No. 863,311. PATENTED AUG. 13, 1907.

L. B. ODELL.

GAGE FOR PRINTING PRESSES.

APPLICATION FILED AUG. 8, 1906.

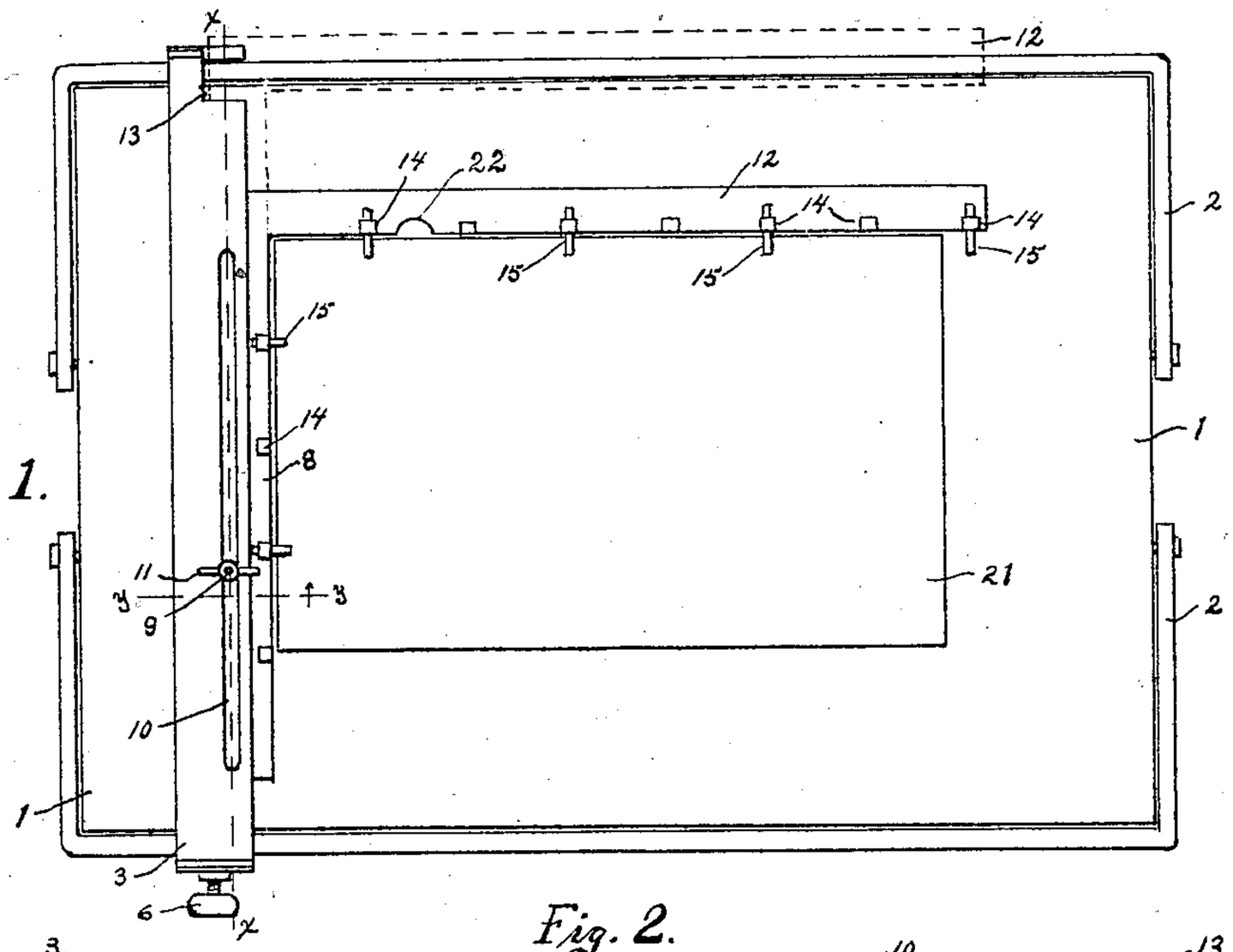

Fig. 1.

