(No Model.) 2 Sheets—Sheet 1.

L. BAILEY.

BOOK LETTERING AND EMBOSSING PRESS.

No. 565,824. Patented Aug. 11, 1896.

Fig. 1.

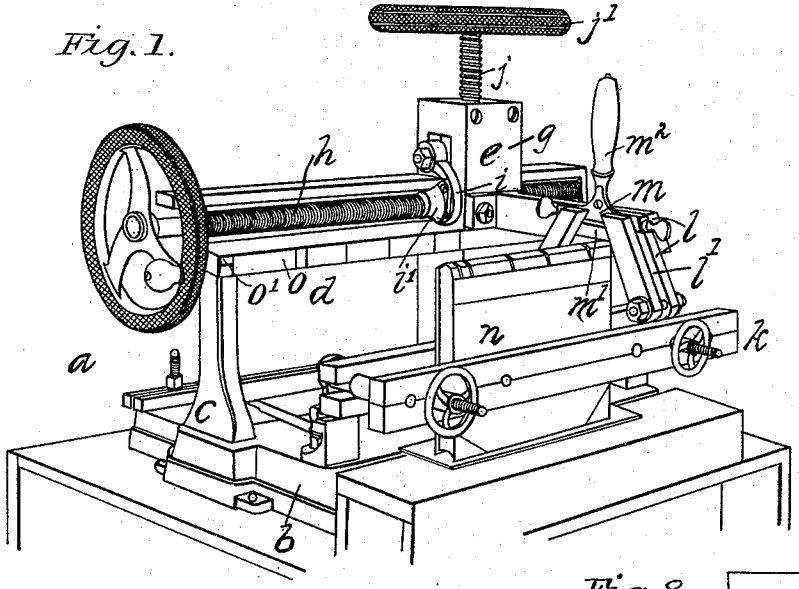


Fig. 8.

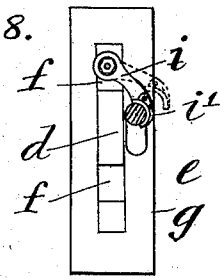
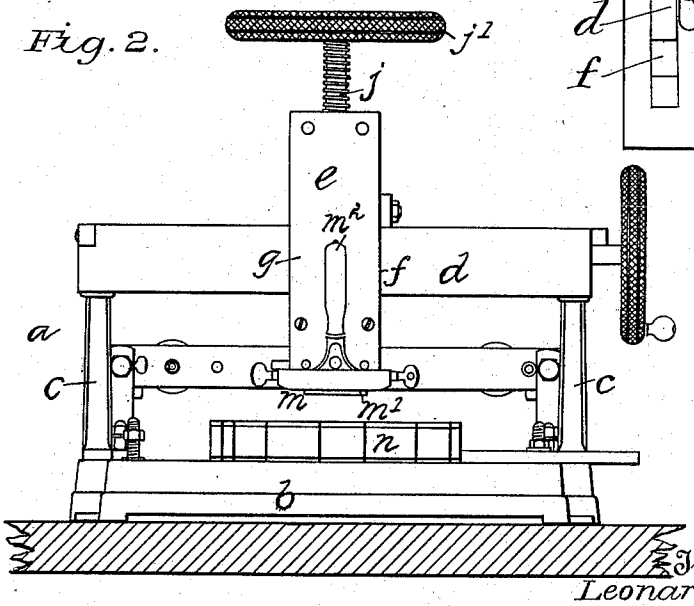


Fig. 2.



Witnesses
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J. A. Cantin

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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

(No Model.) 2 Sheets—Sheet 2.

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BOOK LETTERING AND EMBOSSING PRESS.

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Fig. 3.

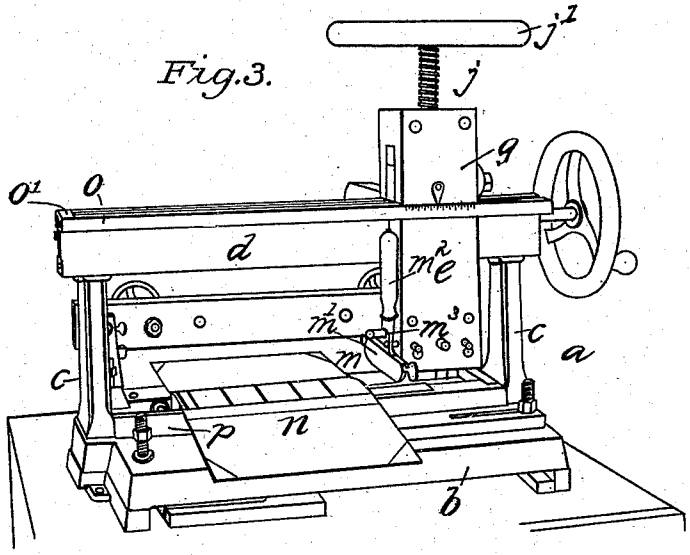


Fig. 4.

