

(No Model.)

4 Sheets—Sheet 1.

H. C. BIETTE.
AUTOGRAPHIC REGISTER.

No. 521,081.

Patented June 5, 1894.

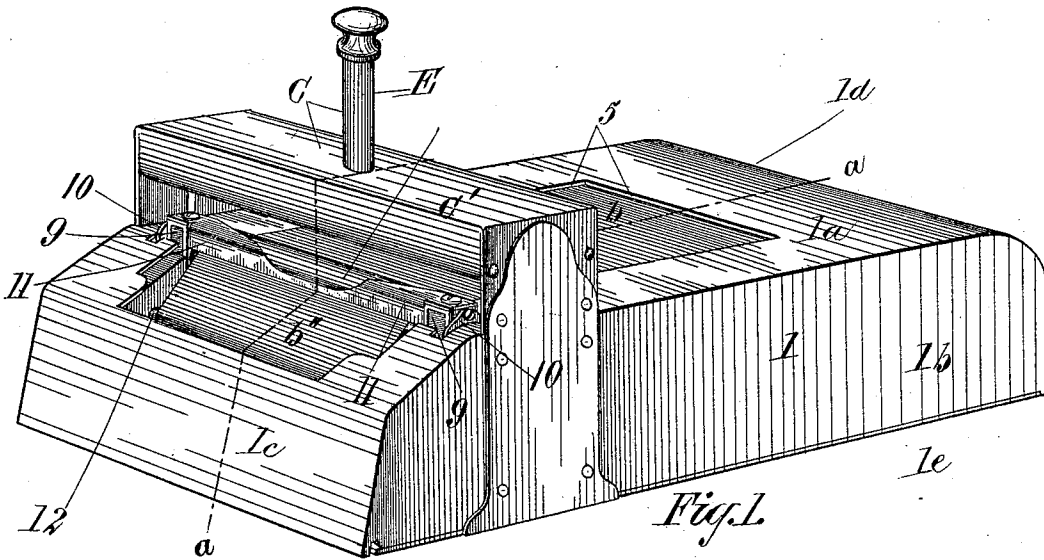


Fig. 1.

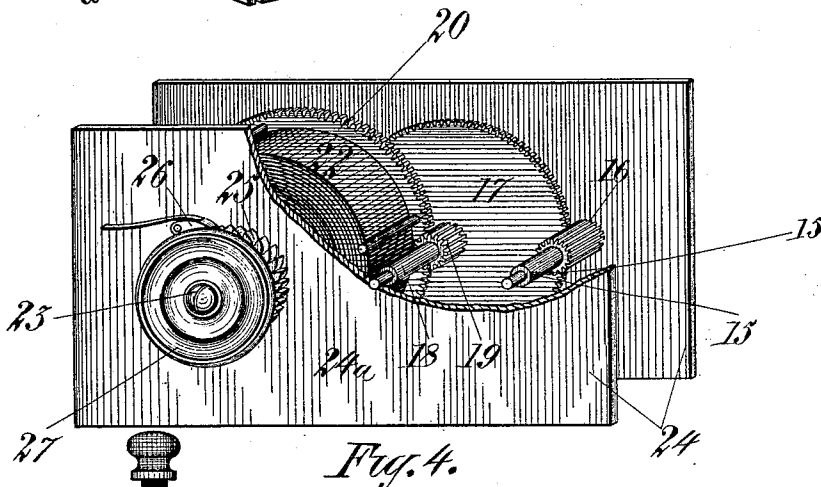


Fig. 4.

