

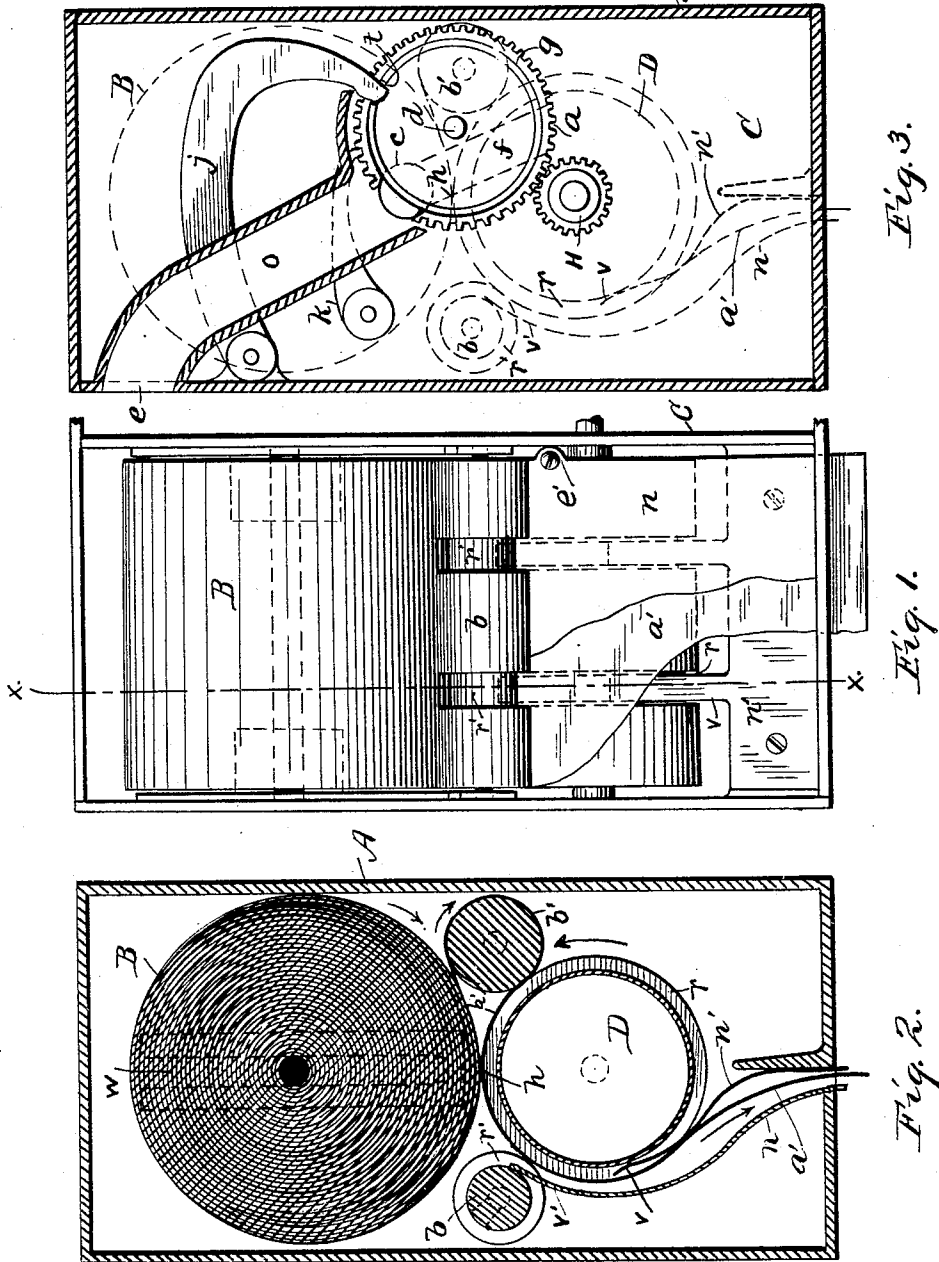
(No Model.)

2 Sheets—Sheet 1.

J. EVANS.
COIN ACTUATED MECHANISM.

No. 482,119.

Patented Sept. 6, 1892.



WITNESSES.

Charles Harrigan
James E. Arnold

INVENTOR

John Evans
By Benj. Arnold
Attorney

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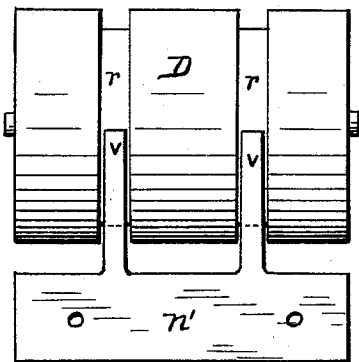


Fig. 6.

