

(No Model.)

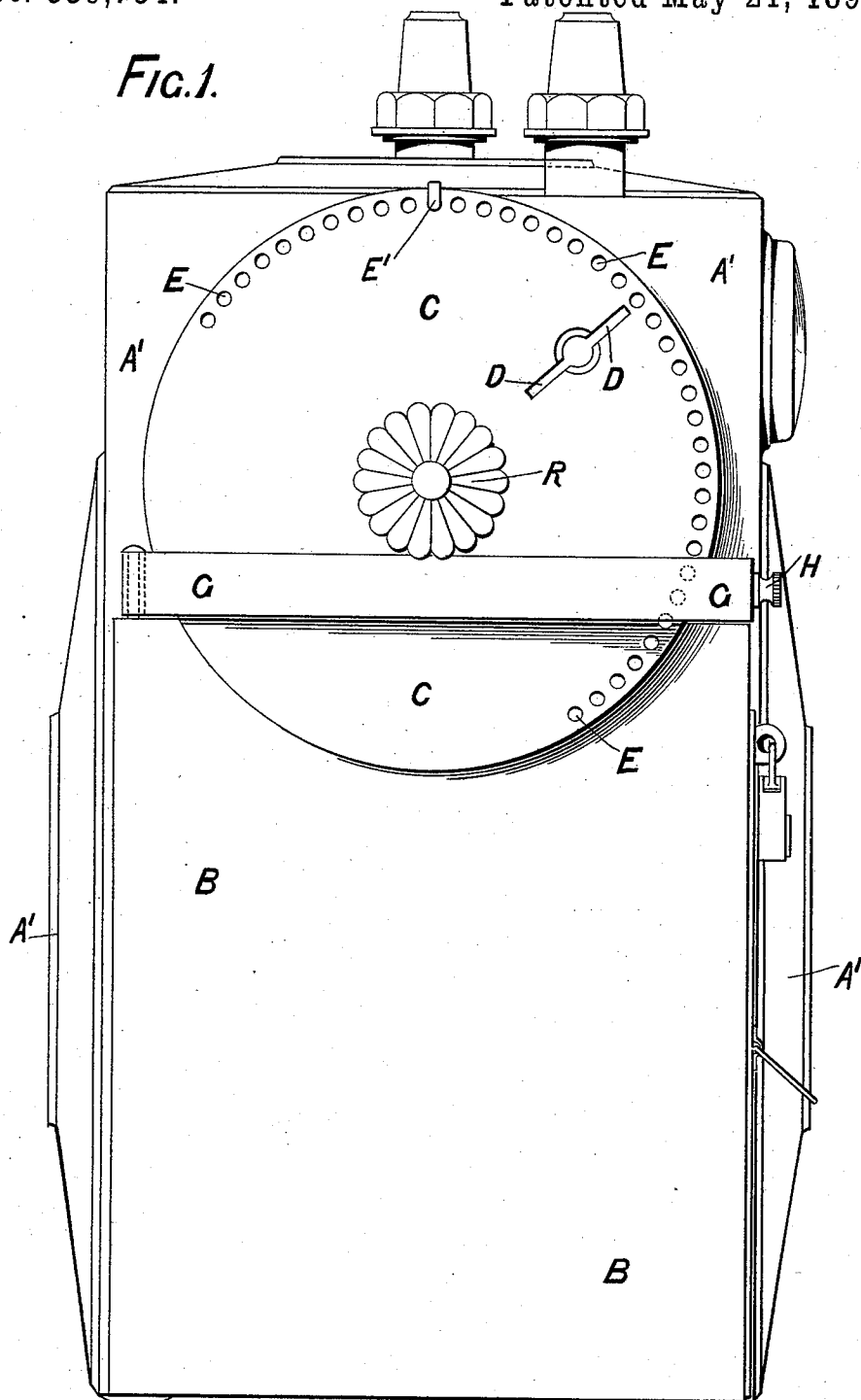
4 Sheets—Sheet 1.

R. T. & J. G. GLOVER.  
COIN FREED APPARATUS FOR SALE OF GAS.

No. 539,734.

Patented May 21, 1895.

Fig. 1.



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FIG. 2.

