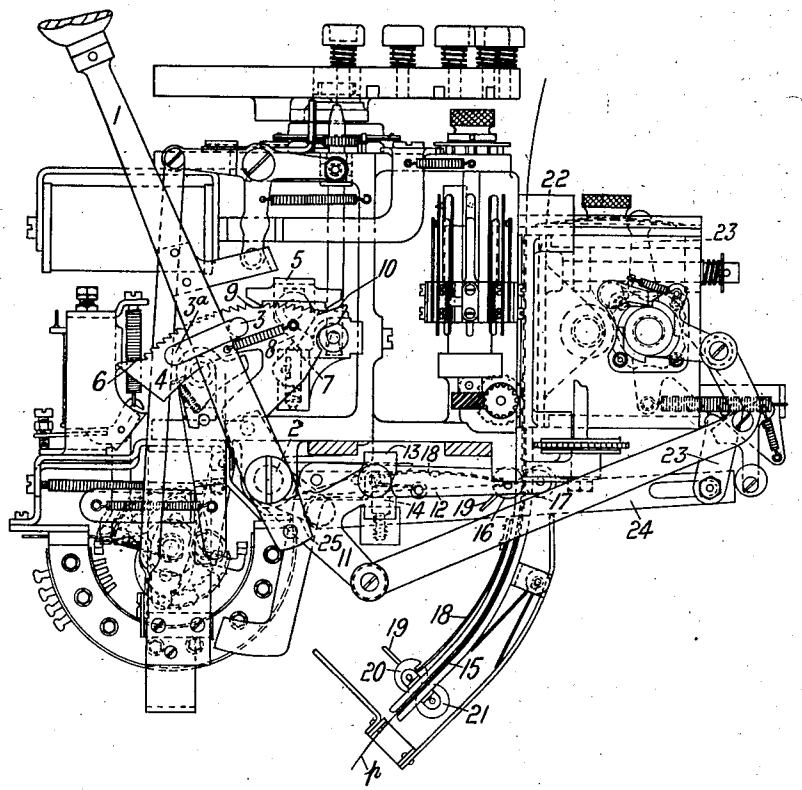
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TICKET PRINTING AND ISSUING MACHINE FOR TOTALIZATORS

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Inventor
John Handley
By
Dennis, Dane, Morsell & Church
Attorneys

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TICKET PRINTING AND ISSUING MACHINE FOR TOTALIZATORS

John Handley, London, England

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4 Claims. (Cl. 271—2.5)

The invention relates to ticket printing and issuing machines for totalizators and consists of improved ticket feeding means including a reciprocatory toggle device adapted to grip a strip of ticket-forming material only in its forward strokes.

According to a practical construction the toggle device is carried by a swing arm and includes a co-operating pair of rollers between which passes the ticket-forming strip, one roller being smooth and the other roller having a roughened surface and being eccentrically journalled. The eccentrically journalled roller is engaged by a spring which tends to rotate this roller until it makes contact with the smooth roller. In the movement of the swing arm in one direction the rollers do not grip the strip, but in the movement of the swing arm in the opposite or forward direction the rollers, assisted by the spring, engage and feed the strip forwardly. The swing arm is operated by a manually operable lever. A curved guide along which the strip is fed is mounted on the machine. To prevent the feed rollers from dragging the strip backwardly on the return strokes of the arm, a supplementary co-operating pair of strip-engaging rollers are mounted at the entrance end of the guide, said supplementary rollers permitting free travel of the strip in feeding direction but holding the strip against reverse travel. Each forward stroke of the lever opens a spring-loaded guillotine which is held open until the lever completes its return stroke when the guillotine is released and a ticket severed from the strip.

The invention is illustrated in the figure of the accompanying drawing which is a side elevation of a forecast machine with its casing and supporting frame removed.

