

(No Model.)

4 Sheets—Sheet 1.

H. C. BIETTE.
AUTOGRAPHIC REGISTER.

No. 543,842.

Patented Aug. 6, 1895.

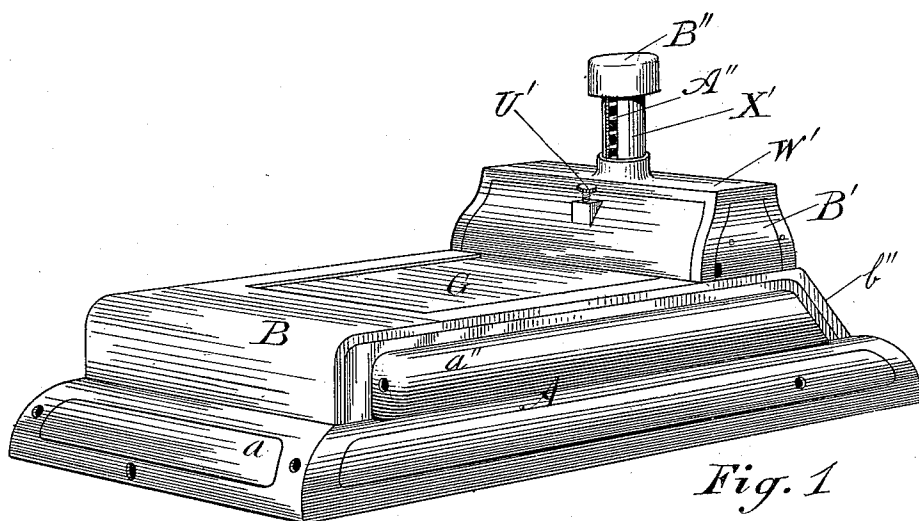


Fig. 1

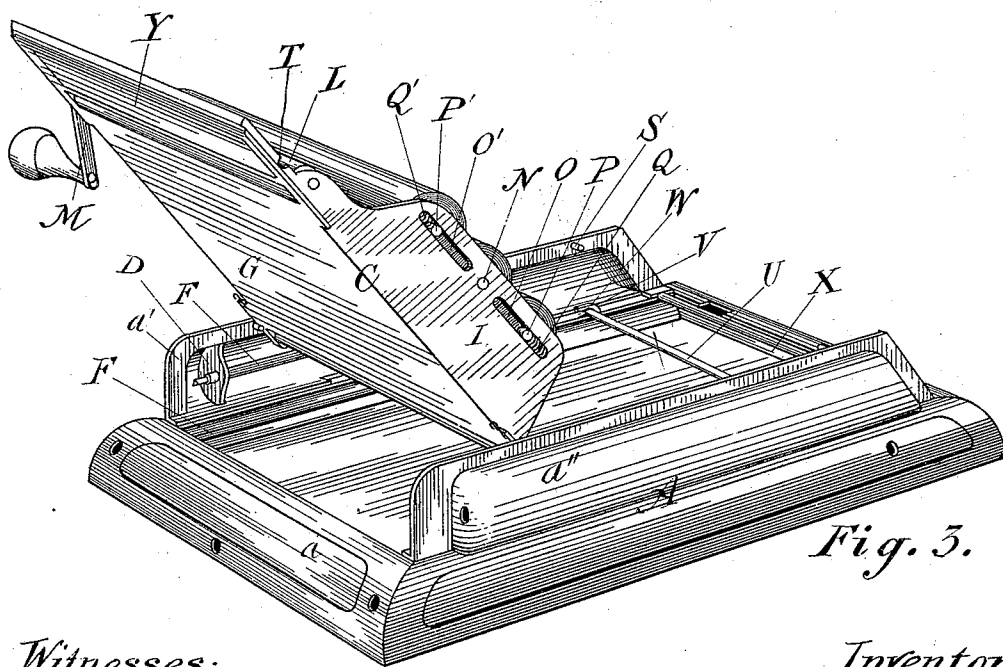


Fig. 5.