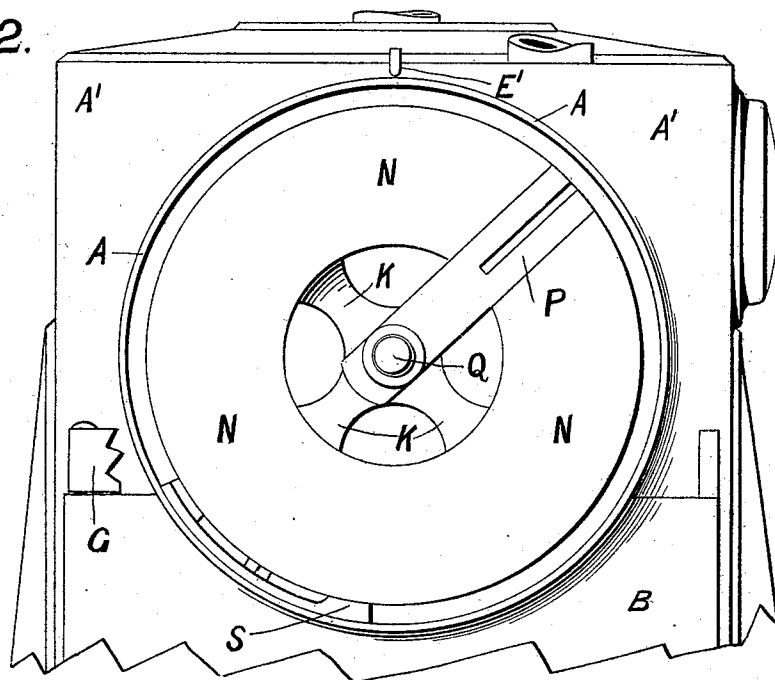
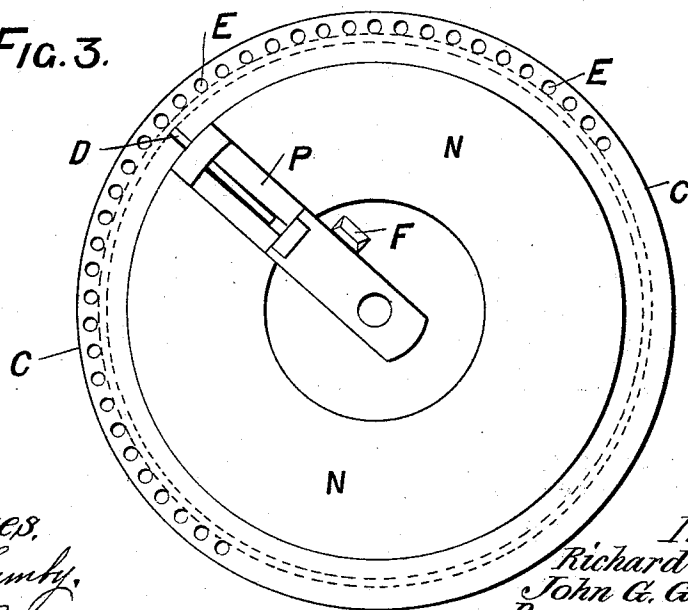


FIG. 4.



FIG. 3.



