

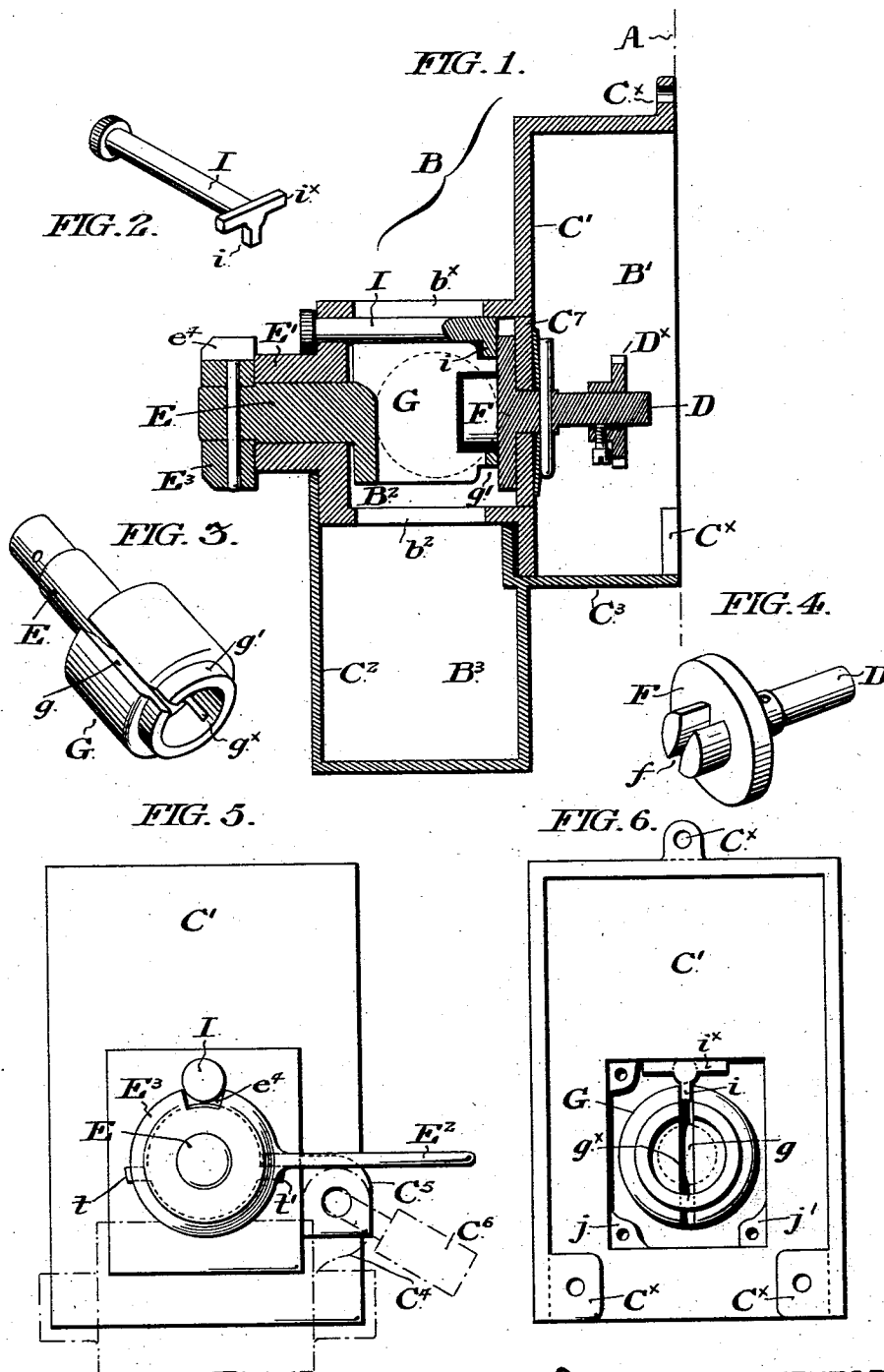
(No Model.)

J. DELANEY.

PREPAYMENT SALE AND DELIVERY MECHANISM.

No. 569,148.

Patented Oct. 6, 1896.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN DELANEY, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO
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PREPAYMENT SALE AND DELIVERY MECHANISM.

