

(No Model.)

L. A. TOUCHET.

FARE REGISTER.

No. 278,754.

Patented June 5, 1883.

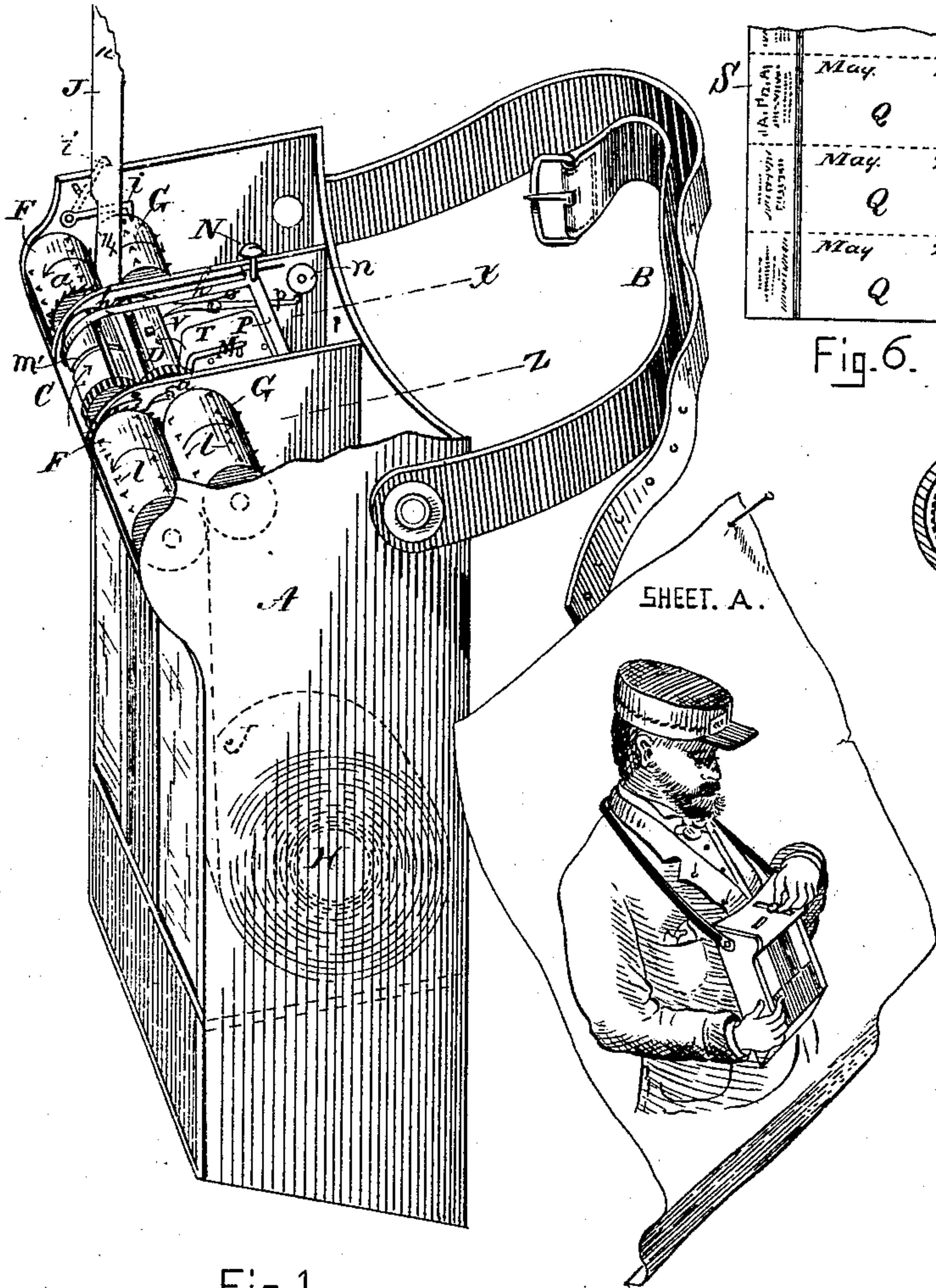


Fig. 1.