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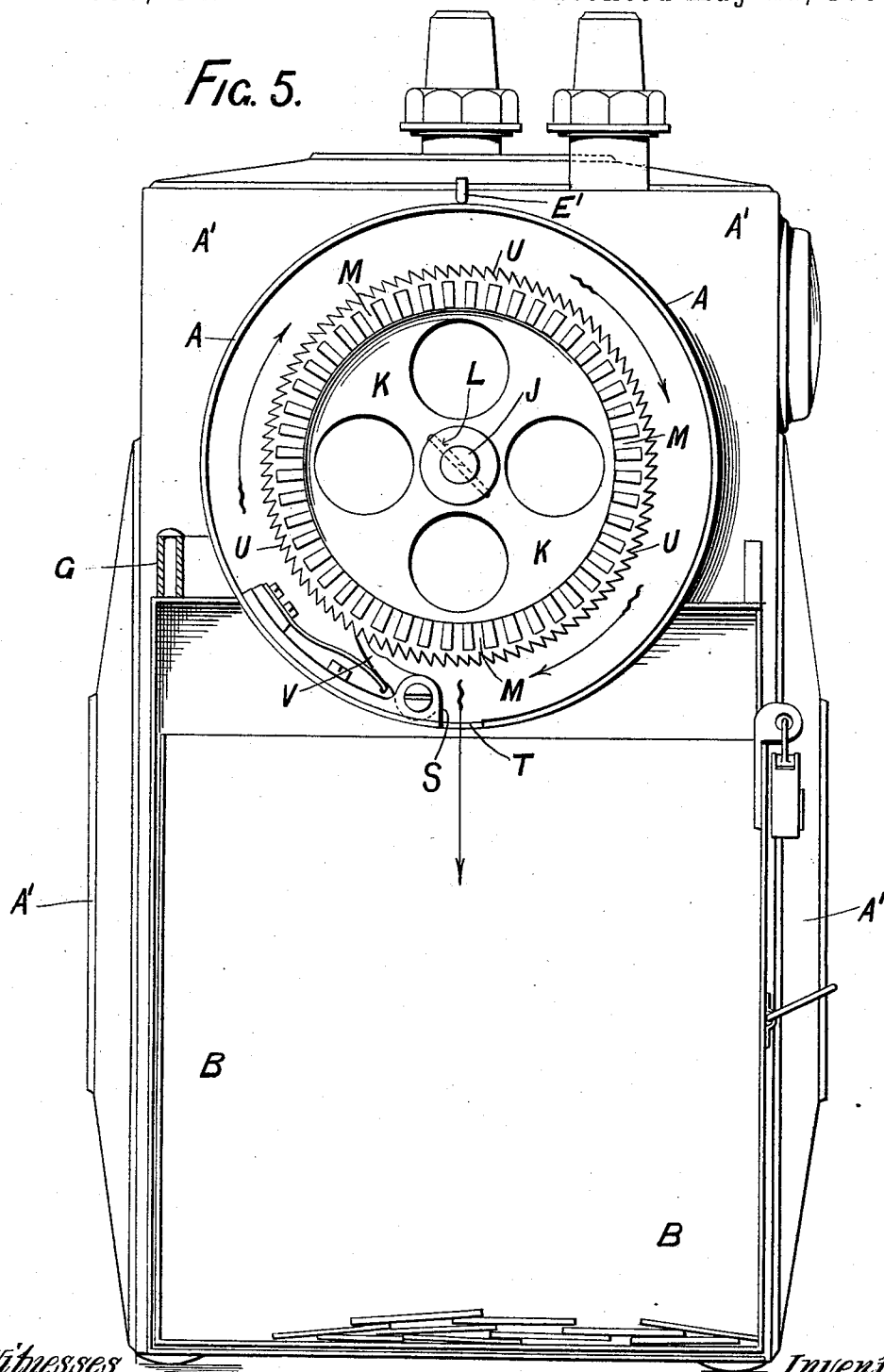
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Fig. 5.



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# UNITED STATES PATENT OFFICE.

RICHARD THOMAS GLOVER AND JOHN GEORGE GLOVER, OF LONDON,  
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## COIN-FREED APPARATUS FOR SALE OF GAS.

**SPECIFICATION** forming part of Letters Patent No. 539,734, dated May 21, 1895.

Application filed March 18, 1895. Serial No. 542,253. (No model.) Patented in England December 29, 1894, No. 25,272.

*To all whom it may concern:*

Be it known that we, RICHARD THOMAS GLOVER and JOHN GEORGE GLOVER, subjects of the Queen of Great Britain, residing at 214 to 222 St. Johns Street, Clerkenwell, London, England, have invented certain new and useful Improvements in Coin-Freed Apparatus for the Sale of Gas, (patented in Great Britain, No. 25,272, dated December 29, 1894,) of which the following is a specification.

This invention has for its object, arranging upon the exterior of a prepayment gas meter a circular or other shaped plate in such a manner that it can be moved and set to allow the coin operated mechanism to be moved a greater or less distance to supply a greater or less quantity of gas to the consumer, the actual amount to be obtained for a given coin being visible to the consumer by the exterior position of the circular, or as hereinafter termed the price changing plate, which, for this purpose, is suitably divided and marked off into quantities of cubic feet.

