No. 660,637. Patented Oct. 30, 1900.

C. T. HERRMANN.

DEVICE FOR MARKING BOOK SIGNATURES.

(Application filed Aug. 11, 1900.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

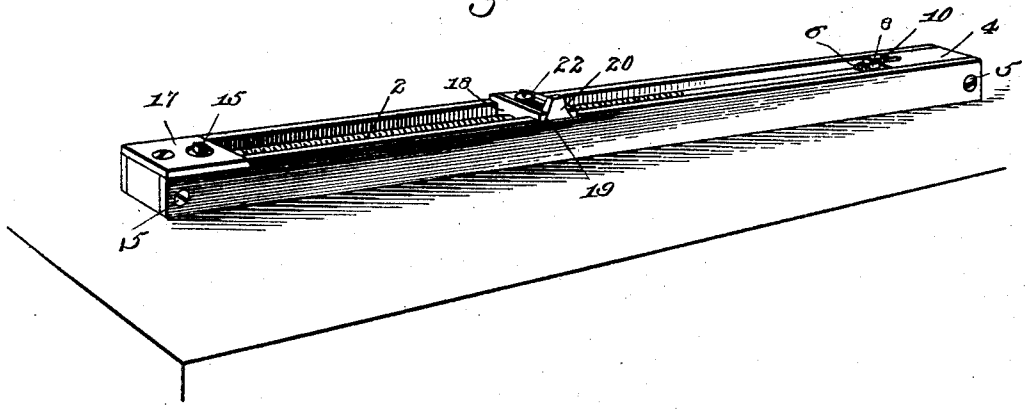


Fig. 2.

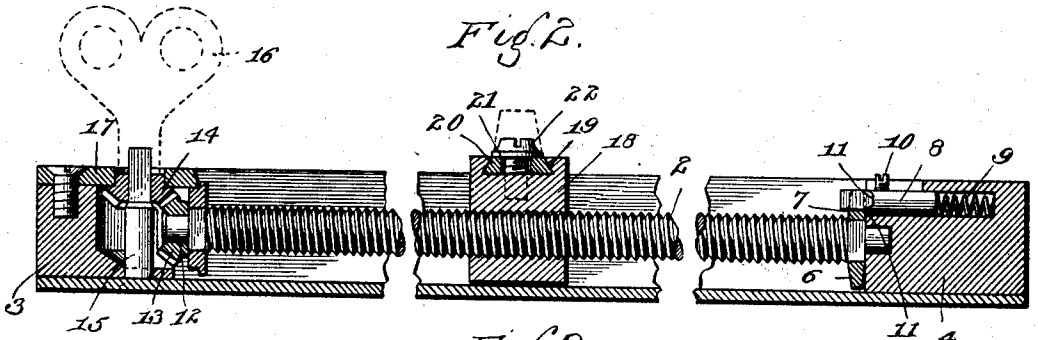


Fig. 3.

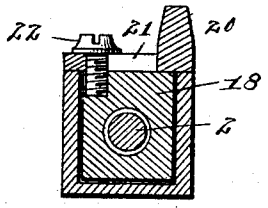


Fig. 4.

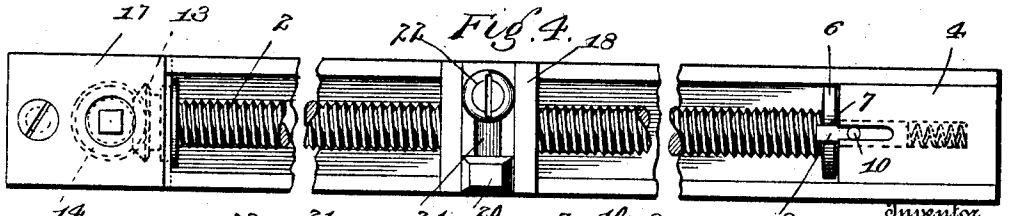


Fig. 5.

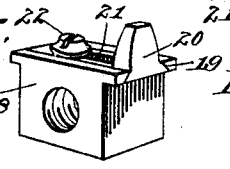
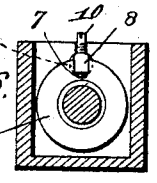


Fig. 6.



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No. 660,637. Patented Oct. 30, 1900.