Witnesses:

Leonard. Foulds

J. Blamery

Inventor;

H. C. Biette

by C. H. Riches
his attorney

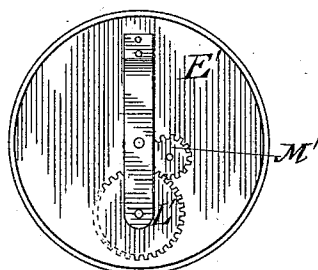
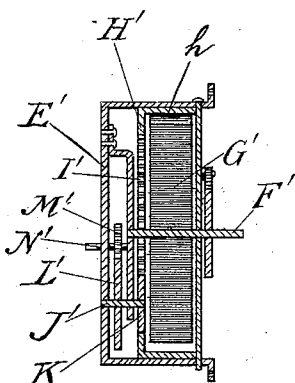
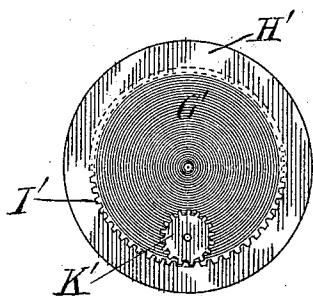
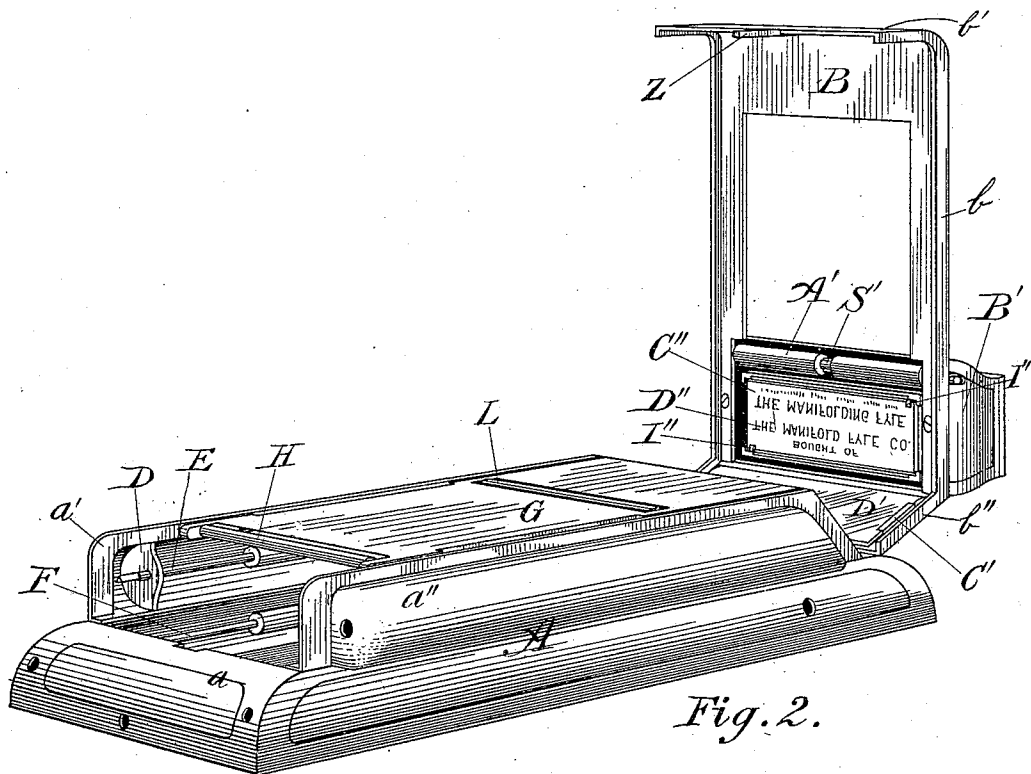
(No Model.)

4 Sheets—Sheet 2.

H. C. BIETTE.
AUTOGRAPHIC REGISTER.

No. 543,842.

Patented Aug. 6, 1895.



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his attorney

(No Model.)

4 Sheets—Sheet 3.

H. C. BIETTE.
AUTOGRAPHIC REGISTER.

No. 543,842.

Patented Aug. 6, 1895.

