(No Model.)

L. CONANT.

FEED GAGE FOR PRINTING PRESSES.

No. 399,384. Patented Mar. 12, 1889.

Fig 1.

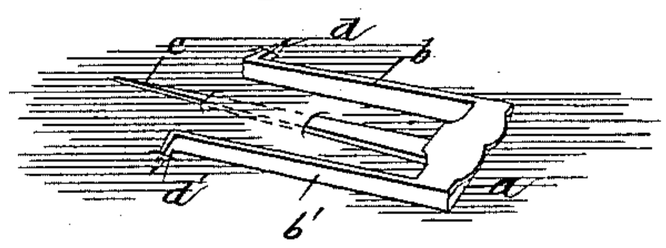


Fig. 2.

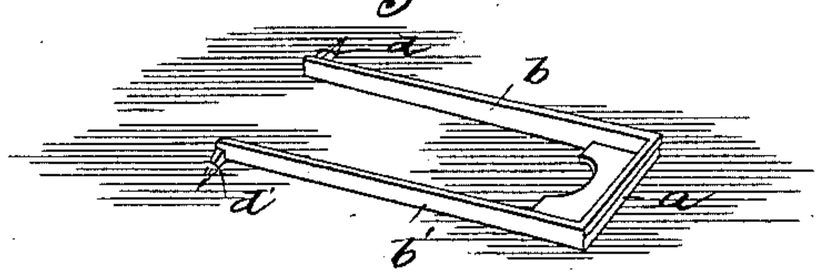


Fig. 5.

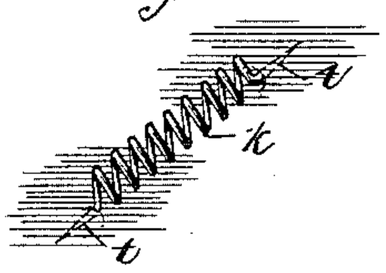


Fig 4.

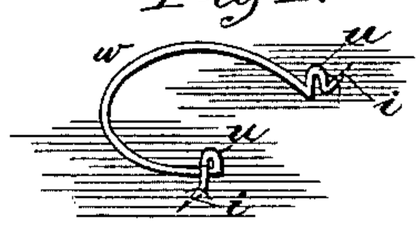
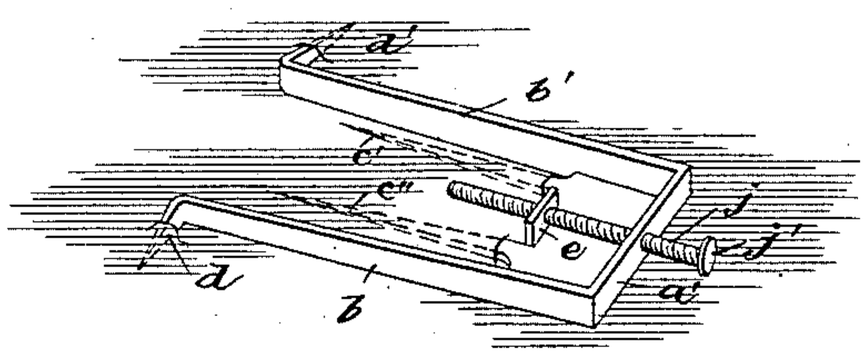


Fig. 3.



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LUTHER CONANT, OF OAK PARK, ILLINOIS.

FEED-GAGE FOR PRINTING-PRESSES.

SPECIFICATION forming part of Letters Patent No. 399,384, dated March 12, 1889.

Application filed January 6, 1888. Serial No. 260,019. (No model.)

To all whom it may concern:

Be it known that I, LUTHER CONANT, a citizen of the United States, residing at Oak Park, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Feed-Gages for Printing-Presses, which I desire to protect by Letters Patent of the United States, and of which the following is a specification.

The purpose of my invention is to perfect a device for use in gaging the position of sheets or blanks to be printed, in which less difficulty and time are required to fix its position than with gages now in use, and in which the necessity of removal of the gage from one place to another, resulting in numerous punctures in the tympan-sheet and the rapid destruction of the latter, is obviated. It is also designed to simplify and cheapen such implement to the minimum, so far as consistent with effectiveness.

In the accompanying drawings, making a part of this specification, the several figures in perspective illustrate a preferable construction and modifications thereof.

