

(No Model.)

3 Sheets—Sheet 1.

S. SHOUP.  
 AUTOGRAPHIC REGISTER.

No. 561,350.

Patented June 2, 1896.

FIG. 1

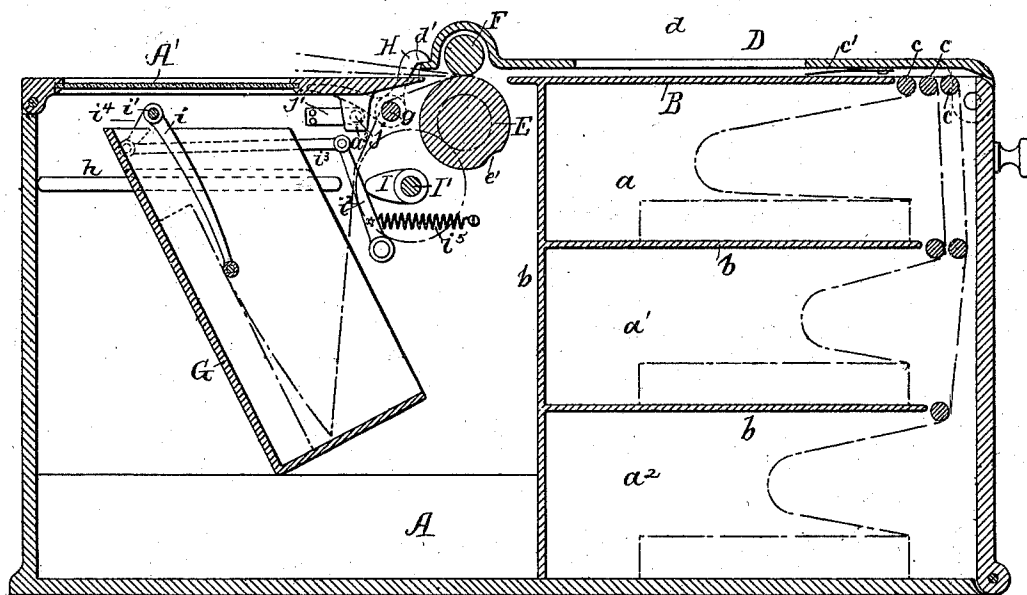
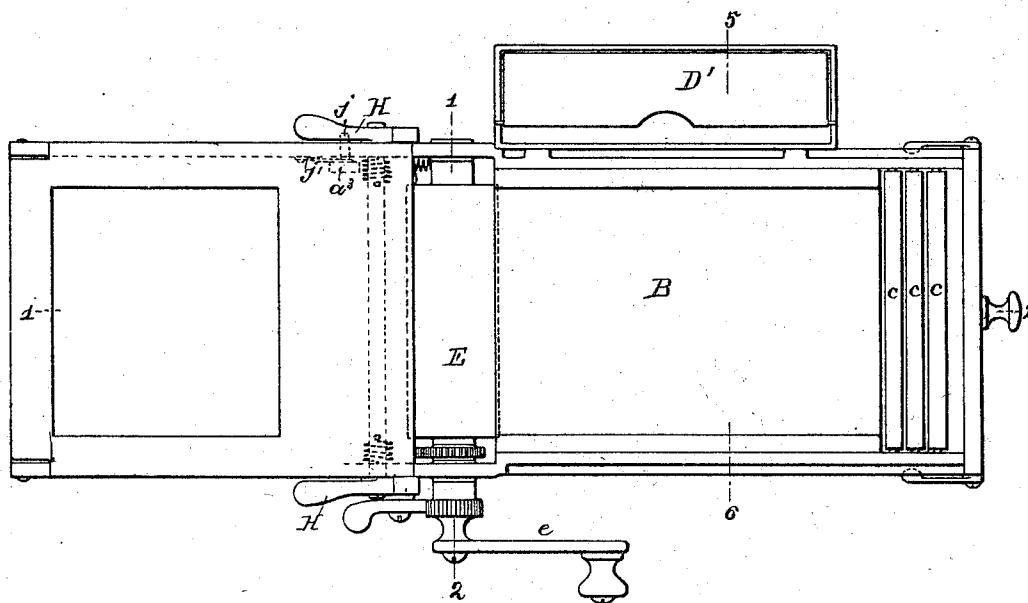


FIG. 2.



