

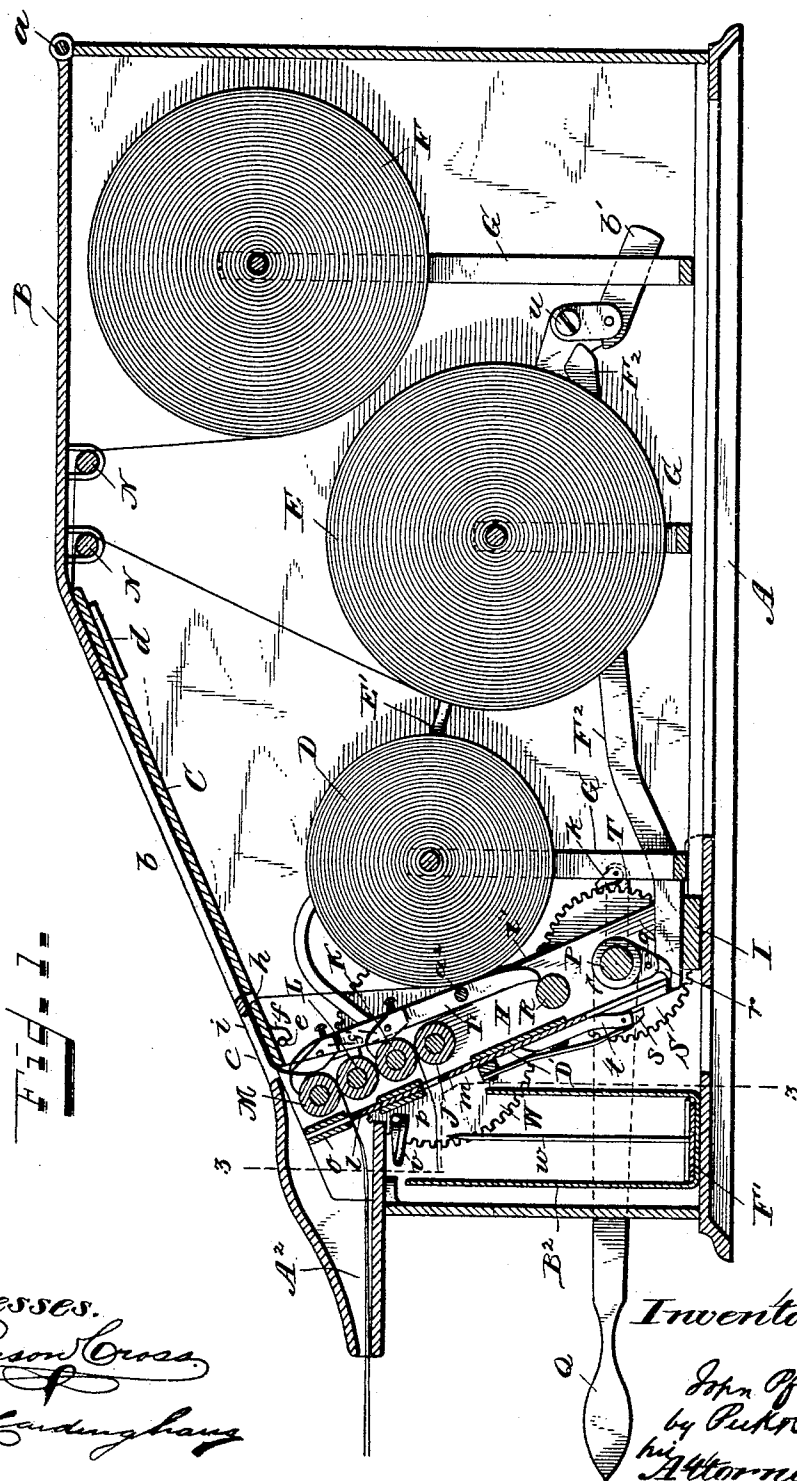
(No Model.)

5 Sheets—Sheet 1.

J. PFEIFER.
AUTOGRAPHIC REGISTER.

No. 496,534.

Patented May 2, 1893.



Witnesses.
J. Thomson Cross
Edw. Gardinghaus

Inventor.

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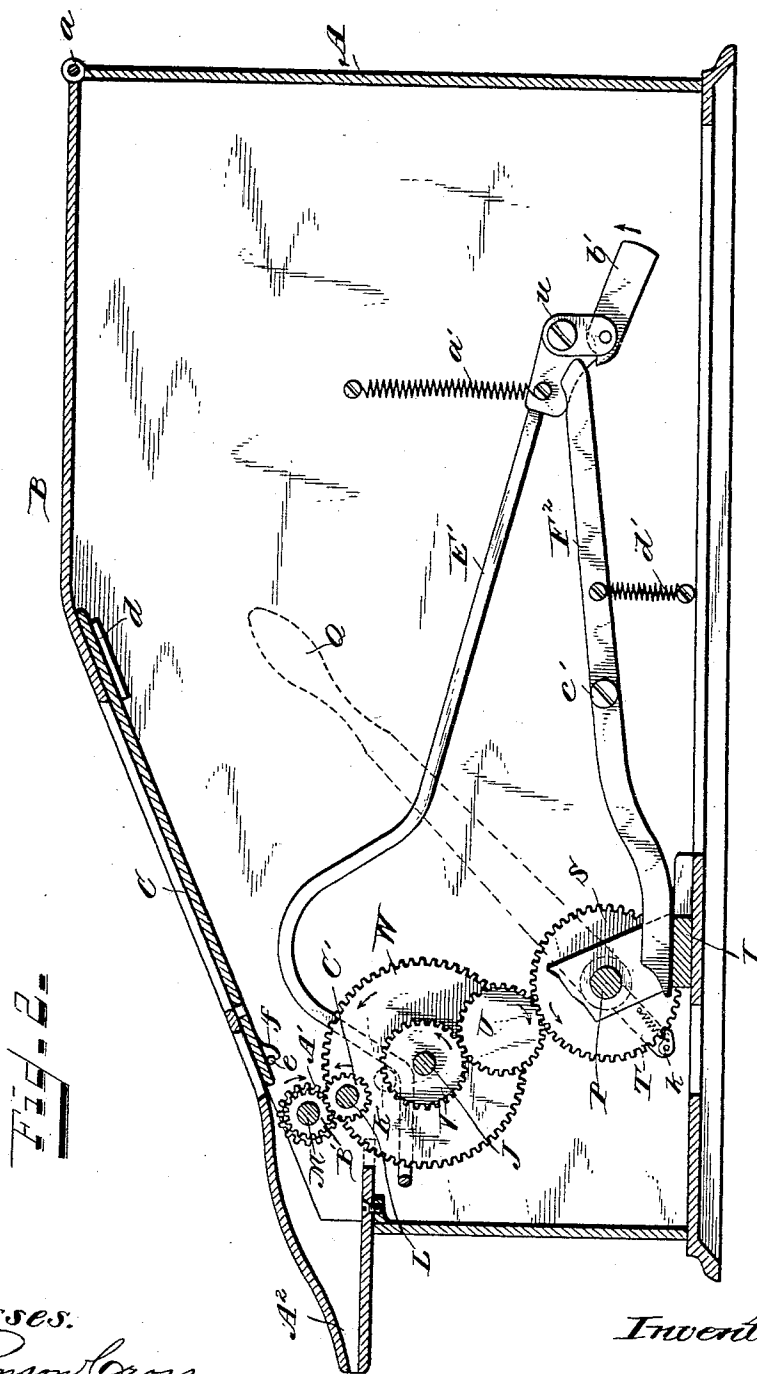
(No Model.)