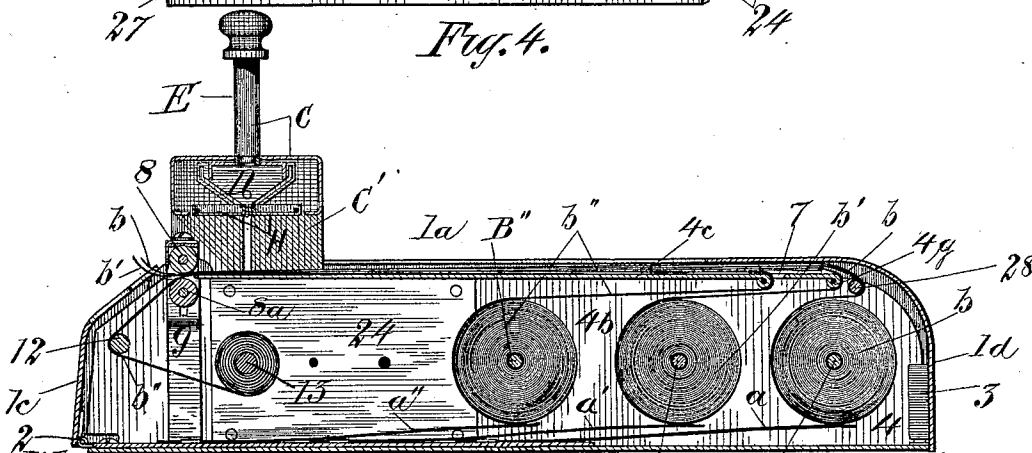


Fig. 5.

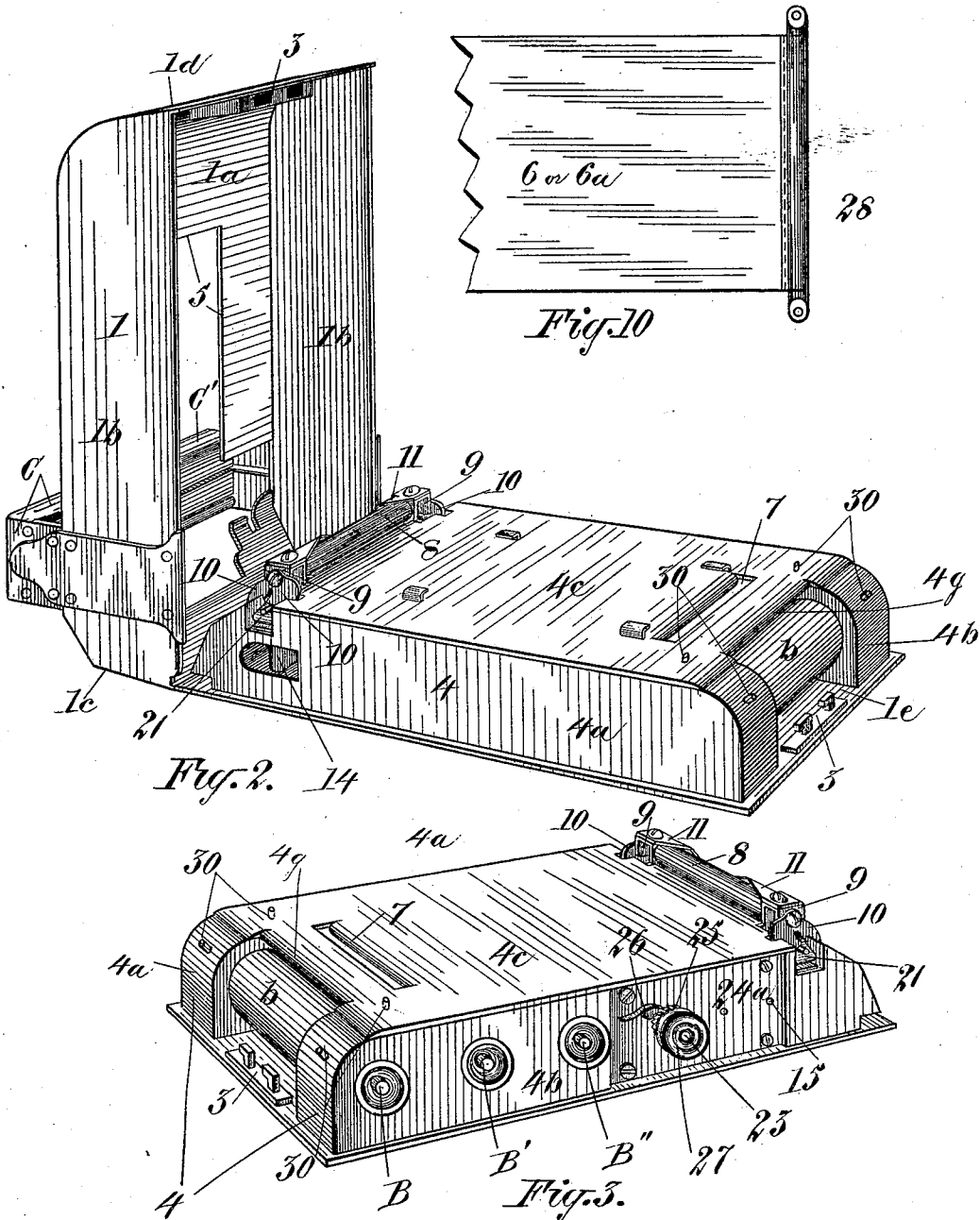
Witnesses.
G. L. Lawrie.
M. Angell.