SPECIFICATION forming part of Letters Patent No. 569,148, dated October 6, 1896.

Application filed April 16, 1896. Serial No. 587,817. (No model.)

To all whom it may concern:

Be it known that I, JOHN DELANEY, a citizen of the United States, residing in the city and county of Philadelphia, in the State of Pennsylvania, have invented certain new and useful Improvements in Prepayment Sale and Delivery Mechanisms, of which the following is a specification.

My invention relates to a class of apparatus in which coin controlled mechanism of suitable character controls devices which regulate the delivery of merchandise or regulate the operation of moving parts,—such mechanism being set, to enable the operation of the devices, through a manually operated handle, lever, or knob, situated on the exterior of the casing,—and in which class of apparatus a coin of predetermined size and value dropped within a slot or opening serves to temporarily connect said manually operated handle, lever, or knob, to the operating shaft, as I herein term it, which is in engagement with, and the rotation of which occasions the movement of, the devices which control the delivery of the merchandise.

My invention relates especially to a prepayment sale and delivery mechanism, invented by me, and forming the subject of an application for United States Letters Patent, Serial No. 568,910, now pending, to which application reference is to be made for the better comprehension of my improvements.

My invention relates especially to the construction and arrangement of the devices by which an inserted coin serves to temporarily couple the external knob, handle, or lever, with the operating shaft, and to devices by which the fraudulent manipulation of the operating shaft will be prevented.

In the accompanying drawings I show and herein I describe a good form of a convenient embodiment of my invention, the particular subject-matter claimed as novel being hereinafter definitely specified.

In the accompanying drawings, Figure 1 is a central vertical sectional elevation of the coin cup box and associated parts, supposed mounted upon the exterior of the main casing.

Figure 2 is a view in perspective of the slot closing bar.

Figures 3 and 4 are views in perspective of

the coin driving cup and coin driven cup, respectively.

Figure 5 is a view in front elevation of the inclosing casing.

Figure 6 is a rear elevational view of the shell C', the plate C' and block F being supposed removed.

Similar letters of reference indicate corresponding parts.

In the accompanying drawings,

A indicates the main casing of the apparatus in which are supposed contained the gas regulating and measuring instrumentalities shown and described in my application referred to,—or any other preferred instrumentalities.

B is an auxiliary casing secured in any preferred manner upon the exterior of the casing A. This auxiliary casing is shown as formed or composed of two shells designated respectively C' C², which divide said casing into three compartments to wit: the gear compartment B'; the cup compartment B², and the coin compartment B³.

The shell C' is provided with lugs C^x by which it is secured to the wall of the casing A, the body of said shell forming the gear compartment,—and also provided with a forward extension which constitutes the cup compartment B².

The shell C², the lower portion of which constitutes the coin compartment, as to its front wall incloses the lower portion of the shell C',—the front wall of said shell C² overlapping the front wall of the coin compartment, and its rear wall overlapping the front wall of the gear compartment. A horizontal plate C³ rearwardly projecting from the shell C² extends across and closes the open lower end of the gear compartment.

A lug C⁴ on the shell C² comes, when the parts are in the position illustrated in Figures 1 and 5, into close proximity with a lug C⁵ on the shell C', so that the hasp of a padlock C⁶ extending through both securely unites said shells.

When the lock is removed of course the shell C² may be taken off of the shell C' to enable access to and removal of the money in the coin box.

C' is a plate set within the base of the cup compartment.

D is a shaft mounted in the plate C', the front end of which extends within the cup compartment, and the rear end of which is adapted to serve as, or to be in mesh with, an operating shaft, which acts to occasion the predetermined movements of the parts within the main casing. Said shaft D, hereinafter referred to as the operating shaft, may of course be connected in any desired manner to any preferred mechanism, and my present apparatus is not restricted to use in connection with apparatus of the character set forth in my said application. Said shaft is shown as provided with a gear D^x which adapts it to be placed in connection with any selected form of mechanism to be operated.

The front wall of the cup compartment is provided with a boss or extension E' formed with a central bore in which is journaled a handle or manipulating shaft E, the outer end of which is equipped with a lever or handle E² conveniently of the character shown in Fig. 5.

b^x is a coin slot opening through the top of the cup compartment; and b² is a coin slot opening through the bottom of said compartment, and placing said compartment in communication with the coin compartment.

