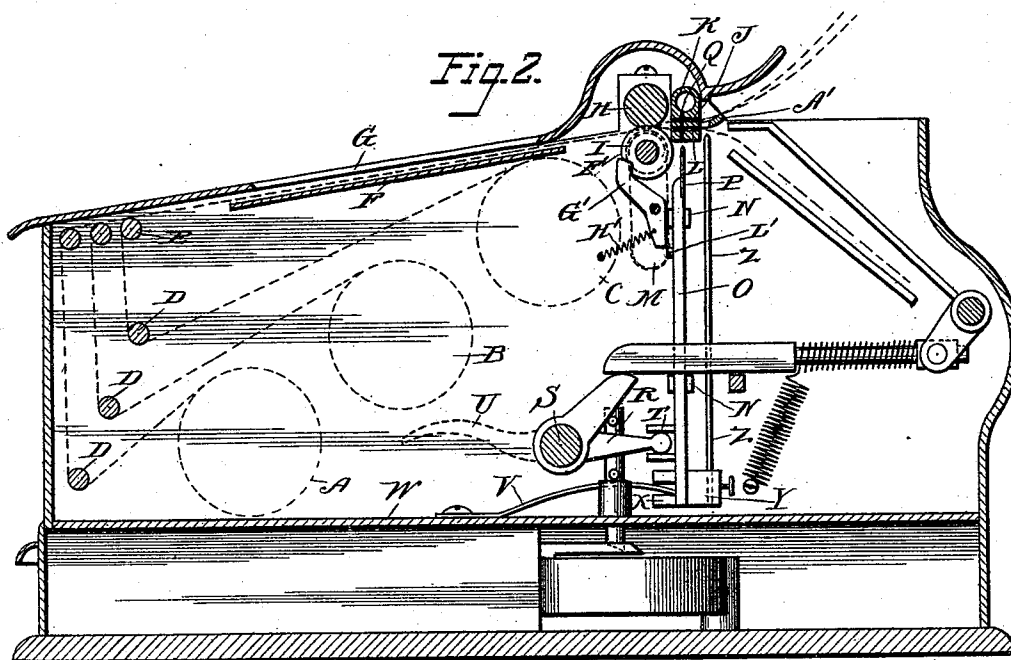
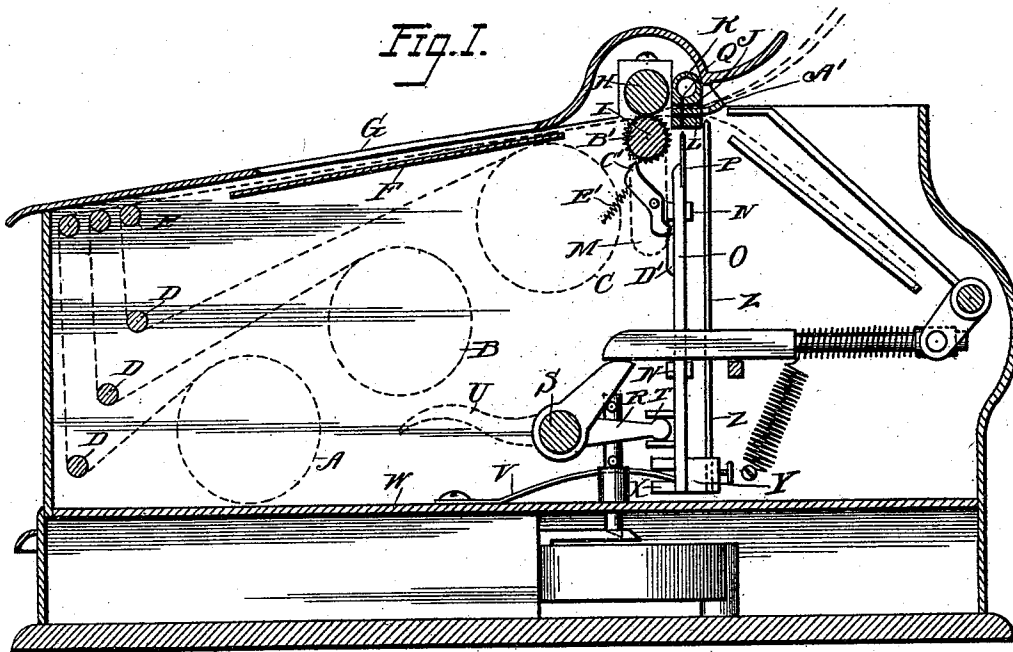


(No Model.)

