Dec. 28, 1926. 1,611,867

J. W. SHAW

COIN REGISTRY BANK

Original Filed August 3. 1923 3 Sheets-Sheet 1

Fig. 1.

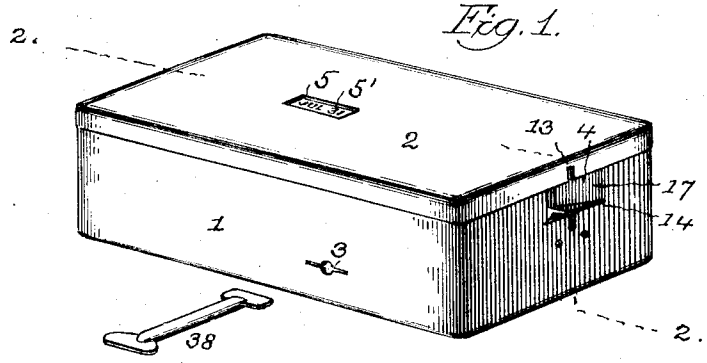


Fig. 2.

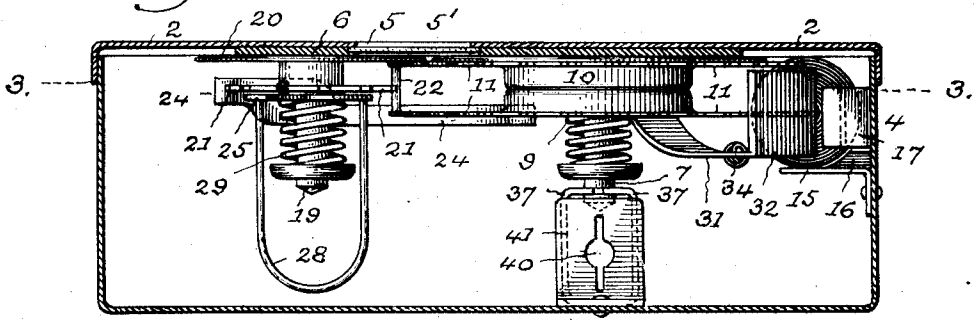
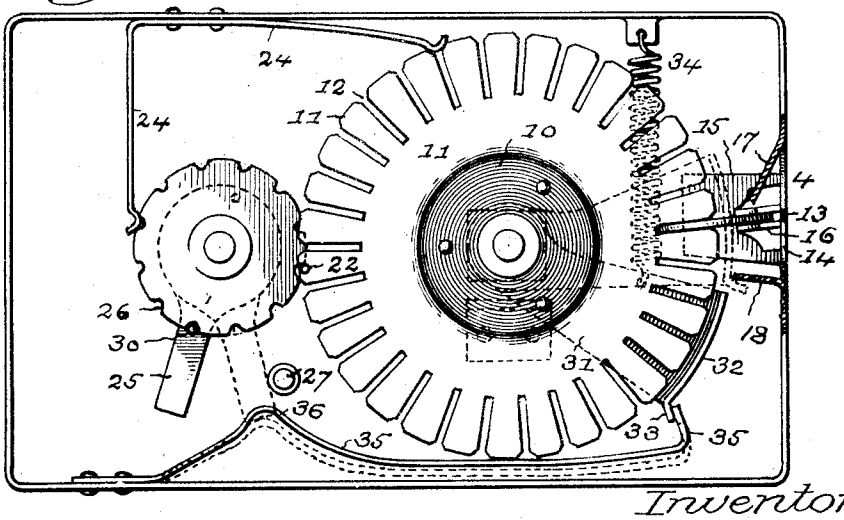


Fig. 3.



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Original Filed August 3. 1923 3 Sheets-Sheet 2

Fig. 4.