I aim to provide devices of a simple and inexpensive construction by which a coin inserted through the coin slot b^x will serve to temporarily couple the shaft E to the shaft D, to the end that rotation imparted to the operating lever or handle E² will be transmitted to the operating shaft, and, through it, to the devices within the main casing in connection with which my improvements may be employed.

I also aim to provide a device by which the slot b^x is maintained closed except at such times as the parts within the cup compartment are in proper position to receive a coin, with the result that after the slot is closed, as a necessary preliminary or prerequisite to the movement of the parts, no instrument can be inserted, and no cord or other device connected to an inserted coin for the purpose of suspending or withdrawing the latter, can be operated.

F G are what I term the coin blocks or cups, mounted in the coin compartment, one of them being carried by the shaft D and the other by the shaft E.

The inner end of the block F is of reduced diameter as compared with its rear end, and a groove or slot f is formed in the such reduced inner end. A groove or slot g is also cut through the block G, said last named slot extending through both sides of said block and through its top, except at the lower portion of the block where a fin of metal g^x extends across and limits the breadth of the slot.

The end portion of the block or cup G is hollowed out to form a cup like recess of such size as to be adapted to receive the reduced inner end of the block or cup F, the basal or unreduced portion of the said block F com-

ing, when the parts are in their assembled position, into contact with the edges of the recess in the block G.

The exterior portion of the outer end of the block G is abruptly reduced in diameter as shown in Figures 1 and 3, to form a groove g'.

When the blocks are of the form shown in Figure 1, and in the position shown in said figure, with the groove or slot of the block F in registry with the groove or slot of the block G, and both said grooves or slots in registry with the slot b^x in the casing, a coin presented through said slot b^x will, if of proper size, descend within the slots f g and come to rest with its respective edges against the bottom of the groove g and the fin of metal g^x, (and will perhaps also touch or be in contact with the bottom of the slot f,) and will thus serve to couple or temporarily unite the blocks F G, as shown in Figure 1.

Manual rotation imparted to the shaft E will therefore be communicated to the shaft D, with the result that the said operating shaft D will accomplish in such rotation the desired movement or setting of the mechanism (not shown) within the main casing A.

In the rotation of the shaft E and the blocks F G the coin is carried around until it comes opposite or into registry with the slot b², the handle E² contemporaneously making contact with its stop, whereupon said coin drops by gravity from its seat within the two slots f g and through said slot b² into the coin compartment.

When no coin is present within the slots f g, the block G, of course, with its shaft, is capable of movement independently of the block F, and, accordingly, after a coin has been carried to and dropped through the slot b², when it is desired to again drop a coin within the slots and operate or set the operating shaft for further movement or service of the mechanism in connection with which my improvements are engaged, the operating lever or handle E is thrown in a reverse direction to rotate the block G to carry the upper end of the slot g, (that is, the end not partly closed by the fin g^x) up into registry with the slot b^x, that is to say, to restore the parts to the position which they are shown as occupying in Figure 1. In such reverse movement the block F remains stationary with its slot f in registry with both the slot b^x and the slot b².

As will be understood, if a coin of a size larger than the size intended to be used for the operation of the apparatus be inserted through the slot b^x, the slots f g will not be broad enough to receive it, and therefore a part of said coin will remain projecting through said slot b^x with the result that the blocks cannot be rotated or the apparatus operated.

If, on the other hand, a coin of dimensions smaller than those of the predetermined coin, be inserted through the slot b^x it will descend unobstructed through the slots f g and b² and

within the coin compartment without coupling the blocks together.

I, is a slot closing bar, of diameter preferably somewhat in excess of the breadth of the slot b^x , mounted for sliding, or in-and-out, movement, in a suitable opening in the front wall of the cup compartment, in such position that when pushed in to the limit of its movement it exists close up against said slot b^x and practically closes the same. The inner end of the bar I is provided with a depending stud i which is seated in the groove g' , and with a shears plate i^x which bears against the under face of the top plate of the coin compartment.

The engagement of the stud i in the groove g' prevents the withdrawal of the bar when the blocks are in any position except that which they are in Figure 1 represented as occupying, in which position the blocks are in position to receive a coin dropped through the slot b^x .

