

(No Model.)

C. P. GOTT.

APPARATUS FOR REGISTERING SALES OF TICKETS, &c.

No. 473,113.

Patented Apr. 19, 1892.

Fig. 1.

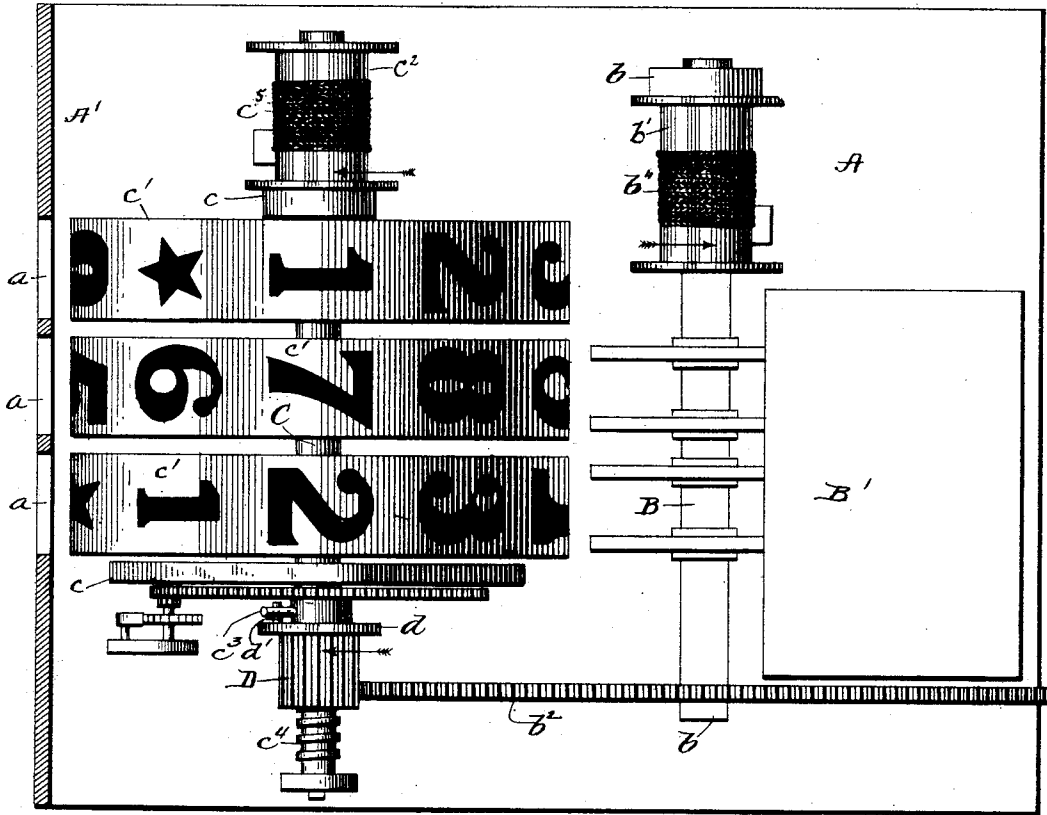
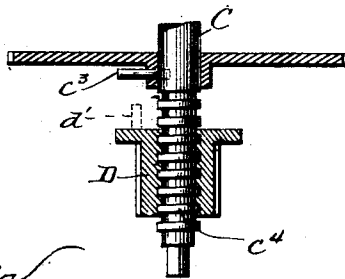


Fig. 2.



WITNESSES:

Frank S. Ober.
Edward A. Wagner.

INVENTOR
Clarence P. Gott,

BY

W. J. Johnston
ATTORNEY.

UNITED STATES PATENT OFFICE.

CLARENCE P. GOTT, OF NEW YORK, N. Y.

APPARATUS FOR REGISTERING SALES OF TICKETS, &c.

SPECIFICATION forming part of Letters Patent No. 473,113, dated April 19, 1892.

Application filed March 23, 1891. Serial No. 385,964. (No model.)

To all whom it may concern:

Be it known that I, CLARENCE P. GOTT, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Registering Mechanism, of which the following is a specification.

My invention relates to registering mechanism and refers particularly to that class in which an adding-machine is combined with a register to announce the sum or sums of separate impulses either simultaneously or successively imparted to it.

