

1,038,824.

Patented Sept. 17, 1912.

3 SHEETS—SHEET 1.

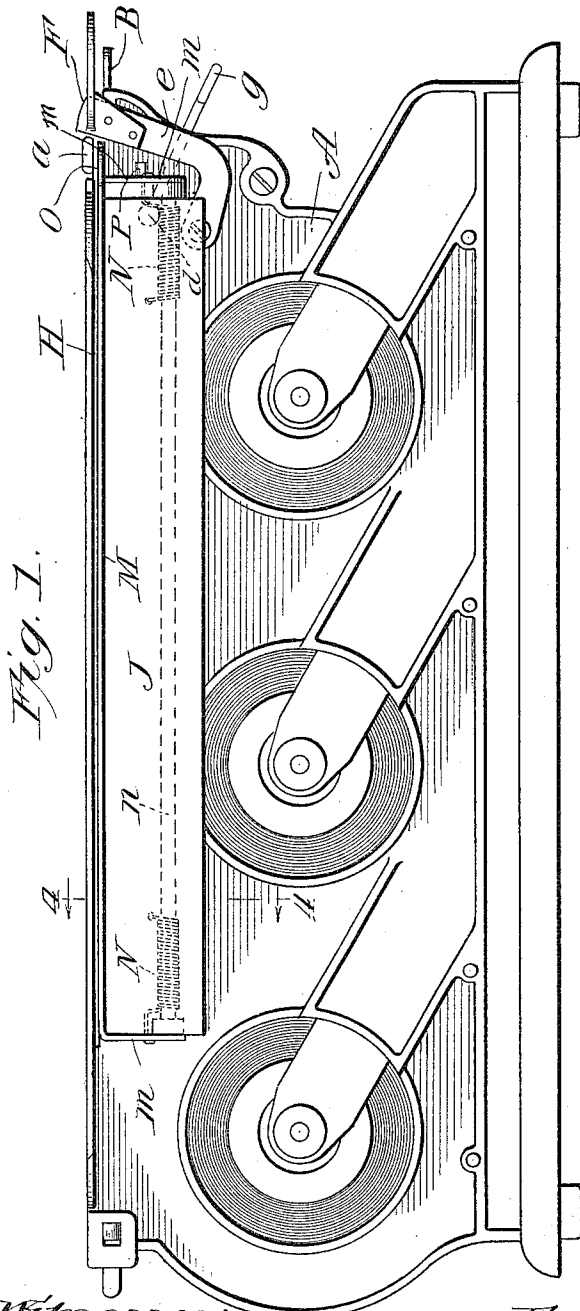


Fig. 1.

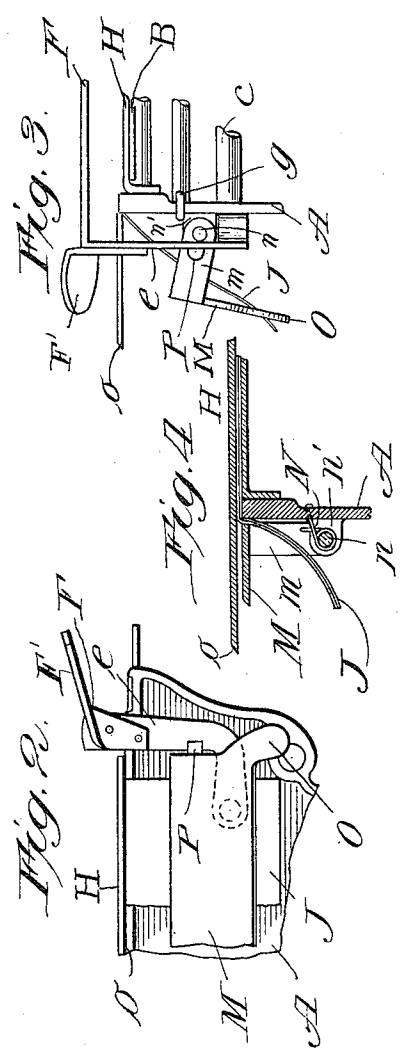


Fig. 2.

Fig. 3.

Fig. 4.

Witnesses:
 Harry S. Gaither
 E. Lundy.