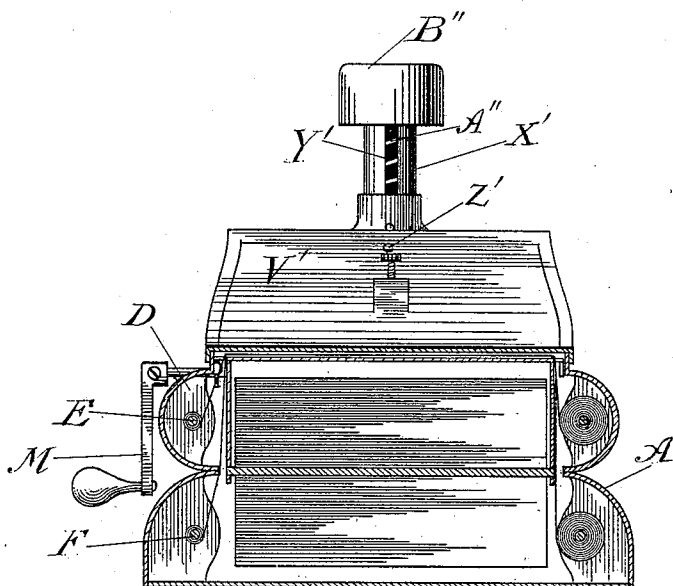


Fig. 4

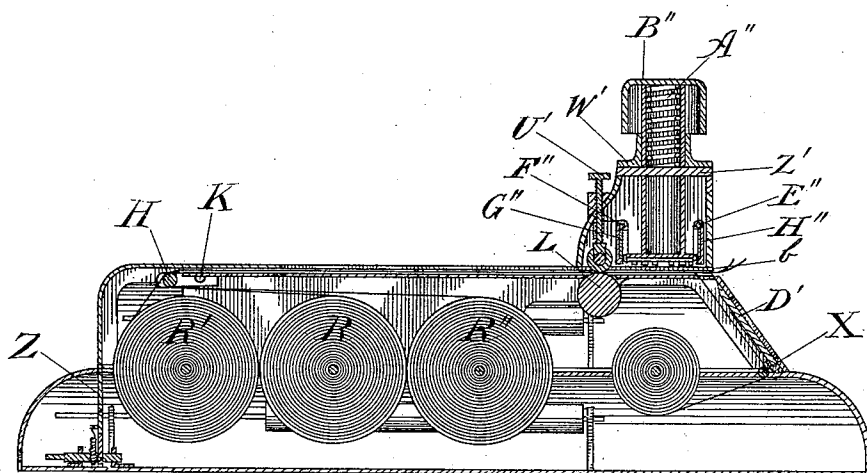


Fig. 5

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(No Model.)

4 Sheets—Sheet 4.

H. C. BIETTE.
AUTOGRAPHIC REGISTER.

No. 543,842.

Patented Aug. 6, 1895.

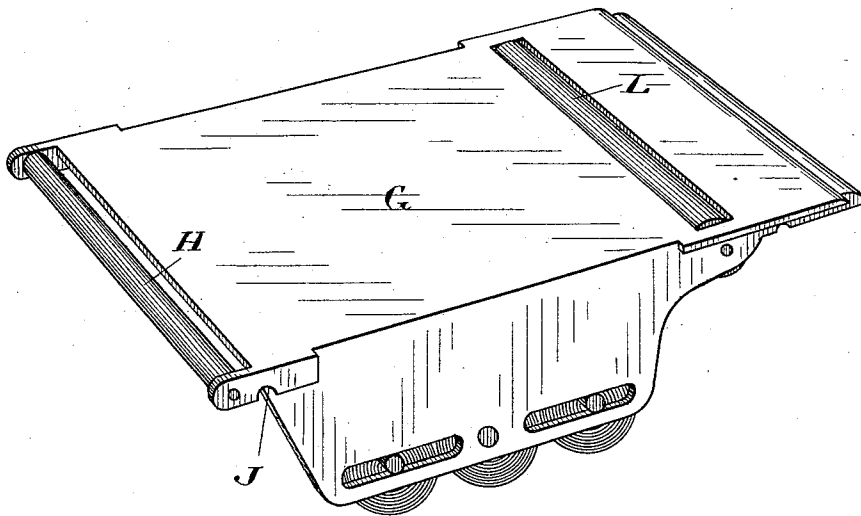


Fig. 9

Witnesses

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UNITED STATES PATENT OFFICE.