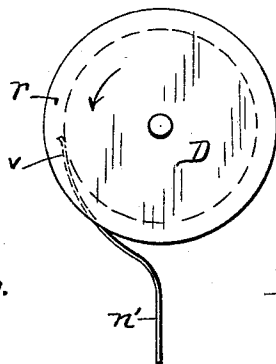


Fig. 7.

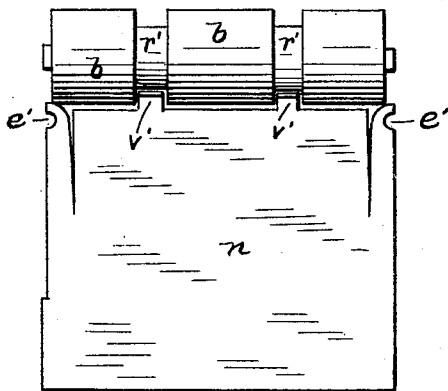


Fig. 4.

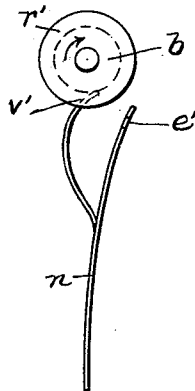


Fig. 5.

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John Evans
By Benj Arnold
Attorney

UNITED STATES PATENT OFFICE.

JOHN EVANS, OF PROVIDENCE, RHODE ISLAND.

COIN-ACTUATED MECHANISM.

SPECIFICATION forming part of Letters Patent No. 482,119, dated September 6, 1892.

Application filed October 27, 1891. Serial No. 410,013. (No model.)

To all whom it may concern:

Be it known that I, JOHN EVANS, of Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Coin-Actuated Mechanism; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to that class of coin-actuated machines intended to deliver articles upon the deposit of a proper coin in the receptacle provided for it, and is designed for the purpose of obviating some of the objections met with in using machines of that class as heretofore constructed.

The improvements herein described are especially adapted to and intended to be applied to the form of machine for the delivery of toilet-paper described in my United States Letters Patent, No. 462,479, dated November 3, 1891.

The improvements are fully illustrated in the accompanying drawings.

Figure 1 shows a front elevation of the machinery directly employed in delivering the paper, the front of the case being removed. Fig. 2 is a vertical cross-section from front to back, taken on line *xx* in Fig. 1. Fig. 3 is a side elevation with the sides of the case removed to show the improvements in the mechanism for operating the rolls for delivering the paper. Fig. 4 is an elevation of the weight-roll and its clearing-plate. Fig. 5 is an end view of the roll and plate shown in Fig. 4. Fig. 6 is a front view of the main delivery-roll and the plate for clearing it. Fig. 7 shows an end view of the main delivery-roll and its clearing-plate, shown in Fig. 6.

One of the objections to the coin-actuated machines for this purpose has been the liability of their becoming choked up and prevented from operating by the paper catching on the delivery-rolls and being wound up around them, the softness and lack of rigidity in the class of paper used increasing this liability in a great degree.

Another objection obviated by these improvements is the opportunity afforded by the shape of the coin-chute and position of the

controlling-pawl for the insertion of sticks or wires to manipulate the pawl and release the mechanism for delivering the paper without the use of a coin.

The machine is constructed and operated in every way the same as that described in my patent above referred to, excepting where the improvements herein described are applied, and they operate mostly in making the working of the machine more certain and less liable to obstruction or fraud.

An oblong case A is provided either of metal or wood to hold the mechanism. A partition C is inserted lengthwise of the case a short distance in from one side to separate the coin-actuating devices, which are left out in Fig. 1, from the paper to be delivered and the rolls for passing it out.