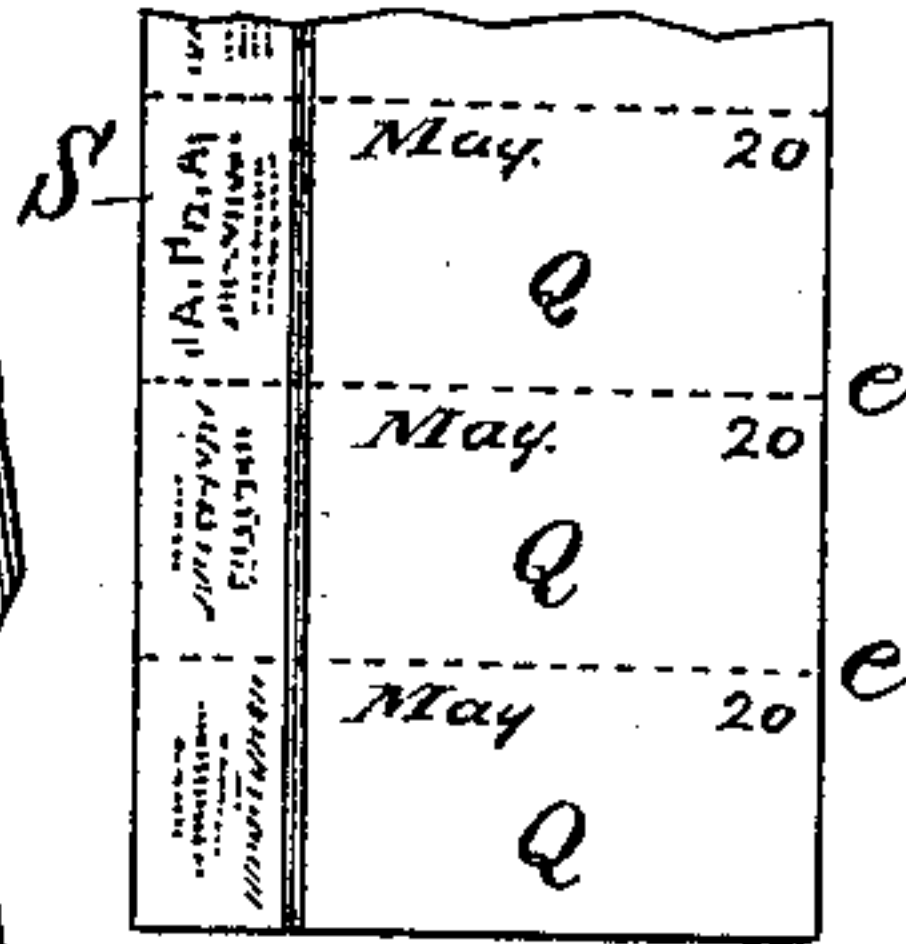


Fig. 6.