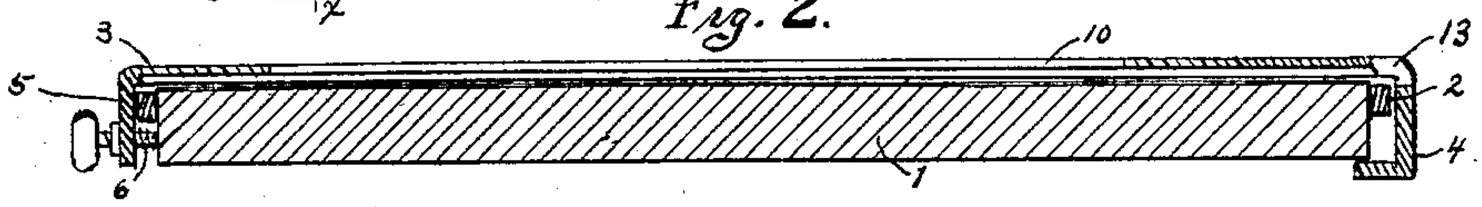

Fig. 2.

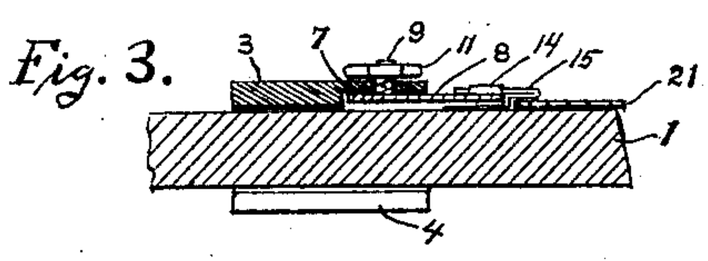

Fig. 3.

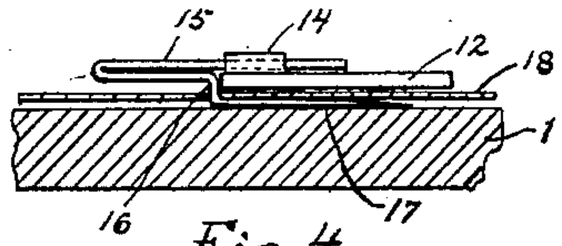

Fig. 4.