C. T. HERRMANN.

DEVICE FOR MARKING BOOK SIGNATURES.

(Application filed Aug. 11, 1900.)

(No Model.) 2 Sheets—Sheet 2.

Fig. 7.

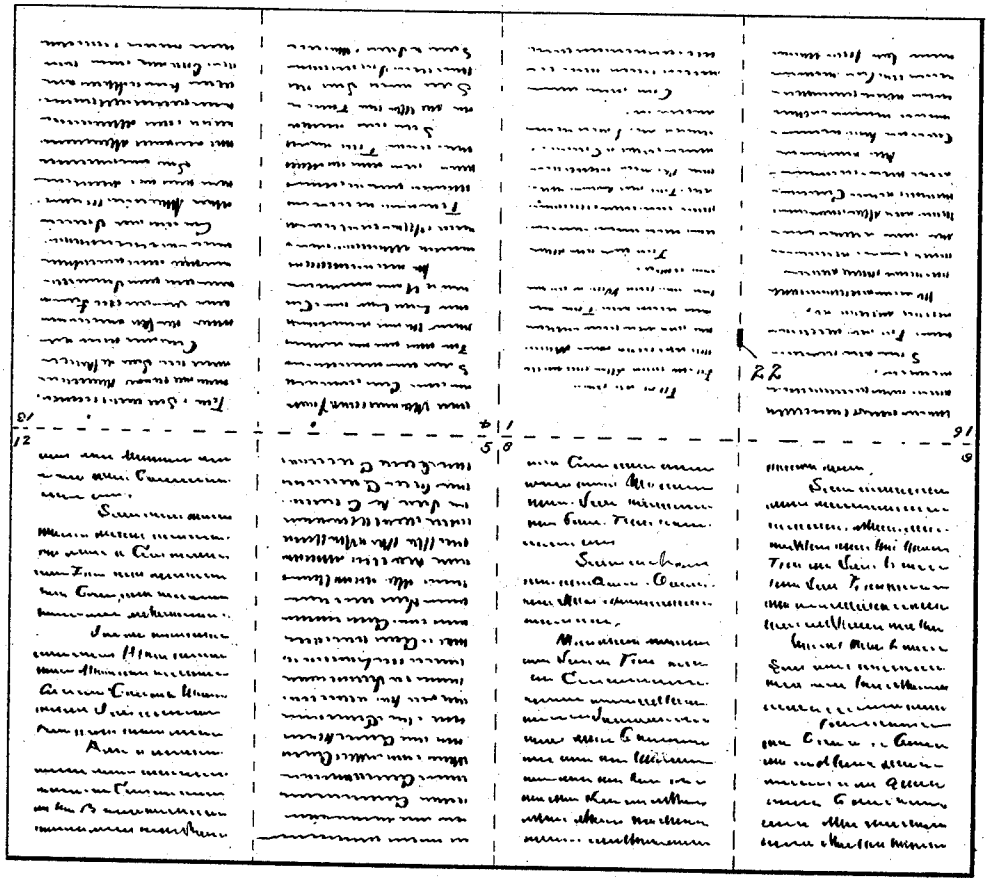


Fig. 8.

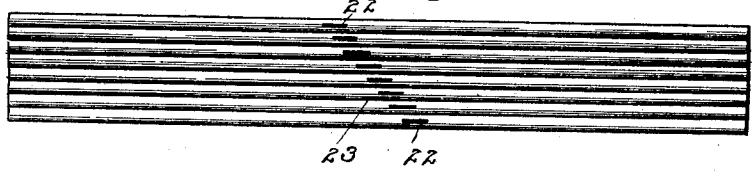
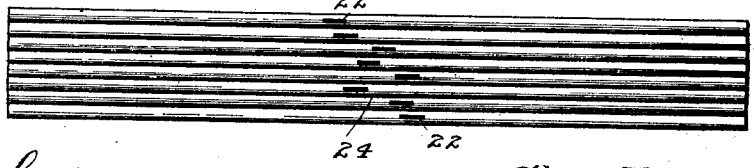


Fig. 9.



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UNITED STATES PATENT OFFICE.

CHARLES T. HERRMANN, OF NORTHPORT, NEW YORK.

DEVICE FOR MARKING BOOK-SIGNATURES.

SPECIFICATION forming part of Letters Patent No. 660,637, dated October 30, 1900.

