

No. 627,856.

Patented June 27, 1899.

A. W. KNOX.
GRIPPER FOR PLATEN PRESSES.

(Application filed Aug. 29, 1898.)

(No Model.)

Fig. 1.

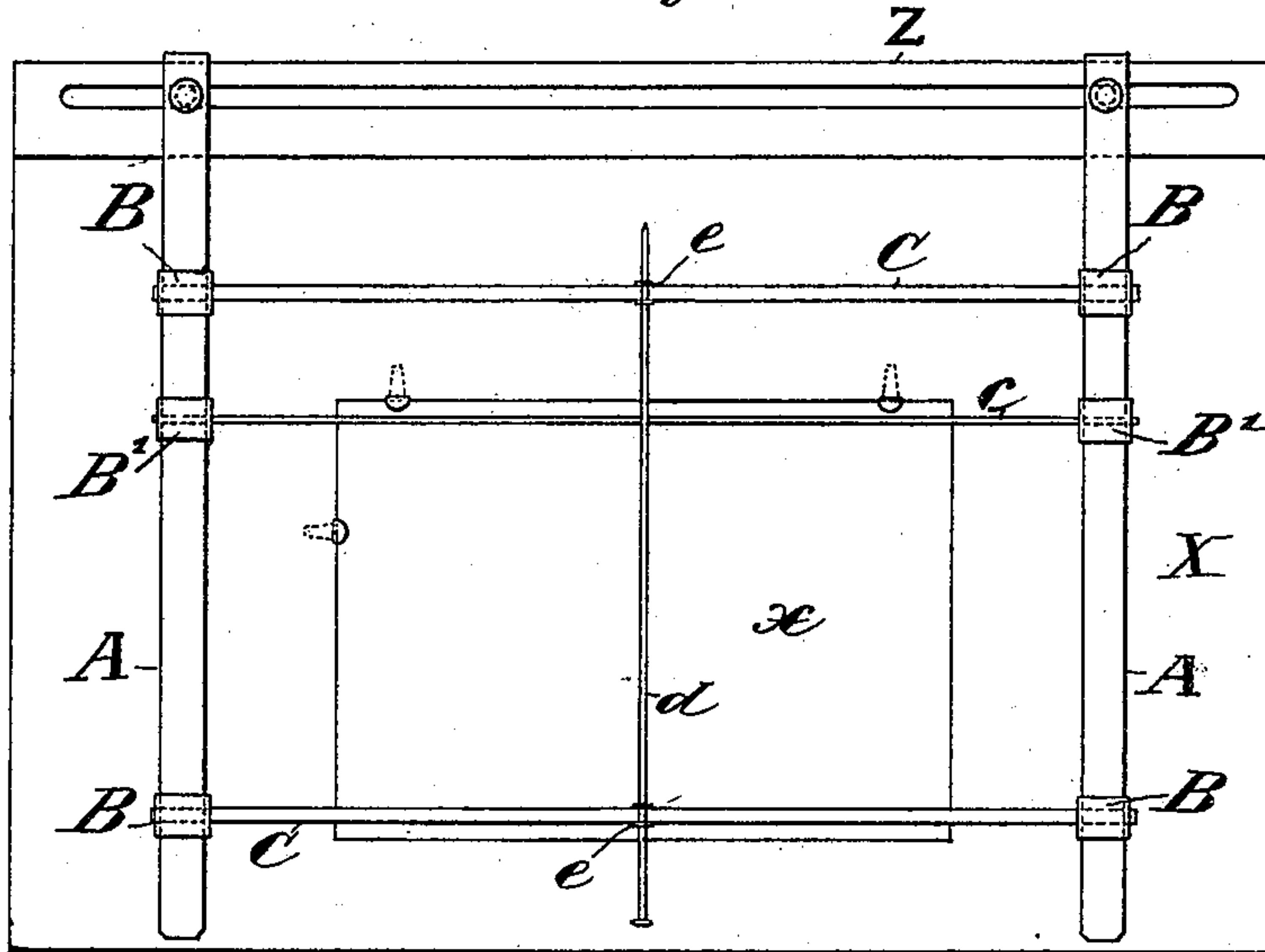


Fig. 2.

