

(No Model.)

J. C. SHOUP & A. KRAUTH.
AUTOGRAPHIC REGISTER.

No. 538,288.

Patented Apr. 30, 1895.

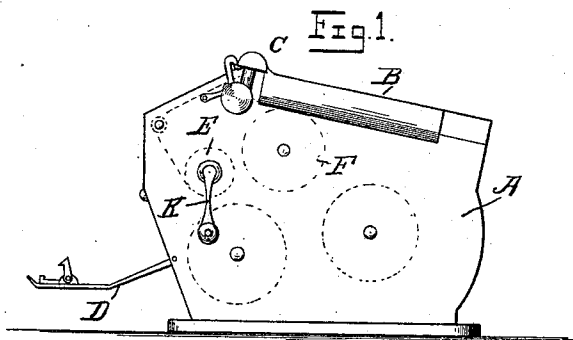


Fig. 3.

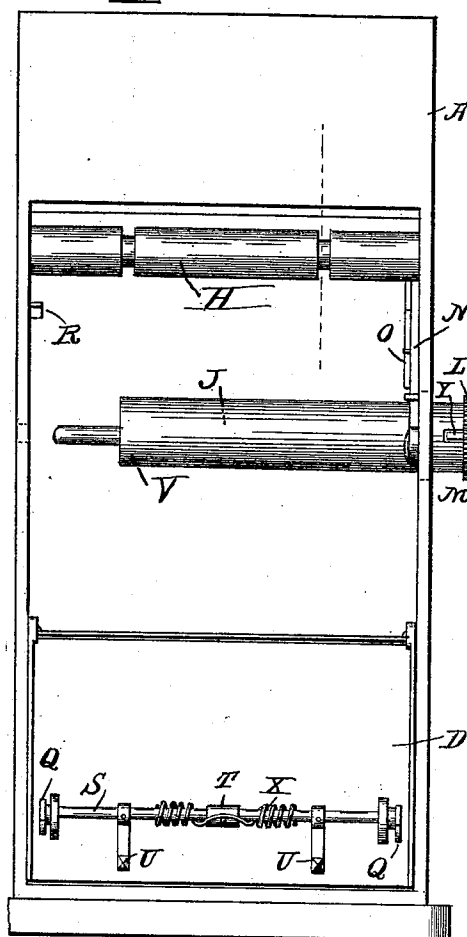


Fig. 2.

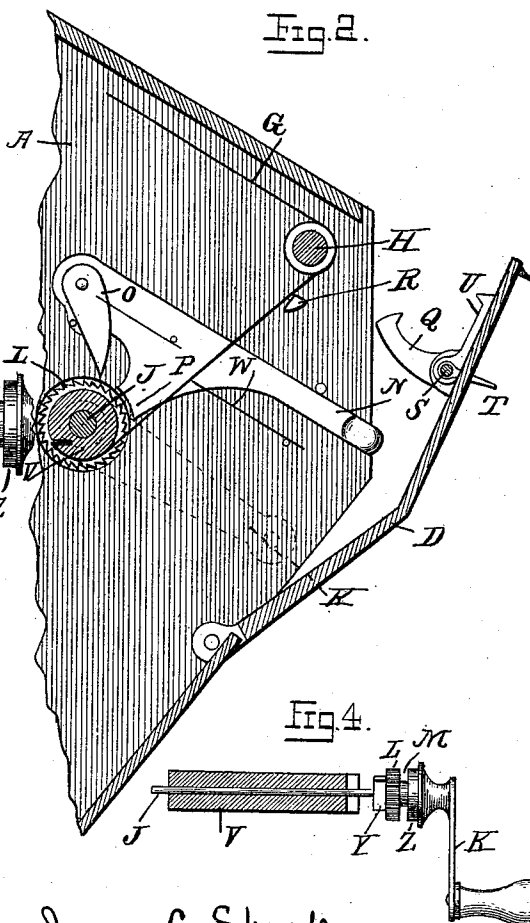
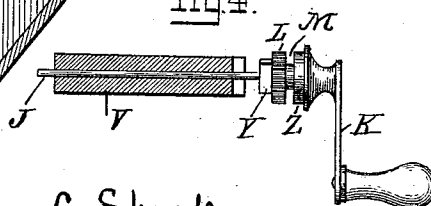


Fig. 4.



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UNITED STATES PATENT OFFICE.

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AUTOGRAPHIC REGISTER.

SPECIFICATION forming part of Letters Patent No. 538,288, dated April 30, 1895.

