

J. FRYDMANE.

APPARATUS FOR AUTOMATIC REGISTERING OF DISBURSEMENTS AND RECEIPTS.

No. 546,880.

FIG. 1. Patented Sept. 24, 1895.

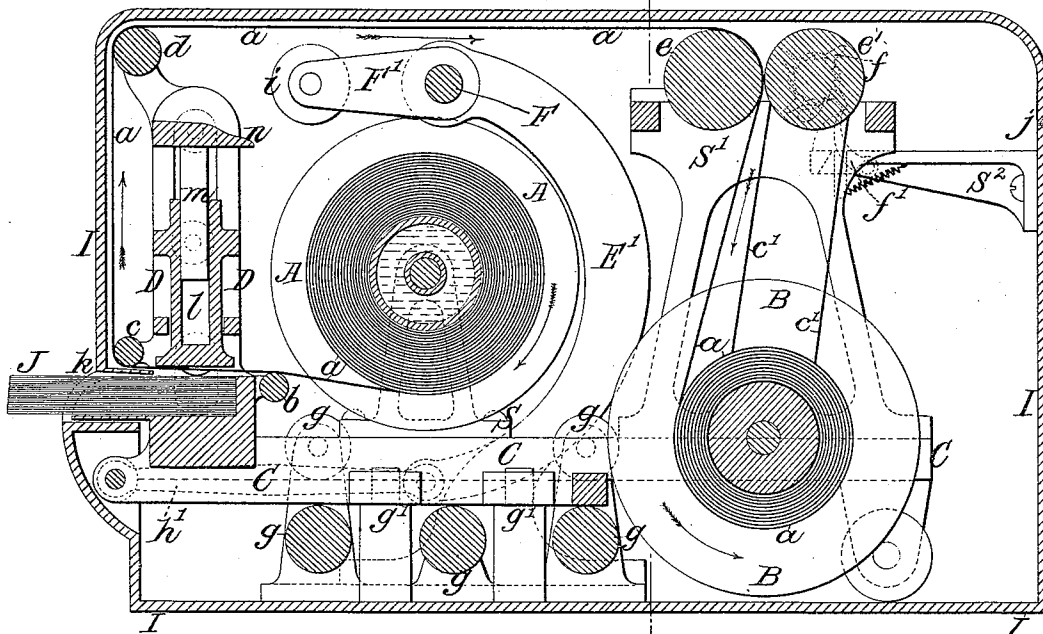
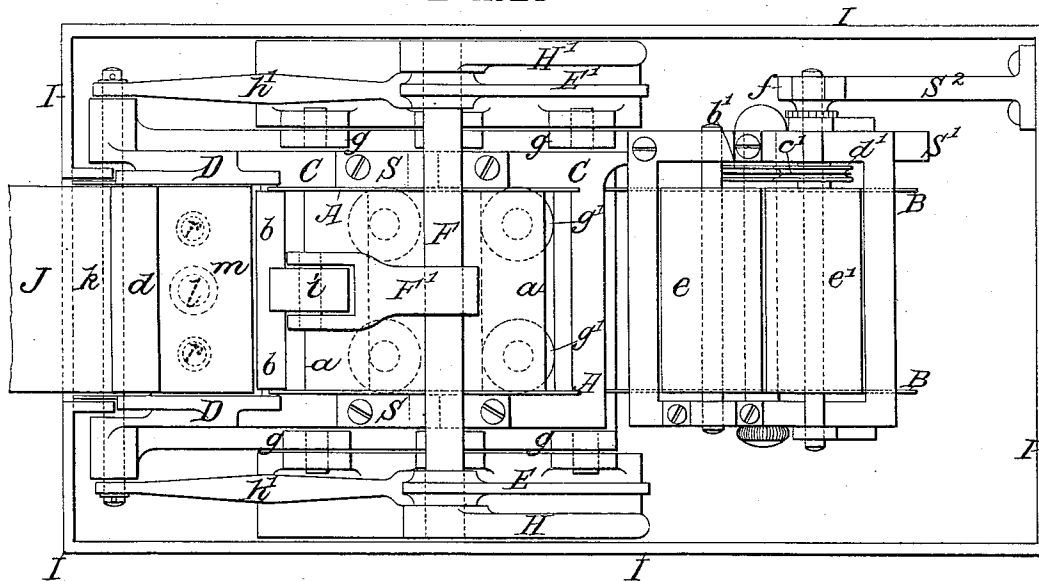


FIG. 3.



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(No Model.)

2 Sheets—Sheet 2.

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FIG. 2. Patented Sept. 24, 1895.

