No. 883,478. PATENTED MAR. 31, 1908.

T. S. PATTERSON.

COIN CONTROLLED APPARATUS.

APPLICATION FILED NOV. 6, 1907.

Fig. 1.

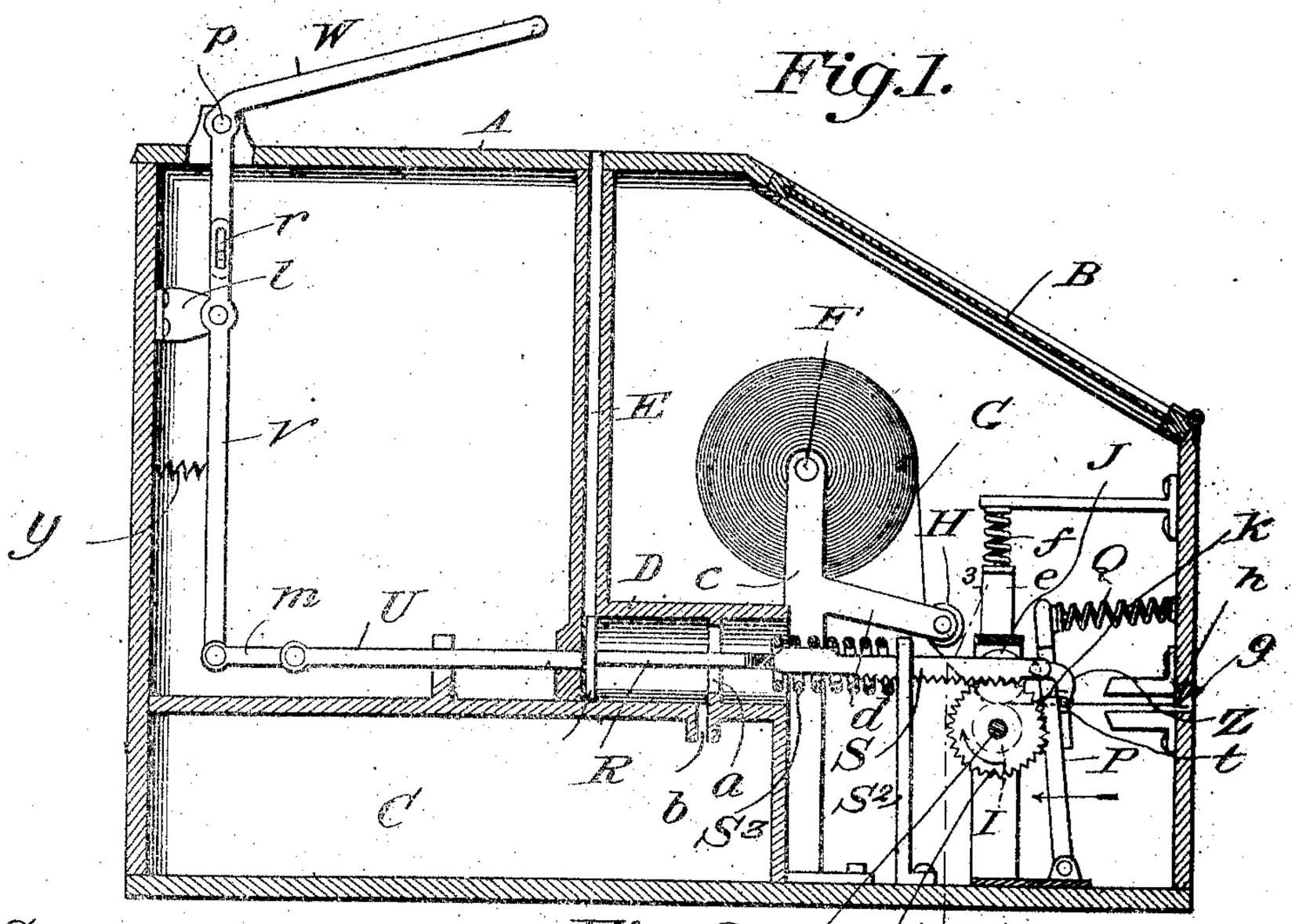


Fig. 6.