In carrying our invention into practice, we mount the price changer upon a spindle, either vertically, horizontally, or in any convenient position outside the meter case and cut a slot in the same through which a coin is inserted into a coin-receiver or pocket arranged immediately behind said price-changer, the coin-receiver or pocket being attached to or forming part of a shield that covers the slot when the spindle to which the shield is attached is rotated by means of a handle on its outward extremity. The slot or opening of the money coin-receiver or pocket must coincide with the slot in the price-changer in front of it before a coin can be inserted, and to insure this, and to prevent the rotation of the handle in the wrong direction after the insertion of a coin, a stop is fixed to the inside of the price-changer against which the coin-receiver or pocket abuts when turned back.

The front of the price-changer is suitably divided off and holed or slotted for the reception of a fixing pin which when the changer is set to the required position is put under a seal. By breaking the seal and withdrawing the pin the price changer can be adjusted to alter the position of the slot and

stop to allow the coin-receiver or pocket and shield to move a greater or less distance, as the case may be, before the coin-receiver or pocket makes contact with another stop arranged against an orifice through which the coin falls into the till.

The before mentioned coin-receiver or pocket may be in connection with a notched plate with which, after the insertion of a coin, it becomes locked to open the meter-valve the required distance.

Our invention will be thoroughly understood upon reference to the accompanying sheets of drawings, in which—

Figure 1 is an exterior elevation of the apparatus as applied to the side of a dry gas-meter. Fig. 2 is a similar view of part of the meter side with the external cover removed to show the coin-receiver shield. Fig. 3 is a back view of the cover and shield, showing more particularly the position of the limiting-stop against which the coin-receiver abuts; and Fig. 4 is a plan or edge view of the cover. Fig. 5 represents a sectional elevation of the till and a view of the notched and ratcheted plate as seen when the cover and coin-receiver shield are removed. Fig. 6 is a front elevation of the apparatus and till as applied to the side of a meter. Fig. 7 is a part front sectional elevation of the apparatus with the coin in position just at the moment of discharge into the till.

We preferably arrange the apparatus A, hereinafter fully described, immediately above a money holder, or till B, and attach them to the side of a meter A'.

The cover C of the apparatus (hereinafter referred to as the price-changer, that being its function) is a round, flat plate having a coin slot D through which a coin can be inserted. The circumference of the price changer is wholly or partially divided and marked off by holes E, or their equivalents, with or without numerals beneath them, representing quantities in cubic feet of gas, so that by placing a given hole over the hook E' fixed to the apparatus, the coin-slot D and stop F behind the price changer are located in the position required to control the degree of movement of the mechanism by the consumer and allow a quantity of gas, correspond-

ing to the number of the hole in which the hook appears, to be supplied.

The price-changer C can be moved to allow any quantity, preferably from one to fifty cubic feet of gas to be supplied, and is secured in the desired position by means of a hinged clasp or binder G and screw H, which is put under a seal I, Fig. 6. The character or construction of this seal is unimportant, and therefore we do not deem it essential to more fully illustrate or describe the same; nor do we wish to be considered as limiting ourselves to the seal shown, as other equivalent means of securing the price-changer in the desired position may be employed.

By arranging the price changer outside the apparatus it is immediately apparent to the consumer that the mechanism is actually set to deliver the quantity of gas designated by the numeral or number of the hole hung upon the hook, thereby dispensing with the use of an indicator dial set by hand, which may possibly, through negligence, be set to indicate one amount, although the price changer, if inclosed within the meter, may be adjusted to deliver a greater or less quantity, as the case may be.

The central spindle J may be connected to any known device operated by the ordinary meter mechanism for stopping the supply of gas, for instance such device as that shown and described in our Letters Patent, No. 535,330, dated March 5, 1895, and may be operated by means of a plate K, which is mounted upon the spindle J projecting from the meter case A' into the box A, and is secured thereto by a pin L or other means, said plate having side notches M facing the price changer.

Between the notched plate K, and immediately behind the price changer C, is a shield N to which is secured a coin-receiver or pocket P, into which a coin is passed through the slot D of the price changer to rest in one of the notches M of the plate K, and so cause the plate K and coin-receiver or pocket P to move together when the handle R is turned, said handle being screwed upon the centrally and outwardly projecting stem Q of the coin-receiver or pocket P. The shield N serves to prevent the insertion of a coin through the coin-slot D, so long as the coin-receiver or pocket P is out of coincidence with the coin-slot D.

The shield N, carrying the coin-receiver or pocket P, is loosely mounted upon the extremity of the spindle J, so that when no coin is inserted, said shield and coin-receiver or pocket can be turned without affecting the notched plate.