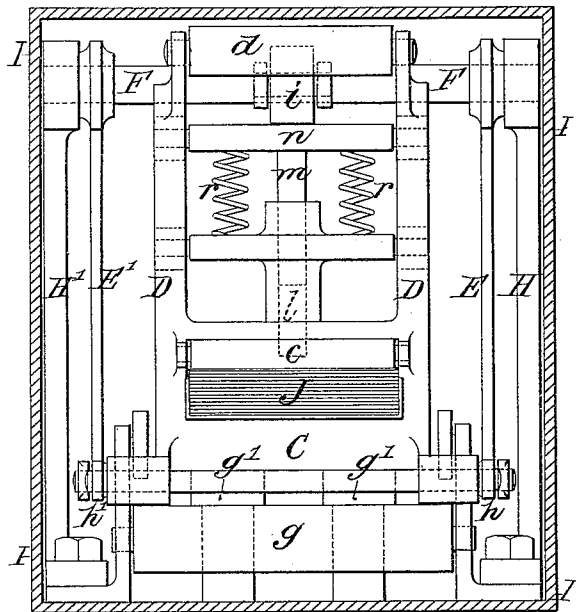
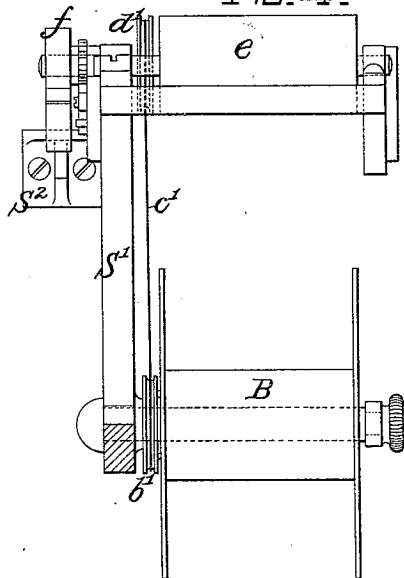


FIG. 4.



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UNITED STATES PATENT OFFICE.

JULES FRYDMANE, OF PARIS, FRANCE.

APPARATUS FOR AUTOMATIC REGISTERING OF DISBURSEMENTS AND RECEIPTS.

SPECIFICATION forming part of Letters Patent No. 546,880, dated September 24, 1895.

Application filed April 5, 1895. Serial No. 544,617. (No model.)

To all whom it may concern:

Be it known that I, JULES FRYDMANE, merchant, a citizen of the Republic of France, residing at Paris, France, have invented certain new and useful Improvements in Apparatus for the Automatic Registering of Disbursements and Receipts, of which the following is a specification.

My invention relates to improvements in apparatus for the automatic registering of disbursements and receipts in such a manner that a copy or fac-simile is reproduced on cloth or paper of the particulars of every transaction—*i. e.*, an exact impression is given of the handwriting, figures, drawing, text, and other similar details of accounts.

My invention provides an absolute security against fraud and misappropriation in cash transactions not hitherto afforded by existing checking devices. It permits the withdrawal of a permanent duplicate of the disbursement-note or the sale-ticket without trouble or delay and at no appreciable cost, and also obviates the necessity of manifolding the vouchers in the salesman's book.

I attain these objects by the mechanism illustrated on the accompanying drawings, upon which—

Figure 1 is a longitudinal vertical section of a registering apparatus constructed according to my invention, Fig. 2 being an end view of the same. Fig. 3 is a plan view of the apparatus, the box or cover being removed; and Fig. 4 is a cross-section on line 1 2 of Fig. 1. Similar letters refer to similar parts throughout the several views.

The apparatus consists of an unwinding-bobbin A and a reeling-bobbin B, both removably mounted on a carriage C, having a limited movement horizontally to and fro within a box or casing I, as shown on Fig. 1. The unwinding-bobbin A is made hollow and of porous material to contain water for the purpose of dampening a band *a*, of muslin, tissue-paper, or other suitable material, wound upon it and carried on separately-arranged rollers *b*, *c*, *d*, and *e* to the winding-bobbin B after receiving impressions of sale or disbursement tickets, as hereinafter described. The unwinding-bobbin A is arranged to turn freely between supports S, while the rotation of the reeling-bobbin B is controlled by an endless band *c'*, passing