When the parts are in the position shown in Figure 1, the bar may be withdrawn, far enough to allow of the entrance through the slot b^x of a coin of the required size, the stud i sliding through the top of the groove in the block G, and, when withdrawn to its outermost position, a coin dropped through said slot b^x will descend within the slots in the blocks or cups, as hereinbefore described.

In the withdrawal of the closing-bar to its outermost position, its outer end passes through a recess e^4 formed for it in the projecting edge of a plate E^3 integral with the handle E^2 and seated upon the outer end of the shaft E, with the result that, after the withdrawal of the bar I and the insertion of the coin, the handle E^2 cannot be thrown to operate the apparatus until the handle E^2 has been released by the forcing in of the closing bar to its inner position in which said bar passes out of the recess e^4 ,—and its stud i passes out from the slot g in the block G and back to the groove g' at the inner end of the block G. It will be understood that the engagement of the slot bar I in the recess e^4 , prevents, apart from any engagement of the stud i in the slot of the driving cup, the throw of the handle, and that said bar I must be forced inward clear of said recess before the handle can be thrown. The said stud may therefore be dispensed with if desired.

The necessity for returning the closing bar to its inner or closed position before the handle E^2 can be thrown to operate the apparatus, precludes the possibility of the existence in the slot b^x of any implement fraudulently inserted through said slot to couple the cups together, during the throw of the handle E^2 ;—also the action of the shearing plate, which may be of any form, against the under surface of the top of the coin compartment operates to sever any cord connected to a coin or blank and employed with intent to fraudulently couple the cups or subsequently withdraw said coin: the closing bar thus very

thoroughly insures the apparatus against fraud.

The block j' mounted in the corner of the cup or block compartment, (see Figure 6) prevents the protrusion of the coin, (in the rotation of the blocks when coupled together by a coin) to such extent as would allow of the engagement of the protruding edge of the coin in the corner of the compartment and the consequent interference with the rotation of the blocks. Upon the blocks $j j'$ is fastened the plate C^7 .

The block j' in Figure 6 is so shaped, its upper side having a longer incline than its lower, that, in the rotation of the handle to the left, a protruding coin contained in the cups or blocks slips easily over said longer incline and down behind the shorter incline. This block therefore offers no obstruction to the rotation of the cups and coin in the proper direction. The contact of the coin with the abrupt or shorter incline of said block however, would prevent, after the coin has passed it in the rotation of the parts, the reverse movement of said parts.

The throw of the handle E^2 , is, as described in my pending application hereinbefore referred to, limited by the stops $t t'$, one of which limits the reverse throw of the handle E^2 ,—stopping said handle and consequently the block G just at the point at which the wide or upper end of the slot g is in registry with the slot b^x ,—and the other of which limits the forward throw of said handle,—stopping said handle, and consequently the block G, just at the point at which the wide or upper end of the slot is in registry with the slot b^2 , to discharge the coin through said slot b^2 . When the block G is in the last named position, as will be understood, its fin-provided end is uppermost and in registry with the slot b^x , with the result that the entrance of a coin, although of the proper size, will be prevented by said fin, even if the closing bar should be absent. The coin can only be inserted when the parts are in the position shown in Figure 1, whether the closing bar is or is not employed,—the position shown in Figure 1 being that in which the parts are, when coupled by a proper coin,—free to move to the right for the operation of the apparatus. Even if it should be possible to insert a coin when the fin-provided end of the slot g is uppermost, no result would follow, as the stop t' would prevent the movement of the parts to the right for the operation of the apparatus.

Having thus described my invention, I claim—

1. In a coin controlled or operated apparatus, in combination, a casing embodying a slot, a coin cup or device mounted in said casing, embodying a coin slot, and adapted to be moved to a position in which the coin-receiving end of its slot is in registry with the slot in the casing, a bar adapted for longitudinal movement along said slot to a position in which it closes said slot, and means

for temporarily securing said bar in its slot closing position, at such times as the coin-receiving end of the cup slot is out of registry with the casing slot, and enabling its movement to expose the casing slot when the coin-receiving end of the cup slot is in registry with said casing slot, substantially as set forth.