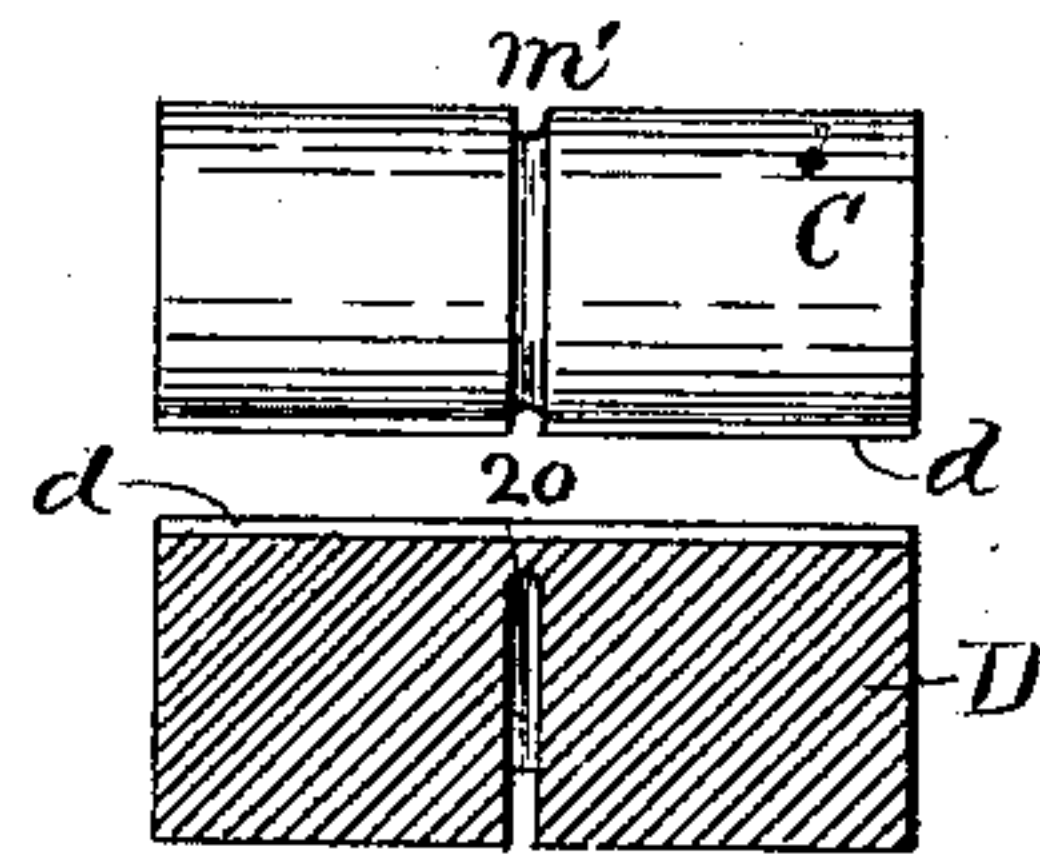


Fig. 5.