J. PFEIFER.
AUTOGRAPHIC REGISTER.

No. 488,902.

Patented Dec. 27, 1892.



Witnesses
Martin A. Olsen.
John L. Timmer.

Inventor
John Pfeifer
by Edward Rector
his atty.

UNITED STATES PATENT OFFICE.

JOHN PFEIFER, OF DAYTON, OHIO, ASSIGNOR TO THE NATIONAL CASH REGISTER COMPANY, OF SAME PLACE.

AUTOGRAPHIC REGISTER.

SPECIFICATION forming part of Letters Patent No. 488,902, dated December 27, 1892.

Application filed August 16, 1892. Serial No. 443,264. (No model.)

To all whom it may concern:

Be it known that I, JOHN PFEIFER, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented a certain new and useful Improvement in Autographic Registers, of which the following is a description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to that class of autographic registers in which a pair of feed rollers is employed to draw the paper strips over the writing tablet and advance them to the cutting point, and in which an independently operated cutter is used to sever the strips at said point. In such machines it is essential that the feed rollers and the cutter shall not be actuated at the same time, for if the paper strips are advanced while the cutter is severing them they will be arrested at the cutting point by the cutter and become wrinkled up and crowded in the space between the feed rollers and cutting point, and clog the machine. In machines in which the feeding and cutting operations are automatic the parts are generally so adjusted that the feeding operation will cease while the cutting operation is taking place, but in machines in which independent handles or actuating devices are employed for the feed rollers and the cutter, the two will sometimes be inadvertently operated at the same time, the most frequent occurrence of this kind being that the clerk will carelessly actuate the cutter before he has quite completed the necessary turning of the feed rollers to advance the proper length of the strips.

It is the purpose of my present invention to provide an automatic lock for the feed rollers, which will be thrown into operation, to lock said rollers from movement, at the beginning of the operation of the cutter; and also to provide an automatic locking device for the cutter, which will be thrown into operation, to lock the cutter, at the beginning of the turning forward of the feed rollers from initial position.

The novelty of my invention, in its broader scope, consists in the combination, in an autographic register having independently actuated feeding and cutting mechanisms, of a

lock co-operating with the cutting mechanism and automatically thrown into locking position, to lock said mechanism, at the beginning of the operation of the cutting mechanism; and the combination, in such a machine, of a lock for the cutting mechanism, automatically thrown into locking position, to lock said mechanism, at the beginning of the operation of the feeding mechanism.

The details of construction and arrangement of the parts which illustrate my invention under one of the forms in which it may be embodied are shown in the accompanying drawings, in which

Figure 1 represents a vertical longitudinal section of a familiar form of autographic register, illustrating my automatic lock for the feeding mechanism; and Fig. 2 a vertical longitudinal section of the same machine, illustrating the automatic lock for the cutting mechanism.

The same letters of reference are used to indicate identical parts in all the figures.

In the machine illustrated in the drawings the paper strips are carried in three supply rolls A B C, indicated by dotted lines, and whose supporting spindles are suitably mounted in supports at the opposite sides of the casing. From these supply rolls the strips are led over guide rollers D E, thence forward over the usual fixed plate or writing tablet F, beneath an opening G in the top of the casing. The entries are made upon the upper strip through this opening G and are duplicated upon the lower strips by suitable manifolding material, not shown, interposed between the respective strips. From the writing tablet the strips are led between a pair of feed rollers H I, whence the two upper strips are led through a horizontal slot J in a cross piece K secured at its opposite ends to the sides of the casing, and thence out of the machine; while the lower strip is led through a second horizontal slot L in the cross piece K and downward and forward into the filing compartment of the machine. The lower feed roller I has secured upon the left hand end of its spindle, outside the casing, an operating handle M, shown in dotted lines, by which the rollers may be turned to advance the paper strips. Mounted to slide up and down

