C. J. McARTHUR.

SIDE GUIDE FOR PRINTING PRESSES.

APPLICATION FILED APR. 28, 1906.

899,834.

Patented Sept. 29, 1908.

Fig. 1.

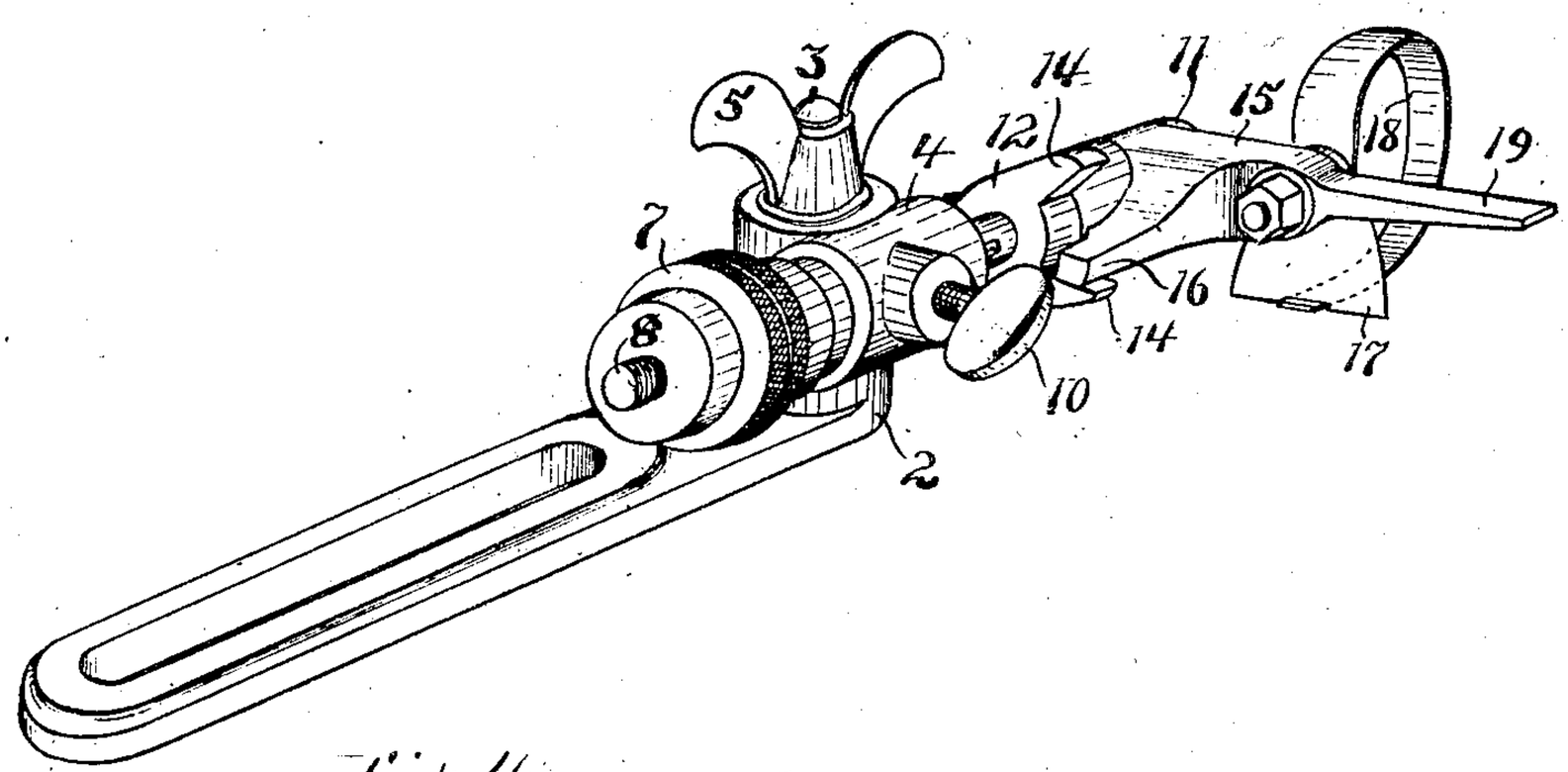


Fig. 4.