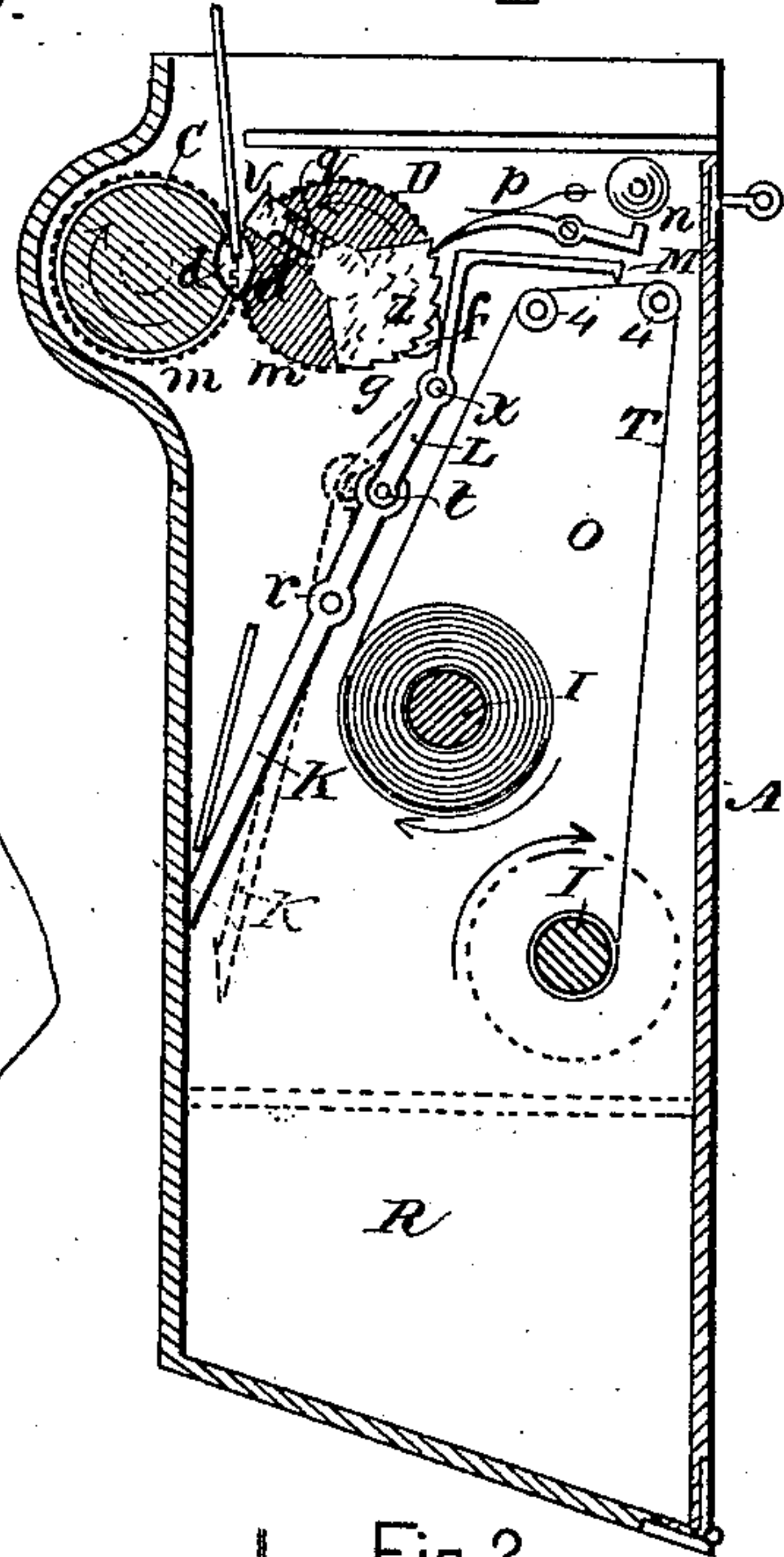


Fig. 2.