Inventor.
Henry C. Biette
By C. H. Biette
his atty.

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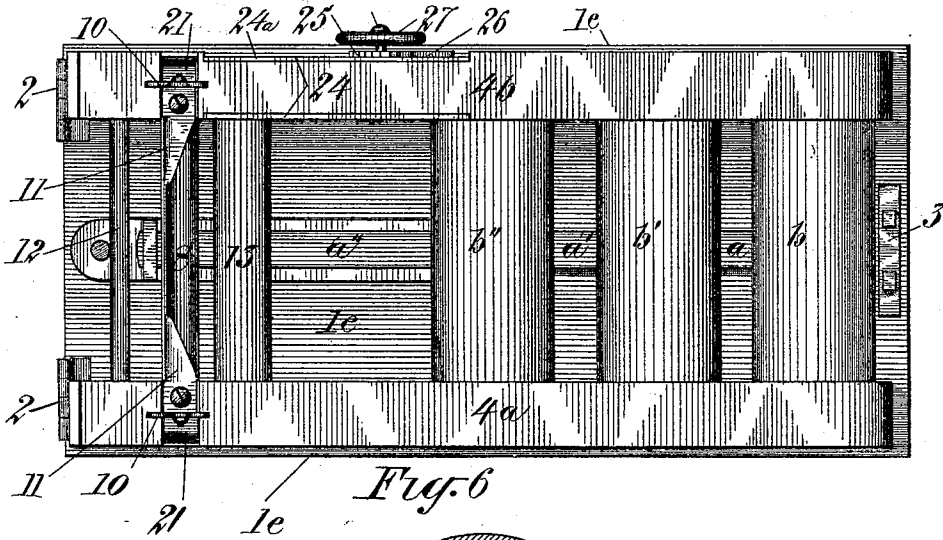


