

(No Model.)

P. SCHNEIDER.
COIN OPERATED MACHINE.

No. 421,619.

Patented Feb. 18, 1890.

Fig. 1.

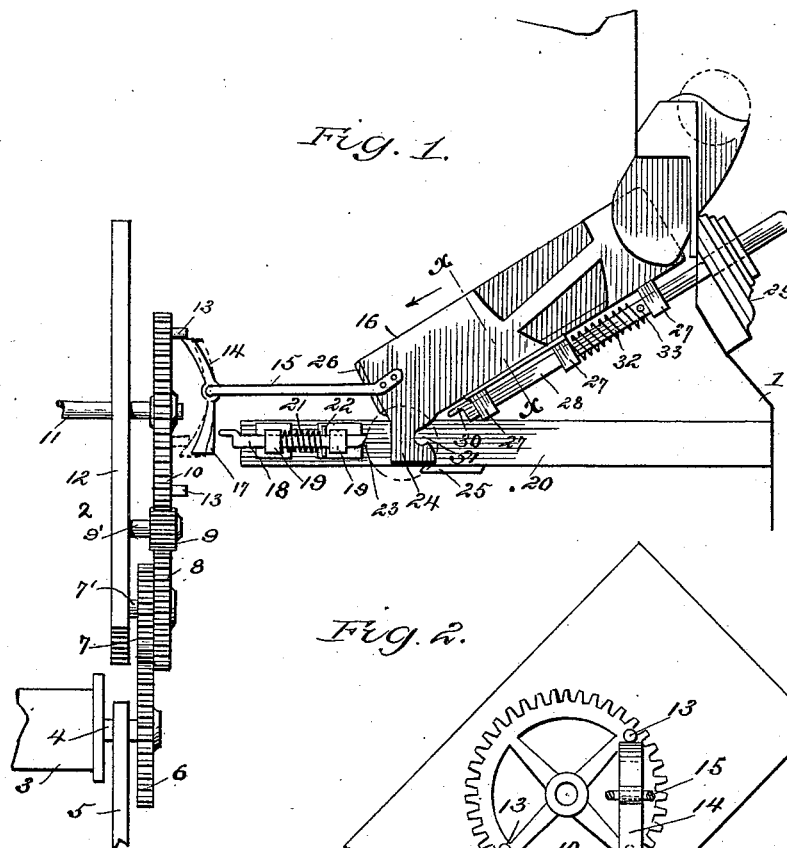


Fig. 2.

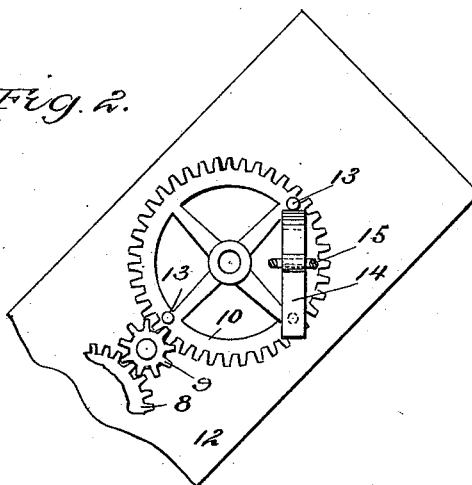
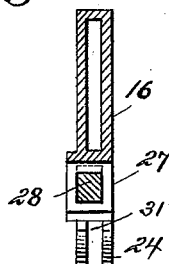


Fig. 3.



WITNESSES:

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PETER SCHNEIDER, OF BROOKLYN, NEW YORK.

COIN-OPERATED MACHINE.

SPECIFICATION forming part of Letters Patent No. 421,619, dated February 18, 1890.

Application filed July 24, 1889. Serial No. 318,578. (No model.)

To all whom it may concern:

Be it known that I, PETER SCHNEIDER, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Coin-Setting Tripping Mechanism for Automatic Cigar-Selling Machines, of which the following is a full, clear, and exact description.

This invention relates to a coin-operated tripping device connected with a mechanism for moving an apertured movable band to release and deliver one cigar at a time from an automatic cigar-selling machine.

The invention has for its object to provide a coin-chute and a tripping mechanism connected with a mechanism for automatically delivering one cigar at a time, by means of which when a coin of a particular denomination is deposited the tripping mechanism will be set to permit it to be operated by hand to release the cigar-delivering mechanism, deposit the coin, and relock the cigar-delivery mechanism. The chute is also so constructed and arranged with reference to the tripping mechanism as to cause spurious coins and other objects deposited to fail to set the tripping mechanism.