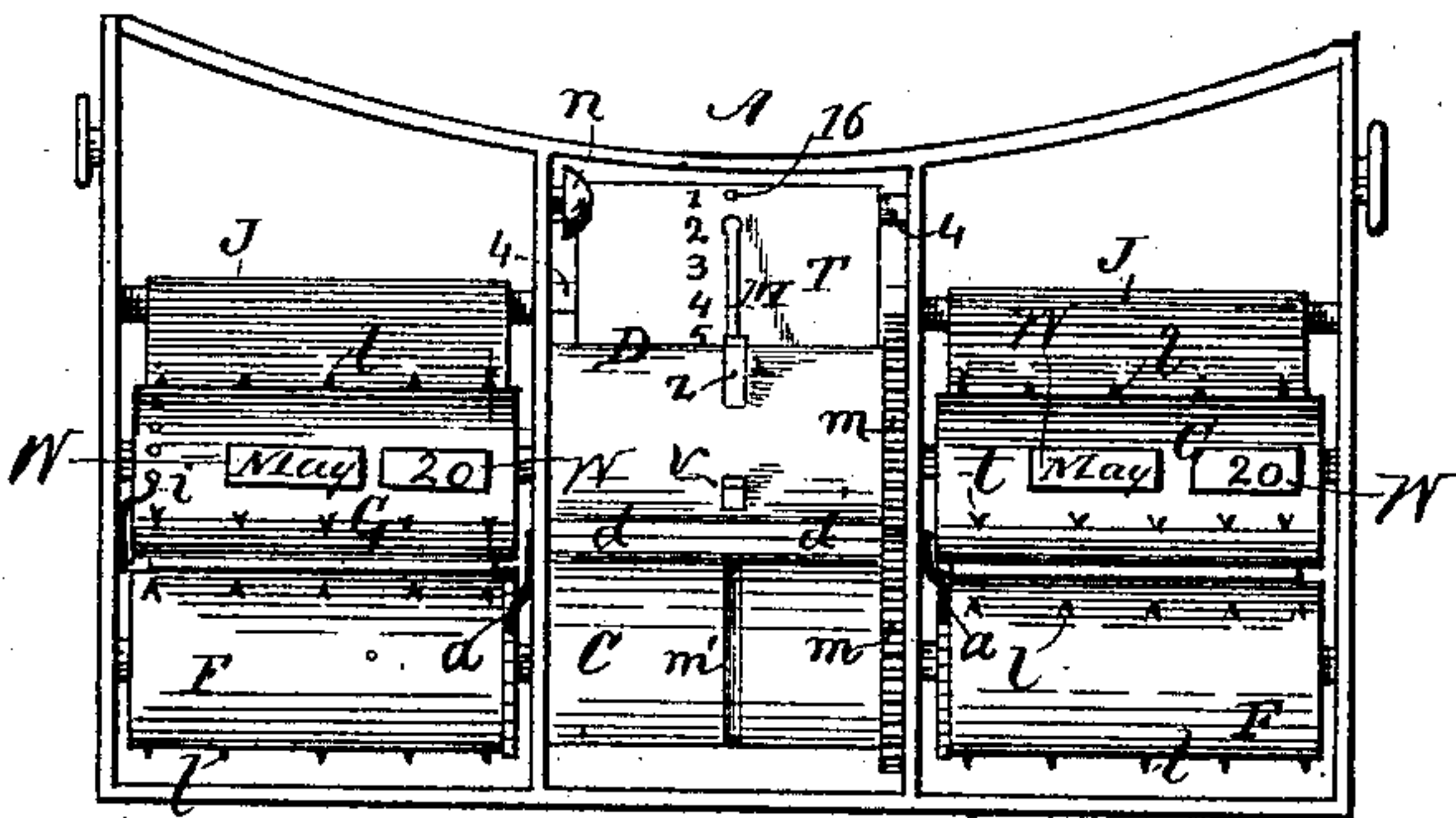


Fig. 3.

Witnesses.
Harry E. Remick.
E. C. Heath

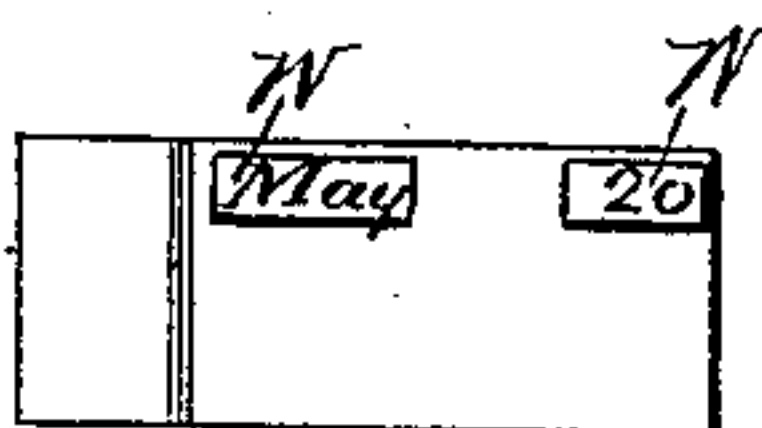


Fig. 7.