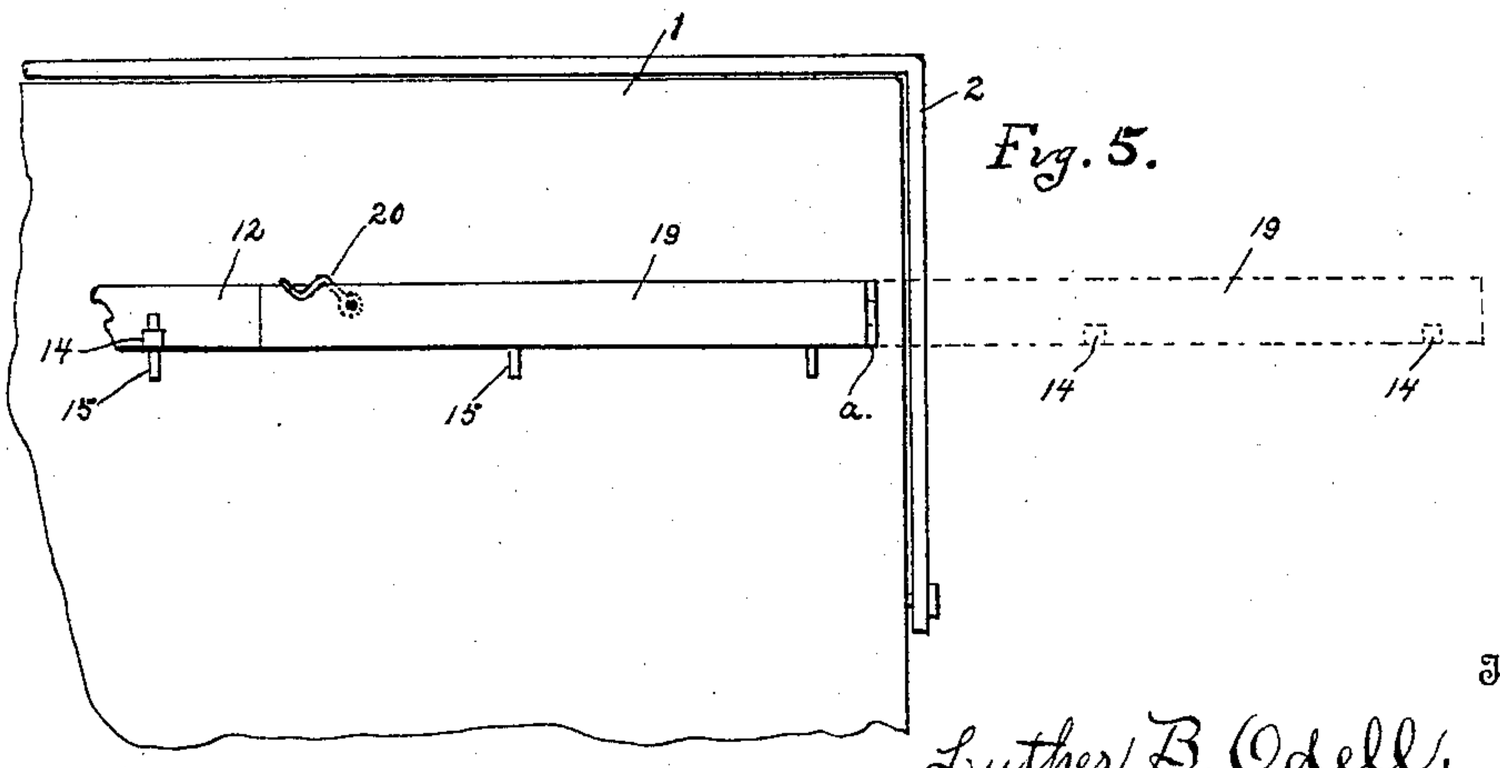

Fig. 5.

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GAGE FOR PRINTING-PRESSES.

No. 863,311. Specification of Letters Patent. Patented Aug. 13, 1907.

Application filed August 8, 1906. Serial No. 329,647.

To all whom it may concern:

Be it known that I, LUTHER B. ODELL, a citizen of the United States, residing at Walnut, in the county of Bureau and State of Illinois, have invented certain new and useful Improvements in Gages for Printing-Presses; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention has reference to gages for printing presses, and is more particularly designed to be used on that class of such machines as are commonly known as job presses, intended for the printing of cards, circulars, and work of a similar nature.

The purpose of my device is to provide for a quick adjustment of the matter to be printed, upon the tympan of the press, and hold such matter in its proper position while the impression is being made thereon.

In the drawings, Figure 1 is a plan view of the tympan of a printing press, provided with my device. Fig. 2 is a vertical longitudinal section of the bar 3, in the line x—x of Fig. 1. Fig. 3 is a vertical cross-section, in the line y—y of Fig. 1. Fig. 4 is an enlarged detail, illustrating more particularly the operation of one of the pins 15. Fig. 5 is a plan view, showing a modified form of the arm 12.

1 represents the upper face of the movable tympan of a press, and 2 2 the clamps for holding down the paper pad thereon. A bar 3 is adapted to be held transversely of the tympan by means of a clip 4 on its inner end, engaging the lower face of the tympan, and a downwardly turned angle-plate 5 on its outer end, in which is held a thumb-screw 6, engaging the edge of the tympan below the clamp 2.

Extending longitudinally of the bar 3, in the lower face thereof, is a recess 7, in which a plate 8 has longitudinal adjustment by means of a post 9, fixed to the plate 8, and extending upwardly through a slot 10 in the bar 3. The upper part of the post 9 is threaded to receive a small thumb-nut 11, by means of which the plate 8 and bar 3 can be drawn together, and such plate held in an adjusted position.

