

May 25, 1937.

F. M. ASHLEY

2,081,693

COUNTING REGISTER

Filed June 29, 1933

Fig. 1.

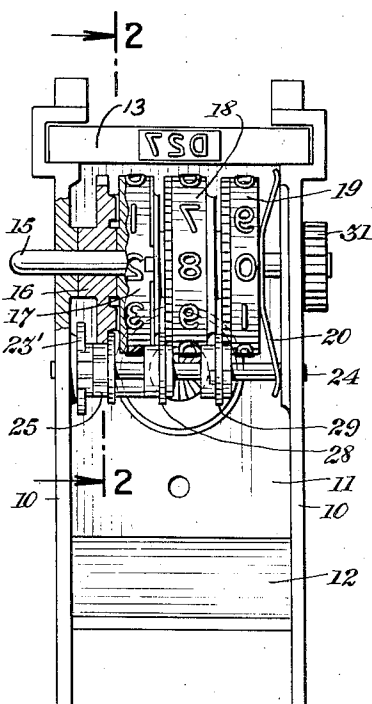


Fig. 2.

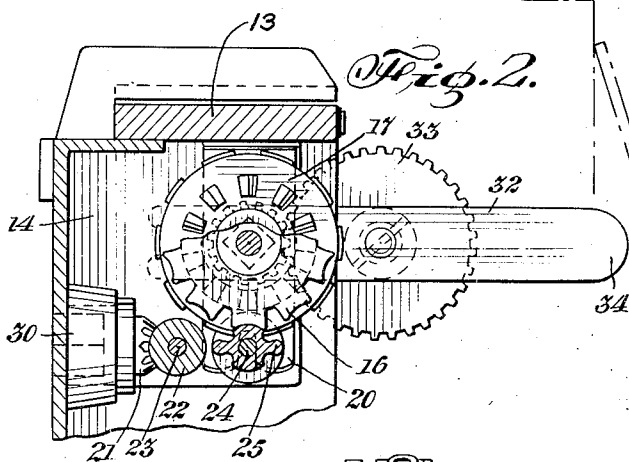


Fig. 3.

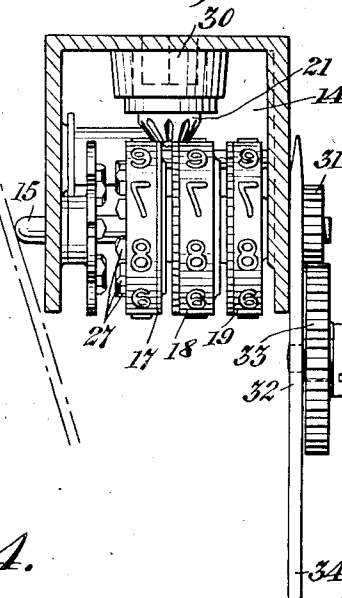
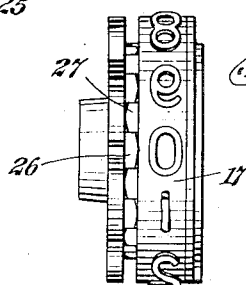


Fig. 4.



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2,081,693

COUNTING REGISTER

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Application June 29, 1933, Serial No. 678,184

2 Claims. (Cl. 235—144)

My invention relates to counting registers for use in voting machines of the type which print the record sheet directly from the register.

The object of my invention is to provide an improved register of this type, the improvement comprising a clutch construction for engaging the units wheel to rotate the clutch and wheel in unison, and means for disengaging the clutch from the units wheel prior to resetting the register to zero.

The construction embodies a gear transmission having a Geneva movement and the present invention overcomes a trouble inherent in the register as heretofore made, namely, that in resetting the register, the dwells on the units wheel were separated laterally from the intermittent pinion, and in again uniting them a tooth of the intermittent pinion gear would often engage a dwell surface instead of a detent of the wheel, thus causing a tooth to be broken from the pinion when the register was again operated.

Referring to the drawing which forms a part of this specification:

Figure 1 is a front elevational view of a register disclosing the general arrangement of mechanism.

Figure 2 is a sectional view taken on line 2—2 of Figure 1, showing the clutch with the dwells formed thereon, one of which is in engagement with a dwell formed on the intermittent pinion, thus holding the clutch member in locked position.

Figure 3 is a front view showing the clutch disengaged from the units wheel and the means used to hold them apart to permit resetting of the register.

Figure 4 is a view of the clutch and units wheel held in locked engagement.

The construction comprises a casing having parallel side walls 10, a back wall 11, a bottom wall 12, and a top wall 13, providing a chamber 14 open on the front side only. Openings thru the side walls provide bearings for the register drum shaft 15 which extends outwardly beyond the walls 10. Mounted on the shaft 15 is a Geneva wheel 16, a units drum 17, a tens drum 18, and a hundreds drum 19 and a leaf spring 20.

The units wheel 17 is fixed on the shaft 15 whereas the elements 16, 18, 19 and 20 are carried in movable relation thereon. The Geneva wheel is rotated one-tenth of a revolution for each quarter of a revolution of the mitre wheel 21, the movement being transmitted thru an intermediate gear 22 fixed on a shaft 23, said shaft being supported at each end by the side walls 10 of the casing. A second gear wheel is fixed on the shaft 23 and meshes with a gear 23' fixed on transfer shaft 24 and drives the intermittent Geneva pinion 25

fixed on said shaft. The intermittent pinion in turning one-half revolution rotates the Geneva wheel 16 one-tenth of a revolution.

Formed on one side of the Geneva wheel 16 are ten teeth 26, and on the adjacent side of the units wheel 17 are formed an equal number of teeth 27 adapted to mesh with the teeth 26 and thus provide a clutch. 28 and 29 indicate the usual register transfer pinions which are rotatable on the shaft 24 and are free to slide thereon and serve to transmit motion from drum 17 to 18 and from drum 18 to 19 in the usual manner. A socket 30 is adapted to receive a key by means of which the gear 21 is rotated.

Mounted on the shaft 15 in fixed relation is a gear wheel 31. 32 indicates a blade, bifurcated at one end and formed to serve as a wedge which, when inserted between the wall of the casing and adjacent side of the gear by the end 34 thereof that constitutes a handle, will move the shaft 15 to disconnect the clutch. The blade is held against movement and the gear 33 is adapted to be manually rotated to effect rotation of the gear wheel 31 and shaft 15 for re-setting the register. When the blade is removed, the spring 20 moves the register drums back into clutch engagement, as will be readily understood.

By this construction the intermittent pinion 25 and Geneva wheel 16 are always in correct operative engagement and the register may be more quickly reset to zero.

Having thus described my invention, I claim as new:

1. A register for voting machines including a casing having side walls, a shaft journaled in the side walls, said shaft being longitudinally shiftable transversely of the casing, a driven wheel loose on the shaft adjacent one end thereof, a register wheel fixed on the shaft adjacent the loose wheel, a clutch connection between the loose wheel and the fixed register wheel, another register wheel loose on the shaft and operatively connected with the fixed register wheel, a gear fixed on the other end of the shaft and means for shifting the shaft for separating the clutch connection including a wedge key of blade formation insertable between a wall of the casing and the gear and a gear on the key engageable with the gear on the shaft, said wedge key being held stationary during manual rotation of the gear carried thereby for rotating the shaft when the clutch connection is separated to return the register wheels to zero position.

2. A register for voting machines as defined by claim 1, characterized by said key blade having a bifurcated end for bearing on the shaft.

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