HENRY C. BIETTE, OF TORONTO, CANADA.

AUTOGRAPHIC REGISTER.

SPECIFICATION forming part of Letters Patent No. 543,842, dated August 6, 1895.

Application filed November 15, 1894. Serial No. 528,954. (No model.)

To all whom it may concern:

Be it known that I, HENRY CLAYTON BIETTE, of the city of Toronto, in the county of York and Province of Ontario, Canada, have invented certain new and useful Improvements in Autographic Registers; and I hereby declare that the following is a full, clear, and exact description of the same.

This invention relates to an autographic register by means of which all business transactions occurring in the place of business where the register is employed may be recorded, and by means of which any required predetermined multiple number of copies of the recorded original entry or entries may be simultaneously made, in order that the purchaser may be furnished with one copy of the recorded entries and the remaining copies disposed of as required, so that a proper check may be kept on the sales-entries of the books and errors prevented through negligence or carelessness or attempted dishonesty on the part of the employés; and the object of the invention is to devise an autographic register in which will be combined simplicity of construction, security against mistakes and losses, correctness and permanence of record, simplicity in use and operation, convenience in checking the entries recorded in the books, cleanliness in the manipulation and use, adaptability to any kind of business whatsoever, cheapness in the construction and manufacture, and economy of the materials used; and the invention consists essentially of the autographic register hereinafter more fully set forth, and more particularly pointed out in the claims.

In the drawings, Figure 1 is a perspective view of the outside of the complete register. Fig. 2 is a perspective view of the register open. Fig. 3 is a perspective view of the interior of the register, showing the inner or spindle-carrying frame raised to illustrate the arrangement of the webs of paper and the feed-roller. Fig. 4 is a cross-sectional view of the complete register. Fig. 5 is a transverse sectional view of the complete register. Fig. 6 is a sectional view of the winding-gear. Fig. 7 is a view of the inside of the winding-gear. Fig. 8 is a view of the outside of the winding-gear. Fig. 9 is a view of the feed end of the spindle-carrying frame.

Like letters of reference refer to like parts throughout the specification and drawings.

The autographic register consists essentially of a base-frame A, a top frame B, and a spindle-carrying frame C. The base-frame A may be of any desired predetermined size and shape, and consists of a base *a* and two sides *a'* *a''*, respectively. Each of the sides *a'* *a''* is bulged to form a cavity or recess parallel with each other and with the length of the base, and corresponding with each other in size, shape, and all other respects. Formed in the cavity in the side *a'* are two lugs D, and journaled in the lugs D is a spindle E on which is wound one of the transfer-ribbons, and journaled in the base *a*, preferably vertically below the spindle E, is a similar spindle F, on which is wound the other transfer-ribbon. The cavity in the side *a''* is provided with a spindle corresponding with the spindle E, and the base *a*, preferably vertically below the spindle in the cavity of the side *a''*, is provided with a spindle corresponding to the spindle F. Each of the spindles E F and the corresponding spindles on the opposite side of the register are each fitted to receive a key for turning the spindles.

Mounted on the base-frame A is the spindle-carrying frame C, which consists of a flat plate G serving as a table, over which passes the transfer ribbons and paper. In the feed end of the plate G is journaled a roller H, which assists in the feed of the material from the spindles across the top of the plate G. Projecting downward from each side of the top plate G is a side plate I, and extending inwardly from the feed end of each of the side plates I is a slot J. The inner face of each of the sides *a'* *a''*, at or near the feed end of the said sides, is provided with a lug or pin K, which enter the slots J in the side plates I. The lugs or pins K entering the side plates I support the feed end of the spindle-carrying frame C and serve as pivots for the said frame, in order that it can be turned into the position indicated in Fig. 3 of the drawings to allow of the paper-carrying spindles being operated.

Journaled in the side plates I at or near the delivery end of the spindle-carrying frame C is the under delivery-roller L, to the end of which is connected the crank M. Instead of

using a crank I may, if I so desire, substitute for the crank a small wheel or button.

