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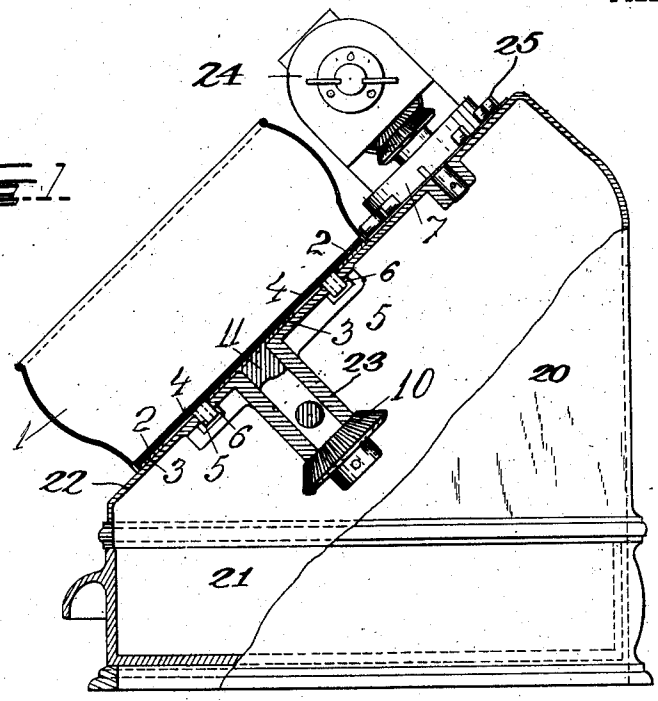
CALCULATING MACHINE FOR MONEY AND SIMILAR OBJECTS.

APPLICATION FILED NOV. 23, 1907.

902,067. Patented Oct. 27, 1908.

2 SHEETS—SHEET 1.

Fig. 1.



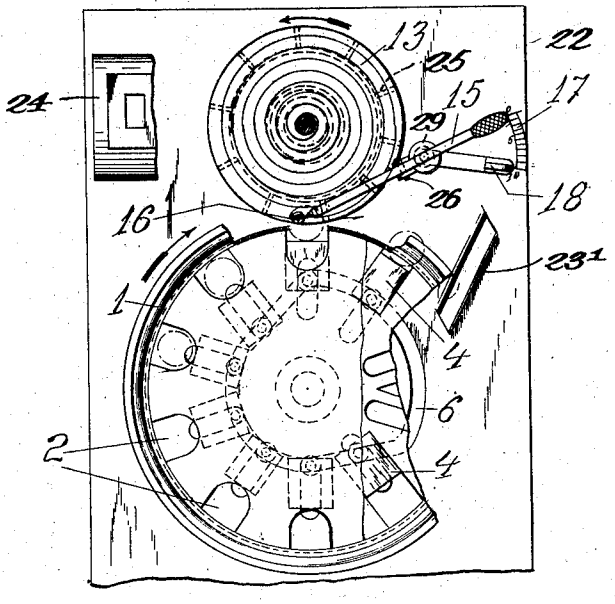


Fig. 2.

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2 SHEETS—SHEET 2.

Fig. 2.

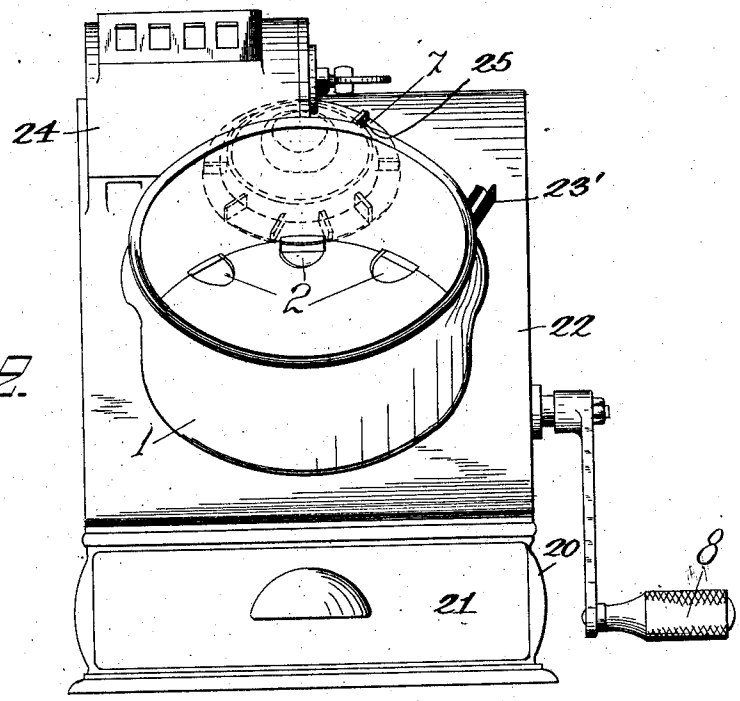


Fig. 4.

