June 7, 1938. W. L. PADEN ET AL 2,119,684

REGISTER

Filed Nov. 7, 1934 2 Sheets-Sheet 1

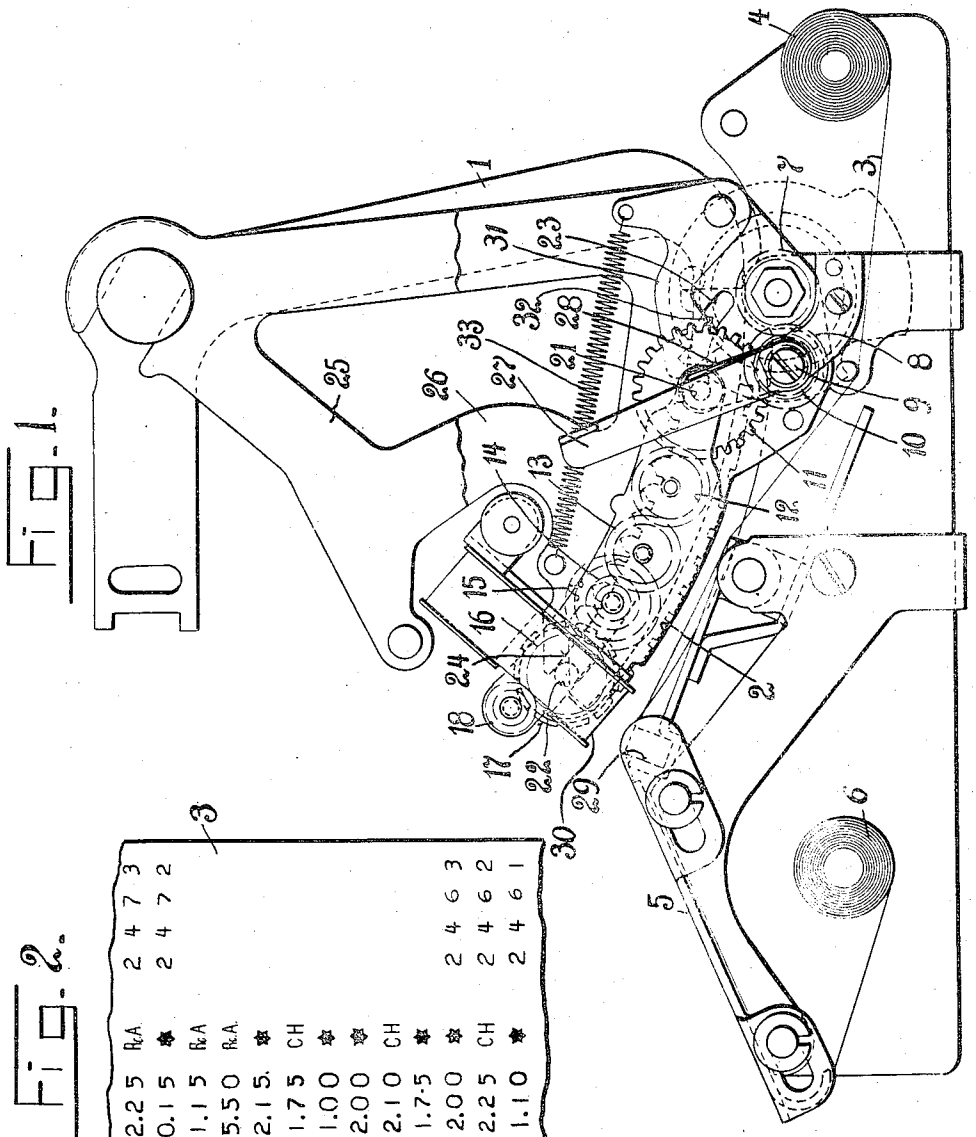


Fig. 1.

Fig. 2.