Journalled in the side plates I, at or near the middle of the spindle-carrying frame C, are the ends of a paper-carrying spindle N, and in the side plates I, located one on either side of the paper-carrying spindle N, are two slots O O'. In the slots O are located the ends of the paper-carrying spindle P, and located in the slots O' are the ends of the paper-carrying spindle P'. Connected to the ends of the spindle P is a spring Q, which draws the spindle P toward the spindle N when the diameter of the web of paper on the spindle P becomes reduced, and connected to the spindle P' is a spring Q', which draws the spindle P' to the spindle N when the diameter of the web of paper on the spindle P' becomes reduced. The springs Q Q', by drawing the spindles P P' to the spindle N, the paper R R', wound on each of the spindles P P', respectively, is kept pressed close to the paper R on the spindle N, and the paper through this pressure is prevented from unwinding, except while being fed across the top of the plate G by the delivery-rollers.

Connected to the inner face of each of the sides a' a'' of the base-frame A, at the delivery end thereof, are two lugs or pins S, which support the delivery end of the spindle-carrying frame C by entering corresponding recesses T formed in the side plates I.

In the platform end of the base-frame A is journalled a spindle U, on which is wound those copies intended to be retained by the register. One end of the spindle U is held in a slot V, formed in a lug W, connected to the side a', at or near the delivery end of the base-frame, while the opposite end of the spindle is held by the winding-gear. Journalled in the base a, between the spindle U and the delivery end of the base, is a spindle X, over which the paper passes before being wound on the spindle U, in order that the paper may receive its proper direction and sufficient tension to allow of its being properly wound on the spindle U.

Formed in the plate G between the under delivery-roller L and the delivery end of the plate G is a recess in which is located a cushion Y of rubber or other resilient material. This cushion Y, it might be stated, is located directly below the printing-stamp.

Pivotaly connected to the delivery end of the base-frame A is the delivery end of the top frame B, which consists of a top frame or plate b and two end plates b' b'', respectively. The top frame B completely covers the top of the base-frame A, and, in conjunction with the base-frame A, incloses all the interior mechanism of the autographic register, to prevent the same being tampered with by unauthorized parties. The top plate b of the top frame B extends from end to end of the top of the sides a' a'', and completely closes the opening between the feed-roller H and the feed end of the sides a' a''. The end plate b' closes the opening between the bot-

tom and the top of the feed end of the sides a' a''. Connected to the end plate b' is a locking-bolt Z which enters a spring-lock connected to the feed end of the base-frame A. The top plate b is cut away over the top plate G between the feed-roller H and the under delivery-roller L, in order that the necessary matter can be recorded on the top sheet of paper passing over the top plate G. Journalled in sliding bearings in the top plate b, vertically above the under delivery-roller L, is the upper delivery-roller A', and between the upper roller and the delivery end of the top frame B is the printing-stamp B'. The upper delivery-roller consists of a spindle S' covered with rubber divided into two parts located one on either side of the middle, leaving the middle of the spindle bare. Passing through the case of the shell of the printing-stamp B' is a set-screw U' which presses on the bared part of the spindle S'. By means of the set-screw any required pressure can be given to the upper delivery-roller A'. The end plate b'' is cut away and is provided with flanges C' which hold a glass-plate D', through which is seen the paper as it passes to the winding-spindle U. Secured to the inner face of the side a'' is the gear-case E' containing the winding-gear. Journalled within the case E' is a spindle F' upon which is coiled the operating-spring G'. One end of the operating-spring G' is connected to the spindle F', while the opposite end of the said spring is connected to the flange h of the annular gear H' working within the case E'. Journalled in the case E' is a spindle J', on which is mounted a pinion K' which meshes with the teeth I' of the annular gear H'. It might here be stated that as the annular gear H' is connected to the operating-spring G' the annular gear H' is revolved by the operating-spring G' and revolves the pinion K'. Mounted on the spindle J' is a second pinion L', which meshes with the pinion M' mounted on a spindle N' journalled in the case E'.