between guide lugs N upon the opposite sides of the casing is a plate O which has secured to its upper edge a cutter P adapted to pass through a vertical longitudinal slot Q in the cross piece K before referred to, to sever the paper strips passed through the horizontal slots J L in said cross piece. This knife-carrying plate O is lifted, to cause the knife to sever the strips, by an arm R fast upon a rock-shaft S and fitting at its rear ends between lugs T upon the forward side of the plate O. The rock-shaft S is journaled at its opposite ends in the sides of the casing, and its left hand end projects outside the casing and has secured upon it a handle U, shown in dotted lines, upon depressing which the shaft will be rocked and the plate O lifted by the arm R and the cutter P carried through the slot Q to sever the strips. A curved spring V, secured to the bottom plate W and bearing at its rear end upon a lug X on the forward side of the plate O, serves to reset the parts after the plate O has been lifted and the handle U released.

Secured upon the side of the plate O, at the middle of its lower edge, is a block Y in which is mounted a vertical pin Z, whose upper end, when the plate O is lifted in the manner before described, is adapted to pass through the record strip and through a hole in a plate A' upon the forward side of the cross piece K. This will file the record slip upon the upper end of said pin, and as the parts are reset to normal position the slip will be forced farther down upon said pin by means of a filing mechanism which is illustrated in the drawings, but which is of familiar construction and need not be here described for the reason that it forms no part of my present invention. The bottom of the casing is provided with a drawer compartment, in which fits a sliding money drawer arranged to be automatically locked when closed and to be released and thrown open by a spring at each operation of the handle U, but the details of the parts co-operating to this end need not be described since they have nothing to do with my present invention.

The automatic lock for the feed rollers may be now described as follows: The lower feed roller I has secured upon its extreme left hand end a toothed wheel B' with which co-operates the upper end of a locking dog C' pivoted near its middle to the side of the casing. The lower rear end of this locking dog co-operates with a cam lug D' upon the forward side of the knife-carrying plate O, a spring E' connected to the upper end of the dog and to the side of the casing normally holding the upper end of the dog out of engagement with the toothed wheel B' and its lower rear end in the path of travel of the lug D'. When the knife carrying plate O is in its normal position of rest the feed rollers are free to be turned, but when the handle U is depressed and the plate O lifted the lug D' will force the lower end of the dog E' forward and throw

its upper end into engagement with the toothed wheel B' and thereby lock the feed rollers from movement. The lug D' is of such length that it will hold the locking dog in this position during the entire upward movement of the plate O and maintain the locking of the feed rollers until said plate is reset to normal position.

I have illustrated and described a very simple and efficient form of locking device for the purpose intended, but it is evident that the particular form, arrangement, and mode of operation of the locking device may be widely varied by those skilled in the art, without departing from my invention. Even where a locking dog, co-operating with a toothed wheel upon the feed roller and thrown into locking position by the movement of the cutting mechanism, is employed, the shape, position, and movement of the locking dog in its co-operation with the other parts, may be varied as found convenient or desirable.

The automatic lock for the cutting mechanism is illustrated in Fig. 2, where it will be seen that the lower feed roller I has secured upon its extreme right hand end, at the opposite side of the casing from the toothed wheel B' upon the left hand end of the roller, a disk F' provided with a single notch in which fits the upper end of a locking dog G' pivoted near its middle to the rear side of the casing, not shown in the drawings. A spring H' secured to the lower end of the dog G' and to the side of the casing tends to pull the lower end of said dog forward and press its upper end against the disk F'. When the feed roller I is in position for the upper end of the dog G' to fit in this notch, as shown in the drawings, the lower end of said dog hangs immediately in front of and above a projection I' upon the front side of the knife-carrying plate O. With the parts in this position said plate is free to be lifted, to sever the strips, but when the feed roller I is in any other position the upper end of the dog G' will be thrown forward and rest upon the periphery of the disk F', and its lower end will be thrown rearward into the path of the projection I' on the plate O, so that until the feed roller is turned to position for the upper end of the dog G' to enter its notch the plate O will be locked from upward movement. In the machine illustrated in the drawings two revolutions of the feed rollers are required to draw forward the proper length of the strips at each operation, so that at the end of the first revolution of the roller I the plate O would be momentarily unlocked, but if the handle U should be depressed and the plate O lifted at that moment the engagement of the upper end of the dog G' with the notch in the disk F' would hold the feed rollers locked until the plate O had completed its upward movement and returned to normal position. It will be understood, however, that the construction and mode of operation of the parts need not be essentially different if the lower feed roller I were of suf-

ficient diameter to cause a single revolution of it to advance the length of strips necessary at each operation, as is the case in many machines of this class.