Application filed August 11, 1900. Serial No. 26,621. (No model.)

To all whom it may concern:

Be it known that I, CHARLES T. HERRMANN, a citizen of the United States, residing at Northport, in the county of Suffolk and State of New York, have invented a new and useful Device for Marking Book-Signatures, of which the following is a specification.

My invention relates to means for marking book-signatures; and it has for its object to produce a device of this kind which will be simple, cheap, and efficient; and it consists in the improved construction and novel arrangement of parts of the same, as will be hereinafter more particularly set forth.

In printing books, pamphlets, &c., the leaves are printed in sets or groups called "signatures," each containing eight leaves or sixteen pages. These signatures are so arranged that when they are properly folded the pages of each signature will follow each other consecutively and the pages of the consecutive signatures will also run consecutively. After the different signatures have been printed and folded the binder takes one signature from each group and arranges them in consecutive order and binds them into a book; but it sometimes happens that in gathering up and arranging the signatures for the book some of them may be omitted, duplicated, or misplaced, which will impair the value of the book and entail loss and injury to the publisher. Although the different signatures are usually numbered consecutively from "1" to as many as there are signatures, these numbers are generally placed at the bottom of the first page of each signature, and as soon as the signatures have been placed upon each other for binding all of the indicating characters except upon the first page are hidden from view and there is no means of knowing whether the signatures are properly arranged or not except upon an examination of each signature, which requires too much time to be practical. To obviate this difficulty and enable the binder to tell at a glance whether the signatures are properly arranged or not, I provide means for providing each signature upon its outer fold with a mark which will be visible after the signatures have been collected for binding, but which will be covered by the binding, and thereby prevent its being an injury to the appearance of the book. These marks are so arranged that a glance at the rear or folded edges of the signatures will show whether the signatures are properly arranged or not and also whether there has been an omission or duplication of any of the signatures. The marks can be applied in any suitable manner; but I prefer to apply them when the signatures are being printed and to make the marking apparatus adjustable, so that after one set of signatures has been printed the apparatus can be adjusted to print the mark upon each succeeding set just a trifle to one side or the other of the preceding set. By printing them in this manner when the signatures are properly arranged the marks will appear as a dark diagonal line across the back of the pile of signatures; but if there be a mistake made in the arrangement in any manner it will be made apparent by the broken or disarranged appearance of the line.

Although any suitable means can be used for printing the marks upon the signatures, I have secured very satisfactory results from the apparatus shown in the accompanying drawings, in which the same reference-numerals indicate corresponding parts in each of the views in which they occur, and in which—

Figure 1 is a perspective view of my improved signature-marker. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is a transverse sectional view. Fig. 4 is a top plan view. Figs. 5 and 6 are detail views. Fig. 7 is a plan view of one side of one of the signatures. Fig. 8 is a view of a pile of signatures properly arranged, and Fig. 9 is a similar view of a pile with the signatures improperly arranged.

Referring more particularly to the drawings, 1 indicates the base or main portion of my improved signature-marker, which may be of any desired length and suitable area in cross-section. The base is preferably made square or rectangular trough-shaped in cross-section, within which is journaled a screw-threaded shaft 2. The ends of the shaft are journaled in blocks 3 and 4, which are rigidly secured in the ends of the base in any desired manner, as by screws 5. A collar 6 is secured to one end of the shaft to bear against the block at that end and is provided with a notch

7, into which a locking-bolt 8 is projected by means of a spring 9, seated within a recess in said block. The bolt is provided with a pin or catch 10, by means of which it may be retracted for permitting the rotation of the shaft, and it is provided with shoulders 11, which engage with the collar 6 to limit its outward movement, the outer end of the bolt being preferably angular in cross-section. The other end of the shaft is provided with a flanged head 12, which fits in the block at that end and is provided with beveled gear-teeth 13, which mesh with corresponding teeth on a head or pinion 14 on a shaft 15, which is journaled in the block at the end of the shaft 2. The upper end of the shaft 15 is angular in cross-section for the reception of a key 16 or other means of rotating it. A plate 17 is secured to the block above the pinion to hold it in position.