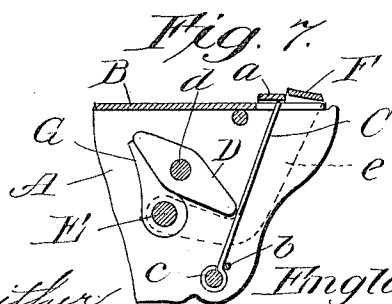
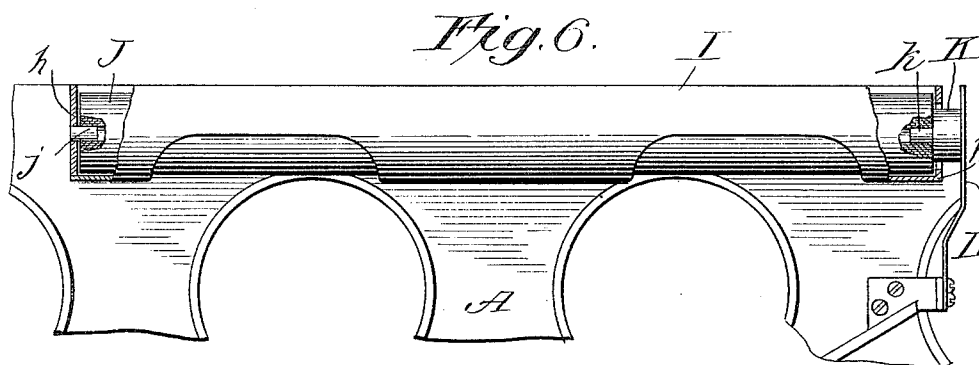
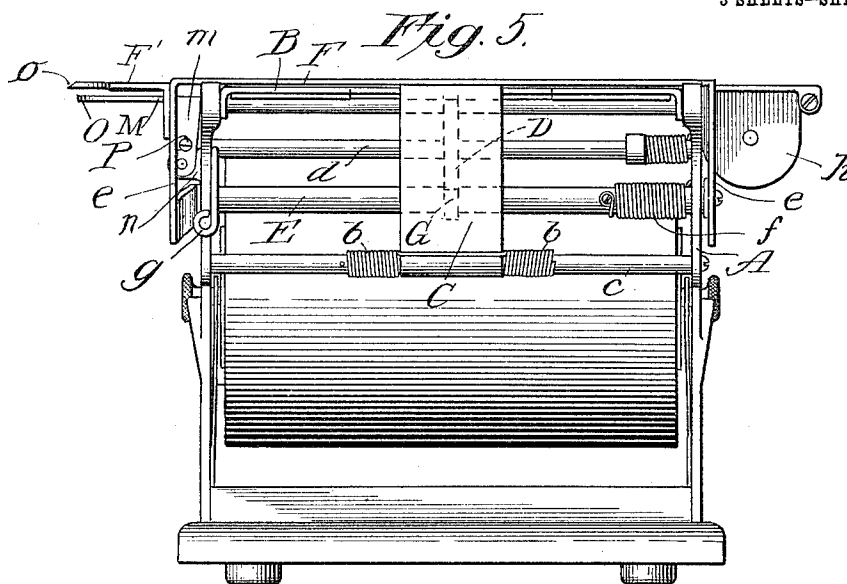
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E. J. BARKER.
 AUTOGRAPHIC REGISTER.
 APPLICATION FILED FEB. 14, 1910.

1,038,824.

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3 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

ENGLAND J. BARKER, OF MORGAN PARK, ILLINOIS.

AUTOGRAPHIC REGISTER.

1,038,824.

Specification of Letters Patent.

Patented Sept. 17, 1912.

Application filed February 14, 1910. Serial No. 543,764.

To all whom it may concern:

Be it known that I, ENGLAND J. BARKER, a citizen of the United States, residing at Morgan Park, in the county of Cook and State of Illinois, have invented new and useful Improvements in Autographic Registers, of which the following is a full, clear, and exact description.

My invention relates to autographic registers comprising a platen or bed upon which the record strip rests when written upon and over which the said strip passes when it is drawn from the register and torn off, and also consists of means for feeding manifolding material transversely to the line of the travel to the record strip, and devices for retaining the same in position.

The object of my invention is to provide means for retaining the manifolding material taut upon the platen, and so that the advanced edge of the same can be easily and conveniently grasped by the fingers when it is desired to draw the same out, and also to so construct said means that, when moved so as to release this manifolding material it serves as a cutting-edge upon which said material may be torn off.

My invention also consists of devices for automatically holding the tension devices, that clamp the advanced end of the record strip, out of engagement with the advanced edge of the record strip, and simultaneously holding the devices for clamping the advance edge of the manifolding material, out of engagement with the same.

These and other advantages I obtain by the means hereinafter more fully described, and as particularly pointed out in the claims.