It is hereinbefore stated that one end of the spindle U is mounted in a slot V in a lug W connected to the side A', and it might now be stated that the opposite end of the spindle U is mounted on the rectangular-shaped end of the spindle N'. By means of the winding-gear just described the spindle U is revolved to wind up the paper to be retained within the autographic register after passing across the table or top plate G. The unwinding of the spring G' causes the revolution of the gear H', and the teeth I' of the gear H', meshing with the teeth of the pinion K', cause the revolution of the pinion K' and its spindle J' and the second pinion L' mounted on the spindle J'. The pinion L', meshing with the pinion M', causes the revolution of the pinion M', the spindle N', and the winding-spindle U. The normal tension of the paper with the rolls R R' R'' is sufficient to prevent the winding-gear operating the winding-spindle U until after the delivery-rollers L A' have

been turned by the crank M. Between the top of the glass plate D' and the delivery end of the top plate b is an opening through which may pass one or more sheets of the paper from the paper-rolls, while the remaining sheets pass down inside of the glass plate D', around the spindle X, to the winding-spindle U, where the paper is automatically wound on the spindle U by means of the winding-gear.

Wound on each of the spindles E F is the transfer-ribbon, which passes across the table or plate G, and passes over its respective sheet of paper above the table or plate G, in order that the recorded matter on the top-most sheet of paper may be recorded on the second and third sheets. The paper from the roll R' passes around the roller H and along the top of the plate G. The inked ribbon from the spindle F passes across the paper from the roll R'. The paper from the roll R next passes around the roller H and over the inked ribbon from the spindle F, and across the top of the plate G. The inked ribbon from the spindle E then passes across the paper from the roll R, and the paper from the roll R' then passes around the roller H and over the inked ribbon from the spindle E and across the top of the plate G. The paper from all three rolls R R' R'' passes between the delivery-rollers L A', and the paper from these rollers R R' R'', after passing between the delivery-rollers L A', passes below the printing-stamp B', where the paper from the roller R' receives an impression of the stamp. The paper from the rollers R R', after passing beneath the printing-stamp B', passes out through the slot formed between the top of the glass plate D' and the delivery end of the plate b, while the paper from the roller R'' remains within the register and passes down inside of the glass plate, around the spindle X, to the spindle U on which it is wound. The paper from the rolls R R', after passing through the slot between the top of the glass plate D' and the end of the plate B, is torn off against the edge of the plate, which serves as a knife for that purpose. In the operation of the device the paper is fed across the top of the plate G, as just described, with the paper from the rollers R R' ready to be fed through the said slot. An imprint of the stamp is then made on the paper from the roll R', and the invoice or bill of sale is made out on the paper from the said roll. An impression of the matter recorded on the paper from the roll R' is made on the paper from the rolls R R'' by means of the inked ribbons from the rolls E F. After the bill of sale is made out the delivery-rolls are turned by means of the crank to move the paper from the rolls R R' out through the said slot, or if so desired the crank may be dispensed with and the paper pulled out through the said slot. The bill of sale is then torn off close to the last entry or mark on the bill of sale and one copy is handed to the purchaser or done

up with the goods, while the other copy is handed into the office, the third copy which is made on the paper from the roll R'' being automatically wound away on the spindle U. I find it advisable to locate the stamp on the delivery side of the delivery-rollers L A' in order that the imprinted matter from the stamp will not pass between the delivery-rollers L A' and become smeared during its passage therebetween. The printing-stamp B' consists of a shell V', having a top W'. Passing through the top W' is a plunger X', in each side of which is a vertical slot Y'. Passing through the top W' of the shell and through the slots Y' in the plunger X' is a pin Z. The plunger X', it might here be stated, is hollow, and located within the plunger X' is a coiled spring A', which snugly fits the plunger X' and bears against the pin Z' and the under side of the top B'' of the plunger X'. By means of the spring A'' the plunger is raised into its normal or elevated position. Connected to the bottom of the plunger X' is a plate C'', to which are affixed the type D'' or other printing devices. Pivoted in the shell V' are two spindles E'' F'', respectively, on which are pivotally mounted the sections G'' H'' of the inking-pad, each meeting at the middle of the type D'' when the plunger X' is in its elevated position. The downward movement of the plunger X' and type causes the sections G'' H'' to separate and allow of the type D'' coming in contact with the paper from the roll R' and making an impression, the cushion Y of rubber or other similar material being below allows of a perfect impression being made on the paper. Coiled on each of the spindles E'' F'' are springs by means of which the sections G'' H'' are elevated into a horizontal position below and for the purpose of inking the type D'', when the plunger and type are in their elevated position. Connected to two diagonal corners of the plate C'' is a roller or wheel I'', which works against the sections G'' H'' of the inking-pad during the downward movement of the plunger X' and readily opens the said sections to permit of the free passage of the type and plate.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. An autographic register consisting of a base frame, a spindle carrying frame within the base frame, a series of spindles journaled in the spindle carrying frame, means for drawing the spindles together as they discharge their load, a top frame mounted on the base frame for inclosing the spindle carrying frame, substantially as specified.