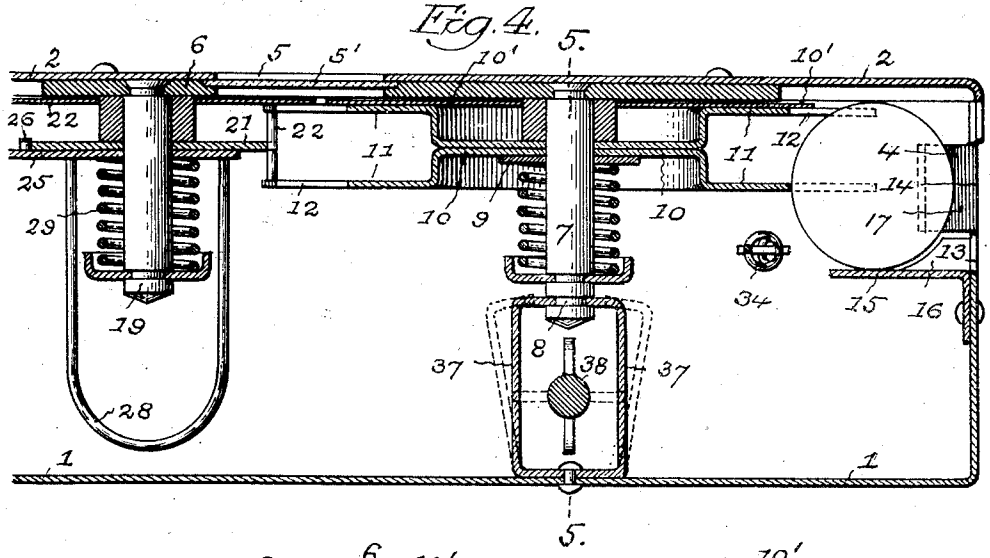
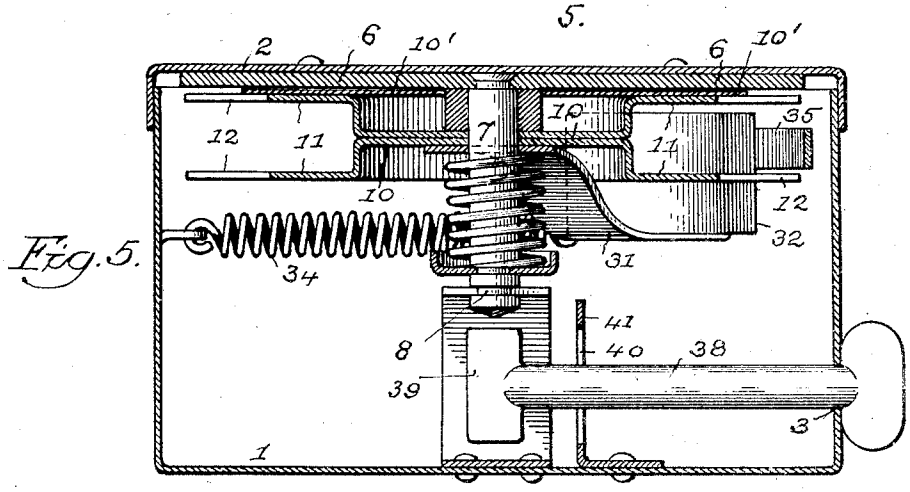


Fig. 5.



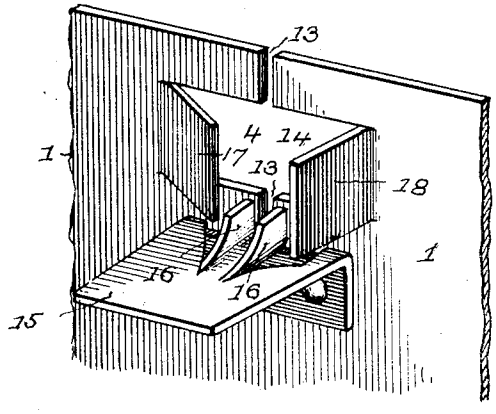


Fig. 6.

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Original Filed August 3, 1923 3 Sheets-Sheet 3

