B. SILFA.

FEEDING GAGE FOR PLATEN PRINTING PRESSES.

APPLICATION FILED NOV. 23, 1908.

953,718. Patented Apr. 5, 1910.

Fig. 1.

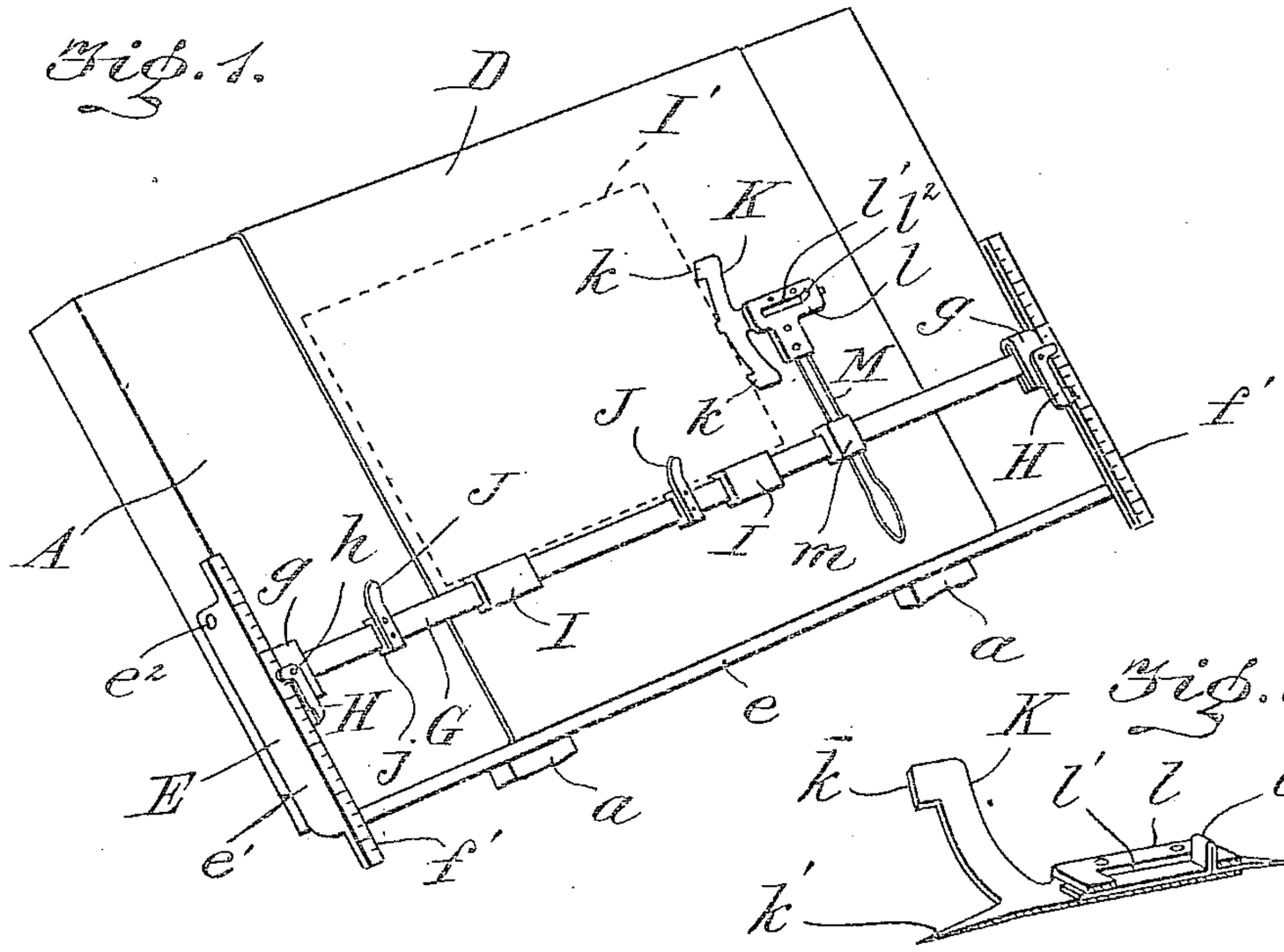


Fig. 8.

Fig. 7.