around a pulley *b'*, secured upon one end of the axle of the bobbin B, and around another pulley *d'*, secured on the axis of a roller *e'*, situated opposite the roller *e*, between which rollers *e e'* the band *a* is drawn before reaching the bobbin B. The rollers *e e'* are mounted on the upper part of a support *S'*, secured upon the carriage C. (See Figs. 1 and 4.) To regulate precisely the rotation of the roller *e'* (and consequently the passage of the band *a* between the rollers) I provide it with an ordinary pawl-and-ratchet device and a toothed wheel *f*, controlled by a spring-catch *f'*, carried by a suitable support *S''*, secured upon the casing I. For guiding and facilitating the to-and-fro movement of the carriage C, supporting-rollers *g* and lateral rollers *g'* are conveniently arranged, as shown on Figs. 1 and 3. Upon the carriage C and in front of the bobbin A is mounted the impression-producing device, consisting of a vertical frame D, having uprights between which a cylinder *l* and piston *m* are arranged to slide. Between the head of the cylinder *l* and cam *n* on piston *m* are interposed coil-springs *r r* for the purpose of compensating for the varying thickness of the block J, introduced into the press, as described hereinafter. (See Fig. 2.) The upper part of the piston *m* is of the form of a cam *n*, on which a roller *i*, carried by a movable lever *F'*, is caused to press at certain times, so as to produce an impression from the block J on the muslin band *a*, passing between the rollers *b* and *c*, below the cylinder *l*. The said rollers *b* and *c*, as well as *d*, are supported on the vertical frame D. For operating the carriage C the latter is connected by side rods *h h'* to curved levers *E E'*, jointed on a common axis *F*, supported by fixed standards *H H'* and carrying on their central portion an arm *F'*, in which is mounted a roller *i*, already referred to above.

The entire mechanism above described is inclosed in a suitable box or casing I, the upper part whereof is hinged at *j* to the lower part. At the front this casing is provided with a door *k*, through which the end of the disbursement-block J is introduced. This door is formed of a rectangular metallic tube, the upper part of which is held lightly between the muslin band *a* and the block J.

In operation the muslin band *a*, of suitable

length, having been soaked in water, is wound upon the hollow bobbin A and by reason of its capillary property it will withdraw moisture from the porous cylinder sufficient to maintain its dampness for at least a fortnight. The salesman writes with a copying-ink pencil upon the block of tickets fastened to a backing of metal, wood, or pasteboard, and consecutively numbered or otherwise marked, if desired, with copying-ink to facilitate identification. Before the filled-up ticket is detached from the block J it is inserted through the door *k* with a light pressure, under the action of which the carriage C is caused to move forward on its rollers *g*. When the carriage has nearly completed its forward travel, the roller *i* upon arm F', operated by levers E E', descends upon cam *n*, attached to plunger *m* of the press, which at this moment is directly below it. Under these conditions the band *a* is depressed upon the block J and receives an impression of the ticket. By the reaction of the spiral springs *r r* upon cam *n* of plunger *m*, the latter is raised, together with roller *i* and arm F', secured upon axle F, which in turn operates levers E E' and causes carriage C to resume its original position. Toward the end of this return movement the pawl *f'* operates the toothed wheel *f*, causing the band *a* to be drawn through rollers *e e'* for a length equal to that printed upon, a corresponding length being thereupon wound on the bobbin B, and allowing space for another portion of band to pass through the registering apparatus and receive the next impression in like manner.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In an automatic registering apparatus, the combination of a carriage adapted to be moved by the insertion of a block into the apparatus, a press mounted upon the carriage and a band of copying material, with means actuated by the movement of the carriage to exert pressure on the press, substantially as set forth.

2. In an automatic registering apparatus,

the combination of a carriage adapted to be moved by the insertion of a block into the apparatus, a press mounted upon the carriage, and a band of copying material, with means actuated by the movement of the carriage to exert pressure on the press and means also actuated by the movement of the carriage to move the copying material, all substantially as set forth.

3. In an automatic registering apparatus, the combination of a movable carriage, a press mounted thereon, a band of copying material, and an axis mounted in fixed standards and provided with an arm carrying a roller, with lever arms connecting the said axis with the carriage, whereby when the carriage is moved the axis is turned and the said roller exerts pressure on the press, substantially as set forth.

4. In an automatic registering apparatus, the combination of a press, and a band of copying material, with a movable carriage provided with a bobbin carrying the said material, a reeling bobbin upon which it is to be wound up, pulleys between which the band passes, pawl and ratchet mechanism actuated by the movement of the carriage to rotate one of the pulleys and an endless band and pulleys to transmit motion from the said rotating pulley to the reeling bobbin, substantially as set forth.

5. In an automatic registering apparatus, the combination of a movable carriage and a band of copying material, with a cylinder provided with a piston *m*, means for exerting pressure on the piston *m* by the movement of the carriage to press the cylinder against the copying material, and compensating springs *r r* interposed between the cylinder and piston, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JULES FRYDMANE.

Witnesses:

LÉON CRANCKENS,
CLYDE SHROPSHIRE.