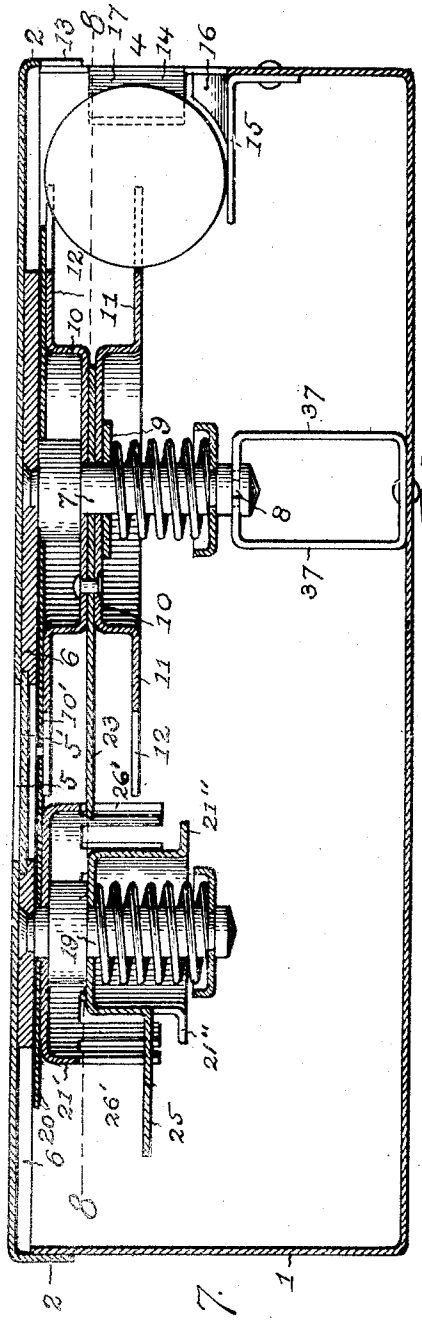


Fig. 7.

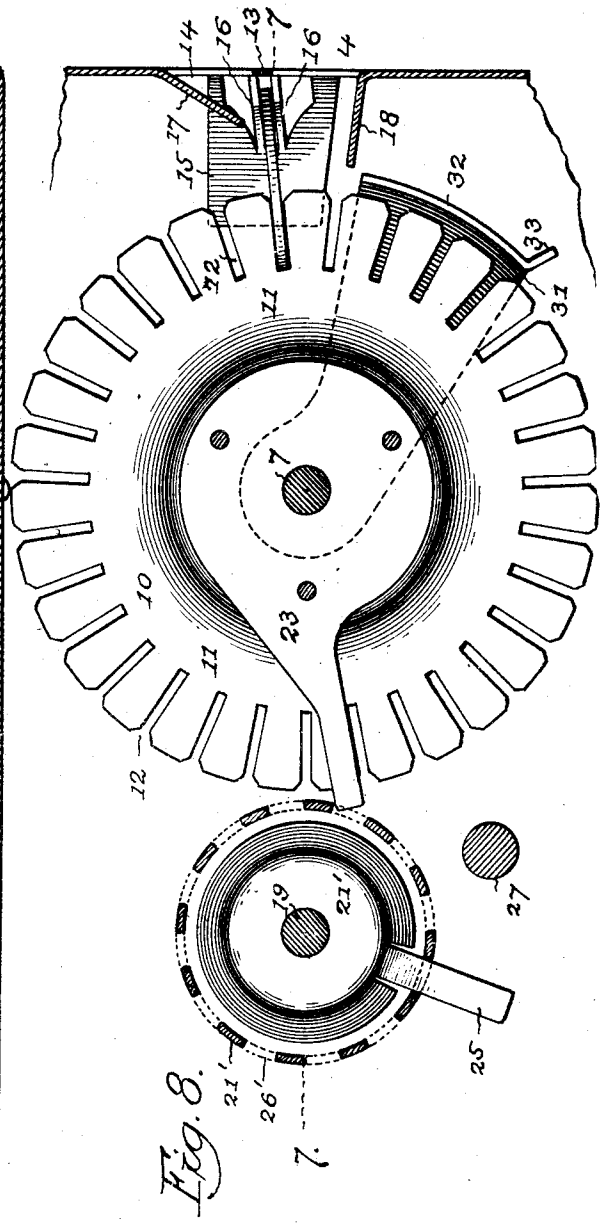


Fig. 8.

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Patented Dec. 28, 1926. 1,611,867

UNITED STATES PATENT OFFICE.

JAMES W. SHAW, OF CHICAGO, ILLINOIS.

COIN-REGISTRY BANK.

Application filed August 3, 1923, Serial No. 655,442. Renewed March 31, 1926.

This invention relates to that class of portable savings banks in which a periodical coin deposit is made at stated intervals, with a visible indication of the amount deposited and of a failure to make the required periodical deposit, and the present improvement has for its object:

To provide in connection with the registry mechanism of a bank, a coacting adjustable stop mechanism adapted for adjustment to a desired period in the cycle of deposits and at the termination of such period prevent any further deposits.