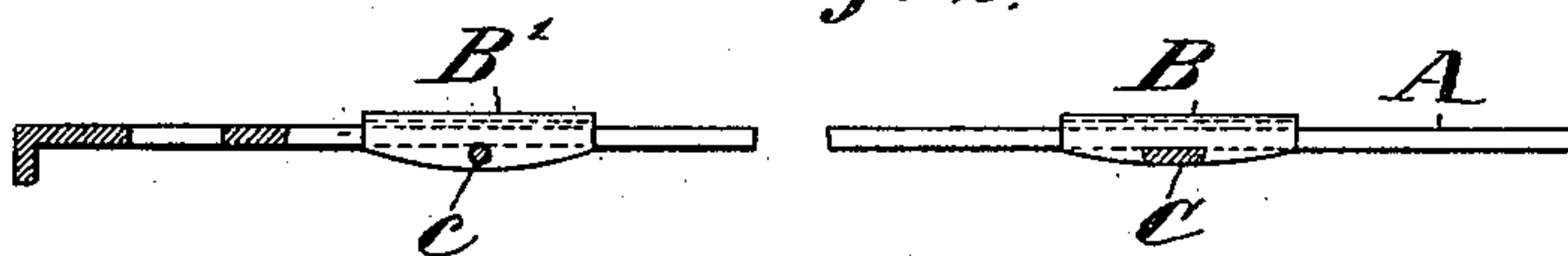


Fig. 3.

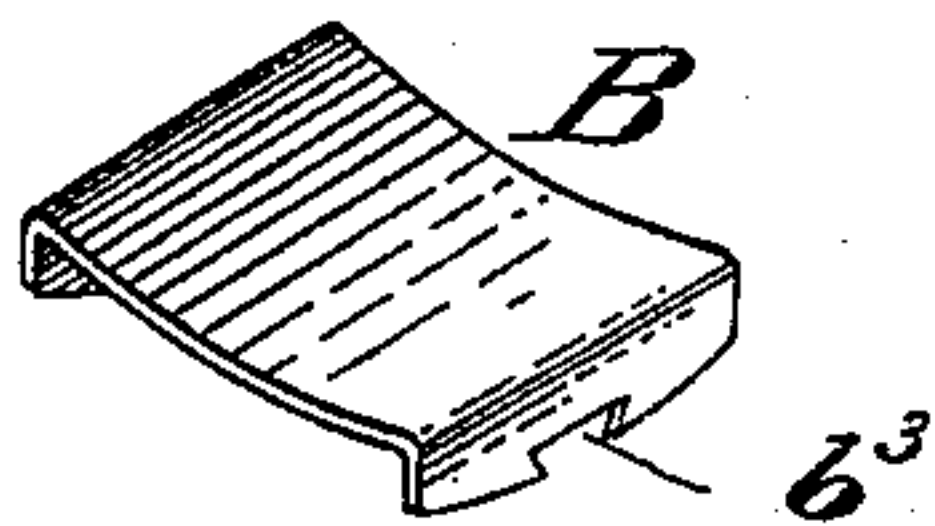


Fig. 4.

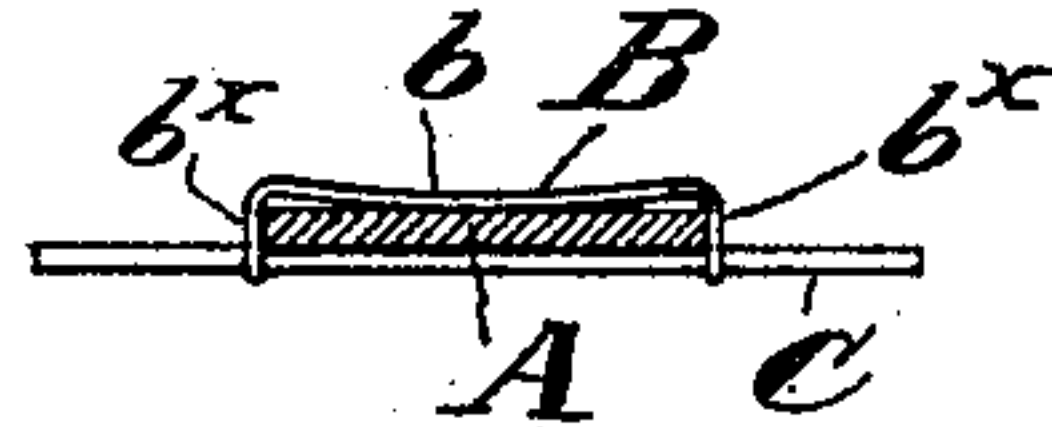


Fig. 5.