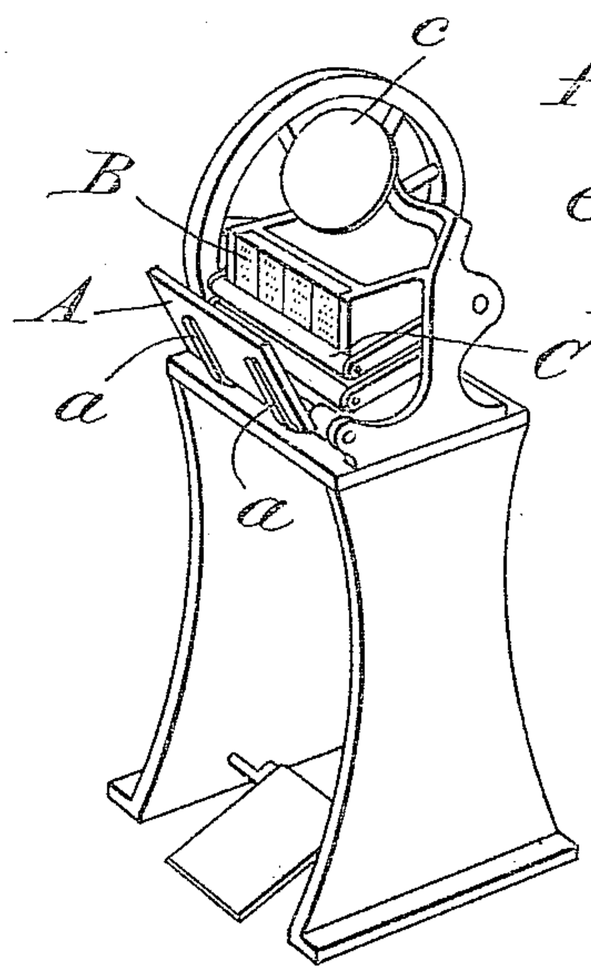


Fig. 3.

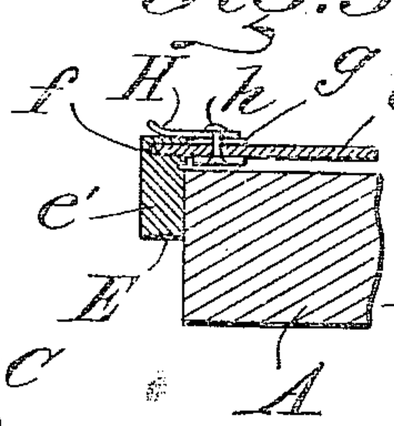


Fig. 2.

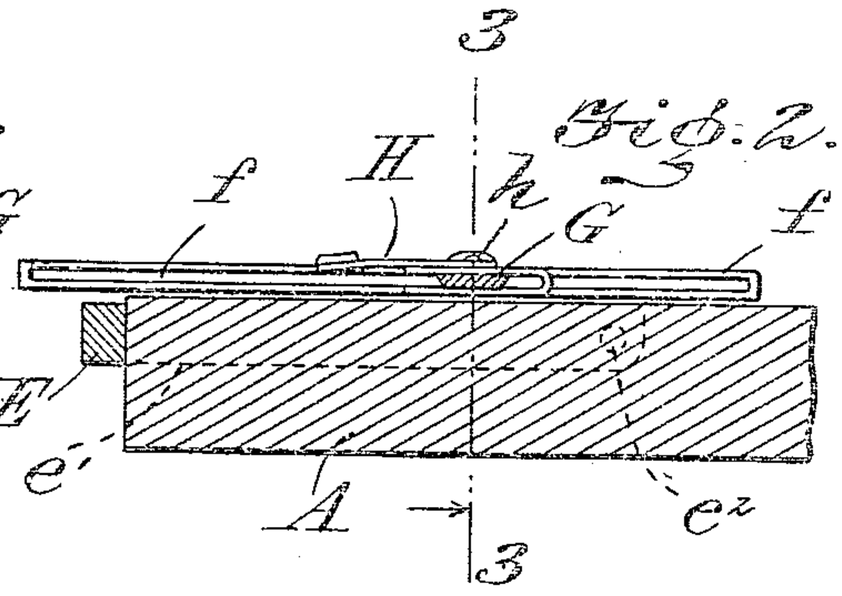


Fig. 4.