Witnesses:

F. D. Goodwin  
William N. Barr

*Inventor:*

Samuel Shoup  
by his Attorneys  
Howson & Howson

(No Model.)

3 Sheets—Sheet 2.

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AUTOGRAPHIC REGISTER.

No. 561,350.

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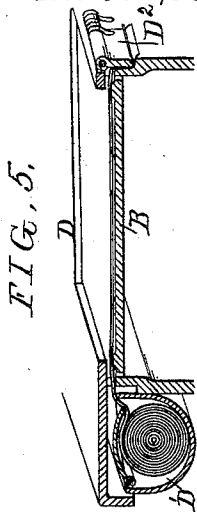


FIG. 3.

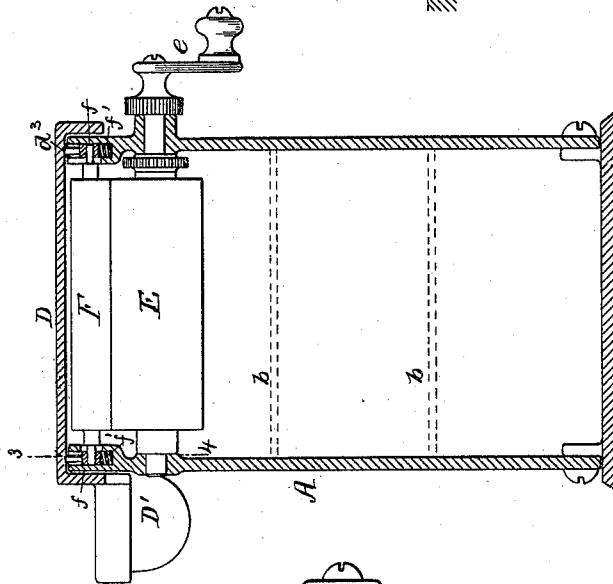


FIG. 4.

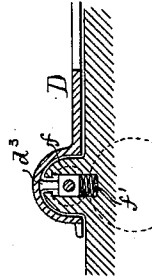
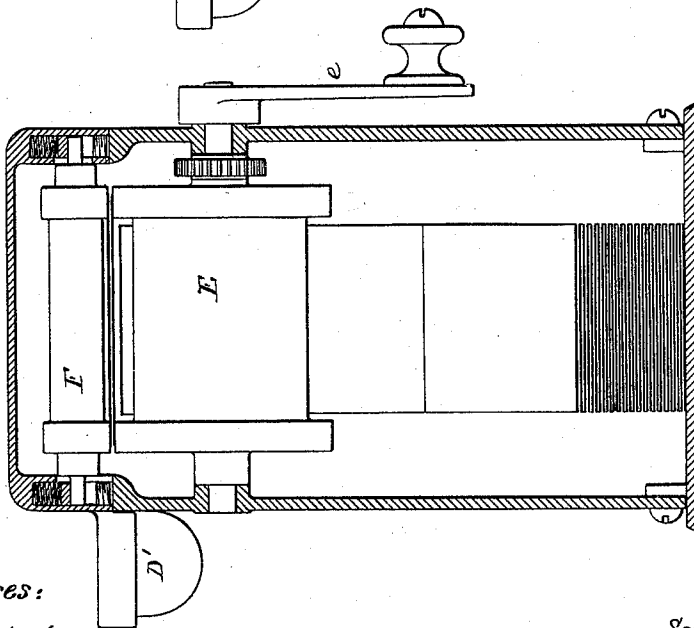


FIG. 7.



Witnesses:

*W.D. Goodwin*  
*William A. Carr*

Inventor:

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# UNITED STATES PATENT OFFICE.

SAMUEL SHOUP, OF CLIFTON HEIGHTS, PENNSYLVANIA.

## AUTOGRAPHIC REGISTER.

SPECIFICATION forming part of Letters Patent No. 561,350, dated June 2, 1896.

Application filed June 22, 1893. Serial No. 478,474. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL SHOUP, a citizen of the United States, and a resident of Clifton Heights, Delaware county, Pennsylvania, have invented certain Improvements in Autographic Registers, of which the following is a specification.

