No. 849,448. PATENTED APR. 9, 1907.

J. J. WOOD.

COIN OPERATED MECHANISM.

APPLICATION FILED DEC. 14, 1906.

FIG. 1.

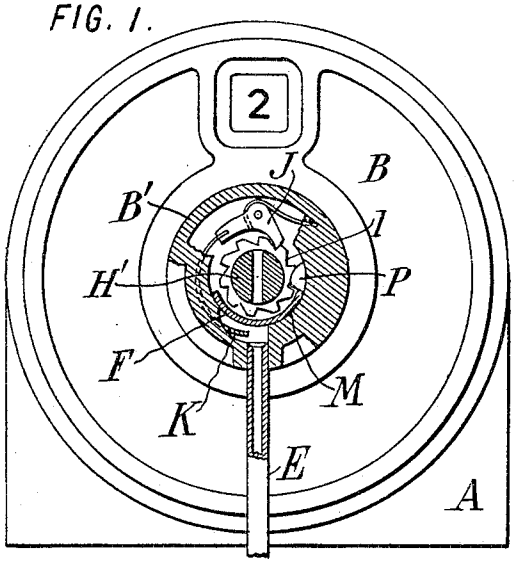


FIG. 2.

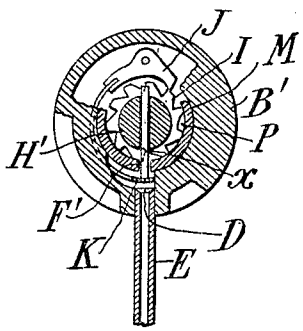


FIG. 3.

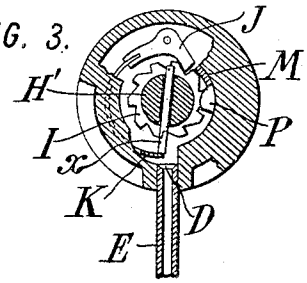


FIG. 4.

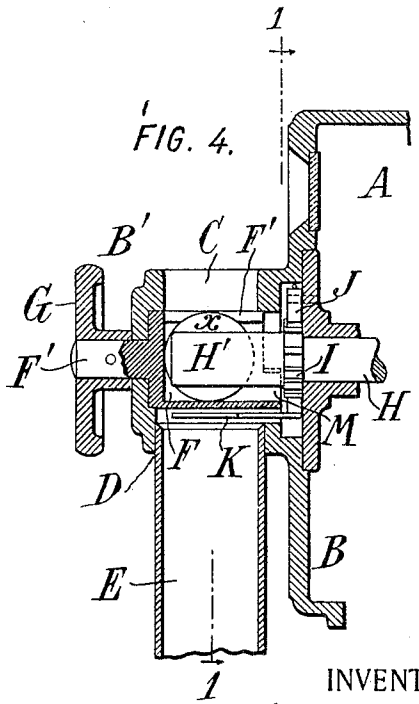
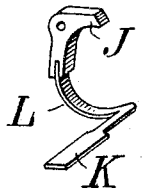


FIG. 5.



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COIN-OPERATED MECHANISM.

No. 849,448. Specification of Letters Patent. Patented April 9, 1907.

Application filed December 14, 1906. Serial No. 347,792.

To all whom it may concern:

Be it known that I, JAMES J. WOOD, a citizen of the United States, residing at Fort Wayne, in the county of Allen and State of Indiana, have invented certain new and useful Improvements in Coin-Operated Mechanisms, of which the following is a specification.

This invention provides certain improvements applicable to coin-actuated mechanisms of that class or character where the coin after being dropped in through a coin-slot serves as a mechanical intermediary through which an operative thrust may be transmitted from an actuating to an actuated part.

The object of the invention is to prevent the escape of the coin before the mechanism has completed its designed movement.

In the accompanying drawings the invention is illustrated as applied to the prepayment mechanism which is set forth in detail in my United States Letters Patent No. 806,722, granted December 5, 1905.

Figure 1 is a fragmentary front elevation of the apparatus, certain parts being in vertical section, taken on the line 1 1 in Fig. 4. Figs. 2 and 3 are vertical sections in a similar plane, showing the parts in a different position. Fig. 4 is a vertical transverse section. Fig. 5 is a perspective of one of the parts removed.

Referring to the drawings, let A designate the apparatus or structure to which the coin-actuated mechanism is applied, and B the front plate of the casing thereof. This plate has a forward projection B′, shown as of cylindrical or barrel shape. In its upper part it has a coin-admission slot C, Fig. 4, and diametrically opposite to this in the under side is a coin-discharge slot or opening D, from which the coin may fall through an upright conduit E or otherwise directly or indirectly into the receptacle beneath. Within the barrel-shaped casing B′ is inclosed an oscillatable sleeve or barrel F, having at its front a neck F′, which projects out through the front of the casing and has fixed to it an operating part G, such as a disk or knob. Concentric with the barrel F is a shaft H, having a portion H′, which projects into the hollow of the barrel F. The barrel F has a slot formed in its upper side which when in the coin-receiving position coincides with the coin-admission slot C, Fig. 4. The portion H′ of the shaft H has a slot through it for receiving the coin. The barrel F is limited to a half-revolution in either direction, while the shaft H moves forward only a half-revolution each time, being prevented from turning backward by a ratchet-wheel I, engaged by a pawl J.