Fig. 6

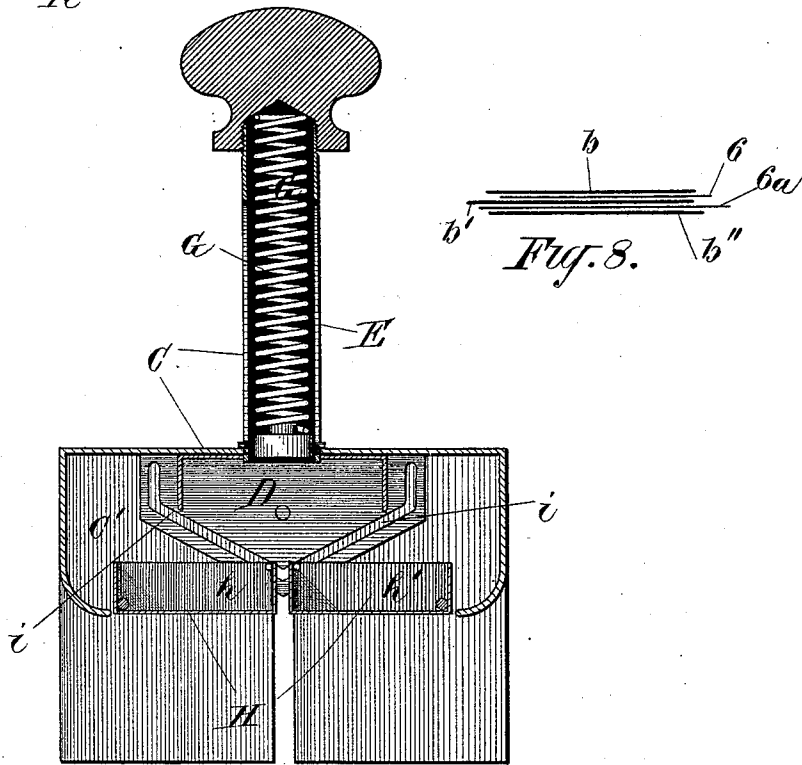


Fig. 7.

Fig. 8.

Witnesses.

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UNITED STATES PATENT OFFICE.

HENRY C. BIETTE, OF TORONTO, CANADA, ASSIGNOR OF ONE-HALF TO ANDREW BLACKBURN, TRUSTEE, AND FLORENCE ADA RAMAGE, OF SAME PLACE.

AUTOGRAPHIC REGISTER.

SPECIFICATION forming part of Letters Patent No. 521,081, dated June 5, 1894.

Application filed January 9, 1893. Serial No. 457,842. (No model.)

To all whom it may concern:

Be it known that I, HENRY CLAYTON BIETTE, gentleman, of the city of Toronto, in the county of York, Province of Ontario, Canada, have invented a certain new and useful Autographic Register; and I hereby declare that the following description is sufficiently full, clear, and exact as to enable others skilled in the art to which it appertains to make, construct, and operate 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 also by means of which any requisite predetermined multiple number of copies of the recorded original entries may be simultaneously made, preferably, in order that the purchaser may be furnished with a copy of the recorded entries, the office may be furnished with a duplicate of the said copy to permit of the proper entries being made in the books of the business, and the remaining copy may be automatically filed away by the register to permit of a check being kept on the entries in the books to prevent any errors through negligence or carelessness or any attempt at dishonesty on the part of the employes; 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 occurring through negligence, false entries, or alterations; correctness and permanence of record; simplicity in use and operation; convenience in checking the entries recorded in the books; cleanliness in the manipulation, adaptability to any kind of business whatsoever; cheapness and economy of the material used; and the invention consists essentially of a register comprised of a frame within which are three rolls of blank paper wound on suitable spindles and so arranged that the paper may be simultaneously unwound from each of the three rolls and passed simultaneously over the top part of the register which serves as a table or desk; and of forming at the front part of the register a self-inking stamp with suitable characters formed upon its printing surface which are adapted to be imprinted upon the material passing from the said rolls; of

arranging a knife which is preferably located at the extreme front of the register to cut away the used portion from the blank portion of the material from two of the said rolls, the whole device being constructed and operated as hereinafter more fully set forth in the specification and more particularly pointed out in the claims.

In the drawings:—Figure 1 is a perspective view of my device showing the exterior case, the self-inking stamp, the knife, the guide rolls, and the material passing across the top of the same. Fig. 2 is a perspective view of the device showing the exterior case open, the guide rolls and the knife. Fig. 3 is a perspective view of the inner case taken from the opposite side. Fig. 4 is a perspective view of the interior mechanism of the winding gear. Fig. 5 is a transverse sectional view on the line *a— a* Fig. 1. Fig. 6 is a plan view with the outer case and the top of the inner case removed looking down on the several parts. Fig. 7 is an enlarged cross sectional view of the self-inking stamp. Fig. 8 is an enlarged side elevation of a section of the material passing across the top of the inner case showing the arrangement of the three sheets of paper and the transfer ribbons between them. Fig. 9 is an enlarged perspective view of a section of the front of the machine. Fig. 10 is a plan view of the transfer ribbon. Fig. 11 is a view showing the means for securing the bars 28 for the ribbons 6 and 6^a.

