Sept. 22, 1936. R. A. OHLSÉN 2,055,418

MEANS FOR STAMPING SALES TICKETS IN CASH REGISTERS

Filed Jan. 23, 1935 3 Sheets-Sheet 1

Fig. 1.

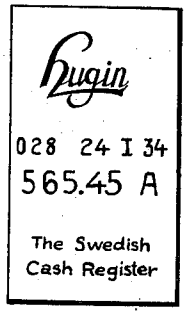
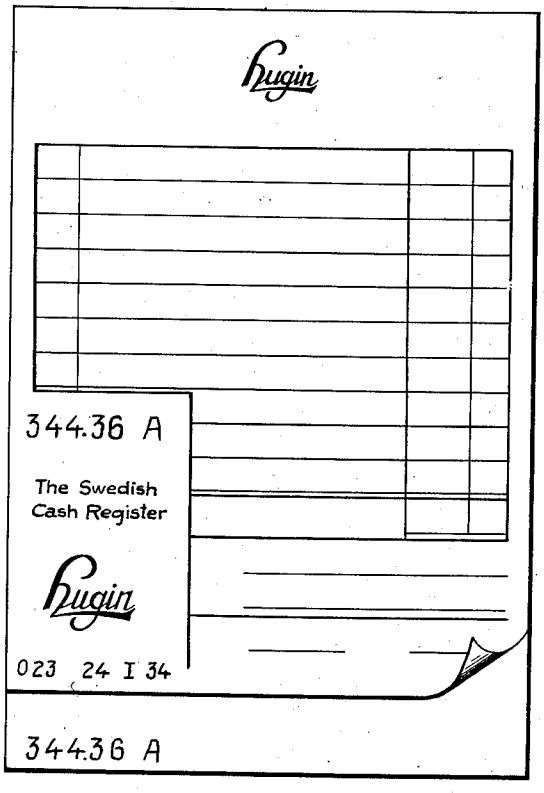


Fig. 2



R. A. Ohlsén
INVENTOR

By: Glascock Downing & Seebold
ATTYS.

Sept. 22, 1936. R. A. OHLSÉN 2,055,418

MEANS FOR STAMPING SALES TICKETS IN CASH REGISTERS

Filed Jan. 23, 1935 3 Sheets-Sheet 2

Fig. 3.

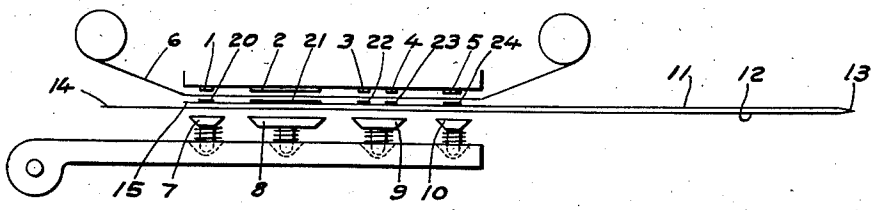


Fig. 4.

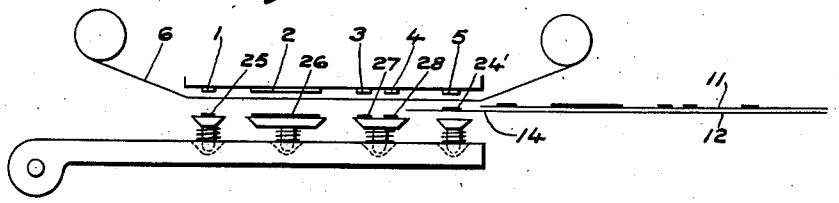


Fig. 5.