The invention consists in a coin-setting tripping mechanism for automatic cigar-selling machines constructed and arranged as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a side view of the invention. Fig. 2 is a detail thereof with parts broken away; and Fig. 3 is a vertical section on the line *x x*, Fig. 1.

In carrying out this invention it is employed with a cigar-delivering mechanism in which an apertured horizontal movable band is mounted on a pair of rollers, one of which is provided with a mechanism to rotate it and wind up thereon the movable band at one end, and the other being connected with a train of gearing held in locked position by a tripping device, so that when temporarily released one roller will be rotated by the other roller to advance the movable band a brief distance and wind it up at one end and unwind it at the other. Cigars resting in verti-

cal position on the movable band are thereby dropped through the apertured band one at a time as often as the movable band is advanced.

1 indicates a portion of a casing inclosing the cigar-delivering mechanism 2, wherein a portion of one of the rollers 3, above referred to, is shown, on which the apertured movable band (not shown) is mounted to be unwound as the band is advanced. Upon the projecting shaft 4 of the roller 3, supported in a bearing 5, is mounted a toothed wheel 6, connected by the toothed gear-wheels 7 and 8 and the pinion 9 with a toothed gear-wheel 10, having its shaft 11 mounted in the support 12, in which the shafts 7' and 9' of wheels 7 and 8 and pinion 9 also have their bearing.

Projecting laterally from the rim of wheel 10 and diametrically opposite to each other are two pins 13, one of which rests on the upper end of a vertical curved tripping-arm 14, pivoted to a bracket 15, mounted on a coin-chute 16, extending from the side of the casing 1. The lower end 17 of the arm 14 is counterweighted, so as to cause the arm 14, when swung from the perpendicular, to return to a vertical position. By having the arm 14 curved its upper end will only require a slight movement to engage a pin 13, and its lower end will readily clear the pin 13 as the latter is carried by it in the movement of wheel 10.

By means of the tripping-arm 14 engaging the pin 13 the train of gearing consisting of wheels 7 and 8, pinion 9, and wheel 10 is locked, so as to prevent the roller 3 from being rotated by the other roller. To release the train of gearing for advancing the movable band a brief distance and relock it, the following mechanism is employed: Projecting behind the counterweighted end 17 of the tripping-arm 14 is located a sliding bar 18, mounted in and extending through sleeves 19 on a frame 20 in casing 1, and having a coiled spring 21, located between the sleeves 19, and a pin 22 to limit its rearward movement when moved back by the reaction of spring 21. By means of the bar 18, when it is moved forward, it will push the lower end of arm 14 and disengage its upper end from the pin 13, thereby unlocking the train of gearing. The rear

end of the bar 18, which is curved, as at 23, is located adjacent to the lower end of coin-chute 16, and the lower corner of the lower end of chute 16 is formed with a depending portion 24, slotted for the passage of a coin and having adjacent thereto a ledge or shelf 25, upon which and the rear end of bar 18 a coin of the proper diameter rests, as shown in dotted lines in Fig. 1, after it has passed down to the lower open end of chute 16. The coin is directed between the end of bar 18 and shelf 25 after it has reached the lower end of chute 16 by the end piece 26 closing the upper part of the lower end of the chute.

Extending through sleeves 27 on the bottom of chute 16 is a sliding bar 28, having its upper end projecting through an apertured frame 29 on the outside of the casing 1 beneath the projecting end or mouth of chute 16 and resembling an electric push-button. The bar 28 is formed at its lower end with a beak 30, which is movable a short distance toward and is stopped by a recess 31 in the depending-slotted portion 24. The bar 28 is retracted to its normal position (shown in Fig. 1) by a coiled spring 32, located on the bar 28 between two of the sleeves 27, and is limited in its return movement to normal position by a stop-pin 33, which abuts against the uppermost sleeve 27.

