Jan. 7, 1936. H. F. SADGEBURY 2,026,849

CASH REGISTER

Original Filed Sept. 25, 1926

FIG. 1

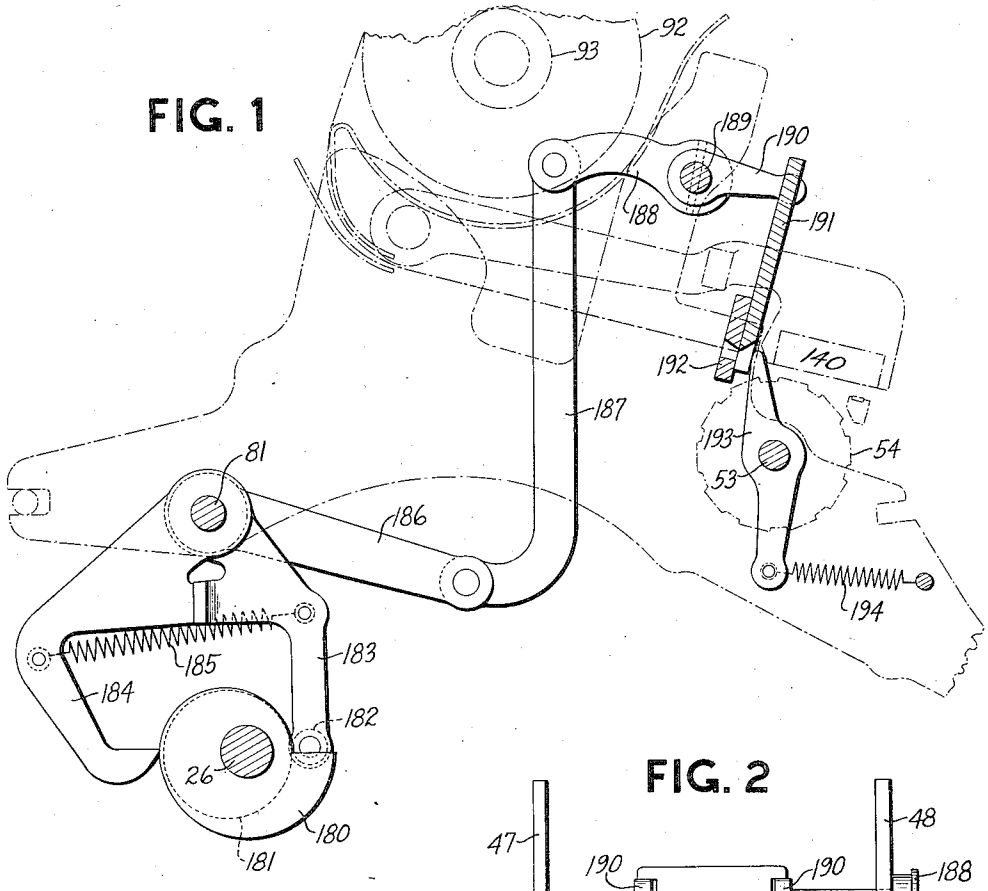
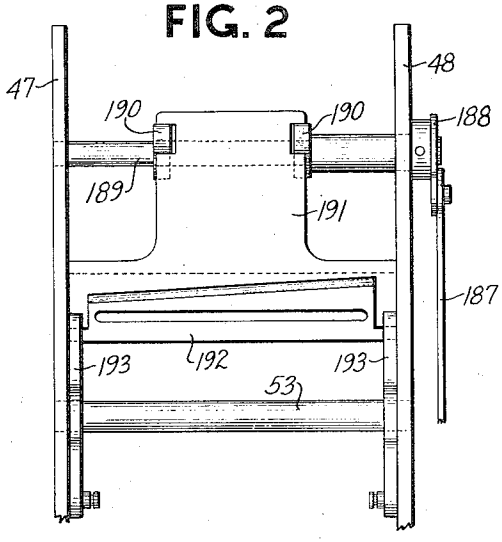


FIG. 2



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CASH REGISTER

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Original application September 25, 1926, Serial No. 137,664, now Patent No. 1,957,671, dated May 8, 1934. Divided and this application October 12, 1933, Serial No. 693,268

4 Claims. (Cl. 164—47)

This invention relates to improvements in cash registers and accounting machines of the type shown and described in Letters Patent of the United States, No. 1,742,701, issued to Frederick L. Fuller on January 7, 1930. More specifically, the present invention is an improvement in paper severing mechanisms, and is a division of the application for Letters Patent of the United States of Herman F. Sadgebury, Serial No. 137,664, filed September 25, 1926, now Patent No. 1,957,671, issued on May 8, 1934.