2. An autographic register consisting of a base frame, a chamber formed in the base frame, spindles journaled in the said chamber for carrying the transfer ribbon, a spindle carrying frame within the base frame, spindles journaled in the spindle carrying frame, means for automatically drawing the spindles

together as they discharge their load, and a top frame which in conjunction with the base frame incloses the spindle carrying frame and interior mechanism, substantially as specified.

3. An autographic register consisting of a base frame, a chamber formed in the base frame, spindles journaled in the said chamber for carrying the transfer ribbon, a spindle carrying frame within the base frame, spindles journaled in the spindle carrying frame, means for automatically drawing the spindles together as they discharge their load, a top frame which in conjunction with the base frame incloses the spindle carrying frame and interior mechanism, and a delivery roller journaled in the spindle carrying frame, and a delivery roller journaled in the top frame, substantially as specified.

4. An autographic register consisting of a base frame, a chamber in one side thereof, spindles journaled in the said chamber, a spindle carrying frame within the base frame, a roller at the feed end of the top of the spindle carrying frame, paper carrying spindles journaled in the spindle carrying frame, means for automatically drawing together the said spindles as they discharge their load, the top frame, and the delivery rollers, the under one of which is mounted in the spindle carrying frame, and the upper one of which is mounted in the top frame, substantially as specified.

5. An autographic register consisting of a base frame, a chamber in one side thereof, ribbon carrying spindles journaled in the chamber, the spindle carrying frame, a roller journaled at the top of the feed end of the spindle carrying frame, paper carrying spindles journaled in the spindle carrying frame, means for automatically drawing together the paper carrying spindles as they discharge their load, a delivery roller journaled in the top of the spindle carrying frame between the feed and delivery ends of the same, a winding roll and the top frame, which in conjunction with the base frame incloses the spindle carrying frame and interior mechanism, and a delivery roller journaled in the top frame vertically above the delivery roller in the spindle carrying frame when the several parts are assembled, substantially as specified.

6. An autographic register consisting of a base frame, a chamber in one side thereof, ribbon carrying spindles journaled in the chamber, the spindle carrying frame, a roller journaled at the top of the feed end of the spindle carrying frame, paper carrying spindles journaled in the spindle carrying frame, means for automatically drawing together the paper carrying spindles as they discharge their load, a delivery roller journaled in the top of the spindle carrying frame between the feed and delivery ends of the same, a winding roll, means for automatically revolving the winding roll, the top frame which in conjunction with the base frame incloses the spindle carrying frame and interior mechanism, and a de-

livery roller journaled in the top frame vertically above the delivery roller in the spindle carrying frame when the several parts are assembled, substantially as specified.

7. An autographic register consisting of a base frame, a chamber in one side thereof, ribbon carrying spindles journaled in the chamber, the spindle carrying frame, a roller journaled at the top of the feed end of the spindle carrying frame, paper carrying spindles journaled in the spindle carrying frame, means for automatically drawing together the paper carrying spindles as they discharge their load, a delivery roller journaled in the top of the spindle carrying frame between the feed and delivery ends of the same, a winding roll and the top frame, which in conjunction with the base frame incloses the spindle carrying frame and interior mechanism, a delivery roller journaled in the top frame vertically above the delivery roller in the spindle carrying frame when the several parts are assembled, and a stamp located between the delivery rolls and the delivery end of the register, substantially as specified.

8. An autographic register consisting of a base frame, a chamber in one side thereof, ribbon carrying spindles journaled in the chamber, the spindle carrying frame, a roller journaled at the top of the feed end of the spindle carrying frame, paper carrying spindles journaled in the spindle carrying frame, means for automatically drawing together the paper carrying spindles as they discharge their load, a delivery roller journaled in the top of the spindle carrying frame between the feed and delivery ends of the same, a winding roll, means for automatically revolving the winding roll, the top frame which in conjunction with the base frame incloses the spindle carrying frame and interior mechanism, a delivery roller journaled in the top frame vertically above the delivery roller in the spindle carrying frame when the several parts are assembled, and a stamp located between the delivery rolls and the delivery end of the register, substantially as specified.