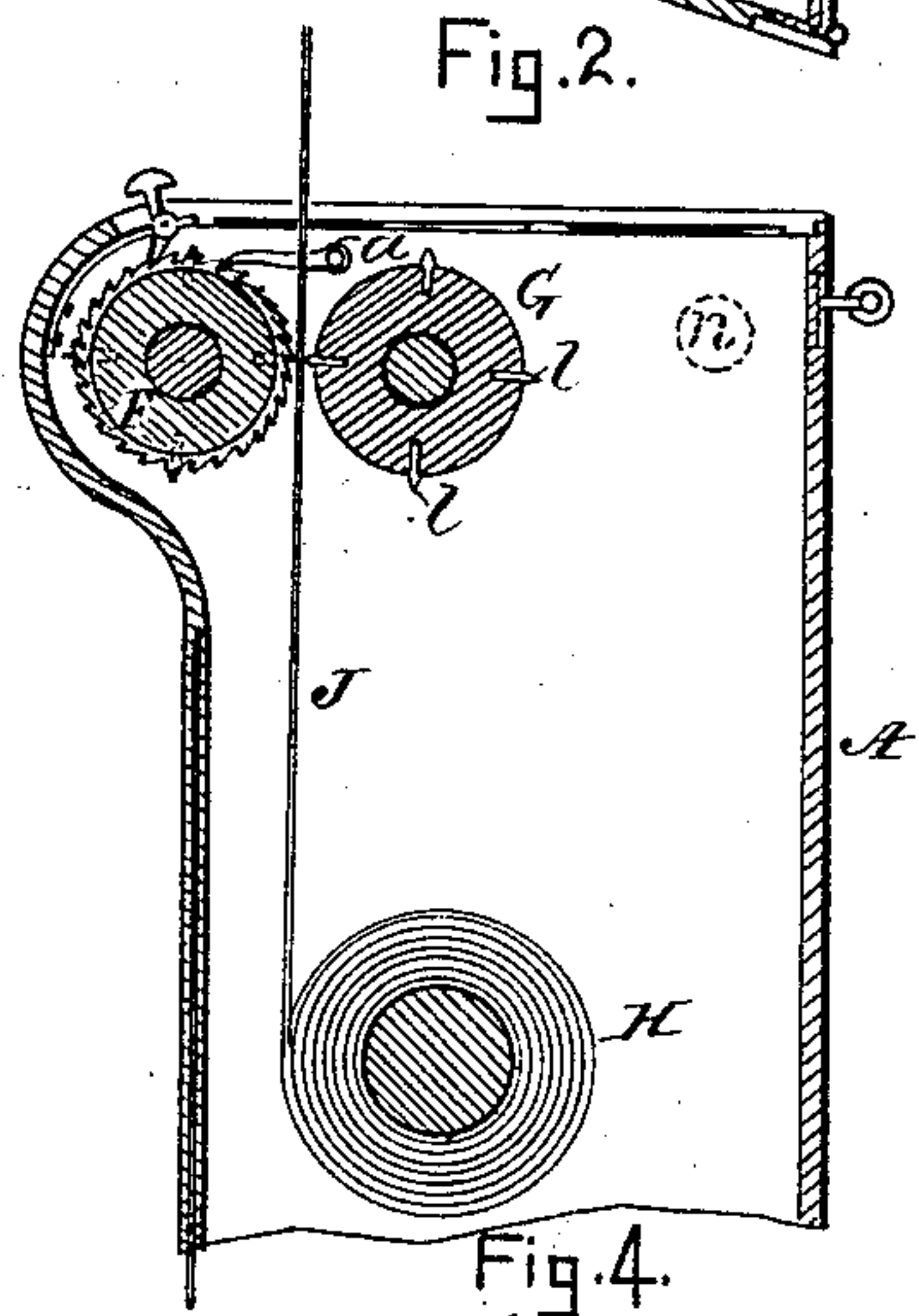


Fig. 4.

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UNITED STATES PATENT OFFICE.

LOUIS A. TOUCHET, OF CAMBRIDGE, MASSACHUSETTS.

FARE-REGISTER.

SPECIFICATION forming part of Letters Patent No. 278,754, dated June 5, 1882.