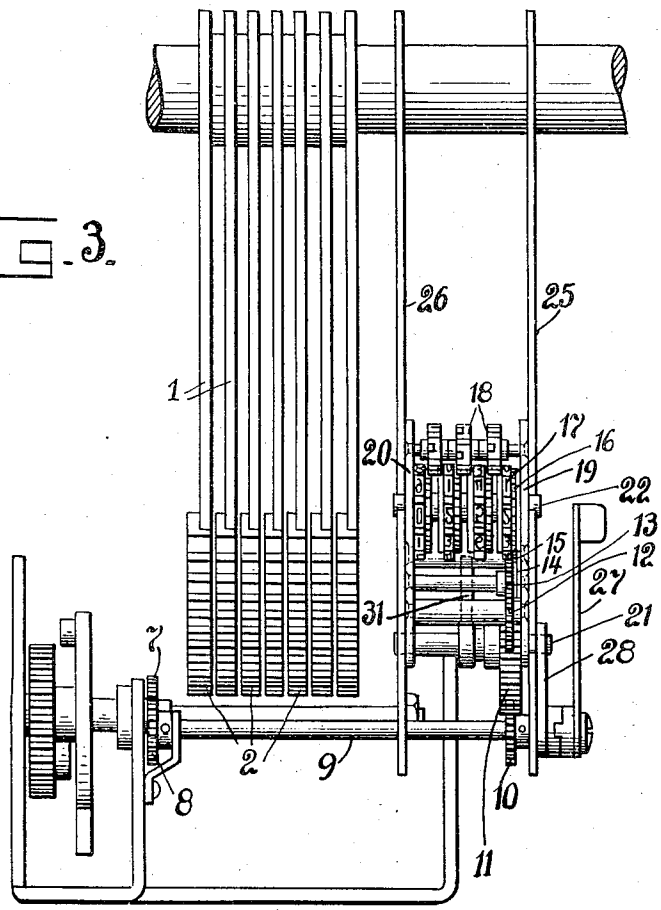
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Fig. 3.



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Application November 7, 1934, Serial No. 751,868

8 Claims. (Cl. 101—80)

In the patent of William L. Paden, No. 1,993,452 issued March 5, 1935, is shown a consecutive numbering device which prints on a record strip each time the register is operated. The object of the present invention is to provide an on and off feature for the printing mechanism insofar as the consecutive number is concerned and more specifically relates to a means having its object to withdraw the type wheels of the consecutive numbering device into a position where an impression will not be taken from the consecutive numbering device when the machine is operated and we have also provided means whereby the consecutive number printing wheels may be moved into printing position so that an impression will be taken therefrom each time the machine is operated. In other words, by providing a shifting mechanism for the consecutive number printing wheels we have provided mechanism whereby an impression may or may not be taken from these wheels. It is especially desirable to withdraw the consecutive printing wheels in case an autographic strip is used and it is desired to write with pencil or pen in the space which would otherwise be printed upon by the consecutive number printing wheels.

In the drawings:

Figure 1 is a side elevational view of the same as applied on a cash register of the type shown in the said patent;

Figure 2 is a plan view of the record; and

Figure 3 is an end view of the mechanism shown in Figure 1.

Arms 1 are provided with printing type 2 which print the clerk's indication, the amount of money registered, and the classification as shown on the left half of the record strip shown in Figure 2. This structure is shown in the said Patent Number 1,993,452. The record strip 3 is unwound from a supply roller 4 and passes over a writing table 5 to a take up roll 6. The said patent further shows a gear 7 which is rotated in a clockwise direction one complete revolution each time the cash register is operated. This gear meshes with and drives a gear 8 mounted on a shaft 9 on which is also mounted a gear 10 which drives a train of gears 11, 12, 13, and 14. The gear 14 is provided with a Geneva tooth 15. The relation of this train of gears is such that the gear 14 will be given one complete rotation each time the machine is operated and the Geneva tooth will engage a Geneva gear 16 provided with ten teeth so that the Geneva gear 16 will be rotated $\frac{1}{10}$ of a revolution each time the machine is actuated. The Geneva gear 16 is secured to the units wheel 17 of a consecutive counter. Transfer mechanism 18 of the usual type is provided so as to connect the units wheel with the wheels of higher order.

The gears 11, 12, 13 and 14 and the units wheel 17, as well as all of the wheels of the consecutive counter, are mounted on shafts journaled in side walls 19 and 20. The shaft 21 on which the gear 11 is mounted and the shaft 22 on which the printing wheels are mounted extend outwardly through slots 23 and 24 respectively in the fixed side plates 25 and 26. The slot 23 forms an arc of a circle concentric with the shaft 9.

A hand lever 27 is mounted on the shaft 9 and is operatively connected with a lever 28 likewise pivoted on the shaft 9 and which at its end remote from the shaft 9 receives the shaft 21.

As shown in Figure 1, the parts are so positioned that if the machine is operated the platen 29 will move the record strip 3 into engagement with a ribbon 30 which will be pressed against the type wheels both of the consecutive counter and the type 2 making an impression, such as the one shown near the top or bottom of Figure 2. If the operator, however, will move the hand lever 27 in a clockwise direction the lever 28 will be correspondingly moved which will move the shaft 21 to the right hand side of the slot 23 as viewed in Fig. 1 pulling the gear 11 and all of the mechanism driven thereby with it, and thereby withdrawing the consecutive counter from beneath the ribbon so that if the machine were now operated the consecutive number would not be printed, which would leave space on the record strip for the operator to write in any data he might desire. The consecutive counter would, however, be operated so as to register the next higher number each time the machine was actuated regardless of whether it printed or not.