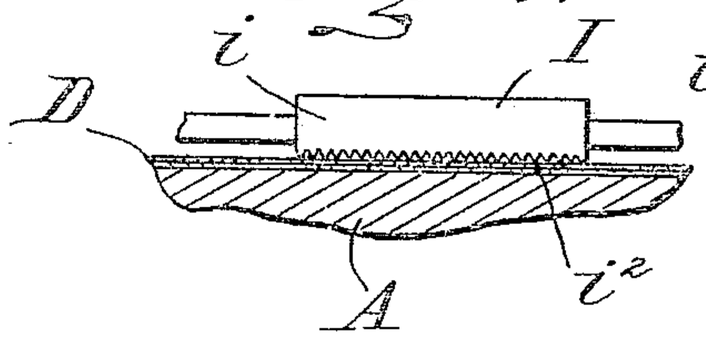


Fig. 5.

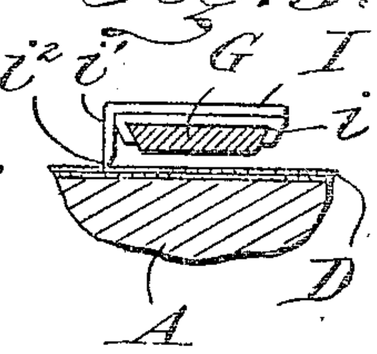
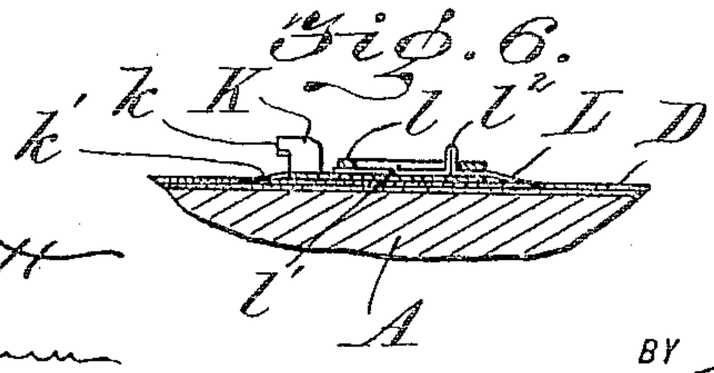


Fig. 6.



WITNESSES

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BELISARIO SILFA, OF NEW YORK, N. Y., ASSIGNOR TO THE SILFRED CO., OF NEW YORK, N. Y., A FIRM.

FEEDING-GAGE FOR PLATEN PRINTING-PRESSES.

953,718. Specification of Letters Patent. Patented Apr. 5, 1910.

Application filed November 23, 1908. Serial No. 464,170.

To all whom it may concern:

Be it known that I, BELISARIO SILFA, a citizen of the Republic of Santo Domingo, West Indies, residing in the city of New York, borough of Brooklyn, county of Kings, and State of New York, have invented a certain new and useful Feeding-Gage for Platen Printing-Presses, of which the following is a specification.

This invention is a feeding gage particularly adapted for use on platen printing presses, although it will be apparent that it may, in whole or in part, be used for other purposes. The following description will be restricted to its use on printing presses of the type specified.

In feeding the sheets of paper, which are to be printed upon, to a hand press, it is usually considered necessary to employ "quads" for determining the position of the sheet with reference to the inner or lower edge of the platen, and the same, or similar expedients, for determining the position of the sheets with reference to the side edges of the platen. These quads do not form permanent fixtures on the press platen, being merely temporarily glued or otherwise fixed to the paper backing which forms a support for the paper to be printed upon, it being necessary to frequently change the positions of said quads, depending upon the sizes of the sheets to be printed. This causes considerable delay and trouble, and, in addition, keeps the press out of operation.

The present invention dispenses with the employment of quads, and accomplishes additional results with ease and facility.

As is well understood, a platen press is usually provided with a bail for the purpose of holding the paper or backing above referred to in position on the platen, and I have found that a convenient way of applying my invention is to utilize said bail in conjunction therewith. In practically carrying out the invention, I mount a carrying bar slidably on the side members of the bail, and provide means at the ends thereof for securing it in any desired position on said side members. The side members are preferably channeled and may be provided with scales for quickly determining the proper position to adjust the carrying bar. The carrying bar forms a support for a plurality of stops, preferably two in number, each of which is adjustable lengthwise of the bar, which stops determine the position of the forward edge of the paper with reference to the rear edge of the platen. The carrying bar is provided, also, with means, preferably in the form of a sleeve, for supporting a side gage, which gage is adapted for adjustment toward and from, and also lengthwise of, the bar, the function of this gage being, mainly, to determine the position of the lateral edge of the paper to be printed.

