July 9, 1929. A. BROWN 1,720,655

FEEDING GAUGE FOR PLATEN PRESSES

Filed March 22, 1928

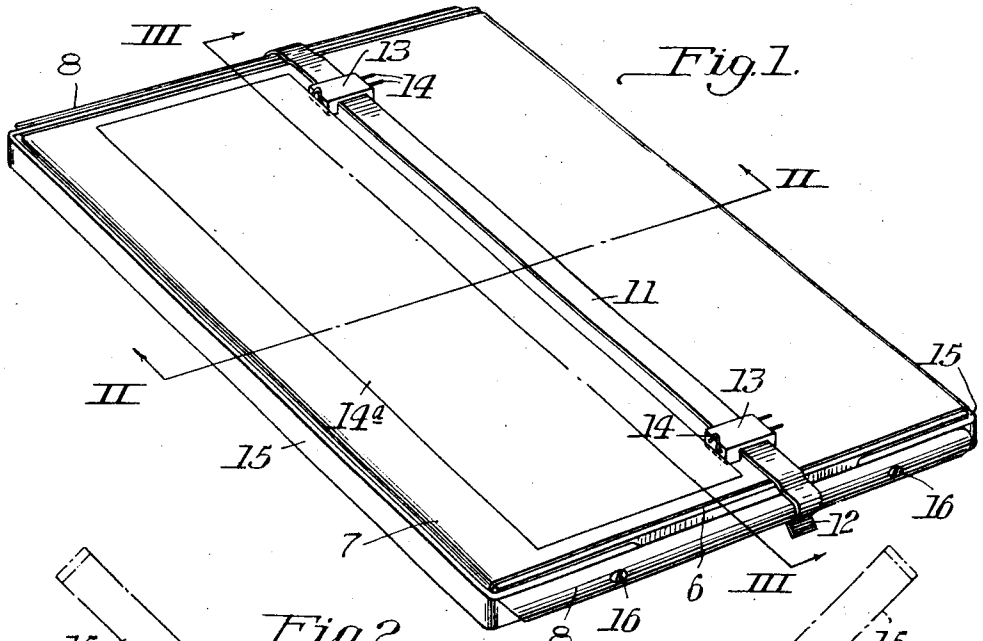


Fig. 1.

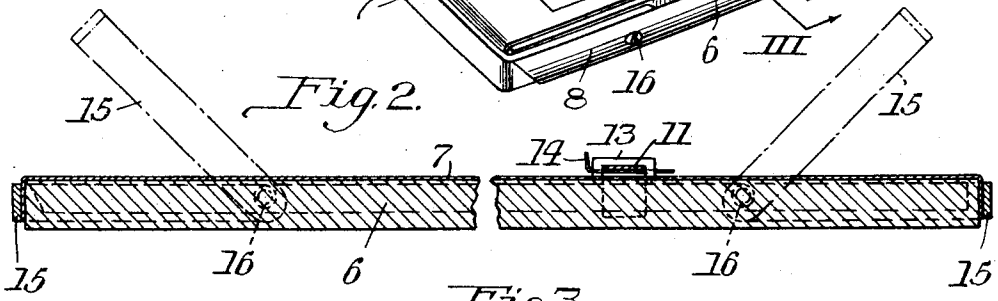


Fig. 2.

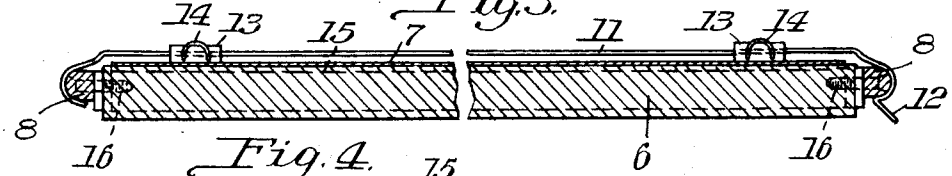


Fig. 3.

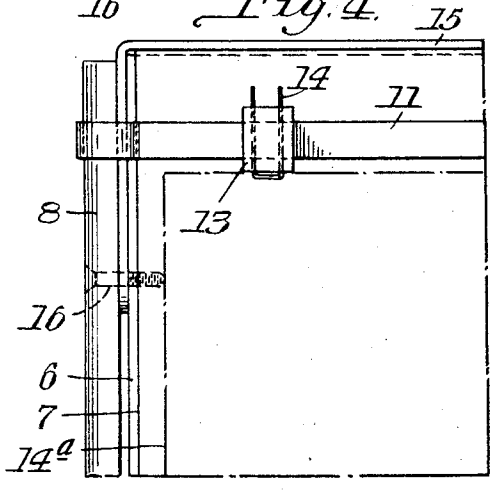


Fig. 4.

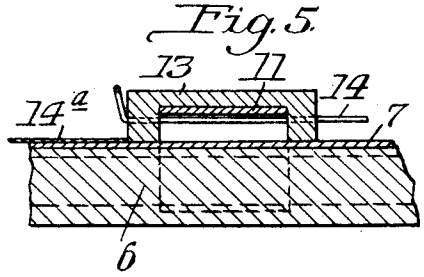


Fig. 5.

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FEEDING GAUGE FOR PLATEN PRESSES.

Application filed March 22, 1928. Serial No. 263,743.

My invention relates to gauges or guides such as those employed in connection with platens of printing presses, but it is also susceptible of use in various other relations.

