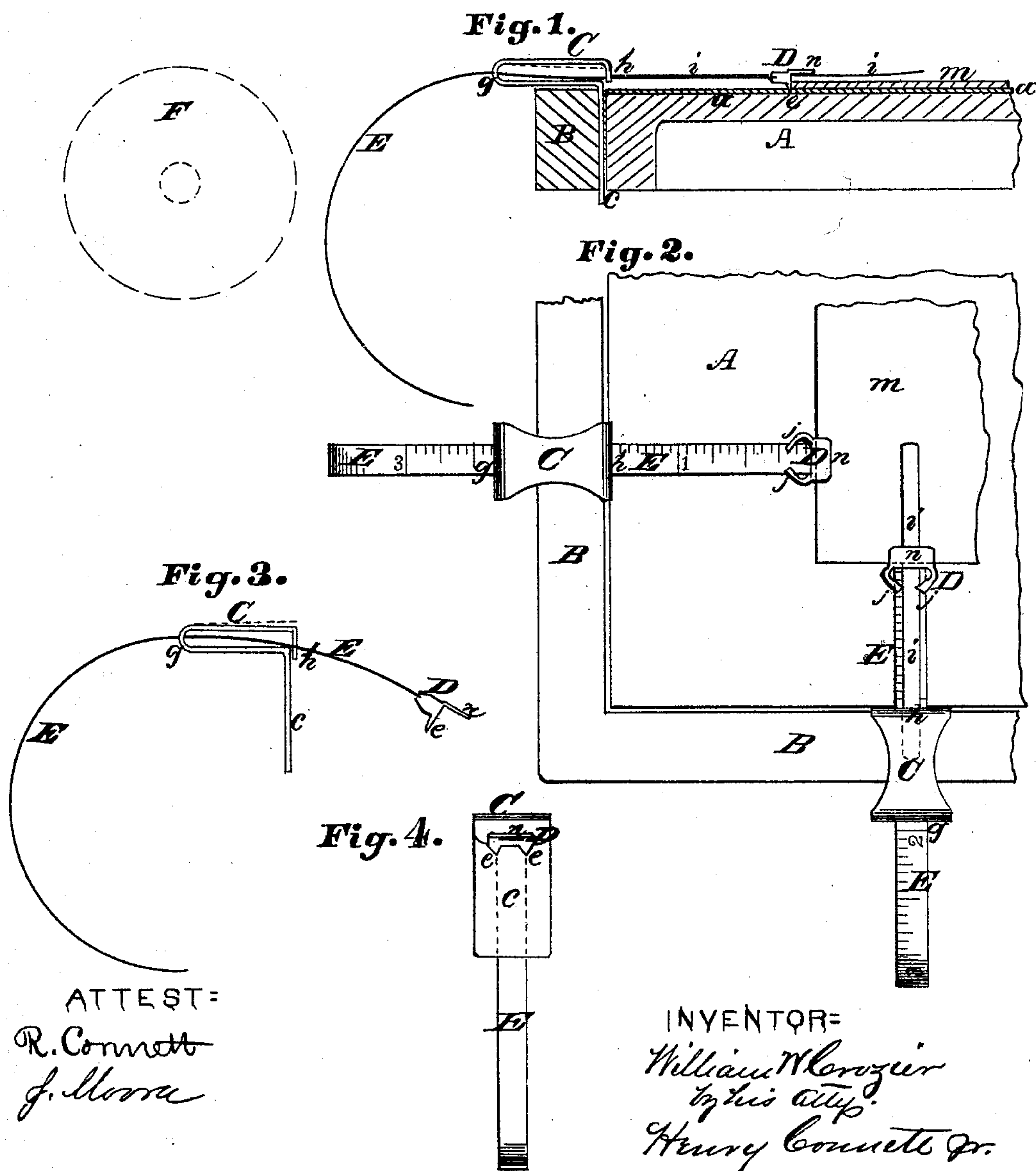


W. W. GROZIER.

Feed-Guides for Printing-Presses.

No. 149,104.

Patented March 31, 1874.



UNITED STATES PATENT OFFICE.

WILLIAM W. CROZIER, OF MADISON, INDIANA.

IMPROVEMENT IN FEED-GUIDES FOR PRINTING-PRESSES.

Specification forming part of Letters Patent No. **149,104**, dated March 31, 1874; application filed December 16, 1873.

To all whom it may concern:

Be it known that I, WILLIAM W. CROZIER, of Madison, in the county of Jefferson and State of Indiana, have invented certain Improvements in Feed-Guides for Printing-Presses, of which the following is a specification:

The object of my invention is to provide an adjustable guide for the sheet to be printed, that can be readily adjusted to any desired location on the platen of the press or the tympan-sheet, a guide that shall not be in the way of the ink-rollers or any other part of the press, and one that will not be liable to derangement from feeding heavy cards, &c., when once set.