Mounted upon the shaft 2, within the base 1, is a screw-threaded block 18, which is adapted to be moved back and forth as the shaft is rotated. The top of the block extends above the tops of the walls of the base and is provided with a transverse dovetailed groove 19, within which is adjustably secured a marking lug or point 20. The bottom of the groove 19 is even with the top of the walls of the base, so that the base of the lug 20 can be moved back and forth in its groove above the tops of the walls. The lug is preferably located at one end of the lug, so as to rest on top of one of the walls of the base when in its operative position, and the main portion is slotted longitudinally, as shown at 21, for the reception of a screw 22, by means of which the lug may be adjusted to the required position.

The entire apparatus is of such a size as to be assembled with and virtually become a part of the furniture when the forms are locked up, and the lug is of such a height that it will be even with the top of the type or other printing-surface, so that with the passage of the marking apparatus it will receive its share of the ink, which will be deposited on the signatures as they are run through the press.

In using my improved marker it is placed with the forms in such a position as to cause its lug to stand on the line of the outside fold of the signature—as, for instance, between the first and last pages, as pages "1" and "16" of the first signature, as shown at 22 in Fig. 8. After the desired number of these signatures are printed the form is taken down and a new form made up for the succeeding signature, the shaft 2 being rotated sufficiently to cause the lug to be moved slightly toward one end or the other of the base. Each succeeding form is made up in this manner and the lug shifted substantially the same distance for each signature, or the forms can all be made up at the same time with a marker for each form, the lugs of the different markers being so arranged that the mark will be placed in the proper position on each signature. When the shaft 2 is being rotated, the locking-pin 8 is withdrawn from the notch 7; but after the lug has been moved to the desired point the pin is released and permitted to enter the notch and hold the shaft against rotation. After the signatures are printed they are folded with the mark upon the outside fold. They are then collected into a bunch or pile ready for binding, which will cause the marks of the different signatures to appear as a diagonal line 23 in Fig. 9; but if an error should be made in arranging the signatures the line would be broken or disarranged, as shown at 24 in Fig. 10, thus showing at a glance what and where the trouble was and enabling the bookbinder to readily correct it, and thus produce a perfect copy of the book instead of an imperfect one.

Although I have shown what I consider the most convenient and desirable form of embodying my improved signature-marker, yet I reserve the right to make such changes and alterations therein as will come within the scope of my invention.

Having thus described my invention, what I claim as new, and desire to obtain by Letters Patent of the United States, is—

1. In a signature-marker, the combination, with a movable indicating-point, of means for moving the same so as to impress the outer fold of the signature.

2. In a signature-marker, the combination, with a base, of an indicating-point movably secured thereto, and means for moving said point.

3. In a signature-marker, the combination, with a base, of an indicating-point on top of the same, and means for adjusting said point laterally and longitudinally of the base.

4. In a signature-marker, the combination, with a base, of a shaft journaled therein, a block engaging with the shaft and provided with the indicating-point, and means for rotating the shaft.

5. In a signature-marker, the combination, with a base of a screw-threaded shaft journaled therein, a block engaging with the shaft, the top of which is provided with a transverse groove, an indicating-point, the base of which is slotted and fits within said groove, a screw through the slot into the block, and means for rotating the shaft.

6. In a signature-marker, the combination, with a base, of a shaft journaled therein, an indicating-point in position to be moved by said shaft, a lock at one end of the shaft and an operating-shaft at the other.

7. In a signature-marker, the combination, with a base, of a shaft journaled therein, one end of which is provided with a notched collar and the other end is provided with a flanged and geared head, a lock for the collar a pinion in engagement with the head, and an indicating-point on the base in position to be moved by the shaft.

8. In a signature-marker, the combination,

with a square trough-shaped base, of a block in each end thereof, one of which is recessed and slotted on top, a screw-threaded shaft journaled in said blocks, one end of which is provided with a notched collar, a spring-actuated locking-pin in the recess in one of the blocks provided with a catch and having its outer end adapted to enter the notch of the collar, means for rotating the shaft, and an indicating-point on the base in position to be moved back and forth by the shaft.

9. In a signature-marker, the combination, with a square trough-shaped base, of a block in each end thereof, a screw-threaded shaft journaled in said blocks, one end of which is provided with a flanged and geared head, a shaft journaled in said block provided with a pinion in engagement with said head, and an indicating-point on the base in position to be moved back and forth by the screw-threaded shaft.

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Witnesses:
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