In the printing of sheets or cards that are placed upon the platens, it is highly important to provide a fixed gauge or guide that will readily enable each sheet to be placed in an exact position for receiving an impression. Heretofore, the gauges have consisted of pins stuck into the pad or tympan that is placed upon the platen, or the guides have consisted of quads glued to the tympan. In the former case, the pins frequently become displaced, while in the latter case, the quads may become loosened. Either procedure is somewhat of a make-shift and uncertain in results, and the guides can not be readily re-adjusted.

While in some cases guide bars are employed, such bars being detachably connected to the platen and carrying quads or stops that serve as guides for the sheets, it has been necessary in those devices to remove or displace the bars when it becomes necessary to either insert or remove the packing or padding material that is usually provided beneath the tympan sheet. It many times happens that it is necessary to insert a sheet beneath the tympan sheet to raise the surface of the tympan, so as to secure a proper impression upon the sheets or cards being printed.

One object of my invention is to provide a guide bar that can be readily positioned at desired points on the platen and so mounted that it need not be disturbed from a set position when placing sheets in underlying relation with respect to the tympan sheet.

Another object of my invention is to provide an improved form of guide stop or quad.

Another object is to provide an improved arrangement of guide rails and clamping means on a platen.

Still another object of my invention is to simplify and improve generally the structure and operation of printing press guides.

One form which my invention may take is shown in the accompanying drawing, wherein Figure 1 is a perspective view of a platen embodying my invention; Fig. 2 is a view taken on the line II—II of Fig. 1; Fig. 3 is a view taken on the line III—III of Fig. 1; Fig. 4 is a plan view, on an enlarged scale, of a portion of the apparatus of Fig. 1; and Fig. 5 is a view, on an enlarged scale, of a portion of the structure shown in Fig. 2.

The platen proper I have designated by the numeral 6 and the tympan sheet or pad by the numeral 7. A guide rail 8 is secured to opposite edges of the platen 6, as hereinafter explained. A gauge bar 11 preferably of spring steel has its ends normally in hooked engagement with the guide rails 8, as shown more clearly in Figs. 1 and 3, to yieldably grip the same with sufficient force to prevent accidental sliding of the bar along the rails. One extremity 12 of the bar 11 is out-turned as shown in Fig. 3, so that such extremity can be grasped to effect convenient removal of the bar by lifting it from the platen.

A pair of quads or stops 13 are slidably mounted upon the bar in position to be engaged by sheets of paper 14, as shown more clearly in Fig. 1, it being understood that the bar 11 is placed at the proper point along the guide rails 8, so that when the sheet 14^a is placed against the stops, it will receive the impression at a desired point, particularly with respect to the longitudinal dimension thereof. Lateral guides may be provided, if desired, but I am concerned mainly with the positioning of the sheet longitudinally of the platen, since such position is usually the more difficult to fix.

Each quad 13 is channeled, and the flanges of the channels are perforated for the reception of locking pins or wires 14, the quads being first placed upon the bar 11 and the wires then inserted. Should the wires 14 become damaged, they can be easily replaced. The quads are, of course, slidable longitudinally of the bar 11.

In order to clamp the tympan sheet 7 upon the platen 6, I show a clamping bar 15 at each end of the platen. These bars are of yoke-like form and have their legs disposed between the edges of the platen and the guide rails, as shown more clearly in Figs. 1 and 4. Screws 16 serve to maintain the clamping bars in position and to pivotally support the same for swinging movement, as indicated by dotted lines in Fig. 2. The screws also serve to hold the guide rails in place.

When the bars 15 are in operative position, they clamp the ends of the tympan sheet 7 as shown in Fig. 2. If now it be desired to in-

sert a sheet or padding beneath the tympan sheet, one of the bars 15 will be raised to the position indicated in dotted lines at either end of Fig. 2. The adjacent end of the tympan sheet may then be lifted to permit the insertion of a backing sheet or pad. Since it is necessary to place the underlying sheet only beneath that portion of the tympan sheet which directly supports the sheet 14^a to be printed, the gauge bar 11 need not be shifted, it being necessary only to raise so much of the tympan sheet as lies in advance of such bar. Therefore, after insertion of a backing sheet, the tympan sheet can be returned to its operative position and the clamping bar returned to the position shown in Fig. 2, the position of the quads 13 not having been disturbed.

I claim as my invention:—

1. The combination with a platen, of a clamp of yoke-like form extending around one end of the platen and having its leg portions pivotally connected to the longitudinal edges of the platen, a guide rail abutting against the outer surfaces of said leg portions, and a clamping bar of spring-like material having each of its ends partially embracing and yieldably engaging one of said rails.

2. The combination with a platen, of a clamp of yoke-like form extending around one end of the platen and having its leg portions pivotally connected to the longitudinal edges of the platen, a guide rail abutting against the outer surfaces of said leg portions, and a clamping bar of spring-like material having each of its ends partially embracing and yieldably engaging one of said rails, a common means being provided for holding each guide rail in place and for serving as the pivotal connection for the adjacent leg portion.

3. The combination with a platen, of a clamp of yoke-like form extending around one end of the platen and having its leg portions pivotally connected to the longitudinal edges of the platen, a guide rail abutting against the outer surfaces of said leg portions, and a clamping bar of spring-like material having each of its ends partially embracing and yieldably engaging one of said rails, one of said ends having a tongue-like extremity for operating the clamping bar.

In testimony whereof I, the said ALEX BROWN, have hereunto set my hand.

ALEX BROWN.