

G. L. MATHER.
RECEIPTING DEVICE.
APPLICATION FILED MAY 23, 1914.

1,127,792.

Patented Feb. 9, 1915.

2 SHEETS—SHEET 1.

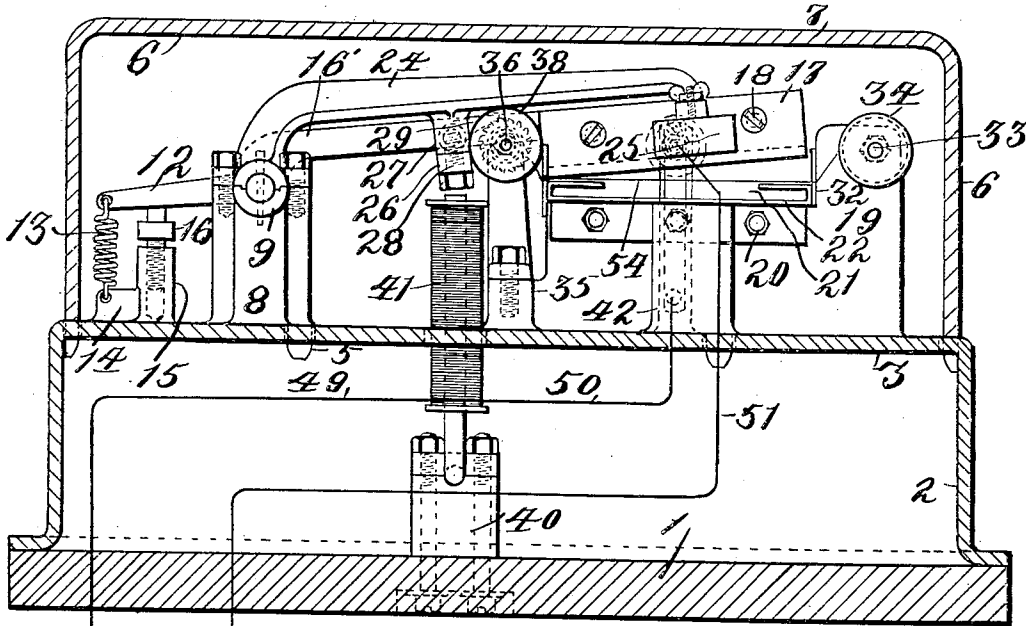


Fig 1

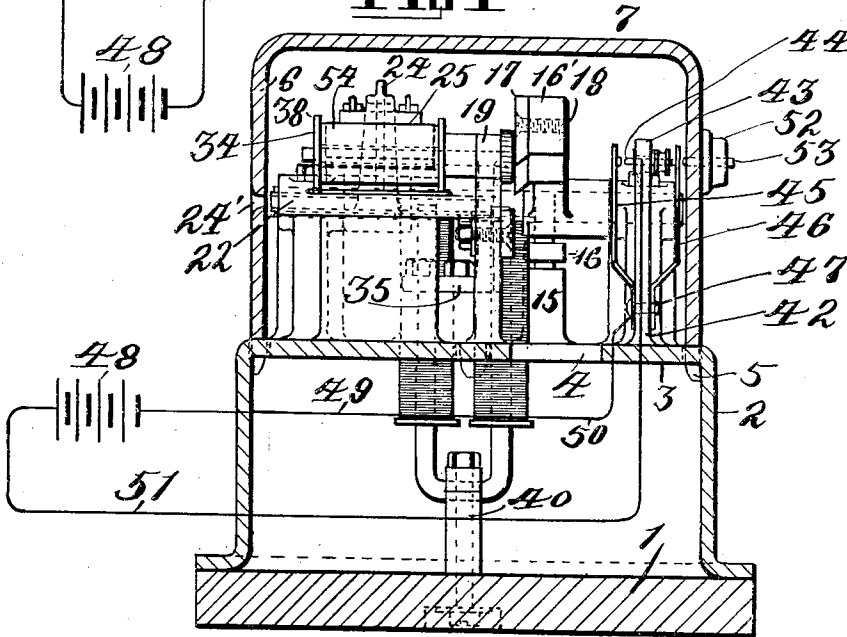


Fig 2

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2 SHEETS-SHEET 2.