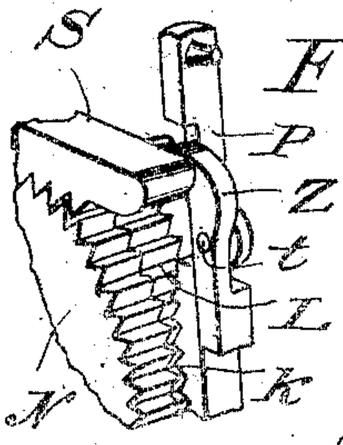


Fig. 2.

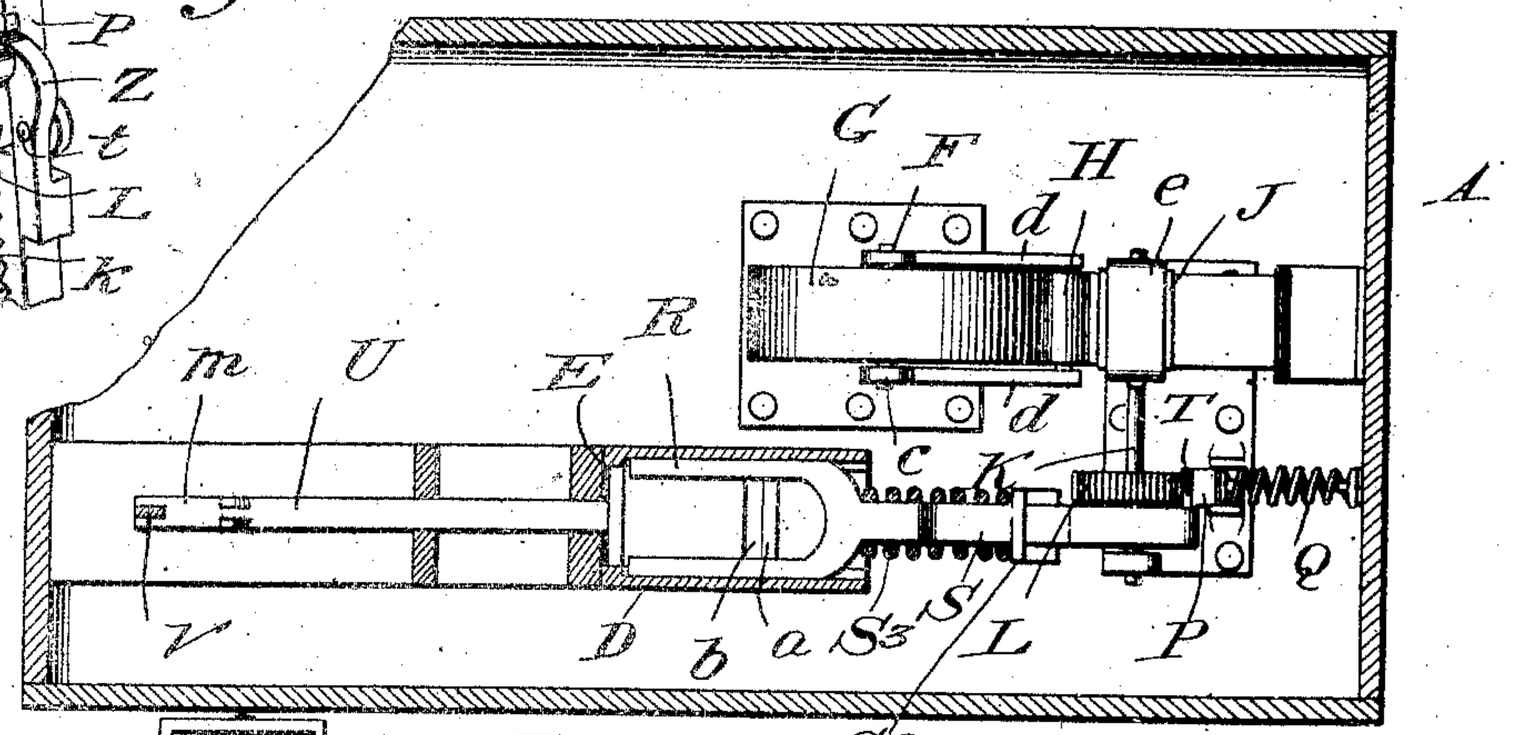


Fig. 3.

