(No Model.)

G. McG. MORRIS & R. L. STOKES.

AUTOGRAPHIC REGISTER.

No. 508,553. Patented Nov. 14, 1893.

Fig. 1.

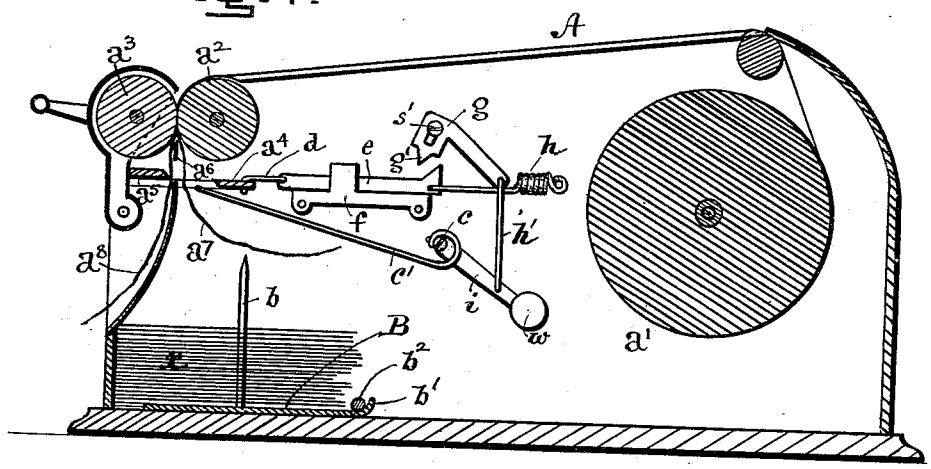


Fig. 2.

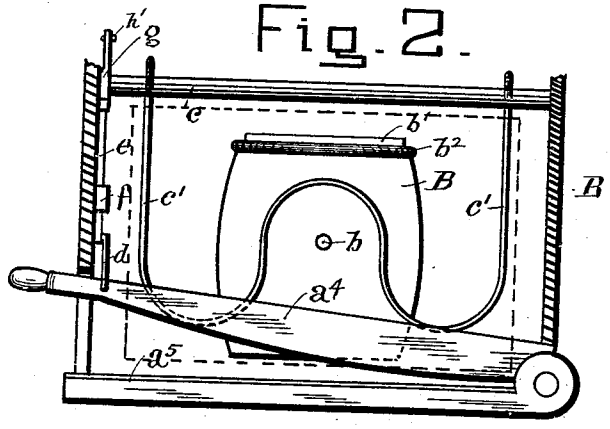


Fig. 3.

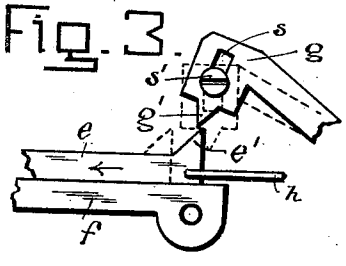
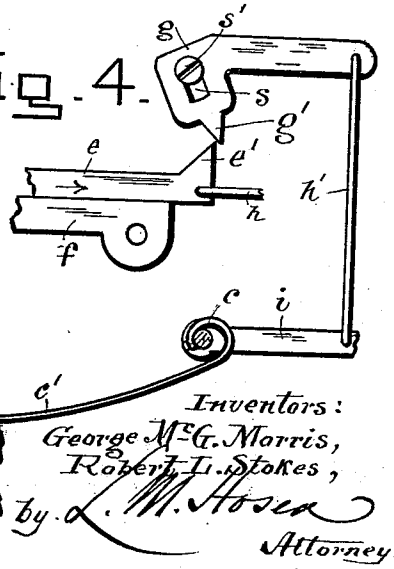


Fig. 4.



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UNITED STATES PATENT OFFICE.

GEORGE McG. MORRIS AND ROBERT LYTLE STOKES, OF CINCINNATI, OHIO; SAID STOKES ASSIGNOR TO SAID MORRIS.

AUTOGRAPHIC REGISTER.

SPECIFICATION forming part of Letters Patent No. 508,553, dated November 14, 1893.

Application filed March 20, 1893. Serial No. 466,967. (No model.)

To all whom it may concern:

Be it known that we, GEORGE McG. MORRIS and ROBERT LYTLE STOKES, citizens of the United States, residing at Cincinnati, Ohio, have invented new and useful Improvements in Autographic Registers, of which the following is a specification.

Our invention relates to autographic registers of the class in which a cutting apparatus is employed to sever the slips as they pass the feed-out rolls: its object being to provide, as an additional attachment to such machines, a filing apparatus by which the retained slips may be filed in a convenient manner for preservation and reference in consecutive order.

To this end our invention consists in the devices hereinafter more fully described, embodying a filing arm or arms operated by suitable connecting mechanism in co-operation with the cutting devices; by which the retained slips are properly filed upon a removable needle and stand, within the machine.

Mechanism embodying our invention is illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of our invention exhibiting its relation to the complete register. Fig. 2 is a detail plan section of the same, omitting the feed-out rolls. Figs. 3 and 4 are detail elevations showing the actuating mechanism in different positions.