5 Sheets—Sheet 2.

J. PFEIFER.
AUTOGRAPHIC REGISTER.

No. 496,534.

Patented May 2, 1893.



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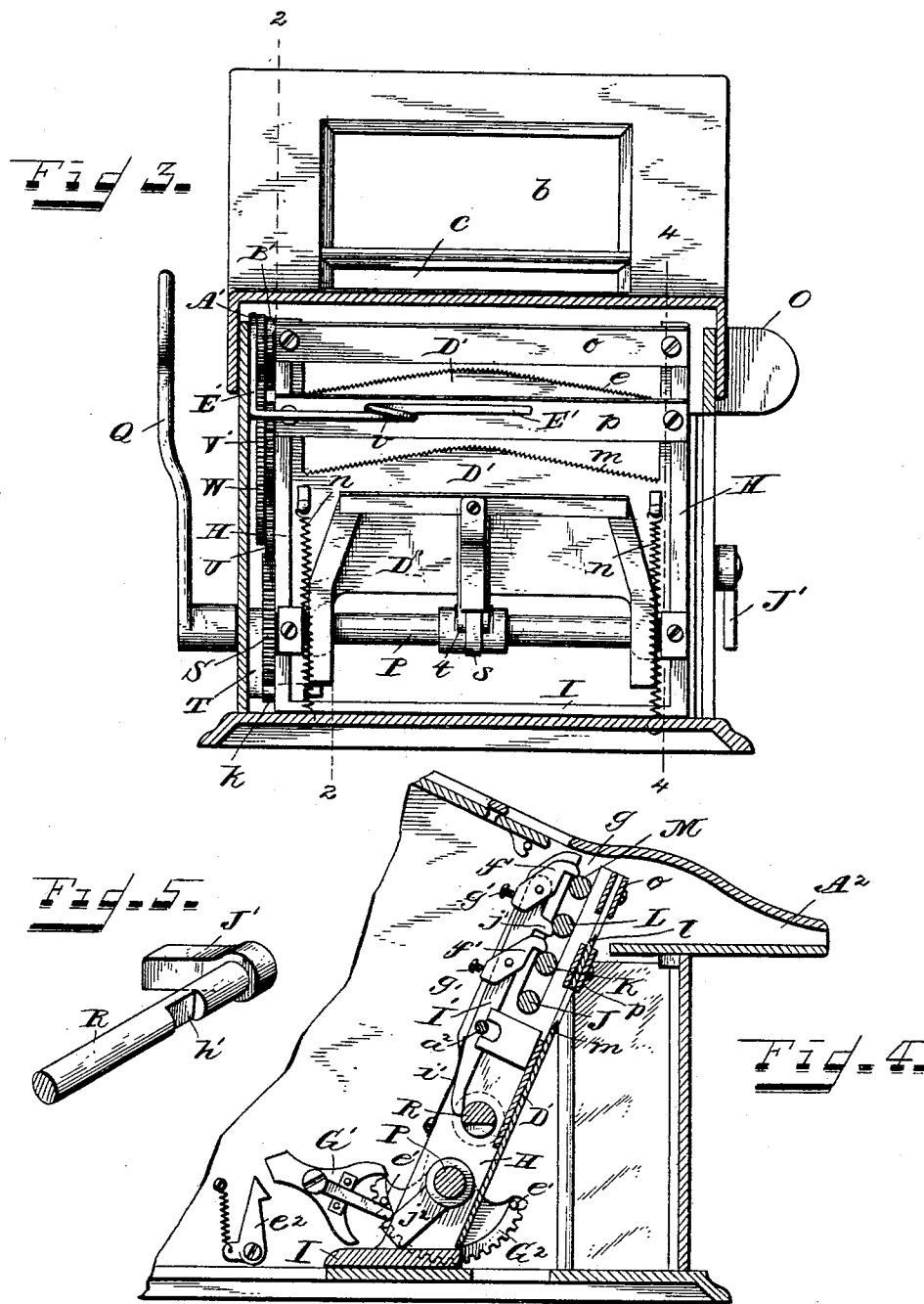
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J. PFEIFER.
AUTOGRAPHIC REGISTER.