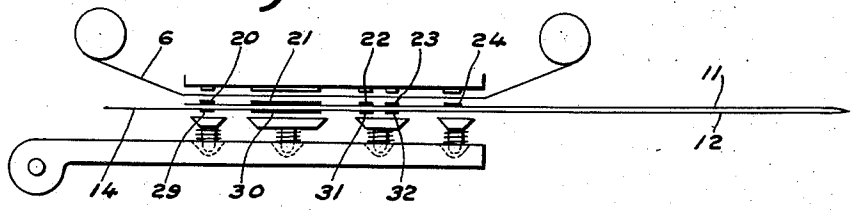
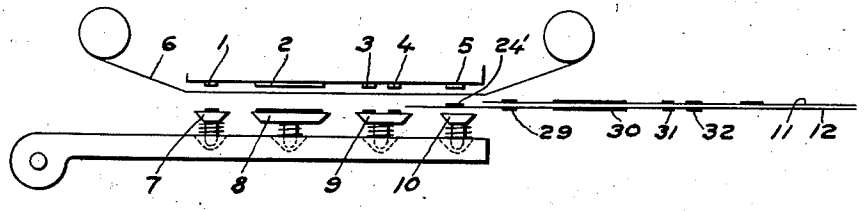


Fig. 6.



R. A. Ohlsén
INVENTOR

By: Glascock Downing & Seebold
ATTYS.