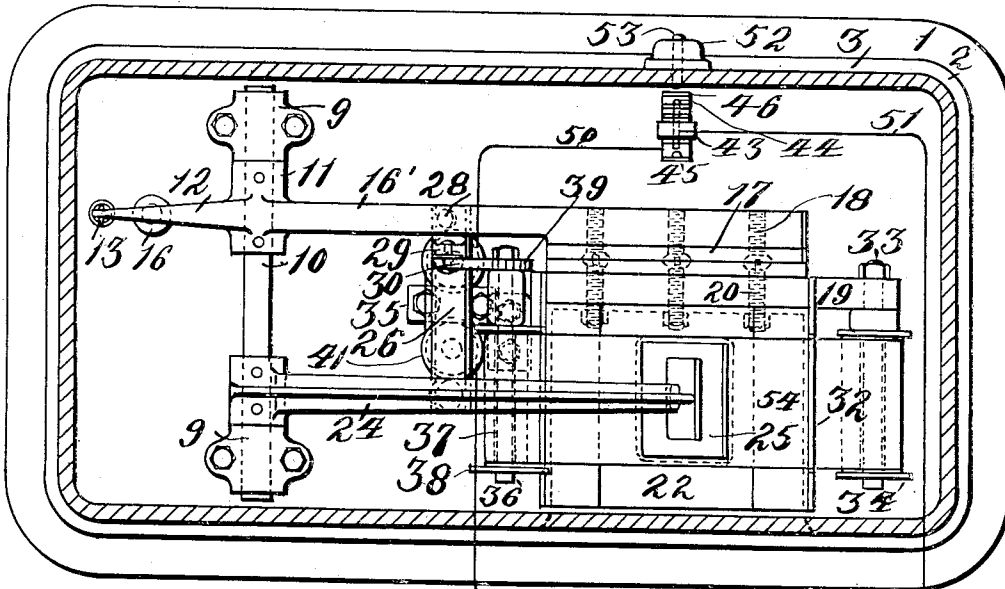


Fig 3

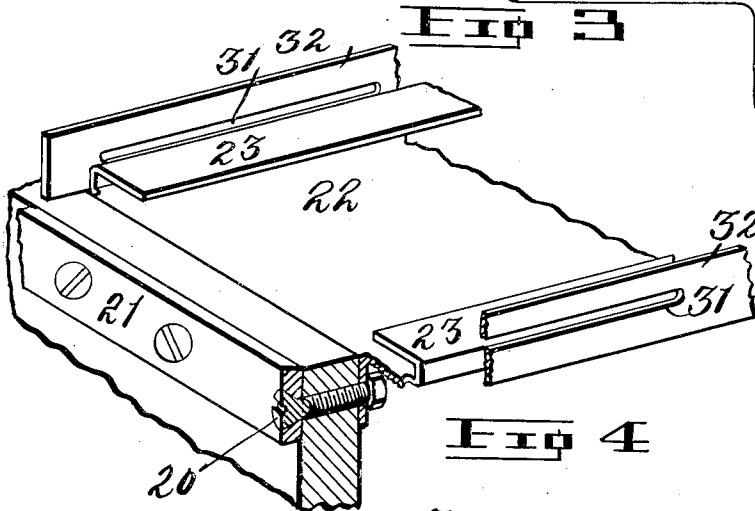


Fig 4

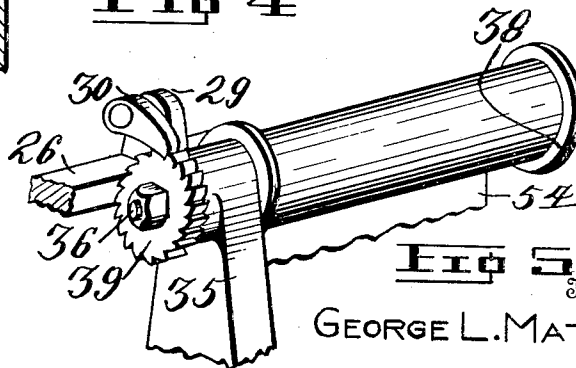


Fig 5

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UNITED STATES PATENT OFFICE.

GEORGE L. MATHER, OF AKRON, OHIO.

RECEIPTING DEVICE.

1,127,792.

Specification of Letters Patent.