Application filed April 14, 1894. Serial No. 507,524. (No model.)

To all whom it may concern:

Be it known that we, JAMES C. SHOUP, of New York, New York county, New York, and ALBERT KRAUTH, of Hamilton, Butler county, Ohio, have invented certain new and useful Improvements in Autographic Registers, of which the following is a specification.

This invention pertains to that class of autographic registering devices in which a strip of paper, to contain a record, is wound up in a roll in a closed receptacle, a portion of the paper being exposed to receive the entry and then advanced by being wound up on the storage-reel.

Our improvements relate to the mounting of the storage reel, the object of the improvement in this respect being to provide a convenient means for inserting the reel and starting the paper upon it and for withdrawing the reel and for locking the reel against unauthorized withdrawal or against unauthorized backward turning.

Our improvements will be readily understood from the following description taken in connection with the accompanying drawings, in which—

Figure 1 is a side elevation of an ordinary autographic register provided with our improvements; Fig. 2, a vertical longitudinal section of one of the end portions thereof, the left-hand end portion of Fig. 1, but viewed in the opposite direction; Fig. 3, an end elevation of the register, and Fig. 4 a detailed view of the storage-reel. Fig. 4 is upon a larger scale than Fig. 1, and Figs. 2 and 3 are upon a still larger scale.

In Fig. 1 the door D, which opens the end of the receptacle and gives access to the storage-reel, is shown as being open. Fig. 2 shows this door as not so much open, and Fig. 3 shows it open to the greatest degree.

In the drawings, A, indicates the body of an ordinary autographic register; B, the tablet surface thereon over which the writing is done; C, the position of the grip-rolls; D, the door closing the end of the register and giving access to the storage-reel; E, the storage roll of paper extending across the register near the door D; F, a supply-roll of paper within the

register, and G, the record paper on its way forward to the storage-reel after the record has been made upon it.

All of the parts thus far referred to are or may be substantially as is usual in this class of registering devices. We will now proceed to refer to the peculiarities of construction.

H, is a guide-roll or bar extending across the register near the door opening of door D and engaged by the record-paper G on its way to the storage-reel, this roll or bar being provided with one or more surface notches or peripheral grooves, peripheral grooves in case this bar is a rotary one; J, the spindle of the storage-reel journaled in the frame of the machine in position to receive the record paper, this spindle being adapted for endwise withdrawal sidewise from the casing; K, a handle on this spindle by means of which it may be turned in reeling up the record-paper; L, a ratchet-wheel fast on this spindle at the handle end of the spindle, the journal-bearing in the casing for this end of the spindle being of a size great enough to permit the passing of the ratchet-wheel inwardly through it so that when the spindle is in place the ratchet wheel is within the casing, the spindle having at this end a journal Z large enough to fit this journal-bearing; M, a circumferential groove in this large journal at the handle end of the spindle; N, a lever pivoted at its inner upper end to the casing and disposed within the casing at the handle end of the spindle of the storage-reel the outer end of this lever projecting into a position to be engaged by the door D as the door closes, whereby the closing of the door causes a downward inward movement of the lever; O, a pawl pivoted to the lever N, at the pivot which unites the lever to the casing, the point of this pawl being adapted to engage the ratchet-wheel L when the lever N is in position corresponding with the closed condition of the door D, this pawl having a spring to urge it into engagement with the ratchet-wheel and having a stop to limit its approach to the ratchet-wheel, the construction being such that when the lever N is in normal position, with the door closed, the pawl O is in full co-operation

with the ratchet-wheel, held in action by its spring and unrestrained by its stop, but when the lever N rocks upward, when the door is open, the pawl is withdrawn from the ratchet-wheel and restrained from inward movement by its stop; P, a blade carried by the lever N and adapted to engage the groove M of the storage-spindle when the storage-spindle is pushed endwise into place and the lever N is held down in normal position by the closed door; Q, latches on the door to hold it closed; R, lugs on the casing to be engaged by these latches when the door is closed; S, a rod mounted across the door and having the latches Q attached to it; T, a finger-piece on this rod by means of which the rod can be rocked and the latches Q unhooked from the lugs R; U, prick-arms fast on rocking-rod S in position to have their pricking points enter the notches or grooves in guide-rod or roll H when the door is closed and the rod is rocked in act of releasing the latches; V, a reel slipping loosely upon the reel-spindle J and having a longitudinal notch to receive the end of the record paper to be wound upon the reel; W, a spring urging the lever N out of active position and serving to throw that lever to idle position when the door is opened; X, a spring upon latch-rod S, serving to hold the latches Q to latched position; Y, a key at the handle end of reel-spindle J, engaging in a notch in the end of reel V and serving to cause the reel to turn with the spindle, and Z, the large journal at the handle end of the reel-spindle, J.