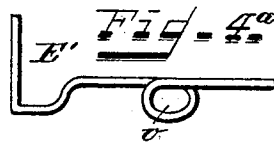
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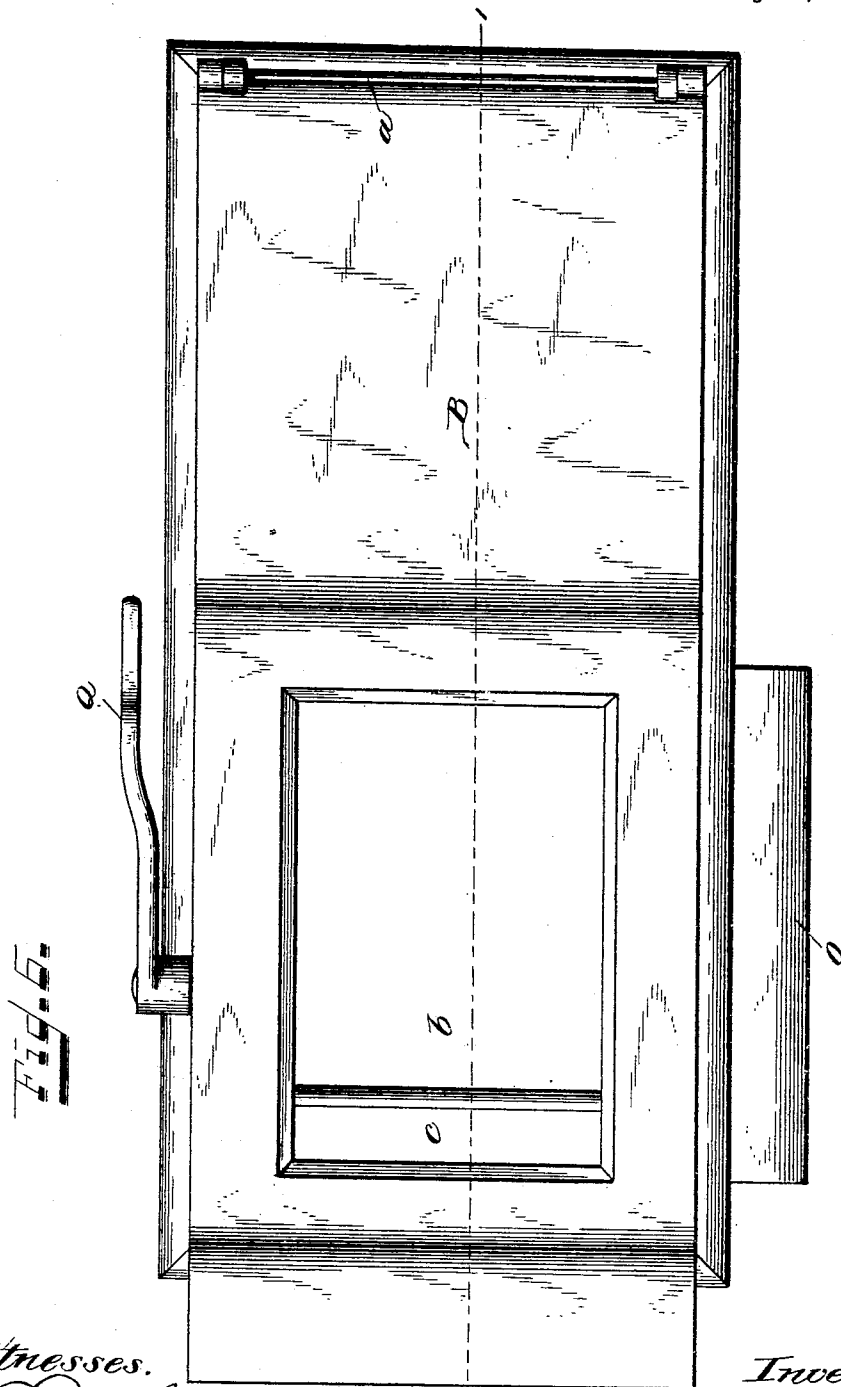
(No Model.)

5 Sheets—Sheet 4.

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No. 496,534.

Patented May 2, 1893.



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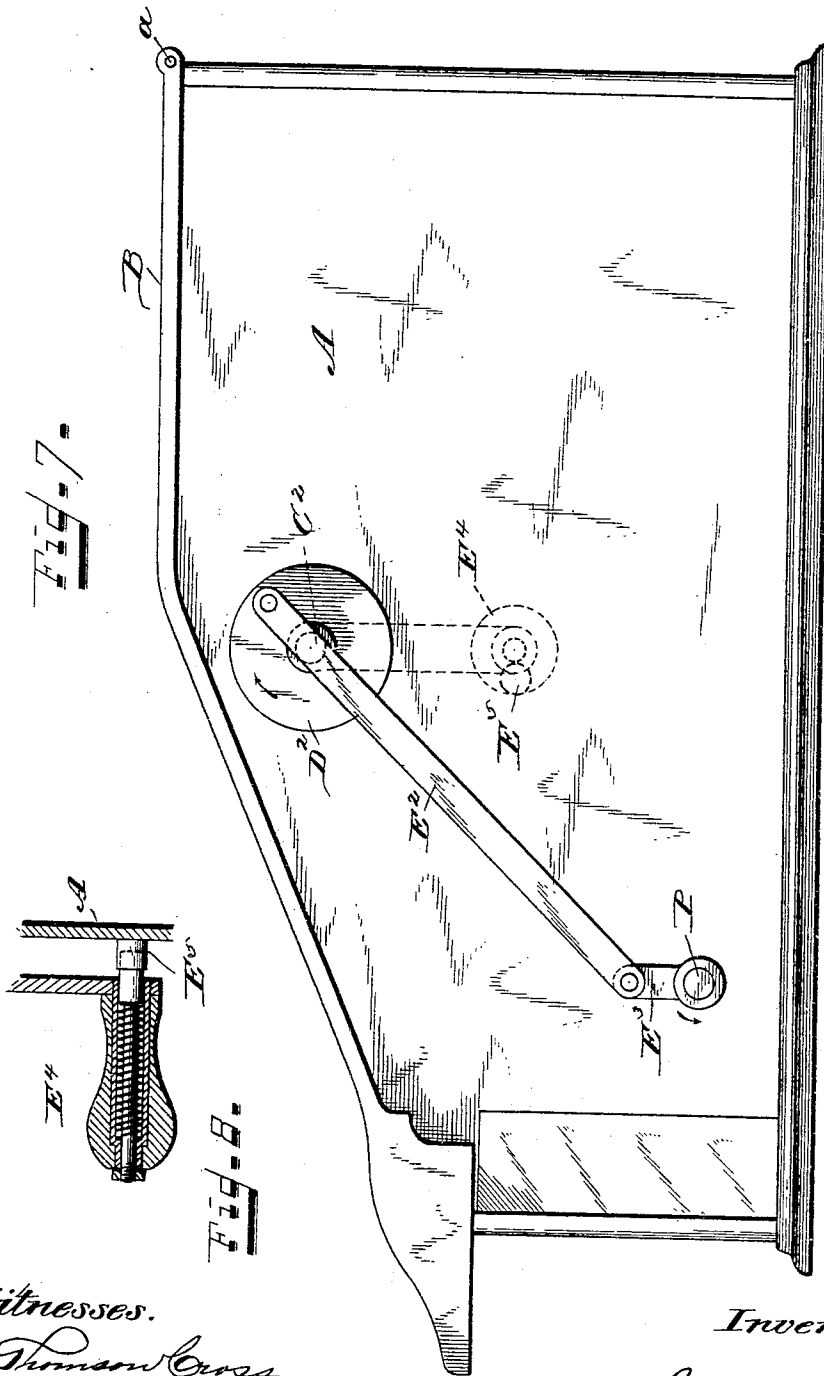
(No Model.)