In Figure 1 I have shown a gage illustrating what I consider the preferable construction. Figs. 2, 3, 4, and 5 show variations in form, all, however, embodying a feature in the construction of the first, upon which the importance of my improvement largely depends.

In Fig. 1 the head *a*, or gage portion proper of the device, is supplemented by two lateral bars, *b* and *b'*, and a central guide-bar, *c*. The bars *b*, *b'*, and *c* are preferably, as a matter of economy, cut, in common with head *a*, from a single piece of sheet-brass, and the two bars *b* and *b'* then changed in position by bending their shanks or connections with the head, so that their breadth is in a plane at right angles to that of the head. Thus lateral flexibility of said bars is provided. The ends *d* and *d'* of the bars *b* and *b'* are bent laterally to a right angle with the bar-length and are suitably sharpened at their extremities, with a downward tendency of the points, so as to readily puncture the tympan-sheet. The central bar, *c*, is also so sharpened at its extremity that it will easily puncture the sheet. The length of bar *c* is such as to admit of considerable adjustment, after the point is inserted, in the direction of the insertion. The desired position may be thus fixed, and then, by pressure inwardly on the bars *b* and *b'* and the release of the latter, the reaction of the bars causes the points to enter the sheet and thereby secure the gage in position.

In Fig. 2 the same elements are shown, with the exception of the omission of the central bar.

In Fig. 3 an adjustable feature is shown that will admit of further adjustment after the body of the implement has been fixed in its position. In this construction a metal plate or bar, *a'*, is bent to form the two flexible bars *b* and *b'*, with sharpened extremities, adapted, as with the former examples, to enter the sheet laterally after the necessary flexion. Two guide-bars, *c'* and *c''*, are shown in this example. A connecting portion of the two bars is provided having a vertical bend, *e*, which is screw-threaded to adapt it to suitably engage with a screw, *j*. The latter also has a bearing in the part *a'*, by which its longitudinal position is maintained. The head *j'* is designed to furnish the stop portion, the screw being inclined in its position, so that the head *j'* presses upon the tympan-sheet when the gage is in position for use.

In Fig. 4 a curved wire, *w*, of suitable flexibility, is shown, at the extremities of which are formed vertically-curved portions *u*, with pointed lateral terminals *i*. The curve *u* serves as the stop portion of the device, and the points *i* serve in securing the gage to the sheet.

Another form of gage is shown in Fig. 5, in which a straight coil of wire is provided with pointed terminals *t*, corresponding in direction to the length of the coil. In this construction it is designed that the coil shall be compressed and the reaction force the points into the sheet, thus securing the device. One end of the coil in this example serves as the stop. The laterally-pointed extremities of the flexible bars of the several examples I have shown directed outwardly, which is perhaps preferable as the more convenient arrangement, yet they may be directed inwardly and the bars spread properly to engage the points.

In the several illustrations an element common to each is shown, which constitutes one of the chief features of my improvement. This

feature is the flexible character of the bars or parts to which the points that enter the tympan-sheet to fix the position of the gage are connected.

In applying the gage, as shown in Fig. 1, the central or gage bar, *c*, is inserted in the tympan-sheet, and after the correct position is determined the side bars, *b* and *b'*, are flexed and released to react, by which latter operation the points *d* and *d'* are forced into the sheet, thus fixing the position of the gage. The same is true of Figs. 2 and 3, with the exception that in the first the central bar is absent and in the latter there are two. Compression or flexion and release also serve in the examples, as shown in Figs. 4 and 5, to insert the fixing-points and secure the gage in position.

Having thus described my invention, what I claim, and desire to protect by Letters Patent, is—

1. A gage for printing-presses, comprising a head or gage and integral elastic portions provided integrally with engaging-points adapted to be inserted in the tympan-sheet to fix the position of the gage by the reaction of said elastic portions, substantially as described.

2. In a gage for printing-presses, the combination of the head or gage portion *a*, flexible bars *b* and *b'*, and laterally-extending points connected with said bars, substantially as set forth.

3. In a gage for printing-presses, the combination of the head or stop *a*, side bars, *b* and *b'*, laterally-extending points *d* and *d'*, and central guide-bar, *c*, substantially as set forth.

4. In a gage for printing-presses, the combination, with the gage-body having flexible side bars armed with engaging-points, of a guide-bar, *c*, adapted to puncture the tympan-sheet, and so serve as a guide, that the gage may be secured with relation to the tympan-sheet at any desired point within the length of said guide-bar, substantially as described.

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