Referring now to the drawings:—A designates the casing of an autographic register, of the class designated having a storage roll a', feed-out rolls, a^2, and a^3, and a pivoted cutting knife, a^4, with a fixed cutting knife, a^5. A dividing bar a^6 arranged beneath the rolls, divides the strips as they are fed downward through the rolls, and diverts one strip, a^7, to the interior of the machine and the remaining strip, or strips, a^8, outward, all as shown in Fig. 1. These parts arranged for operation as indicated constitute a typical register to which our invention is applied, but we do not limit ourselves in its application, to this form of register alone.

In applying our invention we place at the bottom of the casing A, a small base piece, B to which is secured a filing needle b, projecting upward. The base piece may be of any form and secured in any convenient manner: an example of which is shown in the hooked end, b', adapted to engage under a loop, b^2, as shown, whereby it is readily removable, and, while in place, is securely held in proper position for use. In rear of the needle b, a shaft c, is journaled across the casing A, to which is secured a spring arm or arms c',—a convenient form and mode of attachment of which is shown in Figs. 1 and 2, consisting of a continuous spring wire projecting in the form of a yoke radially from the shaft c, and bent centrally backward to loop around the needle, and produce a uniform distribution of pressure surfaces in relation to the filed blanks x (whose outlines are indicated in dotted lines, Fig. 2). The arm or arms, c', are held in normal position, ready for use (as in Fig. 1) by a counterweight, w, attached to a crank arm, i, connected with a shaft, C; which, when released by the actuating mechanism, returns the arm, a', to and maintains it in the position shown in said Fig. 1.

The actuating mechanism is as follows: Attached by a short link, d, to the movable cutting blade, a^4, is a reciprocating bar, e guided upon, and in a guide-rest, f, and having a cam or "trip" projection, e', at its free end. Pivoted above the reciprocating bar, e, in proper actuating relation with the cam-projection e', is a bell-crank g, pivoted, by means of a slot s, to a stud, s', upon the casing, and having a down projecting wedge-point g', constituting the other arm of the bell crank. The long arm of the bell-crank is pivotally connected by a connecting rod or link, h', with the crank arm i. In the operation of the movable cutting blade, a^4, the bar e, is drawn forward, and, as its tip point e', passes under the point g', it lifts the bell-crank g, as permitted by the slot s. As the projection e' passes on, the bell crank, g, is behind the trip point, e', as indicated in Fig. 3, by the dotted lines. Upon being released, a spring h, attached to the bar e, at once returns the bar e, to its normal position of rest. In thus passing backward, the point e, engages the projection, g', of the bell-crank g, and, as it passes onward, lifts the long arm of the bell-crank, and by the connections, h', i, partially rotates the shaft c, carrying the arms c' downward, as indicated in Fig. 4, carrying the severed

strip a^7 which is thus filed upon the needle upon the previous strips x. The paper strip, a^7, by the action of the feed-out rolls a^2, and a^3, naturally curves inward, as shown in Fig. 1; which brings it in proper relation to the filing needle b, and beneath the arm, or arms, c', ready for the downward action of the latter, just described. This downward movement, causes the needle, b, to pierce, and retain the strips in a compact pile, x. As the pile increases, the spring arms yield, as may be necessary.

The shaft c, may be dispensed with, and the extremities of the yoke arm c', may be bent outward in a common axis, as journals, to one of which the arm i, and attachments may be secured.

Where the cutting blades are already supplied with a sufficiently powerful spring tending to hold them apart, the spring, h, shown herein, may be omitted.

We claim as our invention and desire to secure by Letters Patent of the United States—

1. In an autographic register the combination of feed-out rolls; arranged at the front of the tablet, a cutting apparatus operating horizontally across the line of feed beneath the rolls; and a vibrating filing arm, pivoted beneath and at the rear of the cutting apparatus and operating in connection with the cutting apparatus to engage and carry down the severed strip, within the casing to its determined position beneath the tablet, substantially as set forth.

2. In an autographic register, the combination of feed-out rolls; cutting apparatus operating across the line of feed between the rolls: a vibrating filing arm pivoted beneath and in rear of the cutting apparatus to carry the severed strip within the casing to determined position; and a fixed filing needle located beneath the table in the part of the vibrating arm to retain the filed strips substantially as set forth.

3. In an autographic register the combination of a pivoted cutting blade operating across the line of paper strips a reciprocated cam or tripping device connected with, and operated by the pivoted cutting blade; a vibrating arm beneath the cutting blade; actuating connections between said arm and the cam or trip device: and a spring connected mediately to the cutting blade to restore it to normal position after use, and in such return to operate the vibrating arm, substantially as set forth.

4. The combination in an autographic register of feed out rolls; a dividing bar; a cutting blade operating across the line of feed below the dividing bar; a vibrating filing arm and connecting mechanism below the cutting knife; and spring actuated connections between the vibrating arm and cutting knife; for the actuation of the filing arm simultaneously with the cutting knife, substantially as set forth.

5. In an autographic register, the combination of the movable cutting knife, the actuating spring, the reciprocating bar, the pivoted bell-crank, the shaft, the vibrating arm, connected thereto, and the connections between the latter and the bell-crank, substantially as set forth.

In testimony whereof we have hereunto set our hands in the presence of two subscribing witnesses.

GEORGE McG. MORRIS.
ROBERT LYTLE STOKES.

Witnesses:
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