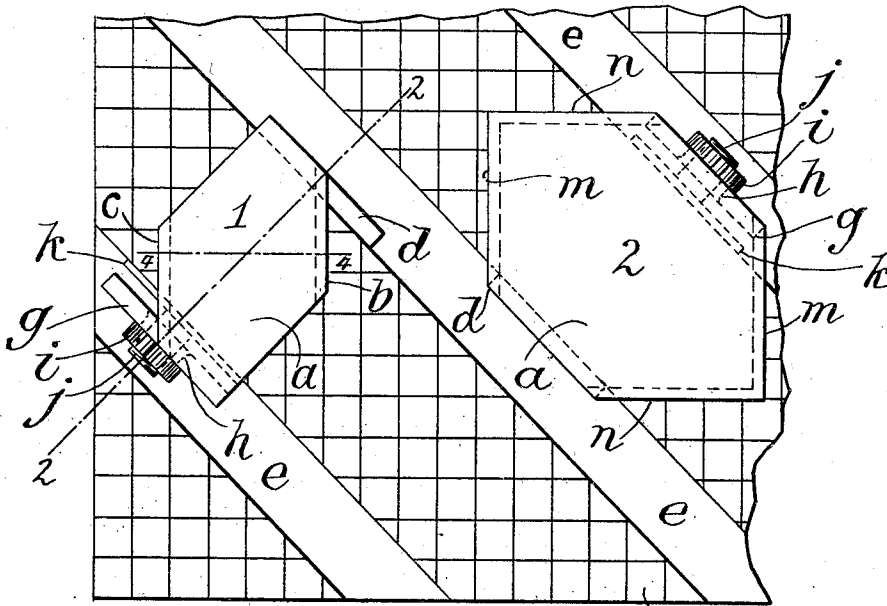


Fig. 1.

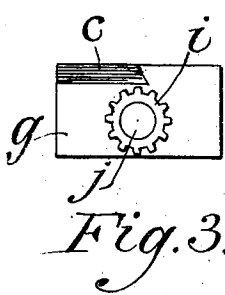


Fig. 3.

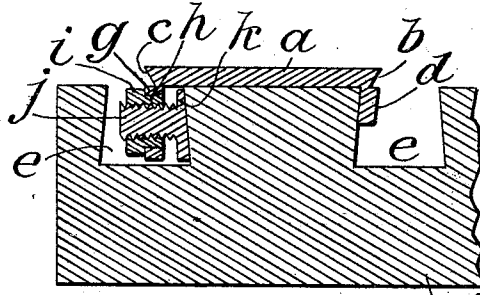


Fig. 2.

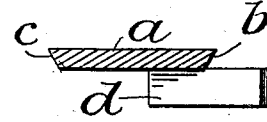


Fig. 4.

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UNITED STATES PATENT OFFICE.

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PLATE-HOLDER FOR PRINTING-PRESSES.

979,035.

Specification of Letters Patent.

Patented Dec. 20, 1910.

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To all whom it may concern:

Be it known that we, KARL M. SCHLUETER and FERDINAND SCHLUETER, citizens of the United States, and residents of New York city, 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 beveled-edged printing plates. These plates have heretofore been held to the base by means of holders comprising a clamping-plate for engagement with the printing plate and, laterally expandible, but vertically movable members engaging the side walls of the grooves of the base, said members having a radial swing on and connected and operated by a vertical screw pivotally engaging both, and having a head located at the upper surface of the clamping-plate. These said holders are liable to become accidentally loosened owing to vibrations, the exposed position of the screw head and the pivotal arrangement of the parts.

The object of our invention is to provide a device of this character which obviates liability of accidental loosening, the same comprising a clamping-plate for engagement with the printing plate, and which is bridged over the surface of the base between the side walls of the grooves, and contractible members movable, laterally only, by means of a horizontal screw and nut located below the surface of the base, whereby the operation of attaching the device is facilitated; further, the lateral clamping action is direct and the operating nut is not susceptible of accidental loosening, 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 forms of our improved plate holder attached thereto; Fig. 2, a cross sectional elevation taken on the line 2—2, of Fig. 1; Fig. 3, an end view of the device; and Fig.