B is the roll of paper, which is held by the journals of the roll in slots *w*, made in the side of the case A and the partition C, so as to rest on the top of the main delivery-roll D, which has one end of its shaft held in a bearing in the side of the case and the other end in a bearing in the partition C, through which it extends far enough to receive a gear-wheel H. A large gear-wheel *a* is held loose on a short shaft *d*, that has a bearing for its inner end in the partition C and its other end extended out through a bearing in the side of the case far enough to receive the knob by which it is operated. A wheel *g* is also made fast on this shaft *d* outside of the wheel *a*. The wheel *g* has a pocket or recess *c* made in its periphery of the proper size to hold the coin intended to operate the machine and leave a portion of the coin projecting above the surface of the wheel, (see Fig. 3,) and a passage *f* is made extending from the bottom of the recess *c* through to the other side of the wheel. This passage is made narrower than the recess *c*, so that the coin shall not pass into it, but will be held, as stated, partly exposed above the surface of the wheel for the purpose of operating a weighted pawl *j*, which is pivoted by one end to the partition C and has its other end shaped to enter a notch *t* in a projecting rim on the wheel *a* and hold it from turning when the pawl is not raised by a coin passing under it. The passage *f* is made for the purpose of allowing such articles as buttons, matches, &c., that

may be put into the coin-entrance *e* to pass clear through and not remain in to prevent a coin afterward from passing into the recess to operate the pawl *j*. An opening is made at *e* in the front of the case for the insertion of the coin, and a chute or passage *o* extends from this entrance down to the recess *c* in the wheel *g* to guide the coin to that place. Another pawl *h* is pivoted at one end to the partition *C* and has its other end fitted to enter between the teeth of the wheel *a* and prevent it from being turned backward. A small roll *b*, made, preferably, of metal for the sake of the weight, is held loosely by its journals in openings in the side of the case and in the partition *C*, so as to rest on the roll *D* or on the paper between, and by holding it down in contact with that roll assist in drawing the paper off of its roll and passing it into the opening between the plates *n n'*, which form the delivery. Another small roll *b'*, placed on the other side of the rolls *B* and *D*, has bearings in the partition *C* and the end of the case. This roll also rests on the roll *D*, and is for the purpose of carrying the paper to the back of the case and causing it to pass twice between the paper roll and the main delivery-roll at *h*—that is, pass once in each direction—so that the friction between the two surfaces of the paper in passing each other in opposite directions at *h*, with the weight of the roll of paper on them, will act as a brake on the latter roll and prevent it from overrunning and creating a slack in the paper, and will also prevent the paper from being drawn out by pulling on the lower end of it. The main delivery-roll *D* is covered with emery or other substance to give it a hold on the paper, and this rough surface makes the paper liable to catch and stick to it. To prevent this, I make two grooves *r r* in the surface of the roll (see Figs. 6 and 7) and place a plate *n'* below the roll fast to a projection on the bottom of the case. This plate *n'* has two long fingers *v v* cut on it, the ends of which lay in the grooves in the roll *D* and cause the paper as it comes down over them to leave the roll and pass down out of the opening in the bottom of the case. The weight-roll *b* also has grooves *r'* made in like

manner for the same purpose, (see Figs. 4 and 5,) and a plate *n* is made fast by screws at *e'* to the partition *C* and the end of the case, and provided with short fingers *v'*, that lay in the grooves *r'* in the roll *b*, so that the paper will pass over the ends of them and be stripped from the roll and guided down to the discharging-opening. As will be seen in Fig. 3, the chute *o* has been extended out over the wheel *g* and the end pawl *j* curved toward the back part of the case for the purpose of preventing a stick or wire inserted in the opening *e* from reaching the pawl *j* to lift it out of the notch *t*, and thus release the wheel *g* without having a coin in the recess *c*.

The operation of the improvements is as follows: The wheel *g*, having been released by a coin in the recess *c* passing under the pawl *j*, as described in my patent before referred to, it will, when turned, operate the wheel *D* and will draw the paper *a'* off of the roll *B* around the roll *b'* by means of the friction on the roll *D*, caused by the weight of the paper roll and rolls *b b'* being on it. The paper will be carried over the front of the roll *D* under the roll *b*, from which it will be cleared by the fingers *v'* of the plate *n*, which enter the grooves *r'* in the roll. As the paper passes down on the roll *D* it will be separated from it by the fingers *v* on plate *n'*, the ends of which enter in the grooves *r* in the roll, so as to come under the paper, which will be guided between the plates *n* and *n'* to the opening in the bottom of the case.

Having thus described my improvements, I claim as my invention and desire to secure by Letters Patent—

In a coin-actuated machine for delivering paper, using a roll of paper, the combination of the main delivery-roll *D*, paper-roll *B*, supported by said roll *D*, roll *b'*, arranged to carry the paper once in each or opposite directions between said rolls *D* and *B*, the two layers of paper being in contact with each other while between said rolls, substantially as set forth.

JOHN EVANS.

Witnesses:

WILLIAM EVANS,
BENJ. ARNOLD.