5 Sheets—Sheet 5.

J. PFEIFER.
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No. 496,534.

Patented May 2, 1893.



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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. 496,534, dated May 2, 1893.

Application filed March 3, 1892. Serial No. 423,641. (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

5 invented certain new and useful Improvements in Autographic Registers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.
10 My invention relates to that class of autographic registers in which the check-strip or strips and the record-strip are drawn from the supply compartment of the machine, over an exposed writing tablet, where the desired
15 memoranda may be written upon the outer strip and duplicated upon the other strips by means of interposed sheets of transfer or carbon paper; the check-strips thence passing out of the machine, and the record-strip being stored in suitable form within the machine.
20

In the machine illustrated in the drawings both the check and record-strips are automatically severed by cutting devices after
25 leaving the writing tablet, the loose checks thus cut from the check-strips being passed out of the machine, while the loose record slips formed from the record-strip are filed upon a pin within the machine; but some of
30 the novel features of my invention are applicable to machines in which the record-strip is not severed at all, but is wound upon a storage reel, and to machines in which the severing of the check-strips is not automatic.

35 The novelty of my invention consists in new combinations, modes of operation, constructions and arrangements of the various parts, all of which will be hereinafter set forth and specifically pointed out in the claims.

40 In the accompanying drawings:—Figure 1 is a longitudinal vertical section of a register embodying my invention, on the line 1—1 of Fig. 6. Fig. 2 is a corresponding view on the dotted line 2—2 of Fig. 3. Fig. 3 is a vertical
45 cross section of the machine on the dotted line 3—3 of Fig. 1. Fig. 4 is a detail sectional view on the dotted line 4—4 of Fig. 3. Fig. 4^a is a detail plan view of the front end of the filing arm. Fig. 5 is a detail perspective of
50 one end of the feed-roller clamping and re-

leasing shaft. Fig. 6 is a top plan view of the machine. Fig. 7 is a side elevation of the machine showing a revoluble shaft and crank for the driving mechanism. Fig. 8 is a sectional detail of the handle of the revoluble
55 shaft.

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

The case of the machine consists of an oblong box A of the usual or any suitable construction, provided with a lid or cover B, in
60 this instance hinged as at *a*, Figs. 1, 2, 6, and 7, and having its forward part inclined downward and provided with two openings *b c* over the writing tablet C to expose the paper-strips
65 drawn over the latter and enable the records to be written thereon.

The tablet C, Figs. 1 and 2, fits flush between the side walls of the box and is supported by lugs *d* and pins *e* on the side walls,
70 the pins *e* being engaged by curved lugs *f* on the under side of the tablet as shown. Under this construction, when the lid is raised the tablet may be bodily removed to give access to the interior of the box.
75

The supply rolls of the check and record-strips, of which there are three in this instance, D, E and F, are journaled in suitable supports G within the casing A. In the front
80 portion of the casing is secured a frame consisting of two forwardly inclined uprights H, with a narrow space between them and the side walls of the casing, a bottom piece I, and cross pieces to be presently described. The uprights H are provided with slots *g*, Fig. 4,
85 extending downward from their upper ends, to receive and serve as bearings for the spindles of four feeding rollers J, K, L and M, Figs. 1 and 4, covered with rubber or other elastic material. The upper two of these four
90 rollers co-operate with each other, and the lower two with each other, the former to draw forward the check-strips from the rolls E, F, and the latter to draw forward the record-strip from the roll D.
95

The paper from the roll D is passed up from the roll through a slot *h* in the tablet C, near its front end, thence over the portion of the face of the tablet in front of said slot, thence
100 down between the rollers J, K; while the pa-

per from the rolls E, F is carried up over guide rollers N, suitably journaled in the upper part of the casing, and thence over the entire face of the tablet C and down between the rollers L
 5 M, as seen in Fig. 1. Sheets of the usual or any suitable transfer paper, carried in a box O, Figs. 3 and 6, removably secured to the side of the case A, are carried over and interposed between the paper strips on the tablet, and
 10 their opposite sides are clamped between the lid and side wall of the case.

To hold the feeding rollers in place and to regulate their pressure I employ two arms I', Figs. 1 and 4, pivoted one to each of the up-
 15 rights H at a^2 and carrying pivoted fingers f' engaging the spindles of the rollers K and M. These fingers are adjusted by set screws g' passed through the lower rear portions of the fingers which overlap the rear edges of the
 20 uprights H, to regulate the pressure of the rollers M and K upon the rollers L and J. The lower ends of the arms I' bear against the rear side of a shaft R, which holds the upper ends of the arms thrown forward, with
 25 the ends of the fingers f' over the spindles of the rollers K, M. The shaft R has in it depressions or cut-out spaces h' , coincident with the arms I', as seen in Figs. 4 and 5, so that when the shaft R is rocked or turned by a
 30 handle J' upon its outer end flat springs i' bearing against the lower ends of the arms I' may force the latter into the depressions h' and throw the upper ends of the arms I' rearward and withdraw the fingers f' from the
 35 spindles, to permit the removal of the feeding rollers for the ready introduction of the paper strips from the rolls D, E, F. Fixed projections j' upon the arms I' serve to separate the rollers K and L and prevent their
 40 adjacent surfaces from coming in contact.

To operate the feeding-rollers I employ a shaft P which is journaled in the lower forward portion of the casing in the uprights H, with its left hand end projecting through the
 45 side wall of the casing and having fast upon it an operating handle Q. An arm j^2 , Fig. 4, fast on the right hand end of the shaft P within the casing, serves to limit the rocking of the shaft P, in one direction by coming in
 50 contact with the cross piece I and in the other direction by coming in contact with the shaft R.

Loosely journaled upon the shaft P, between the left hand side wall of the casing and the adjacent upright H is a gear-wheel S,
 55 Figs. 1, 2 and 3, while fast upon the shaft adjacent to said wheel is an arm T carrying a pawl k spring-pressed into engagement with the gear wheel and so arranged that when the handle Q is pulled forward and downward from the position shown in Fig. 2 to the position shown in Fig. 1 the pawl carries the
 60 wheel S with it. Upon the return or backward stroke of the handle Q the wheel S stands still and the pawl k slips idly over the teeth of the wheel.

