(No Model.) 2 Sheets—Sheet 1.

C. H. COLES.

PRINTING CASH RECORDER.

No. 471,099. Patented Mar. 22, 1892.

Fig. 1.

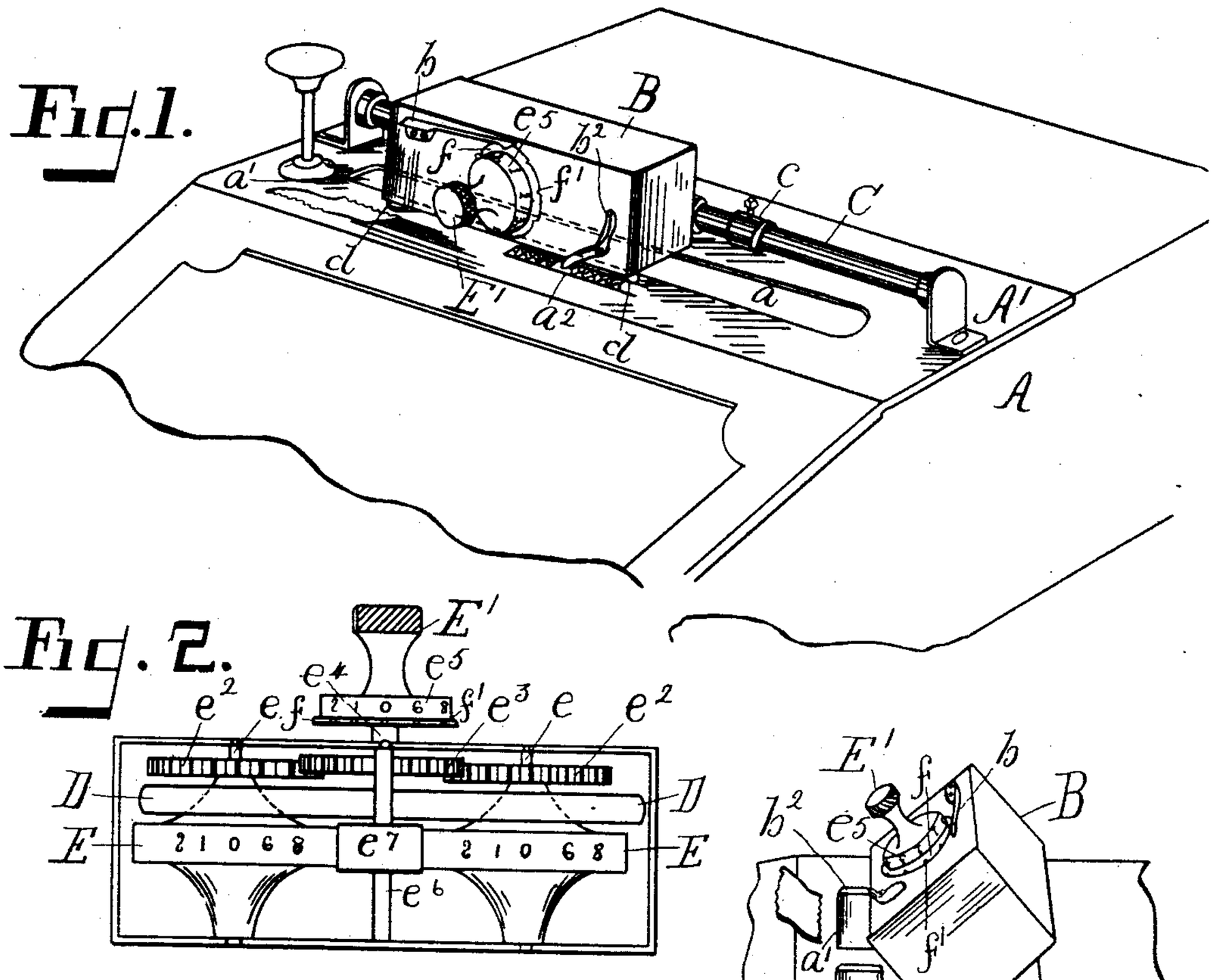
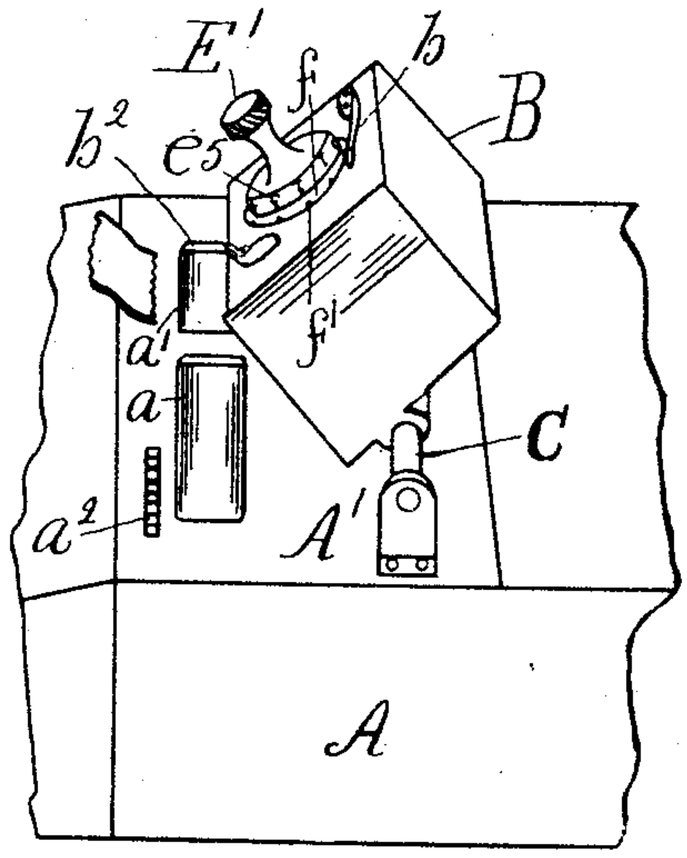