In the accompanying drawings:—

Fig. 1, is a perspective of a bank embodying the present improvement.

Fig. 2, is a vertical longitudinal section on line 2—2, Fig. 1.

Fig. 3, is a horizontal sectional view on line 3—3, Fig. 3.

Fig. 4, is an enlarged detail central sectional elevation of the registry mechanism and accessories.

Fig. 5, is a detail transverse section on line 5—5, Fig. 4.

Fig. 6, is a detail perspective view illustrating the coin inlet opening or passage and accessories thereto.

Fig. 7, is a longitudinal sectional elevation on line 7—7, Fig. 8, of a modification of the registry mechanism.

Fig. 8, is a horizontal section of the same, on line 8—8, Fig. 7.

Like reference numerals indicate like parts in the different views.

The present improvement is intended in the main to meet a requirement on the part of bankers who distribute portable savings deposit banks to a multiplicity of small depositors and desire a return of the same at quarterly or other periods from which interest is computed. To such and other ends hereinafter set forth the parts and mechanisms of the structure has a formation and arrangement as follows:

The enclosing housing of the mechanisms may be of any ordinary shape, preferably the rectangular form shown in Fig. 1, and consisting of a main shell 1, open at one end, and with such open end fitting a flanged cover member 2, with the parts secured together by a locking mechanism hereinafter described, and with the registry mechanism of the bank mounted on the cover member 2, so that by a removal of the main shell 1, the mechanism will be fully exposed for adjustment, repair and replacement of parts.

The main shell 1 is formed with a keyhole 3 for access to the locking mechanism and with an entry orifice 4 for the coin to be deposited, while the cover member 2 is formed with a glazed orifice 5 through which the indicator numerals of the registry mechanism are seen as they are successively brought into register with said orifice.

In the construction shown, the registry mechanism, is mounted on a base plate 6 fixedly attached to the inner face of the cover member 2, and is formed with a view orifice registering with the view orifice 5 aforesaid, and with the glazing sheet 5′ of transparent material interposed between the two parts as shown in Figs. 2, 4 and 7.

The primary disk or wheel of the registry mechanism is revolubly mounted on an arbor 7 fixed on the aforesaid base plate 6 and extending into the interior of the enclosing housing with its free end formed with a peripheral recess 8 for engagement with the locking mechanism hereinafter described. A spring impelled friction disk 9 is associated with said arbor for frictional bearing against a side of the primary wheel to retard or prevent too free a rotation thereof.

In the present construction the aforesaid primary wheel is formed by a pair of counterpart circular disks or sections 10, the marginal portions 11 are offset one from the other as shown and formed with a series of radial receiving slots 12 for the coins to be deposited. Usually the number of said slots will be thirty one, with a view to cover a month's deposit with a complete revolution of the primary wheel, and with a view to the visible indication of the daily deposits one of the disks 10 will carry a circular series of numerals, 1 to 31 inclusive, preferably on an attached disk 10′ and adapted to serially move into view through the view orifice 5 of the bank housing.

The coin inlet orifice 4 heretofore referred to is arranged adjacent to the margin of the primary wheel just described and comprises a narrow slot 13 in parallel relation to the pivot arbor of said wheel, and a finger movement opening 14 midway of the slot 13 and in right angle relation thereto, as shown in Figs. 1, 3 and 6.

A coin supporting shelf 15 is arranged adjacent to lower end of the entry slot 13 aforesaid, and between the same and the primary register wheel as shown in Figs. 2, 3 and 4,

and in the preferred construction shown, said shelf is provided with a pair of upstanding flanges 16 of a triangular form disposed at the respective sides of the slot 13 adjacent to the lower end of the same so as to form a guide for a coin in its introduction into an aligned radial coin receiving slot 12, of the primary registry wheel aforesaid.

Inturned flanges 17 and 18 are formed at the respective ends of the finger movement opening 14 aforesaid, to form in one case a guide for the point of the operator's finger, and in the other case a stop for limiting the movement of the coin deposited and the amount of turning movement which may be imparted to primary registry wheel at each operation of the mechanism. In the described arrangement, the end of the shelf 15 adjacent to the stop flange 18 is spaced therefrom to provide an intervening gap through which the coin can drop into the interior of the housing when relieved of the pressure of the operator's finger in effecting a required registry.