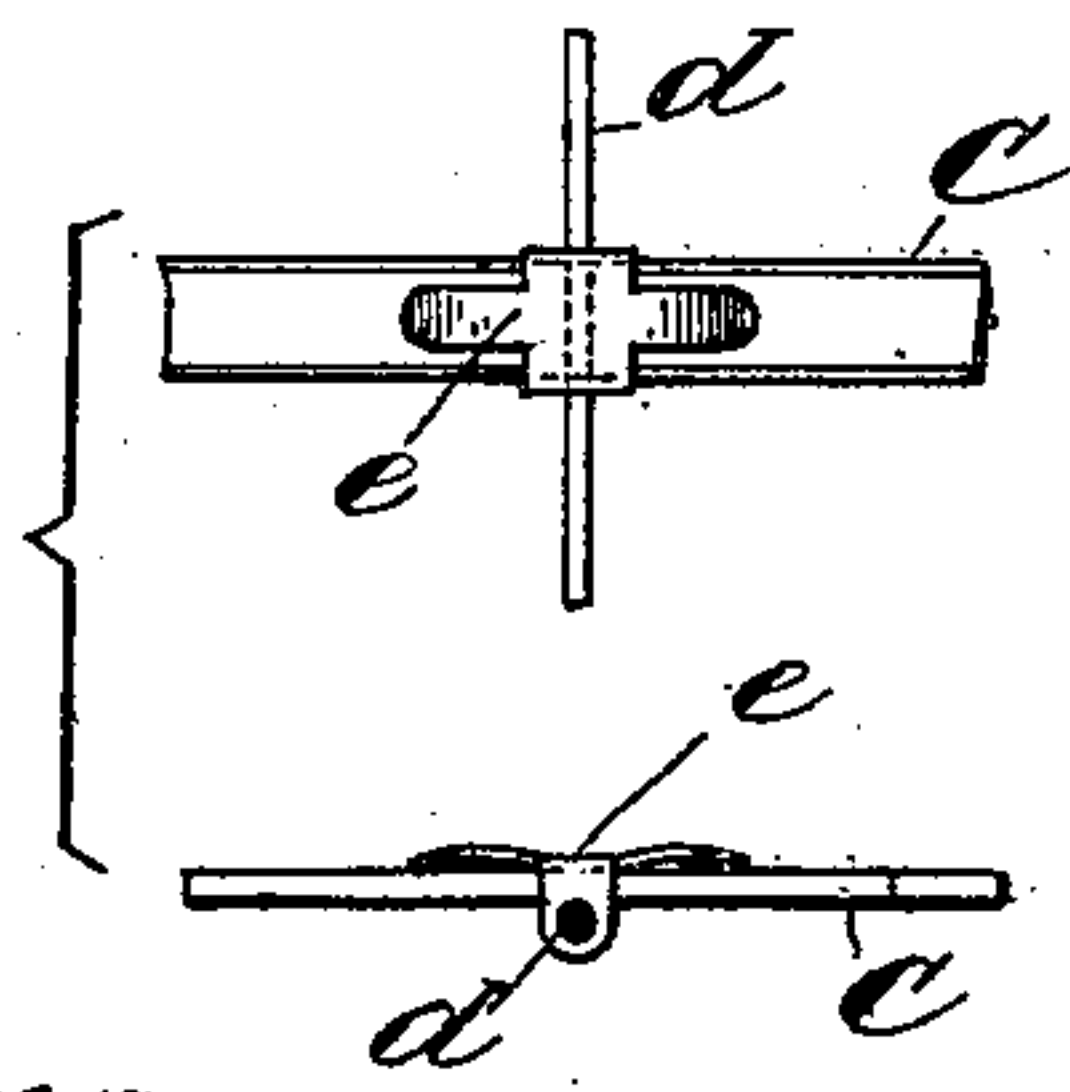
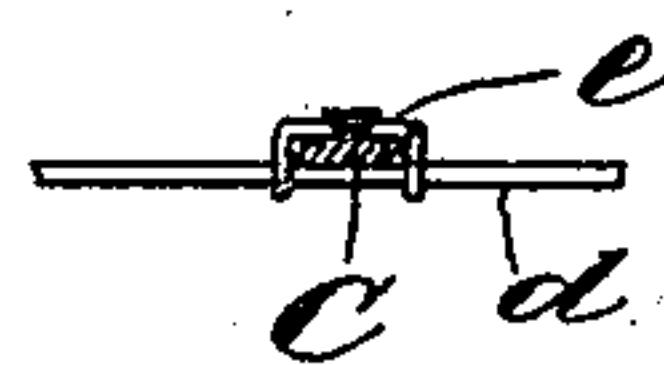


Fig. 6.



WITNESSES:

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GRIPPER FOR PLATEN-PRESSES.

SPECIFICATION forming part of Letters Patent No. 627,856, dated June 27, 1899.

Application filed August 29, 1898. Serial No. 689,761. (No model.)

To all whom it may concern:

Be it known that I, ANDREW W. KNOX, a citizen of the United States, residing in the borough of Manhattan and city, county, and State of New York, have invented certain new and useful Improvements in Gripper Attachments for Platen Printing-Presses, of which the following is a specification.

This invention relates to the class of devices employed for stripping the sheet from the form as the platen withdraws after the impression, such devices being commonly called "grippers;" and it relates especially to that kind of such grippers as have tie-bands which connect the gripper-bars, as represented in my pending application, Serial No. 688,128, wherein the tie-bands are secured adjustably to the gripper-bars by screw-clamps, so that the bands are adjustable along the gripper-bars and the latter are adjustable along the tie-bands.