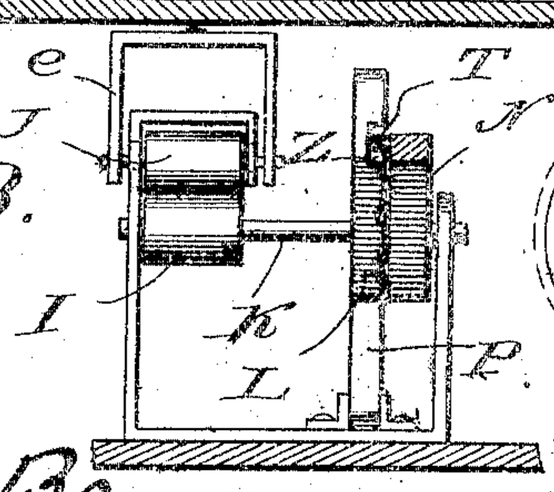


Fig. 4.

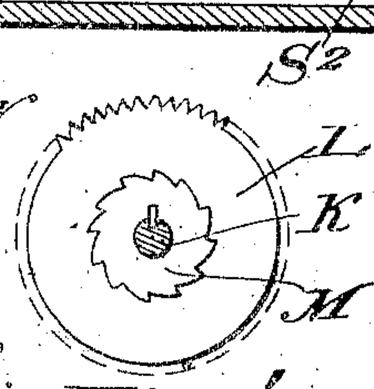
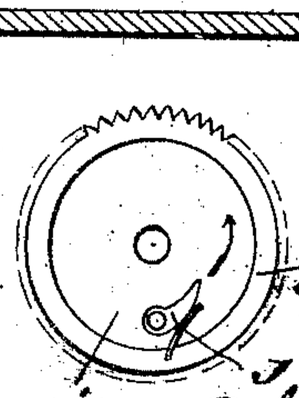


Fig. 5.



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UNITED STATES PATENT OFFICE.

THOMAS S. PATTERSON, OF MORGANTOWN, WEST VIRGINIA.

COIN-CONTROLLED APPARATUS.

No. 883,478. Specification of Letters Patent. Patented March 31, 1908.

Application filed November 6, 1907. Serial No. 400,926.

To all whom it may concern:

Be it known that I, THOMAS S. PATTERSON, a citizen of the United States, residing at Morgantown, in the county of Monongalia and State of West Virginia, have invented new and useful Improvements in Coin-Controlled Apparatus, of which the following is a specification.

My invention relates to check-controlled apparatus; and it seeks the provision of a simple, easily operated and reliable coin-controlled apparatus for supplying tickets for shows and other purposes.

With the foregoing in mind the invention will be fully understood from the following description and claims when the same are read in connection with the drawings, accompanying and forming part of this specification, in which:

Figure 1 is a longitudinal vertical section illustrating a practical embodiment of my invention. Fig. 2 is a horizontal section taken in a plane below the top of the casing of the apparatus. Fig. 3 is a transverse section taken in the plane indicated by the line 3—3 of Fig. 1, looking in the direction of the arrow. Fig. 4 is an enlarged detail section showing the gear that is fast on the feed shaft of the apparatus. Fig. 5 is an enlarged side elevation of the gear loose on said feed shaft, and: Fig. 6 is an enlarged detail view showing the catch on the locking lever for coöperating with the rack bar.

Similar letters of reference designate corresponding parts in all of the views of the drawings.

My novel apparatus comprises a casing A, of wood or metal, and I prefer to provide the said casing with a transparent panel B through which the working of the parts may be viewed by the party effecting said working. The said panel B is preferably in the form of a door so that access may be readily gained to the working parts for repairs or any other purpose, and said door will of course be provided with a suitable lock (not shown) to prevent unauthorized persons from gaining access to the working parts.

In the lower portion of the casing A is a coin receptacle C, and above said coin receptacle is located a horizontal cylinder D in which is a stop *a* located immediately in front of a slot *b*, intermediate the receptacle C and the cylinder D. Leading upward from the rear end of the cylinder D to the upper side or top of the casing A is a coin chute E.