In the drawings, Figure 1 is a side view of my invention in position, with the platen and clamping-frame of the press in section. Fig. 2 is a plan of the same, showing two guides in position, one at the bottom and one at the side of the platen. Fig. 3 is a side view of my device when not in use and free from stress. Fig. 4 is a front view.

Let A represent the platen of an ordinary printing-press, and B the clamping-frame by which the tympan-sheet *a* is held. My device consists of a spring hold-fast, C, of sheet metal, preferably spring steel or brass, bent upon itself, substantially as represented in the several figures, and provided with a tang, *c*, formed from the same piece, which projects downward at right angles to the upper part. The general form of the hold-fast is so clearly shown in the figures that it will not be necessary to describe it more fully. A recessed head, D, constructed in any convenient manner and provided with one or more points, *e e*, to pierce the tympan-sheet, is attached to the end of a thin, flexible, and elastic strip, E, of spring steel or brass, which may be graduated, as shown, for a purpose to be hereinafter explained. This strip is "set" in a curve, like a clock-spring, as shown in Figs. 1 and 3, and passes through a mortise at *g* in the bend of the hold-fast C, and engages with a notch at *h* in the same.

It will be understood that when not in use, the several parts assume the position shown in Fig. 3, and the strip E is held to its place by friction and elastic pressure exerted upon

it by the hold-fast C, and may be slipped back and forth at will, the graduations showing how far the recessed head D is from the edge of the platen. The hold-fast C is attached to the platen A of the press by forcing the tang *c* down in the space between the said platen and the clamping-frame B, as shown, and the head D adjusted to the proper place on the tympan-sheet *a*. The flexibility of the strip E will permit this, and the curved set of the strip, in addition to the elastic action of the hold-fast C, indicated by dotted lines in Figs. 1 and 2, causes the points *e e* to pierce the tympan-sheet and obtain a firm hold. In addition to this, the stress on the strip E and on the upper plate of the hold-fast C, when in the position shown in Fig. 1, largely increases the friction of contact between the two and prevents their slipping.

The object in giving the elastic strip E a curved set, or a curved form, when free from strain, is that I may obtain length sufficient to reach beyond the center of the platen, if necessary, with the recessed head D, against which the sheet to be printed rests, and also be enabled to work the largest sheet the platen will admit of without change, as is necessary with feed-guides heretofore used and patented. The strip E can be drawn out to its full length, or it can be pushed in until the head D touches the hold-fast C. In the latter case the surplus portion of the strip (seen at the left in the drawing) curves inward out of the way.

In Fig. 1, the dotted circle F indicates about the position, relative to the platen, of an ink-roller in an ordinary printing-press at its nearest proximity to said platen, and it requires but a glance at the figure to see the advantage of giving the strip E a curved set, as I thereby obtain length in a small compass, for the strip may be coiled up, naturally, like a watch-spring, and the curved set will only add to its efficiency when it is straightened out in use, as in Fig. 1.

In Figs. 1 and 2 is shown a flexible strip of brass or steel, *i*, preferably a part of a watch-spring, which passes through a mortise in the head D under the projecting lip *n*; thence between nicks *j j* in the back part of the head D; and thence under the notched end of the hold-fast C at *h*, lying on the strip E. The

strip *i* may slide in and out, being controlled by friction only, and serves to "strip" the sheet or card *m* from the type, it being so located with regard to the "form" as to lie between two lines of type.

Having thus described my invention, I do not claim the recessed head *D* with the lip *n*, provided with points to pierce the tympan-sheet; nor do I claim the method here shown of attaching the hold-fast *C* to the platen, as these are not new; but

What I claim as new, and desire to secure by Letters Patent, is—

1. In a feed-guide for printing-presses, the elastic curved strip *E* provided with a recessed head, *D*, and a curved shape or set, when not subject to strain, so that the free end may be clear of the inking-rollers, when constructed and arranged to operate substantially as shown.

2. In a feed-guide for printing-presses, the

hold-fast *C*, constructed from one piece of elastic sheet metal bent upon itself in the form shown, provided with a mortise, *g*, and a notch, *h*, to receive the strip *E* and a tang, *c*, for attaching it to the platen, substantially as shown, and for the purposes set forth.

3. The hold-fast *C* and the strip *E*, provided with the recessed head *D*, when combined in the manner shown, and constructed and arranged to operate as a feed-guide for printing-presses, substantially as set forth.

4. The hold-fast *C*, strip *E*, with head *D*, and flexible stripper *i*, when combined, constructed, and arranged substantially in the manner shown, and for the purposes set forth.

WILLIAM W. CROZIER.

Witnesses:

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ARGUS D. VANOSDOL.