The object of my invention is to so construct an autographic register that the "record-paper" can be folded within the register and in which previously-folded issue and record paper can be stored and used.

A further object of my invention is to so construct the mechanism that the record-paper can be fed at a different speed from that of the issue-paper—*i. e.*, the slips that are torn off; and my invention further relates to certain details of construction described hereinafter.

In the accompanying drawings, Figure 1 is a longitudinal sectional view of my improved register. Fig. 2 is a plan view with the top frame removed. Fig. 3 is a transverse sectional view on the line 1 2, Fig. 2. Fig. 4 is a section on the line 3 4, Fig. 3. Fig. 5 is a transverse sectional perspective view on the line 5 6, Fig. 2. Fig. 6 is a longitudinal sectional view illustrating the register, having rolls of issue-paper and independent feeding mechanism for the folding record-strip. Fig. 7 is a transverse section on the line 7 8, Fig. 6; and Fig. 8 is a view of a modification showing the method of creasing the paper from a roll, so that it will properly fold.

Referring to Figs. 1, 2, and 3, in the first instance, A is the casing, in one end of which are compartments *a*, *a'*, and *a''*, formed by partitions *b*. These compartments contain the paper for the register, as shown by dotted lines, the paper being folded in this instance.

The paper passes over guide-rolls *c* between the bed B and the frame D, in which there is an opening *d*, so that the salesman can mark upon the top sheet of paper, which is from the pack contained in the lower compartment *a''*, the paper in the compartment *a'* being the cashier's duplicate and the paper in the compartment *a* being the record-sheet. Between the several sheets are placed sheets of carbon-paper drawn from a roll in the carbon-paper box D' at the side of the machine. The carbon-paper extends from this box trans-

versely across the machine, the loose ends being held in position by a spring-flap D<sup>2</sup>, by raising which the transfer-paper can be pulled over and torn off against the straight edge of the flap for purposes of renewing.

A spring *c'* on the cover-plate D in the present instance rests upon the paper and keeps sufficient tension upon it.

E and F are the feed-rolls, and by these feed-rolls the three thicknesses of paper are drawn through the machine, a handle *e* being secured to the lower roll E, by which it is turned. I form a notch *e'* in the lower roll, so that the upper roll will spring into the notch at each revolution to indicate to the salesman the proper distance to feed the paper.

The frame D extends over the roll F, and has a cutting edge *d'*, against which the two upper sheets of paper are drawn to be severed. The third sheet, however, passes under the frame A' and over a roll *g*, and folds into a sliding box G.

I have found that the paper will fold on the same lines as it was previously folded in the compartment *a*.

As the paper enters the box it strikes the abutment and cannot feed farther on that line, and as there is sufficient space between the abutment and the roll to allow one of the creases in the paper to pass the feed-rolls the paper will naturally fold according to the crease, as shown in Fig. 1.

When the machine is used very little during the day, the abutment can be stationary, as the thickness of the folded paper at the end of the day will not prevent the proper working of the machine; but when the machine is in constant use I mount the abutment or box G upon a slide *h* of the case A and provide pushing mechanism. In the present instance this pushing mechanism consists of an arm *i*, hung at *i'*, which bears against the paper in the box, and I operate this arm by means of a cam I on a shaft I', geared to the shaft E, the cam acting upon an arm *i''*, connected by a rod *i'''* to an arm *i''''* on the pivot *i'*. A spring *i'''''* tends to keep the arm *i''* always in contact with the cam, so that the arm will raise clear of the paper and allow it to fold in place, the arm pressing down upon the paper at each alternate revolution of the feed-roll *e*, thus push-

ing the box back a distance equal to the thickness of the paper, so that the paper will always fold on the same line, no matter how thick the bundle.

5 On the frame D are pins  $d^3$ , which rest upon the bearings  $f$  of the roll F, and mounted under the bearings are springs  $f'$ , so that when the frame D is raised the roll F will be raised clear of the roll E and allow the paper to be  
10 freely moved. I mount in the frame A' a glass, so that the folded paper is exposed to view.

Pivoted to suitable pins on the side of the case are catches H, which engage the frame  
15 D and hold it in position. A pin  $j$  on a spring  $j'$  extends under the handle of the catch H, locking it to the case, preventing it from being detached. A lug  $a^3$  on the frame A' extends back of the spring-pin, preventing its  
20 operation, except when the frame is raised. This frame is locked to the case in any suitable manner.