Figure 1 is a side elevation of an autographic register embodying my improvements. Fig. 2 is a side view of a fragmentary portion of the front end of the register showing the record-strip and manifolding material clamping devices, in the position they will occupy when the advanced edges of said record-strips and manifolding material are released. Fig. 3 is a front end elevation of the fragment shown in Fig. 2. Fig. 4 is a transverse section of a portion of the register, taken on dotted line 4, 4, Fig. 1, looking in the direction indicated by the arrows. Fig. 5 is a front end elevation of the register shown in Fig. 1. Fig. 6 is a side elevation of the upper portion of the register opposite that shown in Fig. 1, but

with the front end of the register broken away. Fig. 7 is a vertical longitudinal section of the fragmentary upper portion of the front end of my improved register, taken on dotted line 7, 7, Fig. 8 looking in the direction indicated by the arrows. Fig. 8 is a plan view of the register showing the top-plate or margin-frame raised off of the platen. Fig. 9 is a plan view of the front end of an end portion of my improved register, showing a modified form of the marginal-frame, whose front member is provided with a cutting-edge. Fig. 10 is a side view of a fragment of the front end of said register showing a modified construction of the means employed to maintain the tension pawl out of engagement with the record-strip, in a register employing a marginal-frame, as shown in Fig. 9, and for simultaneously maintaining the combined clamping-plate and cutting-edge used in connection with the manifolding material out of engagement with the same. Fig. 11 is a front or edge elevation of the fragment of the register shown in Fig. 10.

In the drawings A represents the framework or casing of the register, together with the means for supporting and centering several rolls of record strips therein, and B represents the tablet or platen supported upon and connecting the upper edges of the side-frames of said casing. In the preferred form of my invention the front edge of the platen terminates a suitable distance back of the front edges of the side-frames of the casing, and the upper edges of the side-frames, are connected by a transverse bar *a*, that bridges over the space between said side-frames, in a plane slightly above that of the upper surface of the platen, to permit the advanced edge of the record-strips to pass under the same. A spring tension-pawl C normally presses up against the under surface of bar *a*, and clamps the front or advanced portion of the record strips against the same, and prevents the reverse or back movement of said strips. This pawl C, preferably, consists of a rectangular plate the lower end of which is formed into a knuckle that is loosely mounted upon a stationary transverse shaft *c* whose ends are secured in the side-frames, and the normal pressure of said pawl against the bar *a* is accomplished by means of a torsional spring *b* the ends of which are coiled upon said shaft *c* and the straight

stretch of which between its coiled ends bears against the pawl, substantially as shown in Fig. 5 of the drawings. This pawl C is slightly inclined, substantially as shown in Fig. 7, and it may be disengaged from bar *a* by the fingers of the operator, or in a more indirect manner, by means of a cam D secured at its center of length upon a transverse rock-shaft *d*, the ends of which latter are journaled in the side-frames of the casing.

In a plane slightly below the plane of rock-shaft *d*, I arrange another transverse rock-shaft, E, whose ends extend through their bearings in the side-frames, and are provided with arms *e*, *e*, that project horizontally toward the front of the register a slight distance and then upward in a vertical direction to a point above the upper edges of the side-frames in front of the transverse bar *a*, where they are connected by a transverse cutting-edge F. Shaft E, arms *e* and said cutting edge are normally kept in the position just described, and as shown in Figs. 1 and 7, by means of a torsional spring *f*, one end of which is connected to the shaft and the other to the adjacent side-frame of the casing, substantially as shown in Fig. 5 of the drawings. Shaft *d*, at one end thereof just next the side-frame, is provided with a forwardly projecting handle, *g*, and by raising this to a horizontal position as shown in Fig. 1 of the drawings, the cam D on shaft *d* will push the tension-spring C forward out of engagement with bar *a*, and release the advanced edges of the record-strip. At the same time said cam D will also engage a cam G secured to and projecting rearwardly and upwardly from shaft E, and thereby rock shaft E and raise cutting-edge F upward out of engagement with the record-strip into the position shown in Fig. 2 of the drawings. In order, however, to make it possible to raise the cutting-edge without affecting the pressure of the tension finger upon the record-strips I have provided one end of said cutting-edge with a lug or finger grasp, F'. The relative plane of this lug F' is such that when the cutting edge is lowered and engaging the record-strip, it will be in the same horizontal plane as the top of the register.