The gear S meshes with an idle pinion U,

Figs. 2 and 3, journaled above it upon the upright H, and this pinion meshes with a pin-
 70 ion V fast upon the spindle of the feed roller J beside a larger gear-wheel W likewise fast upon said spindle. The wheel W meshes with a pinion A' fast upon the spindle of the feed roller M. By the side of the pinion A' is a pinion B' which meshes with a pinion C'
 75 of the same size upon the spindle of the feed roller L. Thus it will be seen that all of the feed rollers are driven by intermeshing gearing except the roller K, which latter is turned by the frictional pressure of the roller J. The
 80 arrows upon Fig. 2 indicate the directions of revolution of the various rollers when the handle Q is pulled forward. It will be seen also from this arrangement and the relative sizes of the gears that the revolution of the
 85 upper pair of rollers, L, M, will be much more rapid than that of the lower pair, J, K, so that while the upper pair, under a single forward stroke of the handle Q, will draw forward and feed out a given length of the check-
 90 strip, say, five inches, the lower pair, during the same stroke will draw forward a much less length of the record-strip—say, one inch, the adjustment being such that a check the full length of the two openings b, c , over the
 95 tablet will be drawn forward and fed out at each operation of the machine, while the portion of the record-strip drawn forward through the slot h and over the face of the tablet in front of said slot will correspond to the length
 100 of the opening b over such portion of the tablet.

A double-toothed pawl G', Fig. 4, co-operating with a toothed segment G² fast upon the shaft P just within the right hand side
 105 of the casing, and with pins e' on the segment, and a spring-latch e^2 , serves to insure a full stroke of the handle Q in each direction, in the usual manner.

To sever the several strips of paper after
 110 they are drawn forward from over the tablet by the feed-rollers, and to file the short record-slips in a compartment in the front end of the casing, I employ the following mechanism, referring to Figs. 1, 3 and 4. A plate D',
 115 supported in suitable guides upon the forward sides of the uprights H, has two cutting edges l, m , preferably wedge-shaped and serrated, the upper cutting edge l being the upper edge of the plate D', and the lower one being the
 120 edge of the lower wall of a transverse slot or opening in the plate. Springs n secured at their lower ends to the base I and at their upper ends to the plate D' serve to hold the latter normally in its lower position, with the
 125 cutting edge l below two adjacent shear bars o , Figs. 1, 3 and 4, whose lower edges are in line with the path of the check-strips E F as they are delivered from the feed rollers L, M. In such position of the plate D' the lower cutting edge m stands below two similar shear bars p whose lower ends are in line with the path of the record-strip D as it is delivered from the rollers J, K. The shear bars o, p ,
 130

are secured at their ends to the uprights H. Carried by the rock-shaft P at or near its middle is a lifting dog *r* pivoted between ears *q* fast upon the shaft. The lower end of this dog can be swung forward and upward from the position shown in Fig. 1, against the pressure of a spring, not shown, but it cannot move farther rearward. When the handle Q is thrown upward and backward and the shaft P rocked in the direction of the arrow in Fig. 1 the dog *r* in its upward movement will engage a spring dog *s* pivoted to a projection *t* upon the lower side of the plate D' and raise the latter to cause the knives *m*, *l*, to sever the strips fed out between the rollers J, K, and L, M, respectively. The lifting of the plate D' puts the springs *n* under tension and when the dog *r* slips past the dog *s*, after the paper has been severed, the springs *n* retract the plate D'. At the forward movement of the handle Q and shaft P, from the position shown in Fig. 2 to that shown in Fig. 1, the dog *r* yields as it passes the dog *s* and then resumes the position shown in Fig. 1. While I prefer to employ the dog *s* upon the plate D' to co-operate with the lifting dog *r*, yet it is not essential to the operation of the machine and the dog *r* might be made to engage a rigid part of the plate D'. Again, the dog *r* might be dispensed with, and the lifting device upon the rock-shaft be simply a rigid projection thereon, and the dog *s* be employed on the plate D' to co-operate with it, it being only necessary that there should be some connecting device between the rock-shaft and plate which can yield in one direction and not in the other. Pivoted as at *u*, Fig. 2, to the inner face of the casing near its rear end is an arm E' extending forward beside and to the front of the gear W. Its front end is bent to the right, at a right angle, as seen in Fig. 3, and extends part way across the filing compartment B², Figs. 1 and 4, in front of the knife-plate D'. This bent portion is in this instance provided with an eye *v*, (see detail plan view in Fig. 4^a.) directly over a vertical filing pin *w*, Fig. 1, carried upon a slide F' in the bottom of the compartment.

The arm E' is normally held up by a coiled spring *a'*, Fig. 2, and its lower rear end, which extends below the pivot *u*, at substantially a right angle to the forwardly extending portion of the arm, is provided with a pivoted trip *b'*. This trip is normally held in the position shown in Fig. 2 by the gravity of its rear end, though it might be by a spring. It is free to swing on its pivot in the direction of the arrow when its front end or nose is depressed and its rear end lifted, but cannot swing in the other direction from the position shown in Fig. 2. It results from this that when anything is forced upward against the nose of the trip the latter cannot yield and the arm E' will be rocked on its pivot *u* and its front end thrown down, its eye *v* passing down over the filing pin *w*, Fig. 1; but when the object passes back downward over the

nose of the trip the latter will swing upon its pivot to permit it to pass without moving the arm E'.

Pivoted at *c'* upon the inner side of the casing is a lever F² whose forward end extends under and is engaged by the knife-plate D' when the latter is pulled downward by the springs *n*, Figs. 1 and 3, and whose rear end, when the knife is in its lowermost position, projects above the nose of the trip *b'*, as shown in Fig. 2. A spring *d'* normally tends to pull the rear end of the lever F² downward. When the plate D' is raised by the dog *r*, Fig. 1, during the backward stroke of the handle Q, as before explained, the front end of the lever F² will be released and the spring *d'* will pull its rear end downward past the nose of the trip *b'*, the latter swinging on its pivot to permit the end of the lever to pass, as before explained. When the plate D' is released by the dog *r*, after the paper strips have been severed by the knives *l*, *m*, as before explained, and is forcibly retracted to its lower position by the springs *n*, its lower edge will strike the front end of the lever F² and throw up its rear end, causing the latter to strike the nose of the trip *b'* a sharp blow as it passes and rock the arm E' on its pivot *u*, thereby giving the front end of said arm a quick downward stroke and causing it to force the record-slip, which has been fed forward over the pin *w* by the rollers J, K, and severed by the knife *m*, down over the pin *w* and file it thereon. Upon the raising of the knife at the next operation of the machine the lever F² will be drawn down at its rear end by the spring *d'*, tilting the trip *b'* and passing below it into position to deliver the next blow and file the next slip severed from the record-strip.