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

The autographic register consists of an outer case 1, of any suitable design, size and shape. This outer case 1 consists of a top 1^a, sides 1^b and bottom 1^c and ends respectively 1^d and 1^e. The sides, ends and top of the outer case 1 are all suitably joined together and to the front end 1^c of the case is hinged or otherwise pivotally connected the bottom 1^c. The hinges 2 securing the front end of the bottom 1^c to the front end 1^c of the case are within the said case to prevent the said hinges being tampered with. Fastening the rear end of the bottom 1^c to the rear end 1^d of the outer case is a lock 3. Within the outer case 1 is an inner case 4 comprising

two sides respectively 4^a and 4^b and a top 4^c. The top 4^c of the inner case 4 is contiguous to the top 1^a of the outer case 1, with only sufficient clearance between them to permit
 5 of the passage of the writing material there-through. The top 4^c of the inner case 4 serves as a table over which the material passes and also serves as a desk for the clerk or party
 10 operating the register to write upon. To permit of the clerk, (or party using the register,) writing upon the material passing over the top 4^c I find it necessary to cut away a portion
 15 of the top 1^a of the outer case 1. Mounted in bearings formed in the sides respectively 4^a and 4^b of the inner case 4 are three spindles respectively B, B', B''. Upon each of these spindles is mounted a roll of writing material respectively b, b', b''. The writing
 20 material is taken simultaneously from each of the rolls b, b', b'', and passes simultaneously over the top 4^c of the inner case 4. Between the writing material from the rolls respectively b, b', is an inked ribbon 6 and between the writing material from the rolls respectively
 25 b', b'' is an inked ribbon 6^a in order that the matter written upon the material from the roll b may be simultaneously duplicated on the materials from the rolls b', b''. To prevent the material from the rolls
 30 b, b', b'' becoming slack I provide each of the said rolls with a tension spring respectively a, a', a'' which springs are secured preferably to the bottom 1^c of the outer case 1. The material after leaving the roll b'' passes
 35 through a slot 7 formed in the top 4^c of the inner case 4 and passes along the top 4^c to the front end, while the material from the rolls b' and b passes around the end 4^e of the top 4^c and around the bar 28 of the ribbon 6
 40 respectively and passes across the said top 4^c the material from all three rolls b, b', b'' passing between the rollers respectively 8 and 8^a. Located at the front end of the top 4^c are two rollers respectively 8 and 8^a covered with
 45 rubber or other similar adhesive material. The rollers respectively 8 and 8^a when in their normal positions touch each other and are so arranged that the material from each of the rolls respectively b, b', b'' passing over the
 50 top 4^c will pass between them, the said material being driven in a forward direction by the revolution of the rollers respectively 8 and 8^a. It might here be stated that these rollers are slightly greater in length than the proposed width of the material to be employed
 55 in order that the said material will not bind against the sides or bearings of the said rollers. It will be noticed that the spindle of each of the rollers respectively 8 and 8^a is
 60 journaled in lugs or uprights 9 provided for that purpose. Pivoted to each of the lugs or uprights 9 is a cam 10 arranged for the purpose of depressing the spindle of the lower roller 8^a in order to provide a means for the proper adjustment of the two rollers. Each
 65 end of the spindle of the lower roller 8^a passes through a vertical slot in each of the adjacent

lugs 9 and rests upon a spring 21 which presses the lower roller 8^a against the upper roller 8, which spring is located below and bears upward against the under side of the spindle of the said roller 8^a. The sides 4^a and 4^b of the inner case 4, are each provided at its forward end, with a recess 21^a, the springs 21 being disposed in the latter.