The top of the register consists of a margin-frame H, the enlarged opening in which permits the exposed record-strip, resting upon the platen, to be written upon. The longitudinal side-edges of this margin-frame overhang the outer sides of the casing a suitable distance, and on one side it is provided with downwardly projecting pivotal lugs, that are pivotally connected to lugs, integral with the end-plates, *h*, of the trough in which the roll of manifolding paper or material J is placed. This roll is centered at one end by means of a stationary center-

ing stud, *j*, projecting into the bore of the same, and at the other end by a similar centering stud, *k*, projecting into the contiguous end of the bore of the roll. This last mentioned stud, *k*, projects from an enlarged boss K, which is secured to the upper end of a vertically disposed flat spring, L, whose lower end is suitably fastened to a lug projecting laterally from the casing at a suitable point below the trough.

The bottom of this trough, I, is preferably imperforate but in Fig. 6 portions of the same are shown to be cut away so as to reduce its weight. It is possible, however, to dispense with the trough altogether and to depend solely upon the brackets or plates forming the ends of the trough and the centering devices just described. In this case the roll would be centered and held in place just the same and prevented from soiling the hand or apparel of the operator by the adjacent overhanging longitudinal edge of the margin-frame. The manifolding material is drawn transversely across the platen and the layers or sheets thereof are interposed between the several record strips in the usual manner and their advanced edges emerge and are bent down over the upper straight edge of the opposite side-frame of the casing, and clamped against the latter by the straight-edge of a clamping plate, M, consisting of a longitudinally disposed strip of metal, which is of equal width throughout its length, and has its outer straight edge, farthest from the casing suitably sharpened to provide a cutting-edge. The ends of the clamping-plate M are provided with downwardly projecting arms *m*, the lower ends of which are suitably connected by a rock-shaft *n*, that is journaled in lugs, *n'*, projecting from the side-frame of the register. Near its ends this rock-shaft *n* has torsional-springs, N, thereon, which latter have one end secured to the adjacent side-frame and the other end to the arms *m*, and keep the clamping-plate M normally pressing against the upper edge of the side-frame of the casing as shown. When the manifolding material J is thus clamped against the casing and securely held by clamping plate M, the tendency of the said material to curl up, will cause the end thereof emerging under said clamping-plate to assume the position shown in Fig. 4 of the drawings, in which position it can be conveniently grasped by the fingers of the operator, and, if too long, torn off on the cutting-edge *o*, provided by the straight overhanging longitudinal edge of the margin-plate, that projects beyond and overhangs the outer cutting-edge of the clamping-plate M. When it is desired to pull the manifolding material out farther from the machine, clamping-plate M is moved downward out of engagement with the adjacent

frame of the casing, by catching hold of a lug O projecting from the outer corner of the clamping plate adjacent to the front of the register. In order to retain the clamping-plate in this disengaged position, I provide the arm *m* thereof nearest the front of the register with a laterally projecting stud, P, which is located near the pivot thereof. When the clamping-plate has been thus moved outwardly, and the cutting-edge F is moved into the position shown in Figs. 2 and 3, the lifting of handle *g* will cause shaft *d* to rock and operate cams D and G, while the stud P will come in contact with and engage the vertical branch of the arm *e* of said cutting-edge, F, and retain it in its disengaged position. By lifting handle *g* shaft *d* is rocked and operates cams D and G and causes the shaft E, on which the cutting edge F is mounted, to rock and move said edge back from the platen thus locking these parts in released positions. The manifolding material may then be drawn out as far as desired, and torn off upon the outer cutting-edge of clamping-plate M, and the record strips are released and may be adjusted as desired. This feature is of great advantage in both loading and unloading the register.

In Figs. 9, 10, and 11 of the drawings, I show modified constructions of the parts of the register comprising my improvements. This modification comprises an integral margin-frame 2, the front member 3, of which projects farther toward the transverse plane of the front edges of the side-frames of the casing than the platen B of the register hereinbefore described, and dispenses with the use of the transverse bar *a* thereof and the movable cutting-edge F. The front transverse edge of this front member, 3, is straight from end to end and has an integral cutting-edge 4 thereon. The underside of said member, 3, between its cutting-edge 4 and the front end of the platen 5 is engaged by a tension-plate or pawl, 6, the construction and operation of which is substantially the same as the tension-finger, C, of the register illustrated in the first eight figures of the drawings, but instead of being loosely mounted upon a stationary transverse shaft, it is secured to a transverse rock-shaft 7 having bearings in the side-frames of the case. Next the inner side of the side-frame of the casing, to which a clamping-plate 8, (similar to clamping-plate M, hereinbefore described) is pivoted, I surround said shaft with a torsional spring, 9, one end of which latter is secured to the shaft and the opposite end to said side-frame. This end of this rock-shaft 7, extends through its bearings, and is provided with an arm, 10, which, when said shaft is in its normal position, projects upwardly and to the rear of the forward