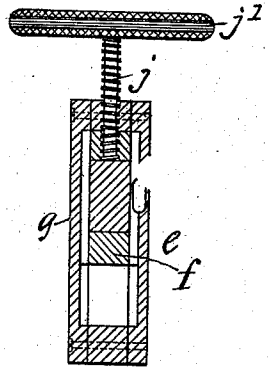


Fig. 5.

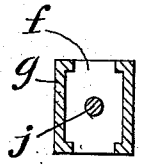


Fig. 6.

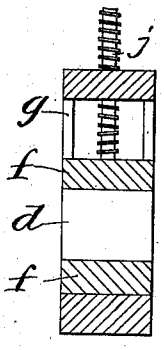
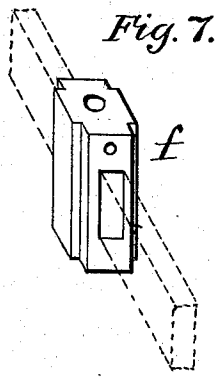


Fig. 7.



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UNITED STATES PATENT OFFICE.

LEONARD BAILEY, OF WETHERSFIELD, CONNECTICUT.

BOOK LETTERING AND EMBOSSING PRESS.

SPECIFICATION forming part of Letters Patent No. 565,824, dated August 11, 1896.

Application filed February 8, 1894. Serial No. 499,475. (No model.)

To all whom it may concern:

Be it known that I, LEONARD BAILEY, of Wethersfield, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Book Lettering and Embossing Presses, of which the following is a full, clear, and exact description, whereby any one skilled in the art can make and use the same.

The object of my invention is to provide a machine by means of which any desired lettering may be placed on the back or on the side of a bound book with rapidity and accuracy and by the use of comparatively unskilled labor; and to this end my invention consists in the details of the several parts making up the machine as a whole and in their combination, as more particularly hereinafter described, and pointed out in the claims.

Referring to the drawings, Figure 1 is a perspective view showing the press with a book in position for lettering the back. Fig. 2 is a detail view, in side elevation, of the press, showing a book in position for lettering on the side. Fig. 3 is a perspective view of the press, illustrating the manner of its use in lettering the cover of a book before the same has been secured to the leaves. Fig. 4 is a detail view, in vertical central section, through the slide, showing the construction. Fig. 5 is a detail view, in horizontal section, through the slide above the tool-head support. Fig. 6 is a detail view, in vertical section, through the slide lengthwise of the cross-head, the latter being shown in full. Fig. 7 is a detail perspective view of a modified form of tool-head support. Fig. 8 is a detail edge view of the slide, showing the manner of engagement of the feed-screw and mutilated nut on the pawl.

In the accompanying drawings, the letter *a* denotes the press as a whole, that comprises a bed-plate *b* and standards *c*, supporting a cross-head or yoke *d*, that extends between the standards across the press and is adapted to support the slide *e*. This slide comprises a tool-head support *f* and a reciprocating tool-head *g*. The tool-head support is supported on the cross-head or yoke in such manner as to prevent anything but a lengthwise reciprocation of the tool-head support along the cross-head, such motion being imparted to the slide as a whole by means of a feed-screw *h*, that is held in suitable bearings in the cross-head, extends lengthwise thereof through an opening in the slide, and engages with a nut borne on the slide. This nut *i'* is preferably formed in the lower end of a pawl *i*, that is pivoted to the side of the tool-head support in such position that the lower end of the pawl, having a socket in which the thread is cut that forms the mutilated nut, can be dropped into or lifted out of engagement with the feed-screw *h*, it being held in engagement therewith, preferably by gravity, the larger part of the weight of the pawl coming in front of and below the pivot-bolt, by which it is secured to the tool-head support. The slide as a whole is preferably built up of several parts that embody the tool-head support and the tool-head, the latter comprising front and rear plates and side parts that are bolted together, so as to embrace the tool-head support and also the sides of the cross-head on which the slide reciprocates.