The general mode of operation of the machine, under the construction above described, is as follows: The rolls of paper D, E, F, having been placed in the machine and the strips led forward over the writing tablet and between the feed-rollers, the clerk writes upon the outer check-strip F, through the opening *b*, Fig. 6, the various items, amounts, &c., of the sale or other transaction and these are duplicated by the transfer paper upon the second check-strip E. Through the opening *c* he writes upon the outer check-strip the footing or total of the various items which have been written upon the strip through the opening *b*, and such other memoranda as it is desired shall be recorded upon the record-strip D. All the matter written upon the outer check-strip through the opening *c* will be duplicated not only upon the second check-strip, but also upon the portion of the record-strip D which is resting upon the tablet C between the slot *h* and front end of the tablet, beneath the opening *c*, as shown in Fig. 1. The clerk next pulls forward the handle Q. This causes the pawl *l*, Fig. 2, to turn the gear S and the latter to drive the feeding rollers, to draw forward the respective strips. The full forward stroke of the handle to the position shown in

Fig. 1 will cause the upper pair of rollers L, M to be turned several revolutions, to draw forward and feed out the whole length of the check-strips which have been resting upon the tablet C beneath the openings *b* and *c*, while the feed-rollers J K will be turned only a single revolution, or less, to draw forward a length of the record-strip about equal to the portion which has been resting upon the tablet C beneath the opening *c*. The front ends of the check-strips will project out of the machine through the delivery opening at A², while the front end of the record-strip will project over the filing pin *w*, between its upper end and the eye *v* in the front end of the filing arm E'. The forward stroke of the handle Q has carried the knife-lifting dog *r* down to the position shown in Fig. 1, ready to lift the knife-plate D' when the handle is given its backward stroke. The clerk now gives the handle this return stroke, and the dog *r* lifts the plate D', against the tension of the springs *n*, and causes the knives *l*, *m*, to sever the check and record-strips which extend between them and the lower edges of the shear bars *o* and *p*, respectively. The lifting of the plate D' has released the front end of the lever F² and the spring *d'* has pulled its rear end down past the nose of the trip *b'*, and lifted its front end. When the strips have been severed and the nose of the dog *r* slips by the dog *s* or other engaging point on the plate D', the latter is released and retracted by its springs *n*, *n*. In its descent the lower edge strikes the front end of the lever F², which has been lifted by the spring *d'* as before explained, and throws the rear end of said lever upward, causing it to strike the nose of the trip *b'* and rock the arm E' on its pivot *u*, throwing the front end of the arm quickly downward and forcing the record-slip severed by the knife *m* down over the filing pin *w*. The spring *a'* lifts the arm E' as soon as the end of the lever F² passes above the nose of the trip, so that the vibration of the front end of the arm E' downward and back is very quick.

As before explained the filing pin, while fixed and stationary when the machine is in operation, is preferably carried by a removable slide F'. When the stack of record-slips filed upon the pin approaches the upper end of the pin, the slide F' and the pin can be withdrawn from the casing through a suitable opening provided in its right hand side for that purpose, and the stack of slips be either removed from the pin and strung, or filed in other suitable manner, and the slide and pin replaced, or a supply of empty slides and pins may be kept on hand and one of them be inserted in the machine, so that the slips removed from the machine may remain upon their pin until the proprietor or book-keeper is ready to inspect and destroy them. It is not essential that there should be a distinct filing compartment for the record-slips, and the filing pin might be simply lo-

cated in the forward portion of the casing and secured to the bottom thereof, or to any suitable support; but I prefer to provide either a fixed compartment within the casing, or at least to have vertical guide plates in front and rear of the filing pin, to hold the slips in order thereon. In Fig. 1 I have shown such guide plates formed by the upwardly bent opposite ends of a piece of sheet metal B², which may be either permanently or removably secured within the casing. In Fig. 1 the slide F' which carries the filing pin is shown as resting upon the bottom of the piece B² and confined between its upturned ends.

While in the particular machine which I have illustrated and described the record-strip is severed into slips and filed upon pins, it will be understood that many of the features of my invention are applicable to a machine in which the record-strip is wound upon a storage reel and is not severed into slips. Thus, in the machine shown in the drawings all of the filing mechanism might be dispensed with and the record-strip D be wound up on a storage reel located in the lower front portion of the casing and driven by the gear wheel S upon the shaft P. In such case the upper pair of feed-rollers would feed out the full length checks, which could either be torn off by hand against any suitable knife or tearing edge, or be cut off by an automatic knife, and the short portion of the record-strip drawn over the writing tablet at each operation of the machine would be wound up on the storage reel; as will be readily understood.

Even where the cutting and filing mechanisms for the record-strip are employed it is not essential to the broader scope of my invention that the filing mechanism should be actuated by the cutting mechanism, or that the latter should operate automatically. One operating handle might be employed to actuate the feeding rollers, and another one to actuate the cutting and filing mechanisms, as has heretofore been done in machines of this class; or one handle might be employed to actuate the feeding and cutting mechanisms and another to actuate the filing mechanism.

I am aware that it has heretofore been proposed, in the art of autographic registers, to employ a single operating device or driving mechanism to actuate the feed rollers which advance the check strip and record strip, and to operate a movable knife and a movable filing pin, to cut the strips into slips and file the record slip upon said pin; also that it has been proposed to employ a single operating device or driving mechanism to feed forward all of the strips, cut the record strip into slips and force the record slip upon a fixed filing pin; but, so far as I am aware I am the first in the art to employ a single operating device or driving mechanism for actuating the feed rollers to advance the strips, a knife to cut all of them into slips, and a movable arm for either piling the record slips

in a compartment within the machine or forcing them upon a fixed or stationary filing pin therein.