2. In a coin controlled or operated apparatus, in combination, a casing embodying a slot, a coin cup or device, mounted in said casing, embodying a coin slot, and adapted to be moved to a position in which the coin receiving end of its slot is in registry with the slot in the casing, a device mounted on the casing and adapted to be moved to different positions of adjustment in one of which positions it closes the casing slot and in another of which it exposes said slot, means for securing said device in its closing position, and a shear plate mounted upon said bar and in contact with the wall or portion of the apparatus in which the slot is formed, the said shear plate being in the movement of the bar carried along the under edges of the slot in a direction transverse to the length of any article presented through the slot, and exercising a shearing action in connection with the edges of the slot, substantially as set forth.

3. In a coin controlled or operated apparatus, in combination, a casing embodying a slot, an operating bar or shaft a handle bar having a handle, mechanism rendered capable upon receiving a coin dropped through said slot, of being operated by the movement of the handle, a closing bar mounted in the casing and adapted to be moved into and out of a position in which it closes the slot, and so arranged as, when moved out from the slot, to engage with and prevent the movement of the handle, substantially as set forth.

4. In a coin controlled or operated apparatus, in combination, a casing embodying a slot, an operating bar or shaft, a handle bar having a handle, a coin block or cup mounted on the operating bar, a coin block or cup mounted on the handle bar, slots formed in said cups adapted to receive a coin, a circumferential groove formed in one of said cups, a closing bar adapted to be moved into and out of a position immediately beneath the slot and having a stud which engages in the circumferential groove of the cup and is adapted to ride forward along a coin slot of a cup, substantially as set forth.

5. In a coin controlled or operated apparatus, in combination, a casing embodying a slot, an operating bar or shaft, a handle bar having a handle, a coin cup or block mounted on the operating bar, a coin cup or block mounted on the handle bar, slots formed in said cups or blocks adapted to receive a coin, a circumferential groove formed in one of said cups or blocks, a closing bar adapted to be moved into and out of a position immediately beneath the slot and having a stud

which engages in said circumferential groove adapted to ride forward along the coin slot of said cup, a recess formed in handle or handle bar in such position that when the handle is in position to be thrown for the operation of the apparatus said recess will present in front of said closing bar, substantially as set forth.

6. In combination with the operating shaft of a coin controlled apparatus, a coin cup or block mounted on said shaft, an operating handle, a coin cup or block connected to said handle, one of said cups or blocks having an unreduced portion of the same diameter as the other cup or block and a reduced portion nested within suitable recess in the other cup or block, a slot formed through both cups or blocks, a casing having a coin slot, and means for arresting a coin of a given size in its passage through the slot in the coin cups or blocks, and a slot closing bar adapted to be moved into and out of a position in proximity to the slot in the casing, substantially as set forth.

7. In combination with the operating shaft of a coin controlled apparatus, a coin cup or block mounted on said shaft, an operating handle, a coin cup or block connected to said handle, one of said cups or blocks having an unreduced portion of the same diameter as the other and a reduced portion nested within a suitable recess in the other, a slot formed through both cups or blocks, a casing having a coin slot, and means for arresting a coin of a given size in its passage through the slot in the coin cups or blocks, a slot closing bar adapted to be moved into and out of a position in proximity to the slot in the casing, and means for preventing its withdrawal except when the slot of the coin cups is in registry with the slot in the casing, substantially as set forth.

8. In combination with the operating shaft of a coin controlled apparatus, a coin cup or block mounted on said shaft, an operating handle, a coin cup or block connected to said handle, one of said cups or blocks having an unreduced portion of the same diameter as the other and a reduced portion nested within a suitable recess in the other, a slot formed through both cups or blocks, a casing having a coin slot, and means for arresting a coin of a given size in its passage through the slot in the coin cups or blocks, a slot closing bar adapted to be moved into and out of a position in proximity to the slot in the casing, a recess in the handle bar or its connections, which recess, when the handle is in position to be thrown, presents itself in front of said closing bar, substantially as set forth.

In testimony that I claim the foregoing as my invention I have hereunto signed my name this 8th day of April, A. D. 1896.

JOHN DELANEY.

In presence of—

F. NORMAN DIXON,
THOS. K. LANCASTER.