Sept. 22, 1936. R. A. OHLSÉN 2,055,418

MEANS FOR STAMPING SALES TICKETS IN CASH REGISTERS

Filed Jan. 23, 1935 3 Sheets-Sheet 3

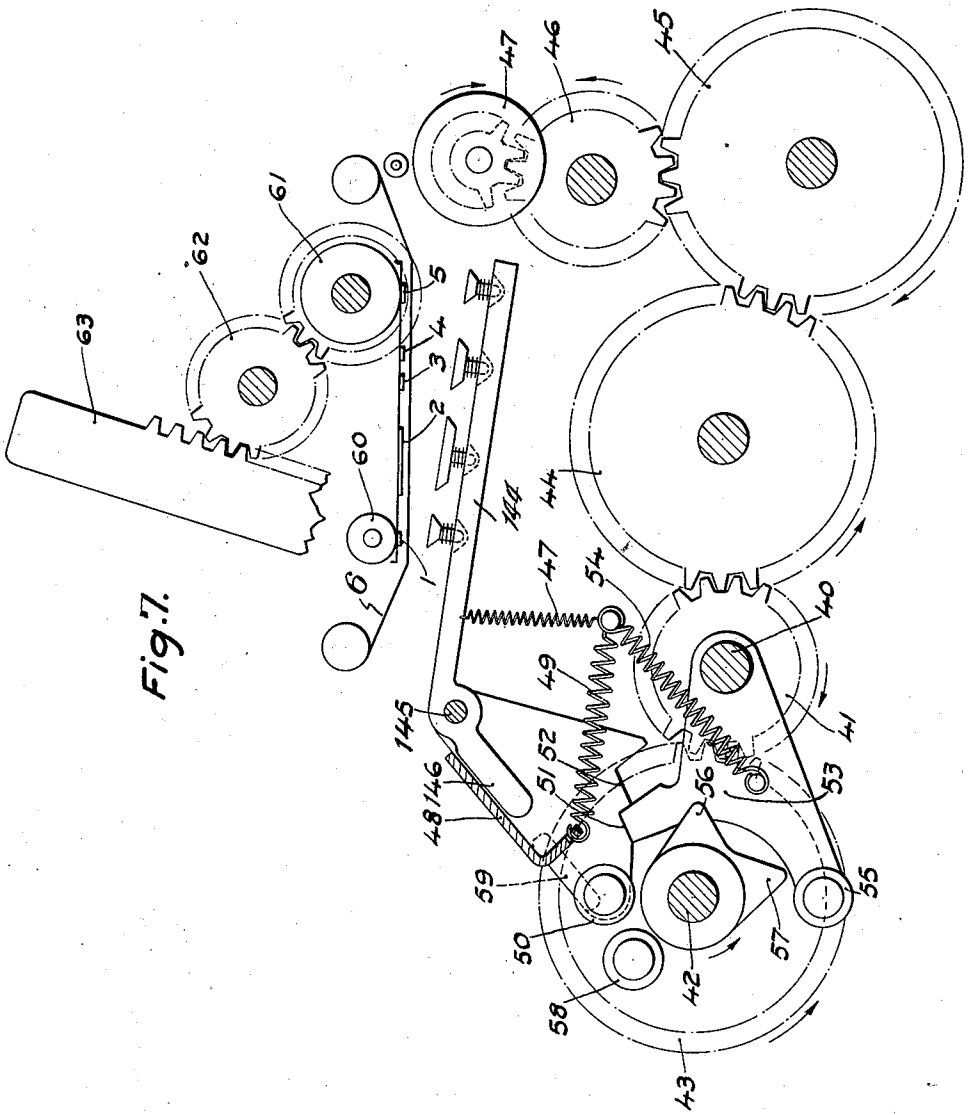


Fig. 7.

R. A. Ohlsen
Inventor

By: Glascock Downing & Seebold
Attys

Patented Sept. 22, 1936 2,055,418

UNITED STATES PATENT OFFICE

2,055,418

MEANS FOR STAMPING SALES TICKETS IN CASH REGISTERS

Ragnar Andreas Ohlsén, Stockholm, Sweden, assignor to Kooperativa Förbundet Förening u. p. a., Stockholm, Sweden

Application January 23, 1935, Serial No. 3,130
In Sweden January 25, 1934

2 Claims. (Cl. 101—426)

Cash registers are often equipped with means for discharging sales tickets. The provision herefor is such that the ticket is placed beneath the printing mechanism of the register, after which the amount paid, the date and possibly also a control number are stamped on the ticket. In order that both the customer as well as the store shall have a copy of the ticket discharged in the above mentioned manner two ways are used, either a carbon paper is placed between the original and the duplicate, or the register is caused to stamp twice, the ticket being in the latter case moved some way so that the prints become separated. In this case no carbon paper is used. As to the latter case it is usually said that the machine is constructed for double ticket stamping.

To obtain double ticket stamping the tickets must be of the kind in which the original is a little shorter than the duplicate, the register printing one time on the original and the other time on the duplicate. To effect double ticket stamping the registers are usually of a construction differing from the ordinary construction of registers giving vouchers, the amount, date and serial number being in the same line, whereas in registers giving vouchers the amount is in one line and date and serial number are in another line, some text being furthermore at the same time stamped on the voucher indicating the place of sale. The place of the amount, date and serial number in one line of course is due to a desire to take no unnecessary space of the bill for the discharge. This system, however, involves the drawback that it is not possible to print any other text indicating the place of sale than perhaps a number et cetera in the same line as other numbers.

The present invention relates to a principle for double ticket stamping, in which the usual tickets therefor and standard devices for delivering the vouchers are used, so that required text, which is in more than one line may be stamped on the original as well as on the duplicate, but without the ordinary difference in length between the same being changed.

The invention is illustrated in the accompanying drawings in which

Figure 1 shows an ordinary voucher delivered by a cash register.

Figure 2 shows a paragon voucher stamped in a cash register provided with means according to the present invention.

Figures 3, 4, 5 and 6 show various phases of the procedure in the stamping of paragon vouchers.

Figure 7 is an elevation partly in section showing a preferred embodiment of a printing device adapted to carry out the invention.

When the register gives a voucher, the same is stamped according to Figure 1. By this operation the date and amount will be placed beside one another between two sets of text. It should be observed that the top of the voucher with the upper text and date and serial number are stamped during the preceding registration, the amount and the lower text being stamped in connection with the voucher being pushed out of the register and cut off. If it is desired to use a register giving vouchers for double ticket stamping the driving device is changed in such a manner that the stamping takes place twice each time. In such a case the duplicate of the sales ticket must be just as much longer as the space required for stamping the duplicate, which, if the text is in several lines, hitherto has caused much trouble and been expensive.