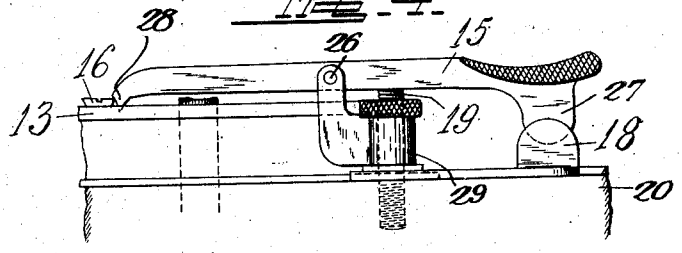
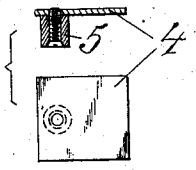


Fig. 5.



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CALCULATING-MACHINE FOR MONEY AND SIMILAR OBJECTS.

No. 902,067. Specification of Letters Patent. Patented Oct. 27, 1908.

Application filed November 23, 1907. Serial No. 403,471.

To all whom it may concern:

Be it known that I, MAGNI GUSTAFSON FRÖBERG, mechanician, a subject of the King of Sweden, residing at Stockholm, Sweden, and whose post-office address is Biblioteksgatan 5, Stockholm, Sweden, have invented certain new and useful Improvements in Calculating-Machines for Money and Similar Objects; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to coin counting machines and has for its object the provision of a machine of this character adapted to receive the coin in bulk and to manipulate the same in a manner to actuate a register or totalizer and finally to deposit the counted coin in the receptacle.

A further object of the invention is the provision of an improved device for arresting movement of the apparatus when a predetermined number of coins have been registered or totalized said device being adapted to be set or adjusted to arrest the machine on the operation thereof when any desired number of coins is counted.

The invention has other features of novelty and important details of construction which will hereinafter be more fully described in connection with the accompanying drawings and will be more particularly pointed out and ascertained in and by the appended claims.

In the drawings:—Figure 1, is a side elevation, with parts in section, of a coin counting machine embodying the main features of my invention. Fig. 2, is a front elevation thereof. Fig. 3, is a plan view thereof. Fig. 4, is a detail view of the device for arresting movement of the apparatus when a predetermined number of coins has been counted. Fig. 5, is a plan and sectional view of one of the details of construction.

Like characters of reference designate similar parts throughout the different figures of the drawings.

As shown the invention is embodied in a structure which includes a base designated at 20 and which is preferably provided with an inclined top wall 22 and a receptacle such for instance as a drawer 21 for the counted coin. In said wall 22 there is provided a cam slot 6 and a journal bearing 23 for a stub 11 upon which a coin receiver 1 is rigidly secured. Said stub 11 is provided with a bevel gear 10 which may be operatively geared or otherwise connected in any desirable manner, not shown, with an operating crank 8. The receiver 1 is relatively deep and is designed to receive a mass of coin of one denomination. Said receiver is preferably inclined as shown so that the coin normally tends to slide towards the lowermost bottom point of the receiver 1. In the bottom wall of said receiver 1 there is provided a plurality of coin receiving openings 2 the outer ends of which extend to the vertical wall of the receiver to permit the coin to be discharged outwardly therefrom. A plurality of radially disposed slides 4 are carried by said receiver and each of said slides is provided with a projection 5 adapted to project or extend into and be operated by the cam slot 6 hereinbefore described. Said slides are carried by said receiver and are radially reciprocated when the receiver 1 is rotated by reason of their engagement with said cam slot for the purpose of being retracted radially inwardly from said openings, as shown at the left of Fig. 3, for the purpose of permitting coins to enter the receiving openings 2, said slides being reciprocated outwardly as shown in Fig. 3 for the purpose of engaging and actuating a counting or totalizing device and also for the purpose of facilitating discharge of the counted coin into the receiver or drawer 21. After the coin has been counted they are separately moved abreast of and fall by gravity into the slots 23'.

A totalizer or register indicated at 24 is provided with an actuating member which as shown is in the form of a rotating stud member 7 which is geared with said register and which is provided with a plurality of radially disposed studs 25 which project into the path of the coin extending from the receiver 1 in a manner to be actuated thereby as clearly shown in Fig. 2. It will thus be seen that when a mass of coin is disposed in said receiver 1 and the same is rotated, the openings 2, will be filled and as they approach the actuating member 7 the cam 6 will reciprocate the slides individually radially outwardly to project the coin into the

path of the stubs 25 thereby rotating the member 7 and registering account in the totalizer. After the coin has actuated the member 7 it will pass toward the opening 23 and will be discharged therethrough into the drawer 21.