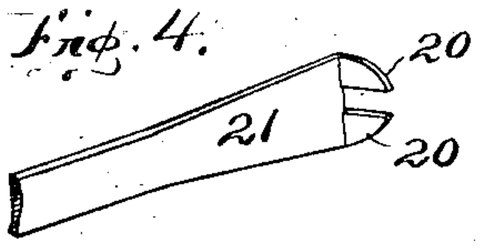
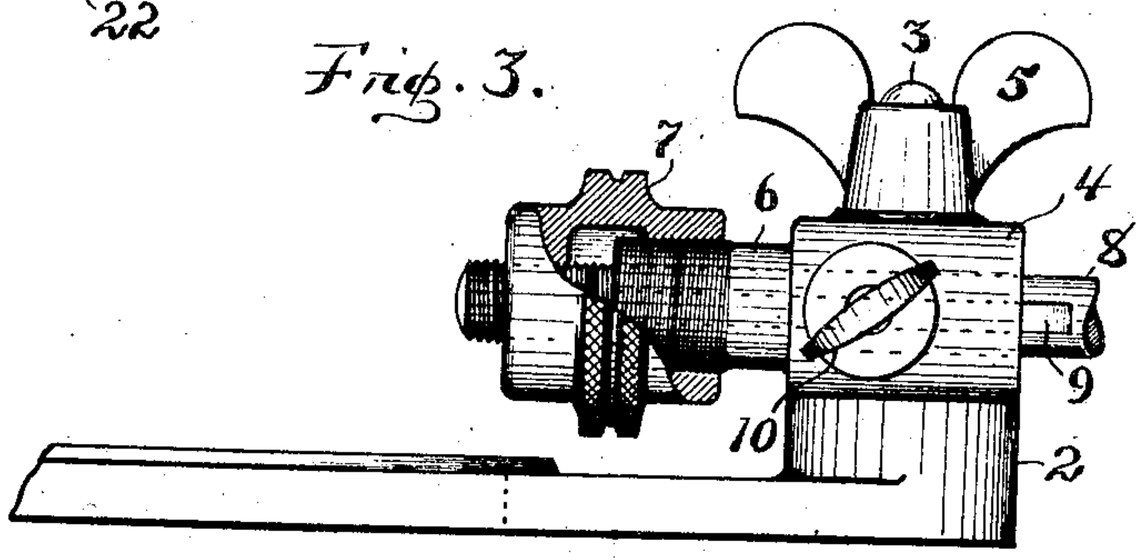


Fig. 2.

Fig. 3.



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SIDE GUIDE FOR PRINTING-PRESSES.

No. 899,834. Specification of Letters Patent. Patented Sept. 29, 1908.

Application filed April 28, 1906. Serial No. 314,252.

To all whom it may concern:

Be it known that I, CHARLES J. McARTHUR, a citizen of the United States of America, and resident of Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Side Guides for Printing-Presses, of which the following is a specification.

This invention relates to improvements in side guides for printing presses, of that class used for gaging the lateral position of the sheets as they are fed to the press, and the object thereof is to provide an efficient guide for the side of the sheet, with suitable mechanism in connection therewith for removing the same from contact with the sheet after the sheet has been properly placed in position. This object is accomplished by the construction illustrated in the accompanying drawings, in which:

Figure 1 is a perspective view showing the invention, the operating arm being omitted; Fig. 2 is an elevation showing a side view of the operating arm in connection with the guide; Fig. 3 is a detail view showing part of the support for the guide and its adjusting mechanism; and Fig. 4 is a detail view of the operating arm.