Heretofore there have been produced adding-machines capable of communicating to a register—such as a pointer in front of a dial—either a single progressive movement or a succession of such movements resulting from a number of separate impulses received either in rapid succession or simultaneously. One purpose of such machines is to indicate at a central station the sum or sums of pool-tickets sold at different stands at a horse-race, the reports from such stands being transmitted electrically to the adding-machine, a single operation of a circuit-controlling arm reporting the sale of one ticket. At times a series of sales will be reported in rapid succession from one stand, and simultaneously therewith a series of reports will be received from one or more other stands, and at all times the reports are liable to be received at the adding-machine with great irregularity. To devise a mechanism capable of registering a high total and of also being accurately operated by the adding-machine when the reports are being made with irregular rapidity, is a difficulty that cannot well be met, for a simple pointer cannot practically be made to indicate a high total, while the addition of other parts to enable such total to be indicated increases the inertia of the mechanism.

With the form of adding-machine heretofore produced, as above referred to, it is particularly necessary that there shall be no restraint upon motion of the parts owing to inertia of the elements of the register; and the object of my invention is the production of a mechanism in which an adding-machine may be capable of registering a high total and yet be free to operate to some extent in advance

of the register during the time that the latter is overcoming the inertia of its parts.

My invention consists of the details of construction hereinafter described and claimed. 55

In the accompanying drawings, Figure 1 is a plan, partly in outline only, of a complete mechanism embodying an adding-machine, a register, and a yielding connecting-gear; and Fig. 2 is a detail horizontal section of the screw-shaft and pinion-nut forming the yielding gear. 60

A indicates the base of the mechanism having a vertical front plate A', (shown in section in Fig. 1,) provided with openings a, through which the numerals of the register may be read. In suitable bearings b, carried by the base, is mounted the shaft B of any suitable or preferred adding-machine, such as that shown in United States patent to Ross, dated April 16, 1889, No. 401,518. The mechanism for operating this shaft is supposed to be contained mainly within the box B'. In the drawings details of this machine are omitted, as they form no part of my present invention; but at b' is indicated a winding-drum on which may be wound a cord b'', having a weight to cause the shaft to have a constant tendency to rotate in one direction, and at the other end of the shaft is shown a large gear-wheel b². The intermediate wheels (indicated in outline) are simply parts of the adding mechanism, which need not be more particularly described, it being understood that the preferable form is one in which the power of the weight or other motive power is permitted to act at intervals to rotate the wheel b² to a greater or less extent and with varying rapidity, according to the operation of several escapements controlled by electro-magnets. In suitable bearings c, carried by the base, is mounted a shaft C upon which are the several wheels c' of a registering mechanism, these wheels having numerals showing through the openings a of the front plate A'. This mechanism is not shown in detail, nor described fully, as it also forms no part of my invention, the form shown being simply one of many capable of indicating a high total, but necessarily having a number of different parts. 85 90 95 100

At one end the shaft C has a drum c² on

which may be wound a weighted cord c^5 to cause said shaft to have a constant tendency to rotate in the direction for operating the register whenever permitted to do so. At the other end the shaft C has a radial pin c^3 beyond which the shaft is screw-threaded, as at c^4 , and fitted to this screw is a pinion-nut D, meshing with gear b^2 and having a flange d and lateral pin d' .

10 The direction of the thread c^4 on shaft C is such that as long as the gear b^2 is stationary and consequently holds the pinion-nut D against rotation, owing to their meshing together, the said pinion-nut is drawn inward

15 along the screw-shaft until its pin d' is engaged by the radial pin c^3 ; but as long as the pinion and its pin are permitted to revolve the weight or other motor of shaft C operates the register and keeps the two pins in engagement, provided the adding-machine is not operating faster than the register. If, however, at any time a rapid series of simultaneous impulses received by the adding-machine permits or causes gear b^2 to revolve faster than

25 the inertia of the parts of the register will permit the radial pin c^3 to keep up with the revolution of the pinion-nut and its pin d' , then the excess of motion in gear b^2 causes the pinion-nut to travel outward on the screw-shaft until the inertia of the parts of the register is overcome. The accelerated motion of

30 the register will soon cause the pinion-nut to

travel back inward and the pins to re-engage each other. The stoppage at any time of the adding-machine and the gear b^2 holds the pinion-nut against rotation, and if at the time of such stoppage the said nut is at some distance outward on the screw-thread of the shaft, the motor of the register will continue its operation until the nut is in its extreme inward position and the pins engaged.

The pinion-nut and pin and the screw-shaft and pin c^3 form a yielding gear that permits the adding-machine to operate for a time with an excess of speed over that of the register, and at the same time insures an accurate correspondence of total motion.

Having thus described my invention, I claim—

The combination, with the gear b^2 of an adding-machine, of the shaft C of a registering mechanism, said shaft having screw-threads c^4 and a stop, the pinion-nut D, fitted to the screw c^4 and meshing with gear b^2 and having a stop to engage the stop of the shaft, substantially as described.

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

CLARENCE P. GOTT.

Witnesses:

FRANK S. OBER,
EDWARD A. WAGNER.