According to the present invention such provision is made that in double ticket stamping, when the original is stamped, the back of the duplicate is stamped with a reversed print of the text and date etc., but not of the amount and that at the stamping of the amount at the bottom of the duplicate of the sales ticket according to Figure 2 the stamp pads are inked for printing the remaining text reversedly on the back of the following sales ticket duplicate.

Referring to the drawings numeral 1 indicates a row of types for printing the date, numerals 2, 3 and 4 indicate rows of types for printing advertising text or the like and 5 a row of types for stamping the amount. Reference character 6 indicates a typewriter ribbon running between the rows of types 1, 2, 3, 4, 5, and the opposite stamp pads 7, 8, 9, 10. Reference characters 11, 12 indicate the original and a duplicate respectively appending to the same at one end 13, the said original and duplicate being introduced between the ribbon 6 and the stamp pads 7, 8, 9, 10, and during the working of the machine moved in two steps through the machine in an optional manner, which is not shown, stamping being effected in each step by moving stamping types and stamp pads towards each other in some optional manner. The duplicate 12 extends so long a way 14 beyond the lower edge 15 of the original that there is space to stamp the amount.

When stamping double sales tickets the device operates as follows:

A sales ticket with appending copy 11, 12 is introduced between the ribbon 6 and the stamp

pads 7, 8, 9, 10 in a position, which is shown in Figure 3, i. e. in such a manner, that all the types 1 to 5 may be able to produce prints on the lower portion of the upper side of the original. The stamp pads 7 to 10 are moved against the types 1 to 5, so that prints are obtained at 20, 21, 22, 23, 24 as is indicated by thicker lines. The original and the copy 11, 12 are fed in such a manner that the projecting portion of the duplicate will be in a position beneath the row 5 of types for the amount but outside the next type row 4 for the text. Types and stamp pads are moved against each other, prints 24' being obtained on the upper side of the duplicate. At the same time, however, ink 25, 26, 27, 28 is obtained on the stamp pads 7, 8, 9 which are opposite to the types 1, 2, 3, 4. This is clearly shown in Figure 4 in which on movement of the pads the types 1 to 4 will press the ribbon 6 against the pads 7 to 9 while printing the amount on the duplicate which does not extend far enough to be interposed between the types 1 to 4 and pads 7 to 9. The original and the duplicate 11, 12 are fed out of the machine. (It should be observed that said first sales ticket has received no print on the back of the duplicate and only has been moved through the machine in order that the latter shall be prepared for operation).

When a new original with duplicate is applied in the machine, as shown in Figure 5 (which corresponds to Figure 3) and types and stamp pads are moved toward each other, the original is provided with prints 20, 21, 22, 23 and 24, as stated above, and the duplicate is provided with reversed prints 29, 30, 31, 32 by the ink 25, 26, 27, 28 (according to Figure 4) being deposited there. When the original and the duplicate have then been fed to the position shown in Figure 6 (which corresponds to the position shown in Figure 4) and printing is effected in the above mentioned manner, the upper side of the duplicate receives prints of the amount and at the same time the stamp pads 7, 8, 9 are inked again.

The reversed printing, however, seems to be right, when the duplicate is regarded from the front against the light.