In order to hold the side frames 19 and 20 and all mechanism carried thereby in either the printing or the non-printing position, we have provided a lever 31 having a nose 32 which is urged downwardly by means of a spring 33. This nose 32 engages either side of the shaft 21 so that when the parts are in position shown in Figure 1, the said lever holds the parts driven by the gear 11 in the position such that the platen will engage the type on the consecutive counter, whereas if the hand lever 27 is rotated clockwise the said lever 31 will engage the other side of the shaft 21 and prevent the printing wheels of the consecutive counter from being inadvertently moved or jostled into position to print.

It is, of course, obvious that the gear 11 re-

main in mesh with the gear 10 at all times regardless of whether the hand lever 27 is in its forward or rear position or while it is being shifted from one of these positions to the other, since the slot 23 is concentric with the shaft 9.

We realize that many changes may be made in our invention without departing from the spirit thereof and we, therefore, desire to claim the same broadly except as we may limit ourselves in the appended claims.

Having now described our invention, we claim:

1. In a register comprising a printing counter to print consecutive numbers on a record and an impression taking device cooperating with said counter; a movable support for said counter, means for actuating said support to move said counter to an inoperative position with relation to said impression taking device, and means operating upon each operation of said register to advance said counter one step when said counter is in either its operative position or its inoperative position.

2. In a register comprising a printing counter to print consecutive numbers on a record and an impression taking device cooperating with said counter; a movable support for said counter, means operable independently of the operation of said register for actuating said support to move said counter to an inoperative position with relation to said impression taking device and to restore said counter to its operative position at the will of the operator, and means operating upon each operation of said register to advance said counter one step when said counter is in either its operative position or its inoperative position.

3. In a register comprising a printing counter to print consecutive numbers on a record and an impression taking device cooperating with said counter; a movable support for said counter, a driving gear adapted to be actuated upon each operation of said register, a gear carried by said support and meshing with said driving gear, means for connecting the last mentioned gear with said counter to advance the latter step by step upon successive operations of said register, and means for actuating said support to move said counter to an inoperative position with relation to said impression taking device and for retaining the last mentioned gear in mesh with said driving gear in all positions of said support.

4. In a register comprising a printing counter to print consecutive numbers on a record and an impression taking device cooperating with said counter; a movable support for said counter, a driving gear adapted to be actuated upon each operation of said register, a gear carried by said support and meshing with said driving gear, means for connecting the last mentioned gear with said counter to advance the latter step by step upon successive operations of said register, an arm mounted for movement about the axis of said driving gear and connected with said support adjacent the axis of said last mentioned gear, and means for actuating said support to move said counter to an inoperative position with relation to said impression taking device.

5. In a register comprising a printing counter to print consecutive numbers on a record and an impression taking device cooperating with said counter; a movable support for said counter, a driving gear adapted to be actuated upon each operation of said register, a gear carried by said support and meshing with said driving gear, means for connecting the last mentioned gear with said counter to advance the latter step by step upon successive operations of said register, an arm mounted for movement about the axis of said driving gear and connected with said support adjacent the axis of said last mentioned gear, and a lever connected with said arm for actuating said support to move said counter to an inoperative position with relation to said impression taking device.

6. In a register comprising two printing elements arranged normally in printing position, one of said elements being adapted to print selected data on a record strip and the other of said elements being adapted to print consecutive numbers on said record strip, and an impression taking device adapted to take impressions from both of said elements simultaneously; a movable support for said consecutive number printing element, and means operable independently of the operation of said register for actuating said support to move said consecutive number printing element to an inoperative position with relation to said impression taking device and to retain the same in said position while an impression is being taken from the other of said printing elements.

7. In a register comprising two printing elements, one of said elements being adapted to print selected data on a record strip and the other of said elements being adapted to print consecutive numbers on said record strip, and an impression taking device adapted to take impressions from both elements simultaneously; a movable support for said consecutive number printing element, means for actuating said support to move said consecutive number printing element to an inoperative position with relation to said impression taking device and to retain the same in said position while an impression is being taken from the other of said printing elements, and actuating means controlled by the operation of said register to increase the count on said consecutive number printing elements upon each operation of said register, said actuating means being operable while said consecutive number printing element is in either its operative position or its inoperative position.

8. In a register comprising two printing elements, one of said elements being adapted to print consecutive numbers on a record strip, and an impression taking device adapted to take impressions from both of said elements simultaneously; a movable support for said consecutive number printing element, a member which is actuated upon each operation of said register, means carried by said support for permanently connecting said consecutive number printing element with said member, and means for actuating said support to move said consecutive number printing element to an inoperative position with relation to said impression taking device and to retain the same in said position while an impression is taken from the other of said printing elements.

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