Application filed December 15, 1882. (No model.)

To all whom it may concern:

Be it known that I, LOUIS A. TOUCHET, of Cambridge, in the county of Middlesex, State of Massachusetts, have invented a certain new and useful Improvement in Fare-Registers, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is an isometrical view of my improved register with the cover removed; Fig. 2, a vertical longitudinal section of the same, taken on the line *x* in Fig. 1; Fig. 3, a top plan view, showing the register with the cover removed; Fig. 4, a vertical section taken on the line *z* in Fig. 1; Fig. 5, an elevation and section of the center rollers; Fig. 6, a sectional view of the check-strip, and Fig. 7 a view of a ticket or check.

Like letters of reference indicate corresponding parts in the different figures of the drawings.

My invention relates more especially to that class of fare-registers which are designed for use on horse-railways; and it consists in a novel construction and arrangement of the parts, as hereinafter more fully set forth and claimed, by which a more effective device of this character is produced than is now in ordinary use.

The nature and operation of the improvement will be readily understood by all conversant with such matters from the following explanation.

In the drawings, A represents the case or box of the register, and B the strap by which it is suspended when in use.

Mounted horizontally in proper bearings in the center of the case, near its top, are two rollers, C D. These rollers are provided with intermeshing gears *m m*, and with corresponding longitudinal grooves or cavities *d d*, as seen in Fig. 2, and are designed to turn inwardly, as shown by the arrows thereon, being prevented from turning in the opposite direction by proper ratchet mechanism. (Not shown.)

At either side of the rollers C D, and journaled horizontally in the top of the case, there is a pair of rollers, F G, provided with a series of projecting points, *l l*, arranged in corresponding rows in parallelism with the axial lines of the rollers, and at equal distances apart. These rollers are designed to turn outwardly, as shown by the arrows thereon, and are prevented from turning in an opposite direction by the ratchets *a a*.

A roller, H, carrying the paper check-strip J, is journaled in the interior of the case A, the strip passing upwardly between the rollers F G, as seen in Fig. 4, it being understood that each pair of these rollers is provided with a corresponding strip, but of different colors, one being used for cash and the other for ticket fares, as hereinafter explained.

The central roller D is provided with a cam, *f*, and toothed segment or rack *g*, the rack having a tail-piece, *v*, fitted to slide in the slot 20, and with a spring, *q*, in such a manner as to force the same outwardly beyond the periphery of the roller D and withdraw the head *z* of the rack within said periphery, as required.

A small bell, *n*, provided with a hammer or striker, *p*, is mounted in the upper part of the case, one end of the striker being arranged to intermesh with the toothed rack *g*.

A lever, K, is pivoted at *r* to the partition *a*, and is jointed at *t* to the lever L, which is also pivoted at *x* to said partition. The lever L is provided with a horizontally-arranged arm, M, having a point at its outer end which engages the steel tape T by means of a series of small holes, 16, punched in said tape, (see Fig. 3,) the tape being designed to register the number of fares taken, the holes therein being numbered consecutively from 1 to 500, and the tape wound on pulleys 1 1 and carried over the guide-pulleys 4 4, as seen in Fig. 2.

The rollers G are provided with type *w*, as shown in Fig. 3, for impressing or printing proper dates on the check-slips J.

A knob or pull, N, attached to a sliding bar, P, projects through a slot in the top of the box, said bar being provided at either end with a flexible strip, *h*, adapted by means of inclined ratchet-teeth (not shown) on its under