In Figure 7 which illustrates a suitable apparatus for carrying out the invention, 40 is a shaft, which may be turned by hand by means of a handle or be turned by means of an electric driving device. To the shaft 40 is secured a toothed wheel 41, which on one hand meshes with a toothed wheel 43 secured to a shaft 42, and on the other hand with a toothed wheel 44, which via the toothed wheels 45 and 46 drives a feeding roll 47 for the voucher 11, 12. The gear ratios are such that when the shaft 40 is turned two revolutions the shaft 42 and the toothed wheel 43 are turned one revolution and the feeding roll is turned so much that a voucher 11, 12 is fed completely through the machine. The lever 144 carrying the stamp pads 7, 8, 9, 10 may be turned on a pin 145 and is provided with a rearward extension 146. A spiral spring tends to keep the lever 144 in a pulled down position. On the pin 145 there is also freely pivotable a driving member 48 having a spring 49, which tends to turn the driving member in anti-clockwise direction. The spring 49 is stronger than the spring 47. The driving member 48 is provided with a stop trundle 50 and has two contact surfaces 51 and 52 for a catch member 53 turning on the shaft 40 and having a spring 54, which tends to swing the catch member in clockwise direction. It is also provided with a stop trundle 55, which is adapted to cooperate with two shoulders 56 and 57 secured to the shaft 42. On the toothed wheel 43 there is provided a stop trundle 58, which is adapted to cooperate with a projection 59 of the driving member 48. The types 1, which indicate the dates are arranged on wheels 60, which may be turned by hand. The types 2, 3 and 4 are permanent and the types 5 are provided on drums 61, which by means of toothed wheels 62 are adjusted by means of racks 63, which are controlled by keys (not shown) in a manner known per se.

The mode of operation of the printing device is as follows: Figure 7 shows the device when in initial position. When the shaft 40 is turned in clockwise direction the toothed wheel 43 and together with same the shaft 42 and the shoulders 56 and 57 are turned. The shoulder 56 moves the trundle 50 aside and in doing so it swings the driving member 48 so that the catch 53 will get out of engagement with the contact surface 51 and will rest against the contact surface 52 and retain the driving member in this position until the shoulder 56 during its continued movement actuates the trundle 55 and thereby moving the catch 53 aside the driving member 48 being by the spring rapidly swung in anticlockwise direction moving the lever 144 along, which has then performed a first printing movement. During the continued movement of the toothed wheel 43 the trundle 58, by actuation by the projection 59, will swing the driving member 48 in clockwise direction by which the lever, which is actuated by the spring 47, will move along. When the trundle 58 leaves the projection 59 the driving member 48 snaps back actuated by the strong spring 49 and moves the lever 144 along, which now performs its second printing movement. The catch 53 is then prevented from engaging the face 52 by the shoulder 57, which then acts upon the trundle 55.

Having now described my invention, what I claim as new and desire to secure by Letters Patent is:

1. In cash registers provided with feeding means for sales tickets having an appending duplicate and different length of the original and the duplicate a method of applying stamped text etc. in two or more lines, which comprises providing the copy in addition to right stamp printing of the lowermost line or lines of the said lines on the upper side of the overlapping edge also with reversed stamp printing of the remaining line or lines of the said lines on the back of the non-overlapping portion, feeding the ticket in two steps through the machine in such a manner that in the first step the original will be in position for stamping all of the rows of types and in the other step the overlapping edge of the copy will be in position for stamping one or more but not all of the rows of types and the remaining rows of types depositing ink on opposite pads during the stamping, the said deposited ink being printed on the back of the said copy during the stamping of the following ticket.

2. A method of printing duplicate sales tickets on the two leaves of a folded sheet, one leaf of which projects beyond the other which comprises feeding the folded sheet between, on the one hand, lines of type having an ink ribbon fed over the face thereof, and on the other hand, pads corresponding to said lines of type, holding said folded sheet in a position in which both leaves are between the lines of type and the pads forcing the lines of type and pads to approach each other,

feeding the folded sheet to a position such that only the projecting part of one leaf is between a line of type and its corresponding pad while the remaining pads remain exposed to the ink ribbon and again forcing the lines of type and pads to approach each other, thereby printing one line of type on the upper face of the projecting end of the folded sheet and inking the remaining pads, whereby said pads will print the corresponding lines of type in reverse on the under face of the lower sheet at the next approach of the lines of type and the pads.

RAGNAR ANDREAS OHLSÉN.