Similar numerals of reference indicate corresponding parts throughout the several views, and referring now to the same: 1 is the feed-board of a printing press, and 2 is an adjustable base which is placed upon the feed board and secured thereto by any suitable means. At one end of the base 2 is a vertical stud 3 upon which is pivotally mounted a supporting block, the latter being held in adjusted position relative to the base 2 by means of a thumb-nut 5 which is driven upon the projecting end of the stud down against the top of the block. One portion of the block 4 has an extending sleeve 6 which is externally screw-threaded and thereupon is mounted an adjusting nut 7. A supporting bar 8 extends through the block 4 and sleeve 6 and also has screw-threaded engagement with the nut 7. The threads on the sleeve 6 and those on the bar 8 are made respectively right and left, and the one is also made to a finer gage than the other, or vice versa, and it will therefore appear that when the nut 7 is turned, the bar 8 will thereby become moved longitudinally in the block 4 in the direction accordingly as the nut is turned, and the extent of the movement of the bar to each turn of the nut will be according to the difference in gage between the threads on the sleeve and those upon the bar. A key-way 9 is made in the side of the bar 8 and a set-screw 10 extends through the adjacent side of the block and serves to prevent the bar 8 from turning in the block or moving longitudinally therein when the set-screw is tightened. Upon the outer end of the bar 8 is fixed a collar 11, and another collar 12 is mounted upon the bar and collar 11 is secured in adjusted positions thereon by the set-screw 13. The latter collar has jaws 14 which project from its perimeter. Between the collars 11 and 12 is mounted upon the bar 8 an oscillating lever arm 15 which has a lug 16 protruding from its inner side and which extends between the jaws 14 of the collar 12 and serves to limit the oscillating movement of the lever-arm by coming into contact with the uppermost of said jaws. Upon the outer side of the lever-arm is secured a pendent guide-plate 17 which has in connection therewith a prong 18, the lower edge of the former being adapted to rest squarely upon the upper surface of the feed-board 1 when in normal position. The projecting end 19 of the lever-arm extends between lateral lugs 20 at the end of the operating arm 21 which has rigid attachment with an oscillating shaft 22 by means of a bracket 23.

The shaft 22 is a part of the printing press which is ordinarily provided in presses of known makes for operating "drop-guides." Thus it will be understood that when the shaft 22 is oscillated, the guide 17 will be moved into contact with and from the feed-board because of the consequent movement of the operating arm 21 and the lever-arm in connection therewith.

In the operation of this invention, the base of the device is secured upon the feed-board with the guide in the approximate desired position, and the operating arm is secured in proper position upon the shaft 22 and in connection with the lever arm as above stated. A finer adjustment of the guide is then made as desired by manipulating the nut 7 which effects the movement of the guide laterally respecting the feed-board, and after such adjustment the bar 8 is secured by tightening the set-screw 10 while the guide rests upon the feed board. The sheet of paper is adjusted with its edge against the outer face of the guide-plate beneath the prong, and as the sheet is drawn from the feed board into

the printing press, the guide is automatically lifted from the feed board because of the oscillating movement of the shaft 22 and its connected relation therewith, and therefore the guide will not interfere in any manner with the subsequent movement of the sheet.

Where a stationary side guide is employed the adjacent edges of the sheet of paper rub against the guide with more or less force and cutting effect as the sheets are drawn into the press, and especially when the sheet is set slightly out of true. In this manner the guide becomes considerably worn because of friction occasioned by contact with the moving edges of the sheet. However, in the present instance, the guide is lifted clear of the sheet during the passage of the latter from its adjusted position on the feed-board into the press. Thus it will appear that this side guide may be employed when feeding deckled edge papers, and crowding of the sheets when set out of true is obviated as well as the liability of frayed sheets becoming caught by the side guide as occurs where a stationary side guide is used. By lifting the guide as set forth after the sheet has been set, a clear and unobstructed passage of the latter into the press is afforded with the obvious obviation of evils which attend the ordinary stationary guide.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is:—

1. In a side guide for printing presses, a base adapted to be adjustably secured to the feed board of the press; a pivoted block in connection with the base, the block having an externally threaded sleeve; a supporting bar extending through the block and sleeve; an adjusting nut having screw-threaded relations with both the sleeve and bar, and thereby being adapted to move said bar relative to the block when turned; a guide plate normally resting upon the feed-board and having supported relation with said bar; and suitable mechanism in connection with the press to automatically actuate the guide plate.

2. In a side guide for printing presses a base attached to the feed board and a supporting bar in adjustable relation with the base; a lever arm supported by said bar and having pivotal relation therewith; a guide in connection with the lever arm adapted to rest normally upon the feed-board; and an operating arm in connection with the lever arm to actuate the latter.

3. In a side guide for printing presses, a base having a supporting block in adjustable relation therewith; a supporting bar in adjustable relation with the block, and having an oscillating lever arm in connection therewith; a guide connected with the lever arm and adapted to normally rest upon the feed-board; and means to actuate the lever arm.

In testimony whereof I affix my signature, in presence of two witnesses.

CHARLES J. McARTHUR.

Witnesses:
F. W. HORSTMANN,
H. G. GARNIER.