side to engage and act upon the roller C in such a manner that when the knob is moved outwardly in its slot in the cover said strips will slip over said roller and not turn it; but
 5 when moved upwardly in said slot they will engage with said roller and cause it to turn inwardly, as indicated by its arrow, the roller D being also turned by means of the connecting-gears *m*.
 10 In the use of my improvement, when a cash fare is taken of a passenger by the conductor, the cash-strip J, corresponding therewith, is pulled upward between its rollers F G and one of the checks Q torn off and given to the pas-
 15 senger, the coupon S of the check being inserted between the rollers C D and forced into the box by means of the knob N. As the check passes downwardly into the box the knob N is moved to turn the rollers, bringing
 20 the end *v* of the rack *g* against the ticket and forcing the head *z* of the rack outwardly, causing it to engage the hammer *p* and ring the bell *n*, the cam *f* at the same time striking the lever L above the pivot *x* and causing the lower
 25 end of the lever K to swing inwardly, as shown by the dotted lines in Fig. 2, thereby permitting the coupon to fall into the lower compartment, R, of the box, from which it cannot be removed by the conductor, the lever M at the
 30 same time moving the tape T and registering the fare.

When a ticket is taken in payment of fare the ticket itself is passed into the box between the rollers C D in the same manner as described
 35 for the coupon S, and a check is then torn from the corresponding strip, J, or ticket-slip, and given to the passenger, it being understood that the checks on the strip for ticket-fares are not provided with coupons, this not
 40 being necessary, as the ticket itself takes the place of the coupon S used in collecting a cash-fare.

A dog or hook, *i*, is pivoted to the interior of the case A and rides against the slip J as the
 45 same is withdrawn, as seen in Fig. 1; but near the lower end of the strip a piece is cut therefrom, as shown at 14, and when the hook reaches this point it drops and hooks into one of a series of holes, *b*, in the roller G, thereby lock-
 50 ing the rollers F G, each pair of the strip-rollers being provided with one of these hooks.

The coupon cash-checks shown in Fig. 6 and also the strip of checks used for ticket-fares are both designed to be printed with advertising-cards, and thus prove a source of revenue
 55 to the company or road using the register.

The front of the case A should be of glass, in order that the tickets may be readily seen as they drop into the compartment R, and said

compartment and also the cover of the box 60 should be locked, the keys being kept at the office of the company or road using the box.

As the strips J are drawn between their respective rollers the points *l* engage said strips between the checks or on the lines *e*, Fig. 6, 65 the rows of points being spaced to accomplish this when the rollers are turned by the strip passing between the same, as described.

From the foregoing it will be seen that the strips J prevent the conductor or person using 70 the box from defrauding the road, the number of checks torn from the strips indicating the number of fares taken, whether the same are in tickets or cash, the boxes being furnished to the conductor provided with strips and so 75 arranged as to be inaccessible except for the purpose of removing the detached checks, as described.

It will also be obvious that the bell or alarm mechanism and the depositing of the tickets 80 and coupons in the box afford additional means of security or serve as a safeguard against cheating by the conductor.

The object of the longitudinal slots or grooves *d d* is to form jaws for receiving and grasping 85 the ticket or coupon as it is inserted between the rollers C D on its way to the box, and the object of the groove *m'* is to permit the tail-piece *v* of the rack *g* to pass into the same as the roller D revolves when the ticket or coupon 90 is not inserted by the conductor, thereby preventing the bell *n* from ringing, and thus notifying the passenger of any attempt to cheat on the part of the conductor.

Having thus explained my invention, what 95 I claim is—

1. In a fare-register, the rollers C D, bell *n*, rack *g*, cam *f*, and levers L K, combined and arranged to operate substantially as specified.

2. In a fare-register, the hook *i*, in combina- 100 tion with the roller G and strip J, having the notch 14, substantially as and for the purpose set forth.

3. The improved fare-register described, the same consisting of the case A, central rollers, 105 C D, having on either side the rollers F G, the bell *n*, levers L K, striker *p*, cam *f*, rack *g*, hook *i*, strips J, and operative mechanism therefor, all constructed, combined, and arranged to operate substantially as specified. 110

4. In a fare-register, the roller C, provided with the groove *m'*, in combination with the spring-rack *g* and roller D, substantially as set forth.

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Witnesses:

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