When a coin is inserted and the barrel turned to its receiving position, the coin drops down into the slot in the shaft H′, as shown by the circle *x* in Fig. 4. In this position the prescribed coin serves to lock together the barrel F, which is the driving or actuating part, and the shaft H, which is the coin driven or actuated part. By imparting a half-turn to the knob G the same movement is communicated through the coin to the shaft H, the pawl clicking over the ratchet as it turns. At the end of the half-turn the slot F′ comes beneath into coincidence with the delivery-slot D and the coin falls out. The mechanism thus far described differs in no essential respect from that shown in my said patent, and while it forms the structure for which my present invention has been particularly designed it is not to be understood as necessarily essential thereto.

It sometimes happens in the operation of coin-actuated mechanism of this character that the person operating it will not continue the rotary thrust until the shaft H shall have entirely completed its half-revolution, so that the coin is released and drops out before the pawl shall have dropped into place behind the last ratchet-tooth which it engages. In such case the shaft H is liable to turn backward the space of one tooth, and is certain to do so when the shaft is the means for winding a spring or acts against any similar elastic resistance. An example is found in my aforesaid patent, where the shaft operates to wind a spring. In such case the mechanism operated by the shaft H is liable to become deranged. My present invention is designed to obviate the possibility of such derangement.

My invention provides means in connection with the pawl for preventing the escape of the coin until the pawl shall have dropped into the notch behind the ratchet-tooth and properly seated itself therein. To this end I connect directly or indirectly with the pawl an intercepting-plate movable into and out of the path of discharge of the coin and as close as practicable beneath the coin-driving part or barrel F, arranging this intercepter so that as the pawl is lifted onto a ratchet-tooth the intercepter stands in the path of escape of the coin, while when the

pawl is dropped into the notch behind a tooth the intercepter is displaced out of the path of the coin.

The preferable construction is that shown in Fig. 5, where the pawl J has directly attached to it an intercepting-plate K. The pawl and plate might be formed in one piece; but for convenience the pawl is formed with a slotted tail, into the slot of which is soldered the end of an arm L, which may be formed of sheet metal integral with the plate K, or the plate K may be otherwise connected directly or indirectly to the pawl, so as to receive from the pawl the requisite movements. The plate projects forward, as shown, so as to stand over the coin-discharge opening D, Fig. 4, and has a lateral movement into and out of the path of escape of the coin. When the pawl is lifted by a ratchet-tooth, as shown in Fig. 2, the plate K stands directly beneath the coin, so that if the coin is released it falls onto the plate, as shown in Fig. 2. When, as shown in Fig. 1, the pawl is seated in a notch behind a tooth, the plate K is displaced to the left out of the path of the coin. Until thus displaced the coin consequently cannot fall and remains in engagement with both the coin-driving barrel F and the coin-driven shaft H, so that it must be used to carry this shaft to its final position and cause the pawl to drop into place back of the proper ratchet-tooth. In Fig. 3 the pawl is thus dropped, the coin being still held frictionally, but in position to fall on being relieved of the pressure of the barrel F.

In the construction shown the barrel F is limited to a half-turn back and forth by being formed with a mutilated portion or rearward extension M, engaged by a stop projection P, so that in the coin-receiving position, Fig. 1, one side of the extension encounters the under side of the projection P, while in the coin-discharging position, Fig. 3, the other side of this projection encounters the upper side of the stop P.

My invention is not limited in its application to the precise mechanism shown, but may be applied otherwise wherever in a coin-actuated mechanism the coin-driven part is required to move the prescribed distance and then to be locked in place by a pawl before the coin which moves it is released.

I claim as my invention—

1. In a coin-actuated mechanism, the combination of a coin-driving part, a coin-driven part having a prescribed movement, a pawl for locking it at the end of such movement, and an intercepter operatively connected o such pawl to be moved thereby from the path of discharge of the coin upon the moving of the pawl to its locking position.

2. In a coin-actuated mechanism, the combination of an oscillatory coin-driving part, an intermittently-rotative coin-driven part, a ratchet in connection with the latter, a pawl engaging said ratchet, and an intercepting-plate connected to said pawl arranged in the path of escape of the coin when the pawl engages a ratchet-tooth, and movable out of such path by the locking movement of the pawl behind such tooth.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

JAMES J. WOOD.

Witnesses:
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FRED WHITE.