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 Located on the outer side of and covering the upper roller 8 is a knife 11 for the purpose of cutting the material from the rolls respectively b, b' as it passes beyond the rollers respectively 8 and 8^a. Journaled in the
 80 extreme front end of the inner case 4 is a spindle 12 around which passes the material from the roll b'' after having passed across the top 4^c. The material from the roll b'' after passing around the spindle 12 is wound
 85 on a spindle 13 journaled at the front end of the said inner case 4. One end of this spindle 13 is mounted in a spring bearing 14 and the other end is removably mounted on the rectangular shaped end of the spindle 15 of
 90 the pinion 16. The spring bearing 14 is adapted to be moved laterally in order that it may be freed from the end of the spindle 13 to permit of the said spindle being removed from the case 4 or replaced therein. The
 95 pinion 16 is driven by a gear wheel 17 mounted upon a spindle 18. Mounted upon the spindle 18 is a pinion 19 which is driven by a gear wheel 20 rotated by a coiled spring 22 wound upon the spindle 23. This driving
 100 gear for the roll is inclosed in a metallic case 24 placed in the side 4^b of the inner case 4 at or near its front end. The spindle 23 projects beyond the adjacent side 1^b of the outer case 1. Mounted upon the spindle 23 is a
 105 ratchet wheel 25 with which meshes a spring operated dog 26 pivotally secured to the outer side 24^a of the case 24. Mounted upon the outer end of the spindle 23 is a small thumb wheel 27 for the purpose of rotating the spindle 23 in order to wind the spring 22 upon it.
 110 The ratchet wheel 25 and dog 26 arrest the reverse rotation of the said spindle 23 and cause the spring 22 to unwind itself by a forward movement. The forward movement of the spindle 23 is transmitted to the gear wheel 20 which in turn transmits a reverse
 115 motion to the pinion 19 and gear wheel 17, which gear wheel 17 in turn transmits a forward movement to the pinion 16 causing the pinion 16 and spindle 15 to rotate and cause a revolution of the spindle 13 which revolution will cause the said spindle 13 to wind upon it the material from the roll b''. One revolution of the gear wheel 20 causes twelve revolutions
 120 of the pinion 19 and gear wheel 17 and one revolution of the gear wheel 17 causes six and one-quarter revolutions of the pinion 16, thus one revolution of the gear wheel 20 causes or is equal to seventy-five revolutions of the pinion 16. Each of the ribbons 6 and 6^a respectively is bound or otherwise secured to a metallic bar 28. The bars 28 for each of the ribbons respectively 6 and 6^a are provided at each
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end with a small hole or opening, and passing through each of these holes or openings in each of the bars 28 is a small pin 30. The pins 30 passing through the openings in the bar 28 to which is fastened the ribbon 6 are secured to the top 4^a between the slot 7 and the rear end 4^s of the said top, and the pins passing through each of the holes or openings in the bar 28 to which is fastened the ribbon 6^a are secured to the rear end of the sides of the inner case 4, as the case may be.

Located at the front of the machine is a self-inking stamp C, comprised of a shell or case C' in which is inclosed when in its normal position the stamp D; a plunger E secured to the said stamp at or near the middle.

In Fig. 7 of the drawings the shell for holding the type is only shown and the printing surface of the type when contained in the said shell would be contiguous to the inking surface of the pad H, and would be inked by the inking surface of the pad H when on their downward stroke. The spring G is inclosed within the plunger E; a pad H pivotally secured to the case C' below the stamp D and divided longitudinally into two sections *h, h'* which are adapted to open out and permit of the downward passage of the stamp D; and V-shaped guides *i* for opening out the said sections respectively *h* and *h'*. A stamp constructed on this principle will occupy but a small compass in comparison to the self-inking stamp hitherto used and will successfully accomplish the purpose for which it has been devised.