The parts are so secured together that a power-screw *j*, that is provided with a suitable hand-wheel *j'* for turning it, may be used to raise and lower the tool-head, the lower end of which is provided with suitable sockets or supporting means for holding tools for printing or embossing or doing any like work.

At one side of the bed of the press is arranged a clamp *k*, that is adapted to hold a book firmly in an upright position, so that the back of the book looks upward and is presented in convenient position for receiving any imprint.

From the side of the tool-head a tool-guide *l* projects with a guide-slot *l'* so arranged as to support the printing-tool *m*. This guide consists of a bracket with downturned arms near the outer end, the arms spreading from the bracket downward and standing at an angle with each other and arranged with a slot that opens upward, so that the body part of the printing-tool may be inserted and securely held and guided in the slot during the process of printing. This printing-tool is a stamp of ordinary construction, comprising a type-holding part *m'* and a handle m^2, arranged at right angles, preferably, to the type-holding part.

The operation of this part of my invention is as follows: A book n is secured by the clamp k in convenient position, as shown in Fig. 1 of the drawings, and the slide moved, as by means of the feed-screw, into a proper position to enable the line or the matter to be printed to be applied to the back of the book. The printing-tool is then inserted in the slot and by a rocking movement the characters borne on the type are printed in any desired color on the back of the book. The usual lines that separate the back of the book into sections may also be printed the same way and such lines and letters may be formed in plain colors or may be gilded, this matter, of course, being governed wholly by the character of the work desired to be produced by the use of the press.

In order that the lines or printed matter may be placed in the proper position, an index-rod o is attached by spring-clips o', or otherwise, in front of the cross-head and from standard to standard, lines being marked on this index-rod and the edge of the slide, a special index mark or hand serving as a guide for locating the marking-tool in proper position along the back of the book.

In case it is desired to print upon the side of the covers the printing or embossing tool is secured to the lower end of the slide and the book placed upon the bed of the press underneath the slide in proper position to receive the imprint when the tool-head is forced downward by means of the power-screw. It is preferred that this screw shall be constructed as shown in the accompanying drawings, that is, with a right and a left hand thread, the thread running in one direction being located in the tool-head support and the thread running in the opposite direction in the tool-head.

In case the printing is to be applied to the back of the book before it is bound the covers are opened outward and the back laid flat upon the backing-strip p, that is laid on the bed of the press parallel to and below the cross-bar in proper position for the printing-tool m to be used when supported on the slide, as shown in Fig. 3 of the drawings. As a convenient means of attaching this tool the face of the slide has a number of projecting pins, one of them adapted to pass through an opening m^3 in the printing-tool and the others forming supports for the back of the tool that prevent it from rocking over. The tool is thus conveniently and removably held on the lower end of the slide and it may be used for printing, the slide being moved to the desired position, as by means of the feed-screw and an index-rod, used in similar manner as already described for locating the printed matter or lines, the latter being particularly useful when two or more books are to be marked in duplicate.

I claim as my invention—

1. In a stamping and embossing press in combination, a base, a yoke supported on the base and extending through a tool-head and tool-head support, a slide mounted on the yoke and comprising the tool-head support located within the tool-head and the tool-head mounted on the tool-head support, a feed-screw supported on the base, a swinging pawl located on the tool-head and bearing a nut in engagement with the feed-screw, and a feed-screw borne in the tool-head support and tool-head to vertically reciprocate the latter, all substantially as described.

2. In a stamping and embossing press, in combination, a bed-plate, a yoke arranged above the bed-plate and supporting a feed-screw in engagement with a slide, the feed-screw, a tool-head support borne on the cross-head, a tool-head borne on the tool-head support and having a printing-tool support, and a feed-screw in engagement with the tool-head support and tool-head, the thread on the screw in the tool-head and tool-head support running in opposite directions, all substantially as described.

3. In a stamping and embossing press, in combination, a bed-plate, a yoke arranged above the bed-plate and extending through a tool-head support and tool-head, a slide borne on the yoke and comprising a tool-head support located within the tool-head, and the tool-head borne on the tool-head support, means for reciprocating the slide, a printing-tool support located on the slide, a book-clamp located on the base, and an index-rod supported in operative relation to the slide and bearing graduations, all substantially as described.

LEONARD BAILEY.

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