It will be understood that the sole purpose of the handle Q is to rock the shaft P, and while I have shown this as the simplest method of rocking that shaft, yet in building machines for the market I propose to actuate the rock-shaft by a crank-and-pitman connection with a revoluble driving shaft, which is provided with a suitable operating handle and is given one complete revolution at each operation of the machine. In Fig. 7 I have shown such a revoluble shaft C² and its connection with the rock-shaft P. The shaft C² is journaled at its opposite ends in the casing above and in rear of the shaft P. Upon its right hand end, in this instance outside the casing, is secured a crank disk D² having pivoted to it a link or pitman E² whose opposite end is pivoted to the end of the arm E³ fast upon the rock-shaft P. It will be seen from this arrangement that at each revolution of the shaft C² and disk D² in the direction of the arrow the rock-shaft P will be given a full stroke forward and back, just as it was by the handle Q. The operating handle E⁴ for the driving shaft C² is secured upon the projecting end of the shaft at the left hand side of the casing, and co-operates with a stop E⁵, Fig. 8, upon the outer side of the casing, in the usual manner of such handles. The handle Q being dispensed with under this arrangement, the casing O, Fig. 6, which contains the roll of transfer paper, may be secured upon the left hand side of the casing, where it will be out of the way of the link E².

From the foregoing description it will be seen that all the clerk has to do at each operation of the machine is to write the necessary memoranda upon the outer check-strip through the openings b, c, disengage the handle E⁴ from the stop E⁵ and give it one complete revolution, whereupon it will be again arrested by the stop. This will cause the machine to feed out the two duplicate checks and to file the record-slip upon the filing pin.

While I have shown and described two separate pairs of feed-rollers, one for the check-strips and one for the record-strip, and while I believe I am the first to employ two pairs of such rollers in an autographic register, and therefore desire to claim the same as one feature of my invention, yet it will be understood that other features of my invention are applicable to machines in which the check-strips are either drawn out by hand and no feed rollers employed for them, or in which a single pair of feed rollers is employed for both the check-strips and the record-strip. These various distinctions between the different features of my invention will be duly pointed out in the claims. Again, where two separate pairs of feed-rollers are employed, it is not essential that they should in all cases be so driven as to feed the check-strips faster than the record-strips, for the two pairs of rollers

may be employed in machines in which it is desired that all the memoranda entered upon the check-strips shall be duplicated and preserved upon the record-strip, and in such cases the record-strip would have to be moved as rapidly as the check-strips.

Having thus fully described my invention, I claim—

1. In an autographic register, the combination of a writing-tablet having a check-strip led over a given length of the tablet and a record-strip led over a less length of the tablet beneath the check-strip, manifolding material between the two strips, a pair of feed-rollers for the record-strip, and a separate pair for the check-strip operating to move the latter faster than the record-strip.

2. In an autographic register, the combination of the writing-tablet, having the check-strip led over the whole length of it and the record-strip led over only a portion of it, beneath the check-strip, a pair of feed-rollers for the check-strip and a separate pair of feed-rollers for the record-strip, and driving mechanism for said rollers operating to turn the rollers for the check-strip several revolutions at each revolution of the rollers for the record-strip, for the purpose described.

3. In an autographic register, the combination of a writing-tablet provided with a transverse slot or opening and having the check-strip led over the whole face of the tablet, and the record-strip passed through said slot and led over only a portion of the face of the tablet, a pair of feed-rollers for the check-strip and a pair of feed-rollers for the record-strip, and driving mechanism for said rollers operating to drive the check-strip rollers at a greater speed than the record-strip rollers, for the purpose described.

4. In an autographic register, the combination of the tablet C having the transverse opening h, the two pairs of feed-rollers J, K, and L, M, the check-strips being led from the rolls E, F, over the entire face of the tablet C and thence between the rollers L, M, and the record-strip being led from the roll D over only the portion of the tablet C in front of the opening h, and thence between the rollers J, K, and driving mechanism for the two pairs of feed-rollers, operating to turn the feed-rollers L, M several revolutions at each revolution of the rollers J, K, for the purpose described.

5. In an autographic register, the combination of the pair of feeding rollers L, M, for the check-strips, and the pair of feeding rollers J, K, for the record strips, the driving gear S, the small gear wheel V fast on the spindle of the roller J and geared to the wheel S, and the large gear wheel W also fast on the spindle of the roller J and geared to one of the feed rollers L, M, for the purpose described.

6. In an autographic register, the combination of the two pairs of feed rollers L, M, and J, K, the rock-shaft P, the gear wheel S loose thereon, and the wheel W fast on the spindle

of the roller J and geared to one of the rollers L, M, for the purpose described.

7. In an autographic register, the combination of feed rollers for drawing the check strip and the record strip over the writing tablet, a knife for cutting both of said strips into slips, a movable arm for piling the record slips within the machine after they are severed from the record strip, and a single operating device or driving mechanism for actuating the feed rollers, knife and movable arm.

8. In an autographic register, the combination of feed rollers for drawing the check strip and the record strip over the writing tablet, a knife for cutting both of said strips into slips, a stationary filing pin, means for forcing the record slips upon said pin, and a single operating device or driving mechanism for actuating the feed rollers knife and filing mechanism.

9. In an autographic register, the combination of a pair of feed-rollers for the check-strip and a separate pair of feed-rollers for the record-strip, driving mechanism for said rollers, and two knives actuated by said driving mechanism for severing the check-strip and record-strip, respectively.

10. In an autographic register, the combination of a pair of feed-rollers for the check-strip and a separate pair of feed-rollers for the record-strip, driving mechanism therefor, two knives actuated by said driving mechanism for severing the check-strip and record-strip, respectively, a filing pin, and means for forcing the record-slips upon said pin.

11. In an autographic register, the combination of a pair of feed-rollers for the record-strip, a separate pair of feed-rollers for the check-strip operating to move the latter faster than the record-strip, driving mechanism for said rollers, and a knife actuated by the driving mechanism to cut the record strip into slips.

12. In an autographic register, the combination of a pair of feed-rollers for the check-strip and a separate pair of feed-rollers for the record-strip, driving mechanism for said rollers operating to drive the check-strip rollers at greater speed than the record-strip rollers, a knife for cutting the record-strip into slips, a filing pin, and means for forcing the record-slips upon said pin.

13. In an autographic register, the combination of a pair of feed-rollers for the check strip and a separate pair of feed-rollers for the record-strip, driving mechanism for said rollers operating to drive the check-strip rollers at greater speed than the record-strip rollers, a knife actuated by the driving mechanism to cut the record-strip into slips, a filing pin, and means for forcing the slips upon said pin.

14. In an autographic register, the combination of a pair of feed-rollers for the check-strip and a separate pair of feed-rollers for the record-strip, driving mechanism for said rollers, operating to drive the check-strip rollers

at greater speed than the record-strip rollers, a knife for cutting the record-strip into slips, a filing pin, and means actuated by the driving mechanism for forcing the slips upon the pin.