A preferred form of the side gage consists of a body portion, preferably, composed of yieldable material, such as spring metal, the ends of which are deflected upwardly by bending the same. Said body portion of the gage is provided with a retaining prong adapted to be thrust into the paper packing on the platen. Furthermore, the gage is attached to a gage-plate which is provided with a slidable impaling prong, the said prong being adapted to be thrust, also, in the paper packing, whereby the gage may be secured firmly in place. Said gage-plate is secured to an arm which extends outwardly from a slide on the carrying bar, said arm being fitted in the slide for endwise adjustment therein. The carrying bar, moreover, is preferably provided with guide fingers, which tend to direct the edge of the paper fed to the press against the adjustable stops, above referred to, and to confine it in engagement with the platen.

In the accompanying drawings I have illustrated one practical embodiment of the invention, but the construction shown therein is to be understood as illustrative, only, and not as defining the limits of the invention.

Figure 1 is a perspective view showing a portion of a press platen with my new feeding gage in operative position thereon. Fig. 2 is a vertical section through part of the platen in the direction of the width thereof illustrating a part of the pivoted bail and showing the manner of fitting my carrying bar to said bail and of clamping it in position thereon. Fig. 3 is a section on the line 3—3 of Fig. 2. Fig. 4 is an enlarged detail view showing the construction of one of the stops adapted to be applied to the carrying bar and to be partly embedded in the packing of the press platen. Fig. 5 is an end view of the device shown in Fig. 4. Fig. 6

is an enlarged detail view of the side gage and the impaling devices whereby said gage may be retained in position on the packing of a press platen. Fig. 7 is a perspective view on a reduced scale showing one type of hand press to the platen of which the feeding gage is adapted to be applied.

In order that the invention may be understood, Fig. 7 of the drawings shows one form of hand press having a reciprocating platen, A, adapted for coöperation with a type bed, B, the latter being supplied with ink by suitable rollers, C, adapted to traverse the type on said bed, and to traverse, also, an inking platen, *c*. Platen, A, is represented also in Fig. 1, and it is provided with arms, *a*, adapted to be connected pivotally to the press frame. The platen and other parts of the press are operated by any usual or preferred means, but as this invention does not pertain to the press *per se* it is not considered necessary to more fully describe its construction or operation.

As stated, it is customary to provide a backing or packing on platen, A. Said packing is indicated in the drawings at D, and it is adapted to be retained in position by a cross member, *e*, of a bail, E, the side members, *e'*, of said bail being pivoted to platen, A, at e^2, see full line illustration in Fig. 1 and the dotted line illustration in Fig. 2.

When applying my invention of the feeding gage to a platen, A, it is preferred to modify the construction of bail, E, in the following particulars: First, side members, *e'*, of the bail are provided with grooves or channels, *f*, on their inner faces, and, second, the top edges of side members, *e'*, are inscribed or otherwise provided with graduations constituting scales, *f'*, see Fig. 1.

G designates a carrying bar which extends across platen, A, and packing, D, thereon. The ends of bar, G, pass through suitable clips, *g*, and are received in channels, *f*, of side members, *e'*, said clips, *g*, engaging with the inner channeled faces of said side members, *e'*. Bar, G, is thus connected to bail, E, so as to be supported by the side members thereof, and at the same time, said bar, G, is capable of adjustment with reference to the bail, whereby said bar may occupy different positions across platen, A, and packing, D. The clips operate to direct bar, G, when adjusting it in the channels of the bail, and said clips provide means for supporting clamping devices, H. As shown, said clamping devices are in the form of levers pivoted at *h* on clips, *g*, and adapted for engagement frictionally with the graduated edges of bail, E, but it is evident that other forms of clamping devices may be substituted for the particular devices herein shown. The scales on side member, *e'*, of the bail are useful in determining the adjustment of carrying bar, G, with relation to the press platen, and to bringing the respective end portions of said bar into corresponding positions with accuracy on the bail.