Patented Feb. 9, 1915.

Application filed May 23, 1914. Serial No. 840,574.

To all whom it may concern:

Be it known that I, GEORGE L. MATHER, a citizen of the United States, residing at Akron, in the county of Summit and State of Ohio, have invented new and useful Improvements in Receipting Devices, of which the following is a specification.

This invention relates to automatic devices for printing and clipping a portion from a card and adapted to be operated by the insertion of the card in the device.

Briefly, where postal cards are used as a medium for sending out statements of account, such for instance, as meter readings for gas, water and electric light companies, the cards are returned by the consumers to the office and are receipted by a stamp, and a slip at one end thereof is cut away for the purpose of indicating to the company by whom the bill is paid, and the amount and name of the consumer and the date of payment, and at the same time the receipted portion is retained by the payer, thereby giving the customer a receipt showing that the bill has been paid.

The receipting and clipping of the strip from the postal card has been done usually by hand and hence, the object of this invention is to provide a device which will automatically receipt the main portion of the card and clip the indicia-bearing strip therefrom, the operation taking place simultaneously with the insertion of the card in the device.

With the foregoing and other objects in view, the invention consists in the novel constructions, combination and arrangement of parts constituting the invention to be hereinafter specifically described and illustrated in the accompanying drawings which form a part hereof wherein is shown the preferred embodiment of the invention, but it is to be understood that changes, variations and modifications can be resorted to which come within the scope of the matter herein-after claimed.

In the drawings in which similar reference numerals indicate like parts in the different figures, Figure 1, is a longitudinal, sectional view of a device embodying this

invention; Fig. 2, is a transverse sectional view of the same; Fig. 3, is a horizontal sectional view of the device; and, Figs. 4 and 5, are details of certain portions of the mechanism employed.

Referring to the drawings in detail, the reference numeral 1 denotes a base plate on which is mounted a hollow casing 2 provided with an upper wall 3 in which is an opening 4 (see Fig. 2). The upper wall 3 is provided along the marginal portions thereof with a plurality of apertures to receive downwardly-extending lugs 5 positioned on the lower edges of a hollow cover 6 superposed on the casing 2. The lugs 5 project through the apertures in the wall 3 and constitute means for holding the cover 6 in position so as to permit its removal and ready and accurate replacement when desired. The cover 6 is provided with an upper wall 7. Mounted on the upper wall 3 of the lower casing 2 are a pair of standards 8 provided at their upper ends with bearings 9 the axes of which are in alinement with each other. Mounted in these bearings 9 is a transversely-extending horizontal shaft 10. Fixedly mounted on the shaft 10 is a sleeve 11 from which projects an arm 12, to the free end of which is attached a coiled spring 13 anchored to a lug 14 on the upper wall 3. Adjacent to the lug 14 is an upwardly-extending interiorly-threaded boss 15 in which is mounted a threaded element 16 the upper end of which is arranged to engage the under face of the arm 12 and constitute a stop or abutment for limiting the movement of the arm 12 and as the position of the threaded element 16 is adjusted the stroke or downward movement of the arm 12 is thereby controlled. Also secured to the sleeve 11 is a knife-carrying arm 16' the free end of which bears along one of the lateral faces thereof a shearing knife 17 secured thereto through the medium of screws 18.

Mounted on the upper wall 3 of the lower casing is a longitudinally-extending supporting frame 19 positioned adjacent to the opening 4. Secured to the face of the frame 19 by hold-fast devices 20 is a complemen-

tary shearing knife 21 so positioned as to coact with the movable knife 17 carried by the arm 16. Secured to the frame 19 through the medium of hold-fast devices 5 20 is a card-guide 22, having upturned sides 23, and extending horizontally and transversely from the standard 19 to near the left side wall of the cover 6. The wall of the cover is provided with a slot 24' in 10 transverse alinement with the guide 22. The slot 24 is provided for the insertion of the cards to be receipted and clipped and the knives 17 and 21 are so positioned as to sever a strip from the inner end of the 15 cards.