A secondary indicator disk or wheel of the registry mechanism is revolubly mounted on an arbor 19 fixed on the base plate 6 aforesaid and it preferably comprises a dial disk 20 carrying monthly symbols adapted to be serially disclosed through the view orifice 5 of the bank housing, and a gear wheel 21 fixedly connected to the dial disk and having gear teeth equal in number to the number of symbols on said dial and adapted for intermittent engagement with an operation by the aforesaid primary registry at each complete revolution thereof, through a single detent or tooth 22, on said primary wheel. In the construction shown in Figs. 2, 3 and 4, the detent 22, is formed by a pin extending across the gap between the marginal flanges 11 of the primary disk and secured therein intermediate of adjacent radial slots 12, as shown. In the modified construction shown in Figs. 7 and 8 the detent 22 is formed by an arm of a plate member 23 fixedly arranged between the central portions of the pair of disks 10 constituting the primary registry wheel.

Operatively associated with the primary and secondary registry wheels, a resilient plate member 24 is fixedly secured at its midlength to the base plate 6, with its end portions formed for resilient engagement with the peripheral slots 12 of the primary wheel and the spaces of the gear wheel 21 of the secondary wheel to properly position said wheels after each movement.

A material part of the present improvement in connection with a registry bank mechanism substantially as above described, involves a stop mechanism as follows:

A movable arm 25 is pivotally and slidingly mounted on the carrying arbor 19 of the secondary registry wheel so as to be capable of circular adjustment with relation to said wheel, and is formed for engagement with one or the other of a circular series of holding slots or recesses 26 in said wheel, the slots 26 being equal in number to the monthly symbols of the wheel. The arrangement is such that the arm 25 can be drawn out of engagement with a particular slot 26 and moved around and engaged with any other slot 26 next adjacent to the month symbol of the registry wheel at which a stoppage of the registry mechanism is required to prevent a further coin deposit. Such stoppage being effected by contact of the arm 25 with a stop pin 27 or the like, fixed on the base plate 6 in the path of the arm.

In the preferred construction shown in Figs. 2, 3 and 4, the manual movement of the arm 25 is conveniently attained by a wire bail 28 fixed to the hub portion of the arm, and extending beyond a coiled spring 29, by which the arm is yieldingly held to engagement with the secondary registry wheel. The arm 25 carries a pin or stud 30 adapted to engage in one or the other of the circular series of recesses 26 which intervene between the teeth of the gear wheel 21, with said gear wheel having the usual plate form.

In the modified arrangement shown in Figs. 7 and 8, the gear member 21′ is a cup form, with the peripheral wall or flange thereof formed with a series of lateral extending slots 26′ adapted for serial operative engagement with the free end of the plate metal arm 23 heretofore described. In this construction the hub portion 25′ of the adjustable arm 25 is of a corresponding cup form to the member 21′ and is provided with an out-turned marginal flange 21″ adapted to afford a convenient hold for the fingers of the operator in an adjustment of the parts. In this modification the adjustable arm 25 has a selective stop engagement in any one of the plurality of slots 26″ aforesaid, and in manner equivalent to that above described in connection with the preferred construction.

A material part of the present improvement in connection with the stop mechanism just described, comprises means whereby the coin entry orifice of the bank is closed against the further entry or deposit of coins when a predetermined deposit is attained, and consisting in a movable gate 31, preferably of the pivoted type shown, and preferably arranged and having operative connections as follows:

The hub portion of the gate 31 is pivotally mounted on the carrying arbor 7 of the primary registry wheel aforesaid, with its outer end having a flange 32 of a plate form adapted to move into and out of alignment with the coin entry orifice 4 of the bank housing, with said flange provided with a

stop lug 33 for abutment against the stop flange 18 of the coin opening 4 to prevent undue movement of the gate as it moves to a closure position. The gate 31 is moved to a closure position by a tension spring 34, but is normally held in an unclosed position by a spring dog 35 engaging the aforesaid stop lug 33, to hold the gate 31, against the closing stress of the spring 34. In the construction shown the spring dog 35, is formed with a hump or projection 36 arranged in the path of the adjustable arm 25, so that as said arm nears its stop pin 27 it will engage and push the spring dog 35 out of its path, to release the gate 31 and permit a closure movement of the same under the influence of the spring 34 aforesaid.