Normally the reel-spindle is clear in and the paper engaging the reel and the door closed and latched. Under such circumstances the spindle cannot be withdrawn endwise because blade P on lever N is engaging the groove Z of the spindle and the closed door holds the lever and blade in this active position. At the same time pawl O is engaging the ratchet-wheel on the spindle, thus preventing the backward turning of the reel. The spindle may thus be turned forward freely to wind up the record paper but it cannot be turned backward, nor can the spindle be withdrawn. The door is not locked, being merely latched, but if it be unlatched the act of moving the latches to disengage them will rock the prick-ers U forward and they will stab the record paper where it turns over the rod or roll H, the prickers passing through the paper which is backed at their points of operation by the grooves in the roll or rod. If the roll H is a roll in fact, that is, if it is free to turn, the rod must have the peripheral grooves forming, in effect, notches extending all the way around the roll so that no matter what rotary position the roll may be in the paper, at the pricking points, is backed by notches. Therefore if the door is opened without authority the pricking upon the record paper will indicate the fact, and the location of these prickings, with reference to the series of entries

upon the record paper, will indicate the time at which the unauthorized opening of the door took place.

When the door is opened the lever N is released and carries pawl O and blade P to inactive position. The storage-reel may then be turned freely in either direction and record paper may be withdrawn for inspection and then reeled up again, and when the door is again closed the pawl and blade go again to active position.

When the door is open the spindle may be freely withdrawn endwise from the apparatus, leaving the reel J and its roll paper within the apparatus. The roll may then be withdrawn through the doorway, for removal or inspection. In starting a new roll, the end of the record paper may be pulled out through the doorway and its end attached to the empty reel outside the casing, after which the reel, with the stored paper, may be pushed back within the casing, in line with the spindle, and the spindle pushed endwise into the casing through the reel, and when the spindle is pushed home and the door closed the apparatus is ready for use.

We claim as our invention—

1. In an autographic registering apparatus, the combination, substantially as set forth, of a casing, a door thereto, a storage-reel spindle mounted in the casing and adapted for endwise withdrawal from the casing, and a blade engaging the spindle and preventing its endwise withdrawal and engaged by the closed door to hold it in active position.

2. In an autographic register, the combination, substantially as set forth, of a casing, a doorway thereto, a storage-reel spindle mounted in the casing, a ratchet-wheel connected with said spindle, a pivoted pawl normally engaging said ratchet-wheel, a spring engaging said pawl and urging it at all times toward the ratchet-wheel, a lever pivoted to the casing near said doorway, a stop carried by said lever under said pawl, a spring engaging said lever and urging it to lift the pawl out of engagement, and a door at said doorway engaging said lever and holding said stop to inactive position when the door is closed.

3. In an autographic register, the combination, substantially as set forth, of a casing, a door thereto, a storage-reel spindle mounted in said casing and adapted for endwise withdrawal therefrom, a ratchet-wheel upon said spindle, a spring-pawl normally engaging said ratchet-wheel, a stop engaging said pawl and serving to withdraw it from action, a blade normally engaging said spindle and preventing its endwise withdrawal, and devices connecting the door with said stop and blade to hold the blade to active position and the stop to inactive position when the door is closed.

4. In an autographic register, the combination, substantially as set forth, of a casing, a spindle mounted therein and adapted for endwise withdrawal therefrom and provided with

a circumferential groove, a movable blade mounted within the casing and normally engaging said groove and preventing the endwise withdrawal of the spindle and a door closing said casing and guarding said blade.

5 In an autographic register, the combination, substantially as set forth, of a casing, a storage-reel spindle mounted therein and having at one end an enlarged journal, a ratchet-
10 wheel fast upon said spindle within the casing near said enlarged journal and having a diameter not exceeding that of said enlarged journal, a spring pawl within the casing and engaging said ratchet-wheel and a movable
15 blade engaging between said enlarged journal and said ratchet-wheel.

6. In an autographic register, the combina-

tion, substantially as set forth, of a casing, a door thereto, a notched guide-rod extending across the casing near the door opening there- 20 in, a rocking rod mounted on and moving with the door, latches on said rocking rod to secure the door in closed position, and prickers on said rocking rod in position to enter the notches in said guide-rod when the latches 25 are rocked to disengaging position.

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