Mounted on the shaft 10 is a stamp-carrying arm 24 the opposite end of which is provided with indicia-bearing stamp 25 adapted to be positioned approximately centrally over the guide 22 and between the 20 inturned sides 23 thereof. Any preferred indicia may be placed on the under face of this stamp 25 such, for instance, as a receipt and the date, together with any approved signature. Extending between the 25 arms 16 and 24 is an armature 26 secured to lugs 27 on the arms through the medium of cap-bolts 28. Mounted on the upper face of the armature 26 is a lug 29 to which is 30 pivotally connected a pawl 30 for a purpose to be later described. Secured to the sides of the guide 22 are a pair of plates 32 provided with slots 31 constituting guides for a purpose to be described. Mounted on a 35 stud 33 on the frame 19 is a ribbon-spool 34 and mounted on a standard 35 on the opposite side of the guide 22 is a stud 36. Revolvably mounted on the stud 36 is a rotatable sleeve 37 which bears a flanged spool 38 40 fixedly mounted thereon. The sleeve 37 extends through the standard 35 and is provided on the opposite end with a ratchet wheel 39 adapted to be engaged by the pawl 45 30. The arms 16 and 24 are adapted to rock vertically in unison, carrying with them the armature 26 and pawl 30. As the pawl 30 is vertically reciprocated it engages the teeth of the ratchet 39 and revolves the 50 spool 38 by a step-by-step movement. An inked ribbon 54 leads from the spool 34 through the slots 31 in the guides 32 over the upper face of the guide 22 and from thence to the spool 38 on which it is wound 55 up. The portion of the ribbon where it extends between the slots 31 is immediately under the lower face of the stamp 25 and over the median portion of the body of a card inserted in the guide 22, so that as the 60 stamp 25 is moved downwardly to its lower position it presses the inked ribbon against the upper face of the card for the printing operation. In order to induce movement of 65 is provided: Mounted on a suitable support

40 on the base plate 1 is a magnet 41 projecting through the wall 3 and positioned immediately below the armature 26 so that when the magnet is energized the two arms 16 and 24 which carry the armature are 70 moved downwardly to their lower position, causing the movable knife 17 to cooperate with the fixed knife 21 for the clipping operation and the stamp 25 to perform its function of printing on the face of a card 75 on the upper face of the guide 22.

In order to make the device approximately automatic at all times there is placed on the upper wall 3 of the lower casing 2 in transverse alinement with the center of the 80 guide 22, a post 42 of insulating material provided at its upper end with a head 43 in which is mounted a transversely-extending contact pin 44. Secured to opposite sides of the post 42 are a pair of spring contact fingers 45 and 46 electrically connected together and held in position by means of a 85 hold-fast device 47. In order to energize the magnet 41 a battery 48 or other source of electrical energy is provided from which extends a wire 49 to the magnet and from thence extends a wire 50 to the bolt 47, which connects with both the contact fingers 45 and 46. From the opposite pole of the 90 battery extends a wire 51 to the pin 44. Positioned about a suitable opening in the wall of the cover 6 is a rosette 52 in which is a horizontally-shiftable pin 53 in alinement with the pin 44 and positioned on the opposite side of the contact finger 46. 100

In operation, the card to be receipted and clipped is inserted in the opening 24' and pushed inwardly until its inner end touches the contact finger 45 and shifts it into electrical engagement with the pin 44 closing 105 the circuit through the magnet 41 which draws down the arms 16 and 24, causing the knives to clip the inwardly-projecting portion of the card between the knives and the contact finger 45 and simultaneously there- 110 with the stamp 25 prints the upper face of the body of the card. The body portion of the card is withdrawn and given to the purchaser or customer, as the case may be, and the severed strip falls downwardly through 115 the opening 4 into the lower casing 2.

In the event that the card presented is damp, crumpled or mutilated, so that it will not press the contact finger 45 against the pin 44, the operator presses on the pin 53, 120 forcing the contact finger 46 against the pin 44, closing the circuit and obtaining a similar operation of the mechanism. The use of the pin 53 is only in cases of emergency where the card lacks sufficient rigidity to close the circuit between the contact finger 45 and the pin 44. 125

I claim:—

1. A device of the character described comprising a hollow casing, a cup-shaped 130

cover positioned thereon and provided with a slot, a horizontal shaft mounted in suitable bearings supported on the upper wall of said casing, a pair of arms carried by said shaft, an armature carried by said arms, a magnet positioned below said arms adapted when energized to draw said armature and arms downwardly, means to move said arms to their upper position when said magnet is deenergized, a shearing knife carried by one of said arms, a fixed shearing knife supported on the upper wall of said casing and cooperating with said first knife, a card guide extending from near said fixed knife to a point near the slot in the wall of said cover, a stamp positioned over said guide and secured to one of said arms, a circuit closer positioned on the upper wall of said casing and in alinement with said card guide and adapted to be operated by a card passed through said card guide for closing an electrical circuit to simultaneously shear a projecting portion of the card and print indicia on the unsevered portion thereof.

