

(No Model.)

I. W. NEWMAN.

ADDRESSING ATTACHMENT FOR PRINTING PRESSES.

No. 479,917.

Patented Aug. 2, 1892.

Fig. 1.

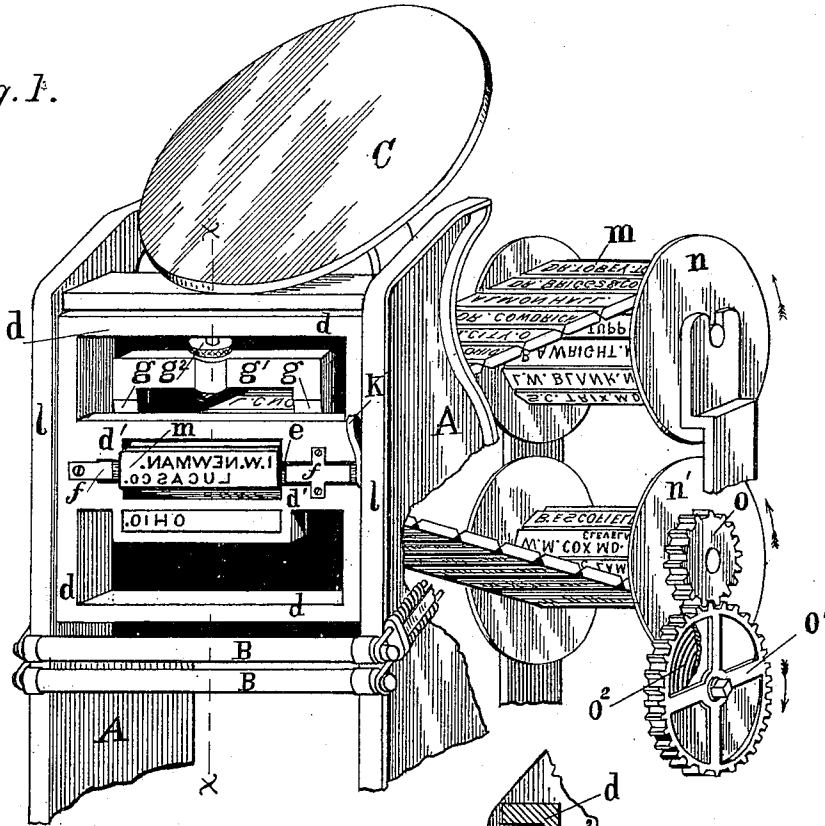


Fig. 2.

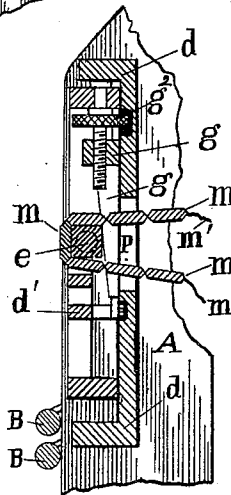
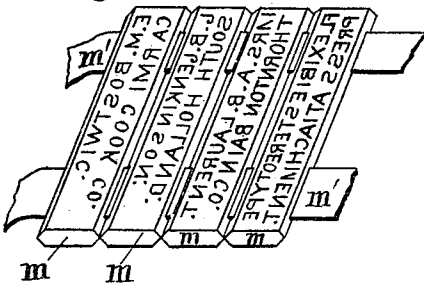


Fig. 3.

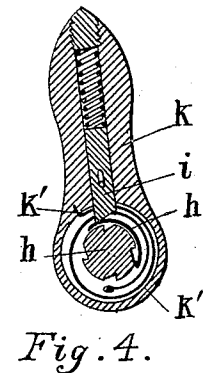


Fig. 4.

Witnesses.

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ADDRESSING ATTACHMENT FOR PRINTING-PRESSES.

SPECIFICATION forming part of Letters Patent No. 479,917, dated August 2, 1892.

Application filed August 3, 1891. Serial No. 401,462. (No model.)

To all whom it may concern:

Be it known that I, IRA WARREN NEWMAN, a citizen of the United States, residing at Toledo, Lucas county, Ohio, have invented certain new and useful Improvements in Addressing Attachments for Printing-Presses, of which the following is a specification.

My invention relates to means for changing the whole or part of the type-form of a hand or power printing-press at each successive impression, and relates more particularly to the chase of such presses and to flexible stereotype plates or bands and means for feeding the same to the press at intervals between the successive impressions of the press.

The object of my invention is to provide a simple, cheap, and effective attachment for the ordinary lever or rotary printing-press by means of which different names, addresses, numbers, headings, captions, &c., may be printed successively upon envelopes, cards, wrappers, newspapers, letters, circulars, and the like, and without interfering with the usefulness of the press for ordinary purposes. I attain these objects by means of the mechanism and arrangement of parts hereinafter described, and shown in the accompanying drawings, making a part hereof, in which—

Figure 1 is a perspective view of part of a printing-press, showing my device in connection therewith; Fig. 2, a perspective view of a piece of my flexible stereotype-band, showing same in detail; Fig. 3, a sectional view of chase on line *x x*, Fig. 1; and Fig. 4, a central vertical sectional view of arm *k*, hereinafter referred to.

Like letters represent like parts throughout the several views.