In a machine of this character which is adapted to be rapidly operated and wherein it is desirable to count a number of coin so that they may be disposed in packages or cartridges for convenience in handling in banks and large commercial houses it is desirable to provide means for arresting movement of the apparatus when a predetermined number of coins is counted so that the operator will not lose time by watching the register and will not count more than the desired number of coins. This object of the invention is attained in the present embodiment by providing a cam groove 13 on the actuating member 7 which cam groove is spirally formed and starts at a point near the center of said member 7 and ends at a point near the periphery thereof. At the outer end of said groove I desirably provide an abutment 25 which may be in the form of a screw 16 for a purpose which will now be described in detail. A lever 15 is shown pivotally mounted at 26 and provided at one end with a projection 27 adapted for engagement with a stop 18 and provided at its other end with a downwardly projecting portion 28 adapted to seat in the cam groove and be engaged by the abutment 16 when the predetermined number of coins is to be counted and it is desired to automatically bring the apparatus to a position of rest. A spring 19 may be provided to retain the end 28 in the cam groove 13 and the mounting of the lever 15 shown at 29 permits the latter to be swung laterally, when depressed at its outer end, so as to insert the end 28 into the cam groove at any desired radial point. The lateral movement of the lever 15 also permits the same to move as the same travels outwardly in said cam groove. The stop 18 is adjustable about the mounting 29 and its outer end registers with a scale 17 conveniently provided on the upper wall 22. It will be seen from the foregoing that when any desired number of coin is to be counted the stop will be set with reference to the scale 17 and the lever 15 will be adjusted in the cam groove in a position as near the center of the actuating member 7 as the stop 18 will permit whereupon the counting operation may proceed. When the predetermined count has been finished the abutment 16, will engage the end 28 and will abruptly bring the mechanism to a position of rest whereupon the operator will understand that the count has reached the desired total.

I claim:—

1. The combination of a coin counting mechanism, of a base provided with a coin discharge opening and a cam slot, a register provided with an actuating member, a revoluble receiver provided with a plurality of coin receiving slots adapted to register with said discharge opening, radially movable slides carried by said receiver and actuated by said cam slot to open said coin slots for entrance of the coin therein at certain points in the revolution of the receiver, said cam slot projecting said slides outwardly in said slots toward said actuating member to engage the coin therewith at other points in the revolution of said receiver, and means for operating said receiver.

2. The combination of a coin counting mechanism, of an inclined base provided with a discharge opening and a cam slot, a register provided with an actuating member, a revoluble inclined coin receiver provided with a plurality of coin receiving slots adapted to register with said discharge opening, slides for said slots, actuated by said cam slot to open said coin slots at lowermost points of said receiver to permit entrance of coin in said slots, said slides projecting said coin into the path of said member at uppermost points and being subsequently actuated to permit discharge of said coin through said opening, and means for operating said receiver.

3. The combination of a coin counting mechanism, of an inclined base provided with a discharge opening, a register provided with an actuating member, a revoluble inclined coin receiver provided with a plurality of coin receiving slots adapted to register with said discharge openings, slides for said slots, an element for actuating said slides to retract the same at lowermost points in the revolution of said receiver to permit of entrance of the coin in said slots and projecting the coin outwardly in said slots at uppermost points in the revolution and into the path of said member and subsequently retracting said slides to permit of discharge of said coin through said opening, and means for operating said receiver.

4. The combination of a coin counting mechanism, of a base, a revoluble coin receiver, a register provided with an actuating member, cam mechanism for projecting the coin carried by said receiver into the path of said member to actuate the latter, and means geared with said receiver for arresting the same upon completion of a predetermined count.

5. The combination of a coin counting mechanism, of a base, a revoluble coin receiver mounted on said base, a coin register provided with an actuating member, means for projecting the coin carried by said receiver into the path of said member to actuate said register, a disk provided with a spiral groove rotated by said member and provided with an abutment at the terminal of said

groove, a swinging arm engaging said groove at one end, and graduations for said base adjacent the other end of said arm.

6. The combination of a coin counting mechanism, of a base, a movable coin receiver, a register provided with an actuating member, cam mechanism for projecting the coin carried by said receiver into the path of said member to actuate the latter, and cam mechanism geared with said receiver for arresting the same upon completion of a predetermined count.

In testimony whereof I affix my signature in presence of two witnesses.

MAGNI GUSTAFSON FRÖBERG.

Witnesses:

HJALMAR ZETTERSTROM,

FRITZ HALLIN.