Mounted in a suitable manner in standards *c* located within the casing is a shaft F designed to bear a rolled strip G of tickets; the said strip being carried from the roll downward to and under an idler H, mounted in arms *d* of the standards *c*, and being then carried between a lower feed roller I, having a perimeter of rubber or other suitable material, and an upper pressure roller J; the said upper roller J being mounted in a vertically movable frame *e* which is backed by a spring *f* having a tendency to press the frame *e* and the roller J downward so as to hold the strip of tickets under pressure against the roller I and enable the latter when rotated to feed the strip forward. From the roller I the strip of tickets is carried forward through a slot *g* in the forward wall of the casing A; the upper wall of the said slot *g* being formed into a knife edge *h*, this in order to enable a purchaser to readily tear off a ticket from the strip G subsequent to the feed of the said strip through the slot *g*.

The roller I is fixed on a transversely disposed shaft K, and on said shaft is also fixed a peripherally toothed gear L having at one side a ratchet M, Fig. 4. Loose on the said shaft K, at one side of the gear L, is a peripherally toothed gear N having in one side a recess *i* to receive the ratchet M and also having in said recess *i* a spring-pressed pawl *j* the office of which is to engage the teeth of the ratchet M when the gear N is rotated in the direction indicated by arrow in Fig. 1 so as to turn the gear L and the shaft K and roller I in a corresponding direction. It will be noticed, however, that on rotation of the gear N in the direction opposite to that indicated by arrow in Fig. 1, the pawl *j* will ride idly over the teeth of the ratchet M and consequently leave the gear L, the shaft K and the roller I at rest.

With a view of preventing retrograde or backward rotation of the shaft K and the feed roller I incident to rotation of the gear N in the direction opposite to that indicated by arrow in Fig. 1, I provide the vertically swinging locking lever P which is toothed at *k* to engage the peripheral teeth of the gear L, and is backed by a spring Q which has a tendency to throw it in the direction indicated by arrow in Fig. 1.

Suitably guided in the fixed cylinder D is a U-shaped slide R which is provided with a forwardly extending rack bar S, engaged with the peripheral teeth of the gear N and hav-

ing a lateral pin T for engaging a catch Z on the locking lever P and putting said locking lever out of engagement with the gear L. Between an abutment S^2, fixed in the casing, and the U-shaped slide R, is interposed a coiled spring S^3 for moving said slide R and the rack bar S rearward.

U is a reciprocating follower extending through the rear end wall of the fixed cylinder D.

D is vertically swinging lever fulcrumed at an intermediate point of its length on a fixed bracket *l* and connected through a link *m* with the rear end of the follower U, and W is a lever fulcrumed at *p* on the casing and loosely connected at *r* with the upper arm of the lever V. The follower U and the coupled levers V and W have to do with the movement of a coin through the medium of which the strip feeding mechanism is actuated, as will be hereinafter described.

The practical operation of my novel apparatus is as follows: When a coin of predetermined denomination is dropped down the chute E, as indicated by X in Fig. 1, it assumes a position between the rear end of the slide R and the forward end of the follower U, and consequently when the follower is moved forward the said coin serves to correspondingly move the slide R until the coin reaches the slot *b* when the coin drops into the receptacle C. Incident to the forward movement of the slide R, the rack bar S disengages the locking lever P from the gear L, and through the medium of the gear N, the pawl *j* thereof and the ratchet M, turns the shaft K and the roller I forward, with the result that a portion of the strip G corresponding in length to the throw of the roller I is fed forward through the slot *g*, and may be grasped by the purchaser and cut off against the knife edge *h*. The forward movement of the slide R and rack bar S is against the action of the spring Q, and consequently it will be apparent that immediately following the dropping of the coin through the slot *b*, the spring-pressed lever P will operate to engage the peripheral teeth of the gear L and thereby fix the shaft K and the roller I against retrograde movement. The catch Z is centered at *i* in the locking lever P, and its upper portion, on which the pin T works, is so shaped and arranged, relative to said pin T, that when the rack S is moved far enough forward to turn the periphery of the roller P a distance corresponding to the length of one ticket, the catch slips under the pin T and locks the wheel L and consequently the roller I against further forward movement, thereby preventing an unscrupulous person from pulling out more than one ticket while the lever W is pressed down. On rearward movement of the rack bar S, under the action of the spring S^3, which movement takes place immediately after the coin drops through the slot *b*, the catch Z turns on the center *t* and allows pin T to pass over it. It will be noted at this point that the front part of catch Z is so shaped that when it is thrown back into place by its weight below its center of movement, there is but a slight distance between the catch and the pin T, and consequently a stroke of fixed length is assured. When the lever W, which is in the form of a convenient hand lever, is released subsequent to the forward throw of the follower U, a tractile spring Y, Fig. 1, operates to return the follower U and the coupled levers V and W to the position illustrated, from which it follows that the slide R and the follower U will be relatively located to receive a coin between them. In the event of an attempt being made to operate the apparatus without the deposit of the coin of predetermined denomination in the slot E, it will be seen that the follower U will simply slide forward between the side portions of the slide R and no result will be accomplished.