journaling lug, 11, of said clamping-plate, and is also provided with a forwardly projecting crank or handle 12. The extremity of the forward pivotal arm, 13, of the clamping-plate, 8, is provided with a shoulder, 14, in the extreme edge of its pivoted end, at a point at the side of its pivot diametrically opposite the clamping-plate. Now when the clamping plate is moved down into the position shown in Fig. 11, and it is desired to retain it at the downward limit of its movement, the handle, 12, of the shaft, 7, is depressed, and the upper extremity of arm, 10, moves through a suitable recess in the under edge of the pivotal lug 11 at its root, and moves under the shoulder, 14, so that when the hold on the clamping-plate is released, said shoulder comes in engagement with the upper end of said arm, and prevents the return of the clamping-plate to its normal position. When shaft, 7, is thus moved, the pawl, 6, will be moved out of clamping engagement with the forward projecting portions of the record-strips, and thus enable both the record-strips, and the manifolding material to be manipulated in identically the same manner as in the improved register first described.

I do not desire to be confined to the specific construction of my improvements as hereinbefore described, as it is evident that many of the parts thereof may be modified or changed without departing from the spirit of my invention or being rendered functionally different in so far as their correlation with the other parts of my improvement of the same is concerned.

What I claim as new is:—

1. An autographic register comprising a suitable casing, a platen therefor, a superimposed marginal frame engaging said platen, a transversely disposed cutting-edge, a tension pawl adapted to engage the underside of the portion of the record strip extending beyond the platen, and a longitudinally disposed substantially flat clamping-plate having lugs that are pivoted at one side of the said casing below the plane of the platen and adapted when in normal position to clamp the contiguous end portion of the manifolding material substantially in alinement with the plane of the platen.

2. An autographic register comprising a suitable casing, a platen therefor, a superimposed marginal frame engaging said platen, a transversely disposed movable cutting-edge, a tension pawl adapted to engage the underside of the portion of the record strip extending beyond the platen, and a longitudinally disposed substantially flat clamping-plate having lugs that are pivoted at one side of the said casing below the plane of the platen and adapted when in

normal position to clamp the contiguous end portion of the manifolding material substantially in alinement with the plane of the platen.

5 3. An autographic register comprising a suitable casing, a platen therefor, a super-
imposed marginal frame engaging said
10 platen, a transversely disposed cutting-edge, a tension pawl adapted to engage the under-
side of the portion of the record-strip extending beyond the platen, a longitudinally
disposed substantially flat clamping-plate
15 having lugs that are pivoted at one side of the said casing below the plane of the platen and adapted to clamp the contiguous end
portion of the manifolding material sub-
stantially in alinement with the plane of
the platen, and means for retaining said
plate in a disengaged position.

20 4. An autographic register comprising a suitable casing, a platen therefor, a super-
imposed marginal frame engaging said
platen, a transversely disposed cutting-edge
having supporting members, a tension pawl
25 adapted to engage the underside of the por-
tion of the record strip extending beyond
the platen, a longitudinally disposed clamp-
ing-plate having lugs that are pivoted at
one side of the said casing, and adapted to
30 clamp the contiguous end portion of the
manifolding material between its longitu-
dinal edge and the casing, and means that
simultaneously retain said plate in its low-
ered or disengaged position, and hold said
35 pawl out of engagement with the record-
strips.

5. An autographic register comprising a
suitable casing, a platen therefor, a super-
imposed marginal frame engaging said
40 platen, a transversely disposed movable cut-
ting-edge having supporting members, a ten-
sion pawl adapted to engage the underside
of the portion of the record strip extending
beyond the platen, a longitudinally disposed
45 clamping-plate having lugs that are pivoted
at one side of the said casing and adapted to
clamp the contiguous end portion of the
manifolding material, and means connected
with said clamping-plate that are engaged
50 by the supporting members of the cutting-
edge when it is raised and retain said clamp-
ing-plate in its opened position.