Integral with the inner end of the plate 8, and extending at a right angle therefrom, is an arm 12, possessing a length somewhat less than that of the tympan 1. At its rear end the bar 3 is cut away to form an opening 13, permitting the plate 8 to be moved inwardly until the forward edge of the arm 12 is near the inner, or rear edge of the tympan, as shown in broken lines in Fig. 1.

Fixed at regular intervals on the upper face of the arm 12, at the forward edge thereof, is a series of small perforated guides 14, in which are held a plurality of pins 15. The plate 8 projects a sufficient distance beyond the bar 3 to permit of the support on the outer edge thereof of similar guides 14 and pins 15. Each of the pins 15 is bent downwardly and rearwardly, and provided with a shoulder 16 and point 17, which is adapted to be forced through the pad 18 on the face of the tympan, beneath the arm 12 or plate 8.

The device is preferably constructed so that the bar 3 is at the left of the plate 8 and arm 12, as shown in Fig. 1, with the thumb-screw 6 at that edge of the tympan which is nearest the operator. The position of the card 21 or other material to be printed is determined in the usual manner, and such position indicated on the tympan pad by marks at the left and upper edges of the card. The bar 3 is then adjusted on the tympan until the outer edge of the plate 8 is in line with the mark made at the left of the card, and the bar secured in such position. The plate 8 is then adjusted longitudinally of the bar 3 until the forward edge of the arm 12 is in line with the mark on the tympan pad at the upper edge of the card, and the plate 8 secured with the arm in such position. The plate and arm then furnish a guide or gage for the operator in feeding the material to the press. In many cases, such as the printing of cards, the arm 12 alone would furnish sufficient support therefor, and the use of the pins 15 would be unnecessary, but in printing on other kinds of material it is necessary to use the pins to prevent such material from slipping downwardly between the tympan and form.

If desired, the pins 15 could be attached directly to the plate 8 and arm 12, but in some classes of work a greater number of pins is necessary than in others, and by being detachably held in position, they can be distributed along the plate and arm in such positions as may be desired. It is advisable to have one of the pins 15 at or near the free end of the arm 12, so as to aid in maintaining the contact of such arm with the pad on the tympan.

In the printing of small cards, and work similar thereto, it is sometimes necessary to locate the bar 3 near the center of the tympan, causing the end of the arm 12 to project beyond the edge thereof. In some styles of press this might not interfere with the operation, but in others the mechanism would prevent the free movement of the arm in such extended position. To avoid such difficulty I provide the end of the arm 12 with a folding end-piece 19, hingeably secured to the arm 12, as at a. The part 19 would ordinarily be extended in line with the arm 12, and held in position by pins similar to the pins 15 hereinbefore described, but when necessary to shorten the arm 12 the part 19 is folded upon the same, and held in place by a small hook 20, pivoted to the arm 12. The guides 14 should be located on the part 19 so as not to coincide in position with those on the arm 12

when the parts are folded together and interfere with the folding thereof.

21 represents a card in position upon the tympan, ready to be printed. In the printing of small cards, the printed matter thereon frequently extends nearly to the edge of the card, so as to render it necessary for the operator to pick the card up by the edges, in removing it from the press. To facilitate this operation I provide the arm 12 with a notch 22, to accommodate the end of the finger or thumb of the operator.

It will be seen that by the use of my device the position of the material on the tympan can be readily established, and that after being so established the operation of the device is positive and perfect, there being no possibility of the same getting out of alinement, as is frequently the case when pins alone are used.

What I claim as my invention, and desire to secure by Letters Patent of the United States, is:

A device of the class named, comprising a bar, adapted to be adjustably attached to the tympan of a printing press, transversely thereof, and provided with a longitudinal recess in its lower face; a gage-plate, supported in such recess so as to be longitudinally adjustable therein, the inner edge of such plate being beyond the inner edge of said bar; an arm, integral with the rear end of said plate, and at a right angle thereto; and a plurality of gage-pins, detachably secured to said arm, and adapted to be attached to the tympan pad, to hold said arm in contact therewith, substantially as shown and described.

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

LUTHER B. ODELL.

Witnesses:
I. L. WEAVER,
T. P. O'NEIL.