The operation of my register is as follows: The paper is fed simultaneously from the rolls *b, b', b''* across the top 4^a to the guide rollers respectively 8 and 8^a. The revolution of the guide rollers 8 and 8^a drives forward the paper from the rolls respectively *b, b', b''*. The self-inking stamp is then caused to descend and imprint on the material from the roll *b* the characters formed upon its printing surface. The material from the roll *b* then constitutes what is known as a sale slip and is ready for the use of the clerk or operator. The matter written by the clerk on the material from the roll *b* is simultaneously recorded by means of the inked ribbons 6 and 6^a on the material from the rolls respectively *b', b''*. When the sale slip is completed the material from the rolls *b, b', b''* is driven or drawn forward through the rollers respectively 8 and 8^a until the last entry has cleared the knife 11 after which the material from the rolls *b, b'* is severed by means of the said knife and the original of the recorded entries may be furnished to the purchaser and the duplicate from the roll *b'* may be handed into the office in order that the proper entries may be made in the books of the business. As before stated the matter written on the material from the roll *b* is simultaneously recorded on the material from the roll *b''*. The material from this roll *b''* after passing between the rollers 8 and 8^a

passes around the spindle 12 and is wound or filed away on the spindle 13. The material from the roll *b''* constitutes the triplicate copy and is used for the guidance of the proprietor or manager of the business in checking the entries in the books. By this means a constant check can be kept on the clerks and salesmen and any error through carelessness or negligence or any attempt at dishonesty can be immediately detected. Besides being a check on the work and entries of the clerks and salesmen, it is also an incentive for the same parties to be correct in everything they do as far as making entries are concerned as they are well aware that the third copy remains an unchangeable record of their work and under no circumstances can it be altered or tampered with without detection. This register besides being a check on the business is also an economic device in the use of the material employed as there is no waste whatsoever in the operation of the register and only the paper used or written upon is consumed. The register besides being an economic device can also be much more readily handled and is much cleaner in its mode of operation than any system that has heretofore been employed for a like purpose as the fingers of the salesmen can under no circumstances during the operation of the register come in contact with the inked ribbons which are used for the transfer or duplicating purposes. Another advantage in connection with the register is its convenience in the method of its use and again in the fact that it cannot be mislaid or lost.

This autographic register can be adapted to any kind of business whatsoever, it can be used not only in retail dry-goods and grocery stores where the counter check book is universally used, but also in wholesale houses. Small retail stores find it an advantage to use the register as it fills the place of the immediate use of the day book or blotter as the triplicate or third copy can be entered up at the leisure of the person having access to the spindle 13. By the use of a machine of this description the services of an entry clerk can be entirely dispensed with.

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

1. In an autographic register, the combination of an outer case 1, an inner case 4 inclosed by said outer case, said inner case arranged to form a desk, a series of spindles, B, B', B'', for holding a plurality of sheets of writing material, guide rollers, 8 8^a, adapted to feed the material across the top of said inner case, a knife, 11, a spindle, 13, upon which is wound one or more sheets of the said writing material, a pinion, 16, a spindle, 15, for said pinion, one end of the winding spindle mounted upon the end of the spindle 15 of the pinion 16, a gear wheel, 17, to transmit motion to said pinion 16, a spindle, 18, for said gear wheel 17, a pinion, 19, mounted on said spin-

dle 18, a gear wheel, 20, transmitting motion to said spindle 18, a spring, 22, to cause the rotation of said gear wheel 20, and means for winding said spring; substantially as and for the purpose set forth.

2. A self-inking stamp adapted for use with autographic registers comprising a shell, the stamp proper within the shell, a plunger secured to said stamp proper at or near its center, a spring inclosed by said plunger, an inking pad disposed below the stamp proper and divided into two sections, said sections being pivotally secured to said shell and adapted to open outwardly, and V-shaped guides for opening out each of said sections; substantially as and for the purpose set forth.