4, is a cross sectional elevation 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 has a beveled edge *b*, for engagement with beveled edges of printing plates in a manner common to the ordinary plate holders, a parallel beveled edge *c*, may also be provided opposite to the edge *b*. The formation as shown by clamping-plate 1, provides means adapted only for engaging vertical edges of the printing plates, and the formation as shown by plate 2, is adapted for engaging both horizontal and vertical edges of said printing plates, the beveled edges *m* and *n*, being extended at right angles from each other respectively on vertical and horizontal lines.

Each clamping-plate is provided with a downwardly directed flange *d*, of an inner 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 flange *d*, and the plate *k*, hereinafter described, with inner surfaces of a contour adapted to register with the side walls of the groove employed.

Extended downwardly from and at right angles to each clamping-plate is an integrally formed extension *g*, to which is pivotally connected a sleeve *h*, forming an integral part of a nut *i*. Threaded through this nut is a horizontal, laterally movable screw *j*, having a plate *k*, forming part of its inner end, said plate having an inner surface formation adapted to register with the side wall of the slot employed, whereby a part of the base *f*, located between two grooves may be securely clamped between said plate *k*, and the flange *d*, of the clamping plate.

In the operation and use of the invention, by turning the nut *i*, in one direction the screw *j* and its clamping plate *k*, will move laterally toward the flange *d*, to securely clamp the part 1, of the base *f*, and rigidly retain the device thereon. To remove it a few turns of the nut in an opposite direction

is all that is necessary. The clamping plate bridged over and covering a relatively large surface of the base lying between its grooves, and the direct and positive lateral movement of the clamping parts admits of so securely fastening the device to the base that accidental displacement thereof is obviated, while at the same time it is susceptible of rapid operation both as regards attachment and removal.

While we have illustrated the device as bridging only one space or surface between slots of the base it is obvious that we may construct the device to bridge two or more if, in practice, such an arrangement is found desirable. Further, we have illustrated the device in connection with a flat base but it is also susceptible of use, in slightly modified form, in connection with a grooved cylindrical base.

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

1. A printing plate holder comprising a laterally extended beveled-edged plate having depending end members adapted for engagement within grooves of a printing press base, and a laterally movable clamping-member having a horizontal screw, and a nut pivotally engaging one of the said depending members and threaded on said screw, the device adapted to bridge part of a grooved printing press base and be clamped thereto, substantially as shown and described.

2. A printing plate holder comprising a beveled-edged clamping-plate for engaging the printing plate, said first named plate adapted to be held on a part of the surface of a grooved printing press base and located between grooves thereof and having depending end members, and a clamping-member having a horizontal screw, and a nut engaging said screw and in pivotal engagement with one of the said depending members, the device adapted to be clamped to a portion of a printing press base by direct lateral movement of said screw and its clamping-member, one of said depending members adapted for frictional engagement with a side wall of a groove of a printing press base, and said clamping-member adapted for frictional engagement with a side wall of a parallel groove, substantially as shown and described.

3. In a printing plate holder, the combination, with a bridge comprising a clamping-plate having depending end members, of a nut in pivotal engagement with one of said members, and a laterally movable screw, said screw threaded through said nut and having a clamping-member on the free end thereof, the said clamping-member in conjunction with the depending member located opposite thereto adapted for lateral movement and contraction whereby part of a grooved printing press base located between grooves may be clamped, substantially as shown and described.

4. The combination, with a printing plate holder comprising a clamping-plate having depending members, a nut in pivotal engagement with one of said depending members, and a laterally movable screw threaded through said nut and having a clamping-member on the free end thereof; of a base having parallel grooves, the said clamping-member in conjunction with the depending member of the clamping-plate which is located opposite thereto frictionally engaging side walls of different parallel grooves of the base and clamping a part of said base located between the grooves, and the said clamping-plate bridging the surface of said part whereby said plate is securely held in place, substantially as shown and described.

5. A printing plate holder comprising a clamping-plate having a plurality of beveled edges for directly engaging the printing plate, said clamping-plate having depending end members, and a laterally movable clamping-member having a horizontally extended screw, and a nut pivotally engaging one of the said depending members and threaded on the said screw, the device contractible for clamping engagement on a part of a grooved printing press 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 21st day of April, 1910.

KARL M. SCHLUETER.
FERDINAND SCHLUETER.

Witnesses:

THO. O. DOW,
ISRAEL C. NEWMAN.