Bar, G, carries a plurality of devices which determine the position of the front edge of the paper to be printed upon with respect to the packing on platen, A, and said bar is provided, also, with guide fingers adapted to direct the paper to be printed upon against the platen or the packing thereon. As shown, two stops, I, are provided on carrying bar, G, and two guide fingers, J, are connected also to said carrying bar. One of said stops, I, is shown in detail in Figs. 4 and 5, by reference to which it will be seen that said stop is attached to, or may be integral with, a clip, *i*, adapted to engage frictionally with the edge portions of carrying bar, G. Stop, I, is provided with a depending front wall, *i'*, which is toothed or serrated at its lower edge at i^2.

It is to be observed that carrying bar, G, is movable with bail, E, when the latter is raised on its pivotal connections, e^2, with press platen, A, whereby the bar and stops, I, may be lifted free from engagement with platen, A, as for example, when it is desired to increase the thickness of packing, D, or to remove an old packing from said platen or to apply a new packing thereto. With bail, E, and carrying bar, G, in raised positions, packing, D, can be easily manipulated, after which the bail is forced back into position for its cross bar, *e*, to retain packing, D, in position. The operation of returning the bail to normal position brings carrying bar, G, close to, or into contact with, packing, D, and at this time the serrated or toothed edges, i^2, of stops, I, are pressed into the packing or partly embedded therein, whereby stops, I, are retained firmly in position. It is evident that by lifting bar, G, slightly stops, I, may be individually adjusted on said bar by sliding each stop lengthwise thereof. The stops may be moved to various positions according to the length of paper to be printed upon, and the flanges, *i'*, of said stops provide surfaces against which the advancing edge of paper may be brought into engagement. The sheet of paper to be printed upon is indicated in dotted lines at I' in Fig. 1.

Each paper directing finger, J, extends outwardly from carrying bar, G, and is provided with a sleeve or band, *j*, which is fitted to bar, G, so as to embrace the edges thereof. If desired, said bar, G, may be of dovetail shape in cross section so as to retain stops, I, and fingers, J, from accidental displacement from the bar. Each finger, J, may be composed of metal, celluloid, or other appropriate material which is of a flexible nature, but the particular material and the mode of holding the fingers on the bar are not material features of the invention. It is de-

sired to observe that fingers, J, are adjustable on bar, G, lengthwise thereof, and further that said fingers are shiftable individually to various positions on the bar. Furthermore, the number of stops, I, and fingers, J, may be increased or decreased as desired.

An important feature of the invention is the side gage, K, shown in Figs. 1 and 6. Said gage consists, preferably, of a piece of spring metal which is bowed or deflected so that its end portions lie in a different plane from the intermediate or middle portion. Said gage is provided at its ends with laterally extending enlargements, *k*, and the middle portion of the gage is provided with an impaling prong, *k'*. The gage is fastened at its middle portion to a plate, *l*, having a longitudinal slot, *l'*, and in this slot is adapted to slide a finger piece, l^2, of an impaling finger, L, said finger being slidably connected to said gage-plate, *l*. The gage-plate is fastened rigidly to an arm, M, which is supported in a slide, *m*, mounted on carrying bar, G. Arm, M, engages frictionally with slide, *m*, for the purpose of connecting side gage, K, with carrying bar, G. It is evident that slide, *m*, may be shifted lengthwise of bar, G, so as to adjust gage, K, lengthwise with respect to said bar, but arm, M, may be moved in or out of slide, *m*, for the purpose of adjusting gage, K, toward and from said bar. Side gage, K, may thus be placed to variable positions with respect to bar, G, and stops, I, thereon, and after said gage has been moved substantially to the required position, prongs, *k'*, may be thrust into packing, D, on platen, A, and thereafter impaling finger, L, may, also, be embedded in the packing, whereby said gage, K, is adapted to be fastened firmly in position relative to packing, D.

The operation will be apparent from the preceding description, but it may be referred to, briefly, as follows: Bar, G, is adjusted on bail, E, to bring stops, I, into positions which determine the inward feed of paper, I'. Gage, K, is adjusted lengthwise of bar, G, by moving slide, *m*, thereon for the purpose of bringing said gage to a position for determining the movement of paper, I', lengthwise of platen, A. Bar, G, is clamped firmly in place by clamping devices, H, whereas side gage, K, is retained in position by prong, *k'*, and finger, L, engaging with packing, D. Stops, I, are adjusted to the required positions on bar, G, and fingers, J, are moved, also, to the required positions. When paper in sheet form, as I', is placed on packing, D, the advancing edge of the paper engages stops, I, and is deflected by fingers, J, toward said packing, while the side edge of the paper is brought into engagement with the inner edge of gage, K, the paper resting below enlarged ends, *k*, of said side gage. The devices provide simple and effective means for accurately determining the position of paper, I', with reference to the type bed, and practical experience has shown that the paper may be so accurately placed into position as to secure perfect register of the printed impressions with the type in bed, B.