The mechanism for locking in a closed condition, the two portions of the enclosing housing of the registry mechanism, constitutes the subject matter of a divisional application, Serial No. 105,917, filed May 1st, 1926, and is of a detail construction as follows:—

An open ring 37 of resilient plate metal, and preferably of the rectangular form shown, is secured to the housing shell 1, with the opposed ends of its split portion formed for locking engagement in the peripheral recess 8 of the carrying arbor 7 of the primary registry wheel, to normally lock said shell 1 and the cover section 2 of the enclosing housing together.

The key member 38 by which the open ring 37 is spread apart to release engagement with the arbor 7 aforesaid, carries a cross-bit 39 of a flat plate form, which is introduced into the interior of the ring and by a quarter turn movement is adapted to force the resilient jaw members of the ring apart to a release position.

With a view to render such operation of the locking mechanism difficult of attainment, key holes 3 and 40 of the form of the key member 38 are formed in right-angle relation to each other in a wall of the shell 2 and in an interior plate or partition 41 in said shell, with a view to impose particular turning movements on the key member in its introduction into the operative position above described.

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

1. In a registry savings receptacle of the class described, and in which the entry of coins effects a step by step rotation of a contained train of registry gearing, the combination of a closed housing having an entry passage, a primary registry wheel associated with said passage and adapted to receive a step by step rotation by the entry of succeeding coins and by direct engagement therewith, a secondary registry wheel associated with said primary wheel and receiving reduced intermittent rotation therefrom, said secondary wheel having a circular series of stops, a stop arm adopted for adjustment and selective engagement with any one of said stops and having movement in unison with the secondary wheel, and a fixed stop arranged in the circular path of said stop arm.

2. In a registry savings receptacle of the class described, and in which the entry of coins effects a step by step rotation of a contained train of registry gearing, the combination of a closed housing having an entry passage, a primary registry wheel associated with said passage and adapted to receive a step by step rotation by the entry of succeeding coins and by direct engagement therewith, a secondary registry wheel associated with said primary wheel and receiving reduced intermittent rotation therefrom, said secondary wheel having a circular series of stops, a journal arbor for said secondary wheel, a stop arm having movement on said arbor and adapted for adjustment and selective engagement with any of said stops and having movement in unison with the secondary wheel, a spring tending to hold said arm in engagement with any one of said stops, and a fixed stop member arranged in the circular path of said stop arm.

3. In a registry savings receptacle of the class described, and in which the entry of coins effects a step by step rotation of a contained train of registry gearing, the combination of a closed housing having an entry passage, a primary registry wheel associated with said passage and adapted to receive a step by step rotation by the entry of succeeding coins and by direct engagement therewith, a secondary registry wheel associated with said primary wheel and receiving reduced intermittent rotation therefrom said secondary wheel having a circular series of stops, a stop arm adapted for adjustment and selective engagement with any one of said stops and having movement in unison with the secondary wheel, a closure gate associated with the entry passage of the housing, means for normally holding said gate in a position away from said entry passage, and operative connections between said gate and the stop arm aforesaid for effecting a closure of said gate.

4. In a registry savings receptacle of the class described and in which the entry of coins effects a step by step rotation of a contained train of registry gearing, the combination of a housing, a primary registry wheel, a secondary registry wheel operatively connected to said primary wheel and provided with a circular series of stops, a journal arbor for said secondary wheel, a stop arm having movement on said arbor and adapted for adjustment and selective engagement with said stops to move in unison with

the secondary wheel, a fixed stop member arranged in the circular path of said stop arm, a closure gate associated with the coin inlet of the bank and having pivoted mounting on the arbor of the primary wheel, a spring tending to move said gate to a closure position and a pawl adapted to hold said gate in an open position and having releasing connection with the stop arm aforesaid.

5. In a registry savings receptacle of the class described and in which the entry of coins effect a step by step rotation of a contained train of registry gearing, the combination of a housing, a primary registry wheel, a secondary registry wheel operatively connected to said primary wheel and provided with a circular series of stops, a journal arbor for said secondary wheel, a stop arm having movement on said arbor and adapted for adjustment and selective engagement with said stops to move in unison with the secondary wheel, a spring tending to hold said arms in engagement with stops of the secondary wheel, an operating bail attached to said stop arm for manual adjustment of same, and a fixed stop member arranged in the circular path of the stop arm.

Signed at Chicago, Illinois, this 31st day of July, 1923.

JAMES W. SHAW.