3. In an autographic register, the combination of an outer case, an inner case inclosed by said outer case, said inner case arranged to form a desk, a series of spindles, B, B', B'', for holding a plurality of sheets of writing material, bars for holding the transfer sheets, said bars being provided at each of their ends with an opening, pins secured to the top of the inner case, said pins adapted to pass through the openings in said bars and securely hold the latter, guide rollers adapted to draw said writing material across the top of said inner case, a spindle, 12, a spindle, 13, upon which is adapted to be wound one or more sheets of said writing material, and tension springs, *a*, *a'*, *a''*, one end of each of said springs being secured to the bottom of the outer case while the other end bears against the respective rolls, *b*, *b'*, *b''*; substantially as and for the purpose set forth.

4. In an autographic register, the combination of an outer case, an inner case inclosed by said outer case, uprights, 9, mounted in the forward end of said inner case and projecting through the top thereof, vertical slots in the upper portion of said uprights, guide rollers, 8, 8^a, the roller 8 being permanently journaled in the top of the uprights, the roller 8^a having the ends of its spindle projecting through the slots and riding therein, recesses provided in the forward ends of the sides of the inner case, S-shaped springs mounted in the said recesses and exerting their tension to press the roller 8^a against the roller 8, a knife, and a cam, 10, for regulating the pressure of the roller 8^a against the roller 8; substantially as and for the purpose set forth.

5. An improved spring-actuated mechanism for autographic registers comprising the sides, 24, a spindle, 15, a pinion, 16, mounted on said spindle 15, a gear wheel, 17, meshing with said pinion 16, a spindle, 18, for said gear wheel 17, a pinion, 19, mounted on said spindle 18, a gear wheel, 20, meshing with said pinion 19, a spring, 22, a spindle, 23, for said gear wheel 20, one end of said spindle 23 projecting beyond one of the sides 24, a ratchet

wheel, 25, and a thumb wheel, 27, mounted on the projecting end of said spindle 23, and a dog, 26, engaging said ratchet wheel 25; substantially as and for the purpose set forth.

6. In an autographic register, the combination of an outer case, an inner case inclosed by said outer case, said inner case arranged to form a desk, a series of spindles, B, B', B'', for holding a plurality of sheets of writing material, guide rollers adapted to draw said writing material across the top of the inner case, a spindle, 12, a spindle, 13, upon which is adapted to be wound one or more sheets of said writing material, one end of said spindle 13 mounted upon the rectangular end of a spindle, 15, the other end mounted in a spring-bearing, 14, a pinion, 16, mounted upon the spindle 15, a gear wheel, 17, meshing with the pinion 16, a spindle, 18, for said gear wheel 17, a pinion, 19, mounted on said spindle 18, a gear wheel, 20, meshing with, and imparting motion to, the pinion, 19, a spring, 22, for rotating the gear wheel 20, and means for winding said spring; substantially as and for the purpose set forth.

7. In an autographic register the combination of an outer case 1, an inner case 4 inclosed by said outer case, a series of spindles for holding a plurality of sheets of writing material, guide rollers adapted to feed the material across the top of said inner case, a knife, a spindle upon which is wound one or more sheets of the said writing material, a pinion, a spindle for said pinion one end of the winding spindle mounted upon the end of the spindle of the pinion, a gear wheel to transmit motion to said pinion, a spindle for said gear wheel, a pinion mounted on said spindle, a gear wheel transmitting motion to said spindle, and a spring to cause the rotation of said gear wheel, substantially as and for the purpose set forth.

8. In an autographic register the combination of the inner case 4, an outer case 1, inclosing said inner case 4, a series of spindles B, B', B'' within said inner case, the top 4^c of said inner case forming a desk, guide rollers 8 and 8^a located at the front of said desk, a knife 11, a winding spindle 13, a pinion 16, a spindle 15 for said pinion, one end of the spindle 13 mounted on the rectangular shaped end of the spindle 15 and adapted to be revolved thereby, a gear wheel 17, a spindle 18 for said gear wheel, a pinion 19 mounted on the spindle 18, a gear wheel 20 meshing with the pinion 19, and a coiled spring 22 to rotate the gear wheel 20; substantially as and for the purpose set forth.

Toronto, November 29, 1892.

HENRY C. BIETTE.

In presence of—

CHARLES H. RICHES,
M. ANGELL.