Referring to the drawing, a manually operable printing lever 1 pivoted on a main shaft 2 is engageable alternately with each of two stops 3, 3a mounted on a swinging rack 4. In the operation of the lever 1 to print and issue a ticket a pawl 5 engages the teeth 9 of the rack 4 so that the rack cannot be moved back until it has completed its forward stroke and until the pawl 5 has been rocked by a projection 6 on the rack and a spring-loaded plunger 7 is engaging on the other side from that shown of an abutment 8 movable with the pawl 5. The lever 1 and the rack 4 are then free to return, a projection 10 on the rack restoring the pawl 5 and the abutment 8 to the position shown when the rack 4 has completed its return stroke. The lever 1 and associated parts are returned by a spring (not shown) acting through an arm on the main shaft 2 at the remote side of the machine.

The rack 4 is secured on the main shaft 2 together with a bracket 11 which forks at 13 over one of two paper feed arms 12 disposed one on each side of a feeding strip p of ticket-forming paper and attached to a bracket adapted to swing on the main shaft 2 when engaged by the fork 13. A spring-loaded plunger 14 is provided to allow the fork 13 to continue its travel to actuate a guillotine trip device after the paper strip p has come to rest.

The paper strip p travels up a guide 15 when gripped between rollers 16 and 17 carried by the feed arms 12. The roller 16 is eccentrically journalled, has a roughened surface, is urged in gripping direction by a spring 18, and may be rotated in releasing direction by manipulation of a pin 19 whereby to free the paper strip p. The rollers 16, 17 thus constitute a strip-engaging toggle device. Retaining rollers 20 and 21 are provided at the lower end of the guide 15 to prevent the paper strip p slipping backwards, and a spring 18 and a release pin 19 are provided for these rollers also. When the feed arms 12 swing to the bottom of the guide 15, the rollers 16 and 17 slide over the paper strip p which is held by the rollers 20 and 21 and, when the arms 12 swing upwardly the paper strip p is pushed upwardly through the machine to be cut off by a guillotine blade 22.

The guillotine blade 22 is actuated from the lever 1 by an arm 23, a link 24, and an arm 25, and is opened during the forward or printing stroke of the lever 1 when the feed arms 12 are moving downwardly.

According to a modification, the toggle device includes a co-operating pair of strip-engaging levers presenting or connected to strip-engaging elements.

I claim:—

1. A strip-feeding mechanism for a ticket-printing machine comprising an oscillatable arm, a toggle device carried by said oscillatable arm, at least one member of said toggle device being spring-urged to cause said member to grasp a strip of material when the toggle device is moving in one direction, and means for rendering the spring means ineffective when the toggle device is moving in the opposite direction, whereby reciprocation of said toggle device causes an intermittent feeding of said strip.

2. A strip-feeding mechanism for a ticket-printing machine comprising an oscillatable arm, a toggle device carried by said oscillatable arm, at least one member of said toggle device being

spring-urged to cause said member to grasp a strip of material when the toggle device is moving in one direction, means for rendering the spring means ineffective when the toggle device is moving in the opposite direction, whereby reciprocation of said toggle device causes an intermittent feeding of said strip, and means for holding said strip against backward movement.

3. A strip-feeding mechanism for a ticket-printing machine comprising an oscillatable arm, a toggle device carried by said oscillatable arm, at least one member of said toggle device being spring-urged to cause said member to grasp a strip of material when the toggle device is moving in one direction, means for rendering the spring means ineffective when the toggle device is moving in the opposite direction, whereby reciprocation of said toggle device causes an intermittent feeding of said strip, and a stationary toggle device for engaging said strip and holding it against backward movement.

4. A strip-feeding mechanism for a ticket-printing machine comprising a curved trackway along which a strip of material is adapted to be fed, an oscillatable arm, a toggle device carried by said oscillatable arm and movable adjacent said trackway as said arm is oscillated, said toggle device comprising at least one roller eccentrically mounted, said eccentrically mounted roller being spring-urged to cause it to grasp a strip of material when the toggle device is moving in one direction, and means for rendering the spring means ineffective when the toggle device is moving in the opposite direction, whereby reciprocation of said toggle device causes an intermittent feeding of a strip of material along said trackway.

JOHN HANDLEY.