5 From the foregoing description of the locking device shown in Fig. 2 it will be seen that it is an automatic lock not only for the cutting mechanism but for the feed rollers as well, operating to lock either one while the other is operating. The operating device shown in Fig. 1 operates to lock only the feed rollers, and may be employed independently of that shown in Fig. 2, but where that shown in Fig. 2 is employed it will be unnecessary to provide that shown in Fig. 1, since that shown in Fig. 2 operates to lock both of the mechanisms.

10 It is evident that what has been said about varying the form, arrangement, position, and mode of operation of the locking device for the feed rollers, shown in Fig. 1, is equally true of the locking device for the cutter, shown in Fig. 2, and that the details of the latter may be widely varied without departing from this feature of my invention.

15 Having thus fully described my invention, I claim:—

1. In an autographic register having independently operated feeding and cutting mechanisms for advancing and severing the paper strips, the combination, with the feeding mechanism, of a lock automatically thrown into position to lock said mechanism by the operation of the cutting mechanism.

2. In an autographic register having independently operated feeding and cutting mechanisms, the combination, with the cutting mechanism, of a lock automatically thrown into position to lock said mechanism by the operation of the feeding mechanism.

3. In an autographic register having independently operated feeding and cutting mechanisms, the combination, with said mechanisms, of a locking device co-operating therewith to lock either one when the other is operated.

4. In an autographic register employing a pair of feed rollers to advance the paper strips and a cutter to cut them into slips, the combination, with the feed rollers, of a lock arranged to be thrown into position to lock them by the movement of the cutter.

5. In an autographic register employing a pair of feed rollers to advance the paper strips and a cutter to cut them into slips, the combination, with the cutter, of a lock arranged

to be automatically thrown into position to lock the cutter by the movement of the feed rollers.

6. In an autographic register employing a pair of feed rollers to advance the paper strips and a cutter to cut them into slips, the combination, with said feed rollers and cutter, of a lock co-operating therewith to lock either one when the other is operated.

7. In an autographic register employing a pair of feed rollers to advance the paper strips and a cutter to cut them into slips, the combination, with said feed rollers, of a toothed wheel secured to one of them, and a locking dog co-operating with said wheel and arranged to be automatically thrown into engagement therewith, to lock the feed rollers, by the movement of the cutter to sever the strips, substantially as described.

8. In an autographic register employing a pair of feed rollers to advance the paper strips and a cutter to cut them into slips, the combination, with said feed rollers and cutter, of a notched disk secured to one of the rollers, and a locking dog co-operating with said disk and with a projection upon the cutter, to lock the latter when the feed rollers are turned, substantially as described.

9. In an autographic register, the combination of the feed rollers H I, the operating handle M applied to the roller I, the slotted cross piece K through which the paper strips and cutter blade pass, the reciprocating plate O carrying the cutter blade P, the toothed wheel B' secured to the feed roller I, the locking dog C' co-operating with said toothed wheel and with a cam lug D' upon the plate O, and means for lifting the plate O to cause the cutter P to sever the strips, substantially as and for the purpose described.

10. In an autographic register, the combination of the feed rollers H I, the operating handle M applied to the roller I, the slotted cross piece K through which the paper strips and cutter blade pass, the reciprocating plate O carrying the cutter blade P, the notched disk F' secured to the roller I, the locking dog G' co-operating with said notched disk and with a projection I' upon the plate O, and means for lifting the plate O to cause the cutter blade P to sever the strips, substantially as and for the purpose described.

JOHN PFEIFER.

Witnesses:

WILLIAM B. SULLIVAN,
F. A. L. SNECKNER.