It will be gathered from the foregoing that in addition to being simple and inexpensive, my novel apparatus is reliable in operation and is well adapted to withstand the rough usage to which devices of corresponding type are ordinarily subjected.

The construction shown and described is the best embodiment of my invention known to me, but it is obvious that in the future practice of the invention changes in the form, construction and relative arrangement of the parts may be made within the scope of the claims appended.

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

1. An apparatus for the purpose described, comprising a casing having a slot for the passage of a strip, means within the casing for supporting a rolled strip, a slide movable fore and aft and having a forwardly extending rack bar, means for moving said slide and rack bar rearward, a shaft disposed transversely in the casing and having a strip feeding roller fixed thereon, a roller yieldingly pressed toward the feed roller for retaining the strip in frictional contact therewith, a peripherally toothed gear fixed on the shaft and having a ratchet, a gear loose on the shaft and having peripheral teeth in mesh with the rack bar and also having a pawl arranged to engage the teeth of the ratchet, a spring-pressed lever, toothed to engage the peripheral teeth of the first mentioned gear, and a swinging catch carried by said lever and arranged to engage the rack bar.

2. An apparatus for the purpose described, comprising a casing having a slot for the passage of a strip, means within the casing for supporting a rolled strip, a slide movable fore and aft and having a forwardly extending rack bar, a shaft disposed transversely in

the casing and having a strip feeding roller fixed thereon, a roller yieldingly pressed toward the feed roller for retaining the strip in frictional contact therewith, a ratchet fixed on the shaft, a gear loose on the shaft and having peripheral teeth in mesh with the rack bar and also having a pawl arranged to engage the teeth of the ratchet, and means for moving the rack bar rearward.

3. The combination in an apparatus for the purpose described, of a feed roller, a bar movable in opposite directions, means intermediate the bar and the roller for turning the latter on movement of the former in one direction, and spring-actuated means for normally locking the roller against rotation; the said means being arranged to be moved out of engagement with the roller on movement of the bar in the said direction and being also arranged to move out of engagement with the bar and into engagement with the roller, for the purpose set forth.

4. The combination in an apparatus for the purpose described, of a feed roller, a bar movable in opposite directions, means intermediate the bar and the roller for turning the latter on movement of the former in one direction, a spring-pressed lever arranged to normally hold the roller against rotation, and a swinging catch on said lever for engaging said bar.

5. The combination in an apparatus for the purpose described, of a feed roller, a toothed wheel fixed with respect to the feed roller, a loosely mounted toothed wheel, a ratchet connection between said wheels, a rack bar arranged to engage the second mentioned toothed wheel, means for moving the bar in one direction, a spring-pressed lever arranged to engage and lock the first mentioned toothed wheel, and a swinging catch on said lever for engaging the rack bar.

6. The combination in an apparatus for the purpose described, of a feed roller, a toothed wheel fixed with respect to the feed roller, a loosely mounted toothed wheel, a ratchet connection between said wheels, a rack bar arranged to engage the second mentioned toothed wheel and having a lateral pin, means for moving the bar in one direction, a spring-pressed lever arranged to engage and lock the first mentioned toothed wheel, and a swinging catch centered on the spring-pressed lever and having a rounded upper portion arranged to engage the lateral pin of the rack bar.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

THOMAS S. PATTERSON.

Witnesses:
G. H. CUMMINS,
HAL. M. SCOTT.