In Figs. 6 and 7 I have shown my improved register, in which a single folded sheet is used,  
25 and two rolls of paper, the two rolls being the original and cashier's duplicate, which are severed, one slip going to the customer and the other to the cashier, while the folded piece within the compartment  $a$  is the record-strip.  
30 In this instance the frame D has two openings  $d$  and  $d^2$  and the check-slip only passes under the opening  $d^2$ , as clearly shown in Fig. 6. The number of the slip is marked in this space, together with the amount, and in some  
35 instances the salesman's number. It will therefore be seen that as regards the necessities for auditing, a waste of paper and of energy in looking over same would be the result of feeding a summarized record-strip the same  
40 distance as the two issue-strips containing the full record. Therefore I groove the rolls E and F, so that they will grasp the two upper sheets at each edge and feed them, while the lower sheet, being narrower than the upper  
45 sheets, passes through the groove of the lower roll and around the roll  $g$  between the feed-rolls K K' to the compartment within which it is folded. The feed-roller K is geared to the feed-roll E in such a manner that the feed-  
50 rolls K K' will feed the paper the proper distance.

In the device as shown in Fig. 6 I use a fixed abutment, the box or compartment within which the paper is folded being deep  
55 enough to allow the paper to fold properly.

The front  $A^2$  of the casing A is hinged to lugs on the base at  $m$ , as is also the section  $A^3$ , carrying the feed-rolls. The cover D is hinged at  $m'$ , so that on opening the front  
60  $A^2$  the spring-pin is released, allowing the catches H to be operated, which release the frame D. This frame can swing back on its pivot  $m'$ , and then the section  $A^3$  can be moved upon its pivot  $m$  so as to expose the paper.

65 Directly above the roll  $g$  in Fig. 6 I form an opening in the front  $A^2$  and cover the

opening with a glass, so that it will expose the marks upon the record-strip. This enables the operator to see that the mechanism is feeding properly, and will also indicate to  
70 him the number he must record—as, for instance, in the device shown in the drawings the feed for the folded paper is geared three to one to the other paper. Consequently if  
75 No. 1 is exposed the salesman's mark will be No. 4, Nos. 2 and 3 being between the opening  $d^2$  and the roller  $g$ .

In the machine illustrated in Fig. 6 the feed-roller F is carried by the frame D, while in the device shown in Fig. 1 the upper feed-  
80 roll is mounted in bearings on the body A.

In the devices above described paper that had been previously folded is used; but in the device shown in Fig. 8 the feed-rollers have interlocking blades and notches, alter-  
85 nately arranged, so that the paper will be alternately creased, and when fed through the machine it will fold as creased, the paper in this instance being taken from a roll.

I claim as my invention—

1. The combination in an autographic register, of the compartments for the paper, the feed-rolls for feeding the paper, a movable box adapted to guideways, an arm adapted to fold the paper in the box and move the box  
95 a given distance away from the roll, said box remaining in the adjusted position, the movement of the box being controlled solely by the arm, substantially as described.

2. The combination of the series of compartments for the different packs of folded paper, one mounted above the other, feed-rolls for feeding the paper, a guide-roll for guiding the record-paper, a longitudinal movable box containing said record-paper after it  
105 passes through the rolls, an arm for feeding the box as the paper increases in thickness, said arm pressing against the paper, with mechanism for operating said arm connected to the feed-rolls, substantially as described. 110

3. The combination of the casing, the pivoted frame D, the catches for holding the frame to the case, a spring-pin for locking the catches, a door, and a lug or projection on the hinged door which pushes the pin in front  
115 of the catches and locks them when the door is closed, substantially as described.

4. The combination in an autographic register, of the base-frame of the machine, a cover-plate, the upper and lower feeding-rolls  
120 for feeding the paper, and a spring or its equivalent for separating the feed-rolls when the cover-plate is raised, substantially as specified.

In testimony whereof I have signed my  
125 name to this specification in the presence of two subscribing witnesses.

SAMUEL SHOUP.

Witnesses:

HENRY HOWSON,  
JOSEPH H. KLEIN.