The present invention consists mainly in the employment of a pin or wire mounted adjustably on the tie-bands or gripper-bars at its ends and extending across the space bounded by the gripper-bars and tie-bands, whereby it takes under the central part of the printed sheet occupying a blank space in the form. Provision is made for using the pin or wire either alone or in conjunction with the flat tie-bands.

In the accompanying drawings, which illustrate an embodiment of my invention, Figure 1 is a plan view, on a small scale, of a platen of a printing-press furnished with my improved gripper attachment. Fig. 2 is an edge view of one of the gripper-bars, showing the clamps thereon. Fig. 3 represents one of the clamps B in perspective. Fig. 4 is a cross-section of the gripper-bar, showing a clamp B thereon. Figs. 5 and 6 are views illustrating the form of the clip *e* for securing the pin *d* to the bands B.

In Fig. 1, X represents the platen of an ordinary printing-press, and *x* a sheet (of paper, for example) placed thereon up to the gage-pins and ready to receive an impression.

Z is the slotted plate to which the two gripper-bars A A are adjustably secured, each by a bolt engaging the slot in the plate in the usual way. On the gripper-bars are spring-clamps B, which may be of sheet metal, for

holding the stiff flat tie-bands C and securing them adjustably and frictionally on the gripper-bars. Figs. 3 and 4 illustrate the form and construction of the clip B. It has a curved crown-plate *b*, the convex face of which bears on one face of the bar A, and flanges *b*^x, which embrace the respective edges of said bar. In the pendent edges of the said flanges are formed dovetail keepers *b*³ to receive the band C, which has beveled edges to fit the keepers, the spring of the clip serving to draw the tie-band up firmly against the other face of the bar. Thus the clip is held frictionally on the bar, and the tie-band is held frictionally in the clip; but the clip may be moved along the bar and the band may be moved through the clip.

In Fig. 1 one of the tie-bands B is represented as taking over the margin of the sheet *x* and the other as below and beyond the other margin of the sheet; but there is a pin *c*, mounted in clips B', which takes over the lower margin of the sheet. This pin may be a slender stiff steel wire, and the clip B' is precisely like the clip B, except that it has round holes in its flanges, Fig. 2, to receive the pin in lieu of the keepers *b*³ of the clip B.

In many cases the sheet *x* will have such narrow margins and perhaps be otherwise of such shape or form that the band C and pin *c*, one or both, cannot be relied on to strip it from the form; and to obviate this defect a pin *d* is employed to extend across the space bounded by the bars A and tie-bands B and parallel with the bars A. This wire and the wire *c* are called "pins," for they will preferably have each a small head and a point. The pin *d* is secured frictionally adjustably to the respective tie-bands C by spring-clips *e*. (Clearly illustrated in Figs. 5 and 6.) The pins *d* are used when the lines of type in the form extend parallel with the gripper-bars or when there is a space or spaces in the form extending in this direction, as the pin must be so situated as to register with such a space. If the lines of type extend parallel with the bands C or the space or spaces between the lines of type extend in this direction, then the pin *c* may be so placed as to extend across the sheet, registering with such space. Obviously both of the pins or wires *c* and *d* may be used at the same time or one may be used

without the other, according to the requirements of the situation. This will be subject to the judgment of the user. The main purpose is to provide an adjustable stiff wire or pin 5 in the nature of a tie-bar to extend across the sheet and the form of type in either direction, and the same wire or pin if long enough may be used with either the clamps B' or clamps e. In Fig. 1 all of the tie-bands and 10 pins are shown in use, but this is merely for illustration.

Having thus described my invention, I claim—

1. A gripper attachment for platen printing-presses, comprising two gripper-bars, two 15 tie-bands connecting said bars, a pin or wire extending across the rectangular space bounded by the said bars and tie-bands, and means for securing its ends adjustably to the 20 parts inclosing said space, substantially as set forth.

2. A gripper attachment for platen printing-presses, comprising two gripper-bars, two tie-bands connecting said gripper-bars and

with them inclosing a rectangular space, a 25 pin d, extending across said space parallel to the gripper-bars, and spring-clips which secure the ends of said pin frictionally and adjustably to the respective tie-bands, substantially as set forth. 30

3. In a gripper attachment, the combination with the gripper-bar and the tie-band, of the clip B, for securing said band frictionally and adjustably to the bar, said clip having a crown-plate and pendent flanges which embrace the edges of the bar, the crown-plate 35 being bent to form a spring with its convex face bearing on the bar and the flanges having in them dovetail keepers to receive the band, substantially as set forth. 40

In witness whereof I have hereunto signed my name this 27th day of August, 1898, in the presence of two subscribing witnesses.

ANDREW W. KNOX.

Witnesses:

HENRY CONNETT,
PETER A. ROSS.