15. In an autographic register, the combination of a pair of feed-rollers for the check-strip and a separate pair of feed-rollers for the record-strip, driving mechanism for said rollers operating to drive the check-strip rollers at a greater speed than the record-strip rollers, a filing pin, a knife for cutting the record strip into slips and means for forcing the slips upon the pin, both actuated by the driving mechanism for the feed-rollers.

16. In an autographic register, the combination of the writing-tablet, having the check-strips passed over the whole length of it and the record-strip passed over only a portion of its length, the two pairs of feed-rollers, operating to move the check-strips faster than the record-strip, driving mechanism for said rollers, and a knife actuated by said driving mechanism to cut the record-strip into slips.

17. In an autographic register, the combination of the writing-tablet, having the check-strips passed over the whole length of it and the record-strip passed over only a portion of its length, the two pairs of feed-rollers for said strips, operating to feed the check-strips faster than the record-strip, driving mechanism for said rollers, a knife actuated by said driving mechanism to cut the record-strip into slips, a filing pin, and means for forcing the slips upon the pin.

18. In an autographic register, the combination of the writing tablet, having the check-strips passed over the whole length of it, and the record-strip passed over only a portion of its length, the two pairs of feed-rollers for said strips, operating to feed the check-strips faster than the record-strip, driving mechanism for said rollers, a filing pin, a knife for cutting the record-strip into slips and means for forcing the slips upon the pin, both actuated by the driving mechanism for the feed-rollers.

19. In an autographic register, the combination of a reciprocating knife-carrier for cutting the record-strip into slips, a stationary filing pin, and means actuated by the knife-carrier to force the slips upon the pin.

20. In an autographic register, the combination of a pair of feed-rollers for the record-strip, driving mechanism therefor, a reciprocating knife-carrier actuated by said driving mechanism, to cut the record strip into slips, a stationary filing pin, and means actuated by the knife-carrier to force the slips upon the pin.

21. In an autographic register, the combination of a revoluble driving shaft making a complete revolution at each operation of the machine, a rock-shaft actuated thereby and having a defined movement back and forth at each operation of the machine, a pair of feeding rollers for the record-strip actuated

by said rock-shaft during its stroke in one direction, and a knife for severing the record-strip actuated by said shaft during its stroke in the reverse direction.

22. In an autographic register, the combination of a revoluble driving shaft making a complete revolution at each operation of the machine, a rock-shaft actuated thereby and having a defined movement back and forth at each operation of the machine, a pair of feed-rollers for the record-strip actuated by said rock-shaft during its stroke in one direction, a filing pin, a knife for severing the record-strip into slips and means for forcing the slips upon the filing pin, both actuated by the rock-shaft during its stroke in the reverse direction.

23. In an autographic register, the combination of a revoluble driving shaft making a complete revolution at each operation of the machine, a rock-shaft, a crank-and-pitman connection between the rock-shaft and revoluble shaft, a pair of feed-rollers for the paper-strip actuated by the movement of the rock-shaft, and a knife actuated by its movement in the reverse direction.

24. In an autographic register, the combination of a revoluble driving shaft making a complete revolution at each operation of the machine, a rock-shaft, a crank-and-pitman connection between the rock-shaft and the revoluble shaft, a knife for cutting the record-strip into slips, a filing pin, and means actuated by the rock-shaft to force the slips upon the pin.

25. In an autographic register, the combination of a revoluble driving shaft making a complete revolution at each operation of the machine, a rock-shaft, a crank and pitman connection between the rock-shaft and the revoluble shaft, a filing pin, and a knife for cutting the record-strip into slips and means for forcing the slips upon the pin, both actuated by the movements of the rock-shaft.

26. In an autographic register, the combination of a revoluble driving shaft making a complete revolution at each operation of the machine, a rock-shaft, a crank and pitman connection between the rock-shaft and the revoluble shaft, a pair of feed-rollers actuated by the movement of the rock-shaft in one direction, and a knife for severing the paper strip, actuated by the movement of the shaft in the reverse direction.

27. In an autographic register, the combination of a revoluble driving shaft making a complete revolution at each operation of the machine, a rock-shaft, a crank and pitman connection between the rock-shaft and the revoluble shaft, a pair of feeding rollers for

the record-strip actuated by the movement of the rock-shaft in one direction, a filing pin, and a knife for cutting the record-strip into slips and means for forcing the slips upon the pin, both actuated by the movement of the rock-shaft in the reverse direction.

28. In an autographic register, the combination of a revoluble driving shaft making a complete revolution at each operation of the machine, a rock-shaft, a crank-and-pitman connection between the rock-shaft and the revoluble shaft, a gear wheel loose upon the rock-shaft, an arm fast upon said shaft and carrying a pawl co-operating with the gear wheel, and a pair of feed rollers geared to said wheel.

29. In an autographic register, the combination of a filing pin for the record-slips, a reciprocating knife-carrier, and a vibrating filing arm provided with an eye or opening adapted to pass down over the filing pin, said arm being actuated by said knife-carrier to force the record-slips upon the pin.

30. In an autographic register, the combination of the filing pin *w*, the pivoted arm *F*² provided at one end with the eye *v* co-operating with the pin *w*, and carrying at its opposite end the trip *b'*, the reciprocating knife-carrier *D'*, and the lever *F*³ co-operating at one end with said carrier and at its other with the trip *b'*, substantially as described.

31. In an autographic register, the combination of the feed-rollers *J*, *K*, the shear-bars *p*, the reciprocating plate *D'* carrying the knife *m*, the springs *n* for re-setting the plate, the rock-shaft *P*, and the pivoted lifting dog *r* carried thereby and co-operating with the plate *D'* to lift the same as the shaft is rocked in one direction and yielding to slip past the plate when the shaft is rocked in the reverse direction.

32. In an autographic register, the combination of the two pairs of feed-rollers *L*, *M*, and *J*, *K*, the shear-bars *o* and *p*, the plate *D'* carrying the two knives *l*, *m*, the rock-shaft *P*, and a connection between the shaft and the plate *D'* to cause the shaft to lift the plate when rocked in one direction.

33. In an autographic register, the combination of the uprights *H*, the two pairs of feed-rollers, *L*, *M*, and *J*, *K*, journaled therein, the pivoted arms *I'* carrying fingers *f'* co-operating with the spindles of the rollers *K*, *M*, and the shaft *R* co-operating with the arms *I'*, substantially as described.

JOHN PFEIFER.

Witnesses:

THOMAS CORWIN,
PEARL N. SIGLER.