The rotative movement of the coin-receiver or pocket P and shield N in the direction of the arrows, Fig. 5, is limited by a part of the coin-receiver P striking the stop-plate S, which is placed contiguous to the orifice T at the bottom of the box A, through which a coin, if one be in the coin-receiver or pocket, falls by gravity to the money-holder or till below.

The rotative movement in the reverse direction is of course variable according to the position of the price changer C, as before explained, but whatever the latter's position may be, the return movement is arrested by contact with the projecting stop F against which a part of the coin-receiver P abuts. The distance between the stop F and stop-plate S, by determining the amount of rotative movement imparted to the spindle J when a coin is inserted, regulates therefore the degree of movement of the valve-opening mechanism and so allows a proportionate quantity of gas to be supplied before the said valve is closed by the action of the meter mechanism.

Ratchet teeth U, into which a spring-pawl V engages, are circumferentially cut in the plate K to prevent any back movement of the same.

To alter the quantity of gas to be supplied for a given coin, it is only necessary to break the seal I, withdraw the set-screw H, and swing the binder G back upon its hinge, unscrew the handle R, unhook the price changer, turn it, place the hole corresponding to the number of cubic feet it is desired to supply in engagement with hook E', and then fasten the price changer by replacing the handle and binder G.

A spring a is inserted between the price changer C and the coin-receiver or pocket P to retain the latter in any position, and the arm b, on the coin-receiver or pocket P, prevents the coin from falling when said coin-receiver or pocket is turned vertically upward.

The coin-receiver or pocket is in the form of an arm mounted on the shield N, as clearly shown in Fig. 3.

As an example, the invention herein described, may be used in connection with the valve controlling mechanism described in the patent before mentioned; but the invention is equally applicable to any device requiring a variable rotative or semi-rotative movement.

What we claim, and desire to secure by Letters Patent, is—

1. The combination, in a coin freed apparatus for a meter, of a price-changer composed of an adjustable plate located outside the meter casing and provided with a coin-slot and divisions representing definite quantities of cubic feet, means for locking the plate in any position to which adjusted, a coin-receiver or pocket located in rear of and movable relatively to the adjustable plate, and a stop for the coin-receiver or pocket when it has been moved into coincidence with the coin-slot in the plate, substantially as described.

2. The combination, in a coin freed apparatus for a meter, of a price-changer composed of an adjustable plate located wholly outside the meter casing, and provided with a coin-slot and divisions representing definite quantities of cubic feet, means for locking the plate in any position to which adjusted, a shaft for connecting with a meter-supply-valve, a coin-receiver or pocket movable rela-

tively to the adjustable plate, a stop for the coin-receiver or pocket when it has been moved into coincidence with the coin-slot in the plate, and mechanism acted on by the coin in the coin-receiver or pocket for rotating the said shaft, substantially as described.

3. In a coin freed apparatus for the sale of gas, a circular plate C divided or marked off by holes or slots E on its outer circumferential face into divisions representing definite quantities of cubic feet and having a coin-slot D and a projection or stop F on the inside face of said plate C, and the combination therewith of a hook or fixing pin E' adapted to enter the said holes or slots E to fix the plate C with its slot D and limiting stop F in a given position for limiting and controlling the movement in one direction of a coin-receiver or pocket P and shield N arranged behind said plate C, the coin-receiver or pocket being adapted to receive a coin when in contact with the limiting stop, substantially as and for the purposes described.

4. In a coin freed apparatus for the sale of gas, the combination with a plate C having holes E, slot D, and stop F, and revolving coin-receiver or pocket P and shield N arranged behind said plate C, of a stop plate S arranged

on the inner periphery of a box for limiting the rotative movement of said money-tube, as and for the purpose described.

5. In a coin freed apparatus for the sale of gas, the combination with a plate C having holes E, slot D and stop F, and a revolving coin-receiver or pocket P and shield N arranged behind said plate C, and a stop plate S arranged on the inner periphery of a box A of which the plate C forms the cover, a plate K with face notches M adapted to be rotated by the handle R on the insertion of a coin into the tube P, the amount of rotation being determined by the position and distance of the stop F from the stop plate S, as described and shown.

In witness whereof we have hereto signed our names, in the presence of two subscribing witnesses, this 27th day of February, 1895.

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