6. An autographic register comprising a
suitable casing, a platen therefor, a super-
imposed marginal frame engaging said
55 platen, a transversely disposed movable cut-
ting-edge having supporting members, a ten-
sion pawl pressing toward said platen, a
longitudinally disposed clamping - plate
60 for clamping the manifolding material
having lugs that are pivoted to the ad-
jacent side of the casing, the lug nearest
the front of the machine being provided
with a laterally projecting stud which when
65 said plate is moved downward and said cut-

ting edge raised upward engages the adja-
cent supporting member of said cutting-edge.

7. An autographic register comprising a
suitable casing, a platen therefor, a super-
imposed marginal frame one longitudinal
70 edge of which overhangs the side of said
casing, means for centering and supporting
manifolding material on the opposite side
of the casing, and a longitudinally disposed
substantially flat clamping-plate pivoted be-
75 low the overhanging edge of said marginal
frame and adapted when in normal posi-
tion to engage and hold the adjacent end
portion of the manifolding material sub-
stantially in alinement with the plane of the
80 platen.

8. An autographic register comprising a
suitable casing, a platen therefor, a super-
imposed marginal frame one longitudinal
85 marginal portion of which overhangs the
side of said casing and is provided with a
cutting edge, means for centering and sup-
porting manifolding material on the oppo-
site side of the casing, and a longitudinally
disposed clamping-plate below the over-
90 hanging edge of said marginal frame, one
longitudinal edge of which is adapted to en-
gage and hold the adjacent end portion of
the manifolding material, and the outer
longitudinal edge of which constitutes a cut-
95 ting-edge.

9. An autographic register comprising a
suitable casing, a platen therefor, a super-
imposed marginal-frame the longitudinal
edges of which overhang the sides of the
100 casing, means secured to the side of the cas-
ing and located under the overhanging por-
tion of said frame for supporting and cen-
tering the manifolding material, and a longi-
tudinally disposed substantially flat clamp-
ing-plate pivoted to the opposite side of the
105 casing below the overhanging portion of the
adjacent side of said frame and adapted
when in normal position to engage and re-
tain the projecting advanced end portions
110 of the manifolding material substantially in
alinement with the plane of the platen.

10. An autographic register comprising a
suitable casing and a movable cutting edge
for the front end of the register, and a mov-
115 able cutting edge for the longitudinal side
of the casing, which cutting edges when in
a disengaged position interlock with each
other.

11. An autographic register comprising a
120 suitable casing, a platen therefor, a super-
imposed marginal frame one longitudinal
edge of which overhangs the side of said
casing, a movable cutting edge for the front
end of the register, a suitable tension pawl
125 pressing toward said platen, means for cen-
tering and supporting manifolding material
on the side of the casing, and a longitudi-
nally disposed clamping plate below the
overhanging edge of said marginal frame
130

which is adapted to engage and hold the adjacent end portion of the manifolding material, and when it and said cutting-edge are both opened interlocks therewith.

5 12. An autographic register comprising a suitable casing, a platen therefor, a superimposed marginal frame one longitudinal marginal portion of which overhangs the side of said casing, and is provided with a
10 cutting-edge, means for centering and supporting manifolding material on the opposite side of the casing, a movable cutting edge for the front end of the register, a suitable tension pawl pressing toward said
15 platen, and a longitudinally disposed clamping-plate below the overhanging edge of said marginal frame, one longitudinal edge of which is adapted to engage and hold the adjacent end portion of the manifolding
20 material, the outer longitudinal edge of which constitutes a cutting-edge; said clamping-plate when it and the front cutting-edge are both opened or disengaged interlocking.

25 13. An autographic register comprising a suitable casing, a platen therefor, a superimposed marginal-frame the longitudinal edges of which overhang the sides of the casing, a movable cutting edge for the front
30 end of the register, a suitable tension pawl,

means secured to the side of the casings and located under the overhang of said frame for supporting and centering the manifold-
ing material, and a longitudinal clamping plate pivoted to the opposite side of the cas- 35
ing below the overhang of the adjacent side of said frame and adapted to engage and retain the projecting advanced end portions of the manifolding material, and when it and said cutting-edge are both opened inter- 40
lock therewith.

14. In an autographic register, a suitable casing, a platen therefor, a superimposed marginal frame one side of which overhangs the side of the casing, centering studs 45
for the manifolding material one of which is yieldingly supported, and which are located so that the overhang of the said frame protects said material, a clamping-plate pivotally connected to the opposite side of said 50
case and is adapted to clamp the adjacent end of the material and when opened to be retained in such position.

In witness whereof I have hereunto set my hand this fourth day of February, 1910. 55

ENGLAND J. BARKER.

Witnesses:

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E. K. LUNDY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."