Obviously, the several devices may be adjusted in the required directions and to the proper positions for use in connection with sheets of paper which may vary in size, such adjustments being easily performed and the parts being brought accurately into required positions.

Having thus fully described the invention, what I claim as new, and desire to secure by Letters Patent is:

1. In a device of the class described, a bail for clamping a backing on a press platen, said bail having channels on its side members, a carrying bar the ends of which are fitted slidably in the channels of said side members of the bail, and means for clamping said bar in a desired position of adjustment on said bail.

2. In a device of the class described, a bail for clamping a backing on a press platen, the side members of said bail being provided with grooves, a carrying bar the ends of which are fitted slidably in said grooves of the side members of the bail, and clamping levers for retaining said bar in a desired position of adjustment on said bail.

3. In a device of the class described, a bail the side members of which are provided with channels, a carrying bar having its end portions fitted slidably in said channels, means coöperating with the carrying bar and side members for retaining the carrying bar in fixed relation to said side members, and gages supported by said bar.

4. In a device of the class described, a carrying bar, an arm extending outwardly from said bar, a slide whereby said arm is connected adjustably to said bar, a bowed gage at the outer end of said arm, said gage having an impaling pin integral therewith, and another impaling pin connected to said gage and movable with respect thereto, the two impaling pins being insertible in different directions into a packing on a press platen for holding the gage against movement in any direction.

5. In a device of the class described, a carrying bar, an arm supported thereby and extending outwardly therefrom, and a gage carried by said arm, said gage being provided with oppositely extending impaling pins whereby it may be retained from displacement in any direction on a press platen.

6. In a device of the class described, a carrying bar, a side gage coöperating therewith, and oppositely extending retaining

pins connected to said side gage and adapted for engagement directly with a press platen for holding said side gage in position and against displacement in any direction.

7. In a device of the class described, a side gage provided with retaining pin extending in one direction and adapted to impale the packing of a press platen and a slidable impaling pin extending in an opposite direction from said gage, whereby said side gage may be held firmly in position and against displacement in any direction.

8. In a device of the class described, a side gage provided with an impaling prong, and a separate impaling pin connected slidably to the side gage, said impaling pin extending from the side gage in an opposite direction to that in which the impaling prong extends therefrom.

9. In a device of the class described, a side gage comprising a gage plate, a side gage attached thereto, and oppositely extending impaling pins for retaining the side gage in position on a press platen, one of said impaling pins being connected slidably to the side gage.

10. In a device of the class described, a side gage comprising a plate composed of yieldable material and bowed or deflected for its ends to lie in different planes from that part of the plate intermediate said deflected ends, a slotted plate fixed to the middle part of the gage plate, a prong extending from the gage plate, and a pin slidably connected to the slotted plate, said prong and pin extending from the gage plate in opposite directions.

11. In a device of the class described, a pivoted grooved bail adapted to confine a packing on a press platen, a carrying bar connected directly to the grooved parts of said bail for slidable movement thereon, means for clamping said bar to the bail in adjusted positions thereon, and stops mounted on the carrying bar, said bar and the stops being shiftable with said bail with respect to the platen and said stops being adjustable separately with respect to said bar.

12. In a device of the class described, a pivoted bail, a carrying bar connected to said bail for slidable adjustment relative thereto, separate clamping devices carried by said bar and positioned for frictional engagement with said bail, whereby the carrying bar is adapted for movement with the bail and said bar may be held in different adjusted positions relative to said bail, and stops mounted on said bar, each stop being provided with teeth which, by a relative movement of the bar and the bail to a press platen, are adapted to be embedded into a packing on said platen.

13. In a device of the class described, a pivoted bail, a carrying bar, clamping devices carried by said bar and engaging said bail for retaining said bar in different positions relative to said bail, and stops mounted on the bar, each stop having a depending gage flange which is provided at its lower edge with teeth, each stop having means separate from the toothed flange for slidable engagement with said bar.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

BELISARIO SILFA.

Witnesses:
H. I. BERNHARD,
M. C. POWELL.