9. An autographic register consisting of a base frame, a chamber in one side thereof, ribbon carrying spindles journaled in the chamber, the spindle carrying frame, a roller journaled at the top of the feed end of the spindle carrying frame, paper carrying spindles journaled in the spindle carrying frame, means for automatically drawing together the paper carrying spindles as they discharge their load, a delivery roller journaled in the top of the spindle carrying frame between the feed and delivery ends of the same, a winding roll and the top frame, which in conjunction with the base frame incloses the spindle carrying frame and interior mechanism, a delivery roller journaled in the top frame vertically above the delivery roller in the spindle carrying frame when the several parts are assembled, a stamp located between the delivery rolls and the delivery end of the register, and a cushion on

the spindle carrying frame vertically below the said stamp, substantially as specified.

10. An autographic register consisting of a base frame a chamber in one side thereof, ribbon carrying spindles journaled in the chamber, the spindle carrying frame, a roller journaled at the top of the feed end of the spindle carrying frame, paper carrying spindles journaled in the spindle carrying frame, means for automatically drawing together the paper carrying spindles as they discharge their load, a delivery roller journaled in the top of the spindle carrying frame between the feed and delivery ends of the same, a winding roll, means for automatically revolving the winding roll, the top frame, which in conjunction with the base frame incloses the spindle carrying frame and interior mechanism, a delivery roller journaled in the top frame vertically above the delivery roller in the spindle carrying frame when the several parts are assembled, a stamp located between the delivery rolls and the delivery end of the register, and a cushion on the spindle carrying frame vertically below the said stamp, substantially as specified.

11. An autographic register consisting of a base frame, a chamber in the side of the base frame, ribbon carrying spindles journaled in the chamber, a spindle carrying frame mounted in the base frame, a roller journaled at the top of the feed end of the spindle carrying frame, paper carrying spindles journaled in the spindle carrying frame, means for automatically drawing together the paper carrying spindles as they discharge their load, a delivery roller journaled in the top of the spindle carrying frame between the feed and delivery ends, a winding roll journaled in the base frame, a spring operated gear to automatically turn the winding roll, a tension roll journaled in the base frame around which passes the paper from one of the paper carrying spindles to the winding roll, the top frame which in conjunction with the base frame incloses the interior mechanism, a delivery roller journaled in the top frame vertically above the delivery roller in the spindle carrying frame when the several parts are assembled, a printing stamp between the delivery rollers and the delivery end of the register, and a cushion on the spindle carrying frame vertically below the printing stamp, substantially as specified.

rying spindles to the winding roll, the top frame, which in conjunction with the base frame incloses the interior mechanism, a delivery roller journaled in the top frame vertically above the delivery roller in the spindle carrying frame when the several parts are assembled, and a printing stamp between the delivery rollers and the delivery end of the register, substantially as specified.

12. An autographic register consisting of a base frame, a chamber in the side of the base frame, ribbon carrying spindles journaled in the chamber, a spindle carrying frame mounted in the base frame, a roller journaled at the top of the feed end of the spindle carrying frame, paper carrying spindles journaled in the spindle carrying frame, means for automatically drawing together the paper carrying spindles as they discharge their load, a delivery roller journaled in the top of the spindle carrying frame between the feed and delivery ends, a winding roll journaled in the base frame, a spring operated gear to automatically turn the winding roll, a tension roll journaled in the base frame around which passes the paper from one of the paper carrying spindles to the winding roll, the top frame which in conjunction with the base frame incloses the interior mechanism, a delivery roller journaled in the top frame vertically above the delivery roller in the spindle carrying frame when the several parts are assembled, a printing stamp between the delivery rollers and the delivery end of the register, and a cushion on the spindle carrying frame vertically below the printing stamp, substantially as specified.

Toronto, August 17, 1894.

H. C. BIETTE.

In presence of—

C. H. RICHER,
A. BLACKBURN.