In the drawings, A is the frame, B the inking-rollers, and C the ink-disk, of a common printing-press. The chase or rectangular iron frame *d* is shown in place in the press in Fig. 1. This chase is provided with a cross-bar *d'*, extending across the opening from one side to the other. Cross-bar *d'* has, in the example shown, two mortises, the upper mortise being designed for the constantly-changing matter and the lower mortise for matter requiring less frequent change. Extending longitudinally through the upper mortise is shaft or bar *e*, journaled at its extremities under flat

springs *f* and having slight horizontal motion laterally. This shaft in the example shown is square; but it may have such shape or number of sides as may be found desirable. Two wedges *g g*, united by bar *g'* and projected and retracted by thumb-screw *g²*, are interposed between the bed-plate of the press and the bearings of shaft or bar *e* and serve as means for adjusting the bar *e* laterally. Fixed to one end of bar *e* is ratchet *h*, (see Fig. 4,) which is engaged by a pawl *i*, reciprocating in arm *k*, which is journaled loosely upon shaft *e*. A coiled spring around the shank of pawl *i* insures constant pressure of the pawl toward the ratchet. A segmental shield *h'*, extending partly around ratchet *h* and fixed independently of shaft *e* and arm *k*, controls the point at which the pawl shall engage the ratchet. Arm *k* projects normally beyond the face *l* of the plates or surfaces upon which the inking-rolls travel and at rest is held in this position by coiled spring *k'*, attached at one end to arm *k* and at the other end to the frame of the machine.

m m are plates of any suitable material, suitably attached to flexible bands or ribbons *m'* and bearing upon their faces the characters from which impressions are to be successively taken. In the example shown the plates *m* are slotted and are strung upon stout tapes *m'*. These plates *m* at their adjoining edges are beveled or rounded to permit the bending of the flexible band of plates without the corners or edges of the plates coming in contact or interfering with each other. (See Figs. 1 and 2.) There may be substituted for a series of plates attached to flexible bands a band of flexible elastic substance—such as india-rubber—provided with the desired characters; but I prefer the device above described.

n is a reel upon which is wound the type-band *m m'* and from which the band is unwound as the work progresses, and *n'* is a reel upon which the band is wound as it is paid out from reel *n*. Reel *n'* is provided with a pinion *o*, engaged by a gear-wheel *o'*, having stout spiral spring *o²*, which through gear-wheel *o'*, pinion *o*, and reel *n'* maintains a constant tension on the type-band *m m'*. The bed-plate of the press is provided with an

opening, (see Fig. 3,) through which the type-band passes from reel *n*, over and around shaft *e*, and back and out to reel *n'*.

The ink-rolls, being in the position shown in Fig. 1, travel upward on faces *l* and strike projecting arm *k*, which yields to the contact (without moving shaft *e*) and is pressed by the rolls upward and back of surfaces *l*, resuming its place by force of spring *k'* as soon as released by the receding rolls. The inked rolls now return and in their downward travel catch projecting arm *k*, causing its outer extremity to describe nearly a semicircle, during which movement pawl *i* engages ratchet *h*, causing bar or shaft *e* to describe a quarter-revolution, feeding the type-band forward one step and presenting the face of a fresh plate *m* in time to receive the ink from the descending ink-rolls. The slack of the type-band just paid out is taken up by spring *o*, an impression is taken from the exposed plate *m* and the form in the chase, the ink-rolls again ascend, and the operation is repeated as many times as there are divisions in the type-band.

To those skilled in the art various obvious methods of actuating shaft *d* in harmony with the movement of the platen and inking-rolls of the press will suggest themselves, and I do not, therefore, limit my invention to the form of driving mechanism for the shaft *d*, above described; neither do I confine my invention to a series of stereotype-plates *m*, attached to flexible ribbons in the exact manner shown, as various methods of attaching the plates *m* to ribbons *m'*, either fixedly or detachably, will occur to persons skilled in the art.

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

1. A chase or type-frame for printing-presses, provided with a rotary shaft or bar journaled therein, substantially as shown and described, for the purpose specified.

2. A chase or type-frame for printing-presses, having a rotary shaft or bar journaled therein, in combination with means for rotating said shaft or bar in harmony with the

movement of the platen and ink-rollers of the press, substantially as shown and described, for the purpose specified.

3. A chase or type-frame for printing-presses, having a mortise with a shaft or bar journaled therein, in combination with a pawl and ratchet on said shaft, substantially as shown and described, for the purpose specified.

4. A chase or type-frame for printing-presses, having a mortise with a shaft or bar journaled therein, in combination with a pawl and ratchet on said shaft and an arm engaging the ink-rolls of the press and adapted to actuate said pawl and ratchet intermittently between the successive impressions of the press, substantially as shown and described, for the purpose specified.

5. In an addressing attachment for printing-presses, a chase having a shaft therein, provided with means for rotating said shaft, journaled between the successive impressions of the press, and a flexible type-band having upon its face the characters from which impressions are to be taken and adapted to travel upon said shaft, substantially as shown and described, for the purpose specified.

6. An addressing attachment for printing-presses, comprising in its construction a chase having a shaft journaled therein, provided with means for rotating said shaft between the successive impressions of the press, and a series of plates having upon their faces the characters from which impressions are to be taken, suitably attached to one or more flexible ribbons or bands, forming a flexible type-band, said type-band traveling upon said shaft and having suitable reels adapted to pay out and to take up said flexible type-band as it is fed to the press, substantially as shown and described, for the purpose specified.

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Witnesses:

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