The operation of the invention is as follows: The parts being in the position shown in Fig. 1, upon a coin of the proper diameter being deposited in chute 16 it will roll down to the lower end of the chute and rest edge-wise against the shelf 25 and the inner end of bar 18. The end of bar 28 projecting out of the casing 1 being then pushed inward, its beak 30 will be brought against the upper edge of the coin and press it downward, causing it to be moved between the shelf 25 and the inner end of bar 18, and moving the latter so that its outer end will be brought against and push the counterweighted end 17 of the tripping-arm 14, so as to swing the upper end of the latter away from the pin 13. The wheel 10 being thereby released and the train of gearing consisting of wheel 10, pinion 9, and wheels 8, 7, and 6 unlocked, the roller 3 is permitted to be rotated by the movable band and the other roller with its mechanism. As the roller 3 rotates it operates the train of gearing until the second pin 13 is brought to the position which the first pin 13 occupied, as shown in Figs. 1 and 2, when it is arrested by the upper end of tripping-arm 14, which has meanwhile been swung back to normal position by its counterweighted end 17. The movement of the train of gearing is thereby stopped and the gearing with the roller 3 is locked. In pushing a coin by means of bar 28 between shelf 25 and the rear end of bar 18 the coin moves between them, and as the bar 18 is advanced thereby the edge of the coin rides over the curved portion 23 of the end of bar 18 and drops into a suitable receptacle in casing 1.

The bar 18 is thereupon thrown back to normal position by its spring 21, and the counterweighted end 17 of arm 14 is permitted to swing back to normal position. If a coin of less diameter than the proper coin be inserted in the chute 16, it will pass between the shelf 25 and inner end of bar 18 without being wedged, so as to permit bar 18 to be operated by the pressing in of bar 28.

It will thus be seen that by means of this invention an effective device is provided for tripping goods-delivering mechanism upon the depositing of a proper coin.

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

1. The combination, with the automatically-operated delivery mechanism, of the locking or tripping device 14, pivoted to the arm 15, attached to the chute 16, the unlocking-bar 18, mounted in the frame 20, provided with retracting-spring 21 and pin 22 to limit its rearward movement, the coin-chute 16, having its lower end partially closed by plate 26, the plate 25, disposed below said chute and adapted to hold a coin against the inner end of the bar 18, and the operating-bar 28, provided with retracting-spring 32 and projecting without the casing, whereby pressure thereon will cause the lower end to engage the coin and force the bar 18 into engagement with the tripping device 14, and thereby unlock the delivery mechanism, substantially as described.

2. The combination, with the automatically-operated delivery mechanism, an unlocking-bar, as 18, provided with a retractile spring, said bar adapted to engage one edge of the coin when in place, and tripper or locking device 14 intermediate said bar 18 and the delivery mechanism, a portion of said device 14 being normally in the path of the movement of the bar 18, of the coin-chute 16, the plate 25, disposed below said chute, said plate adapted to hold the coin against the inner end of the bar 18, and the operating-bar 28, provided with a retractile spring, said bar projected without the casing, whereby pressure exerted thereon will cause its lower end to engage the coin and force the bar 18 into engagement with the tripper 14, and thereby unlock the delivery mechanism, substantially as and for the purpose described.

3. In a selling-machine, the coin-chute 16, formed with the depending slotted portion 24 at its lower end, having a rear recess 31, a shelf 25 adjacent to the depending portion 24, a sliding bar 28, with retracting-spring 32, located beneath chute 16, having an outer end projecting out of the selling-machine and a beak 30 at its inner end movable against the depending portion 24 into recess 31, a pivoted arm 14, with a depending counterweighted lower end 17, and a sliding bar 18, with retracting-spring 21, having its outer end located behind and movable against the counterweighted end 17 of arm 14 and its

inner curved end 23 located adjacent to the lower end of chute 16, substantially as shown and described.

4. In a selling-machine, a wheel 10, having
5 a pair of lateral and diametrically-arranged pins 13 on its rim, a pivoted curved arm 14, having a counterweighted lower end 17 and its upper end engaging a pin 13, a coin-chute 16, having the depending slotted portion 24
10 at its lower end, with recess 31 and shelf 25, a sliding bar 18, with retracting-spring 21, located behind and movable against the counterweighted end 17 of arm 14, and hav-

ing its inner end located adjacent to the lower end of chute 16, and the operating-bar 15 28, projecting from the selling-machine and having a retracting-spring 32 and a beak 30 at its inner end adjacent to and movable into recess 31 of depending portion 24 of chute 16, substantially as shown and de- 20 scribed.

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Witnesses:

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EDGAR TATE.