One object of the invention is to provide an improved type of paper severing device, which, in the illustrative machine, is spring operated.

Another object is to provide a novel feature of the severing device whereby there is little or no tension in the spring which causes the knife to operate, and this spring is tensioned during the down stroke of the operating key.

With these and incidental objects in view, the invention includes certain novel features of construction and combinations of parts, the essential elements of which are set forth in appended claims and a preferred form or embodiment of which is hereinafter described with reference to the drawing which accompanies and forms a part of this specification.

Of said drawing

Fig. 1 is a side elevation of the novel paper severing mechanism.

Fig. 2 is an edge view of a portion of the mechanism of Fig. 1.

Detail description

The main cam shaft 26 is given one complete rotation, for each operation of the machine, upon depression and release of the usual press-down amount keys in key-operated machines of the type shown in the above mentioned Fuller Patent No. 1,742,701, and in the parent case, Serial No. 137,664.

The checks, issued by the present machine, are drawn from a check roll 92 (Fig. 1), the paper being wound upon the usual form of spool 93. The free end of the paper is led between type wheels 54 and a platen or hammer 140.

After the check paper has been fed over the type carriers and printing has been effected it is desirable to cut the printed portion from the rest of the strip so as to form a check which may readily be withdrawn from the printing mechanism.

The paper severing devices in the illustrative machine comprise, as shown in Fig. 1, two cams attached to the driving shaft 26, one designated by reference character 180, and the second 181, the latter being an eccentrically mounted disk. The cam 181 cooperates with a roller 182 on an arm 183 loosely mounted on the shaft 81. The other cam 180 cooperates with a curved member 184 which is rigidly secured to the shaft 81, a spring 185 being stretched between the members 183 and 184. Normally this spring has very little tension, but when the shaft 26 is operated the eccentrically mounted disk 181 will rock the arm 183 tensioning the spring 185, and, by the movement of the cam 180 against the curved member 184, will further tension the spring 185. At a certain point in the operation of the machine, which, in the embodiment shown, is substantially the beginning of the up stroke of the keys, the member 184 will drop off the high part of the cam 180 and, due to the tension stored in the spring 185, will rock the shaft 81 counter-clockwise quickly and, through an arm 186 attached to the shaft 81, will raise a pitman 187. The pitman 187 is connected to an arm 188 fast to a shaft 189 which is journaled between the upper ends of the side frames 47 and 48. The shaft 189 carries a pair of forwardly extending arms 190 (Fig. 2) fitting in slots formed in a slidable guillotine knife 191. This knife cooperates with a stationary knife 192 which is suitably apertured so as to permit the check strip to be projected through said aperture. The knife 191 is urged against the stationary knife 192 by a pair of arms 193, both of which are loose on the shaft 53 but are urged rearwardly by springs 194. Rocking of the shaft 189 through the pitman 187 will force the knife 191 downwardly and by means of the cutting edges on the latter as well as the knife 192 will sever the advanced check strip.

As the shaft 26 completes its cycle, the cam 181 revolves to the position shown in Fig. 1, relieving the tension in spring 185. The cam 180 also revolves to the position shown in this figure and moves the curved member 184 and the arm 186 clockwise a small amount about the shaft 81, raising the knife 191 away from the opening in the stationary knife 192 to allow the check paper to be again fed over the type wheels.

While the form of mechanism herein shown and described is admirably adapted to fulfill the objects primarily stated, it is to be understood that it is not intended to confine the invention to the one form or embodiment herein disclosed, for it is susceptible of embodiment in various forms all coming within the scope of the claims which follow.

What is claimed is:

1. In an accounting machine, a ticket sever-

ing mechanism comprising a stationary knife, a movable knife, means for urging the movable knife toward the stationary knife, means for retracting the movable knife and thereby storing energy in the first mentioned means and additional means for further storing energy in said first mentioned means while said movable knife is being retracted.

2. In an accounting machine, a ticket severing mechanism comprising a stationary knife, a movable knife, a spring for urging the movable knife toward the stationary knife, a shaft, means on the shaft for retracting the movable knife and thereby partially tensioning the spring, upon rotation of the shaft, and additional means on the shaft for tensioning the spring simultaneously with the action of the first mentioned means.

3. In an accounting machine, a ticket severing mechanism comprising a movable knife, spring means for operating the knife, a cam for retracting the knife and partially tensioning the spring, and a separate means for completing the tensioning of the spring while the cam is operating.

4. In an accounting machine, a ticket severing mechanism comprising a movable knife, spring means for operating the same, means for completely retracting the knife and thereby partially tensioning the spring, and additional means for completing the tensioning of the spring.

HERMAN F. SADGEBURY.