2. A device of the character described comprising a hollow casing provided with a slot, a pair of arms mounted for vertical oscillation, one of said arms provided with a printing type, the other provided with a shearing knife, a fixed shearing knife cooperating with the knife on said arm, a card guide extending from the slot in the casing of the knives, a magnet, an armature carried by said arms within the fields of said magnet, a circuit closer positioned in alinement with said guide on the opposite side of the shearing knives in electrical communication with said magnet and a source of energy and adapted to be operated by the end of a card passed through said guide to thereby simultaneously operate said arms for shearing a strip from said card and printing the unsevered portion thereof.

3. A device of the character described comprising a casing provided with a slot, a pair of arms mounted for vertical oscillation therein, means to move the arms to their upper position, a magnet, an armature on said arms within the field of said magnet, a shearing knife on one of said arms, a printing stamp on the other arm, a fixed shearing knife cooperating with the movable knife, a card guide extending from said knives to the slot in said casing, a circuit closer in the path of a card inserted through said slot and over said guide and operated thereby to close an electrical circuit through said magnet for drawing said arms downwardly for simultaneously printing the unsevered portion thereof.

4. A device of the character described comprising a casing provided with a slot, a pair of arms mounted for vertical oscillation in said casing, a magnet adapted when

energized to move said arms downwardly, means to move said arms upwardly when said magnet is deenergized, a knife carried by one of said arms, a fixed knife carried in said casing and cooperating with said movable knife, a card guide extending from the slot in said casing to said knives, a printing stamp on one arm positioned above said guide, a ribbon-spool positioned on each side of said card guide, an inked ribbon extending from one spool to the other over the upper face of said guide, means operated by said arms for imparting a step-by-step movement to said inked ribbon, a circuit closer positioned in the path of a card inserted through said slot and operated thereby to close an electrical circuit through said magnet for operating the arms simultaneously for severing a strip from said card and simultaneously printing the unsevered portion thereof.

5. A device of the character described comprising a casing provided with a slot, a pair of arms mounted for vertical oscillation in said casing, a magnet adapted when energized to move said arms downwardly, means to move said arms upwardly when said magnet is deenergized, a knife carried by one of said arms, a fixed knife carried in said casing and cooperating with said movable knife, a card guide extending from the slot in said casing to said knives, a printing stamp on one arm positioned above said guide, a ribbon spool positioned on each side of said card guide, an inked ribbon extending from one spool to the other over the upper face of said guide, means operated by said arms for imparting a step-by-step movement to said inked ribbon, a circuit closer positioned in the path of a card inserted through said slot and operated thereby to close an electric circuit through said magnet for operating the arms simultaneously for severing a strip from said card and simultaneously printing the unsevered portion thereof, and a manually-operable circuit closer adapted to close the circuit through said magnet irrespective of the insertion of a card.

6. A device of the character described comprising an oscillating shearing blade, a printing stamp movable in unison therewith, a fixed blade cooperating with said movable blade, a card guide, an electric circuit, an electromagnet in said circuit adapted when energized to oscillate said movable blade and stamp, and a breaker in said electric circuit positioned to be engaged by a card in said guide and to be closed thereby.

7. A device of the character described comprising a shearing blade and a printing stamp mounted to oscillate in unison, an electric circuit, an electromagnet in said circuit positioned when energized to oscillate

late said blade and stamp, a fixed blade co-
operating with said movable blade, and two
circuit breakers in said circuit, one adapted
to be closed by an object in position to be
5 engaged by said blades and said stamp, and
the other arranged to be manually operated.

In testimony whereof I have hereunto set

my hand in presence of two subscribing wit-
nesses.

GEORGE L. MATHER.

Witnesses:

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A. L. MCCLINTOCK.