Fig. 2.



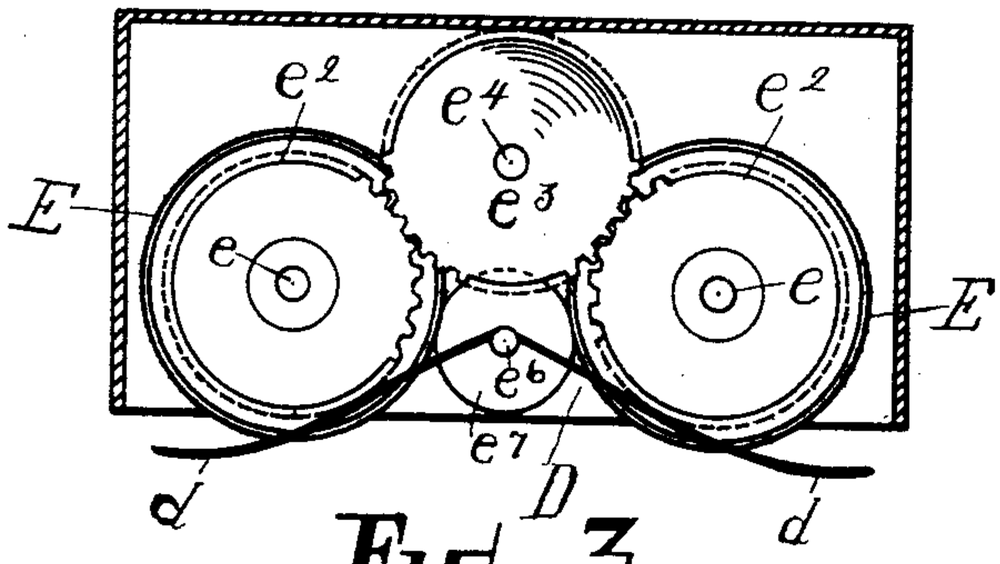


Fig. 3.

Fig. 4.

WITNESSES
F. Clough.
W. W. Bradford

INVENTOR
Charles H. Coles
by Parker & Burton
his Attorneys.

(No Model.) 2 Sheets—Sheet 2.

C. H. COLES.

PRINTING CASH RECORDER.

No. 471,099. Patented Mar. 22, 1892.

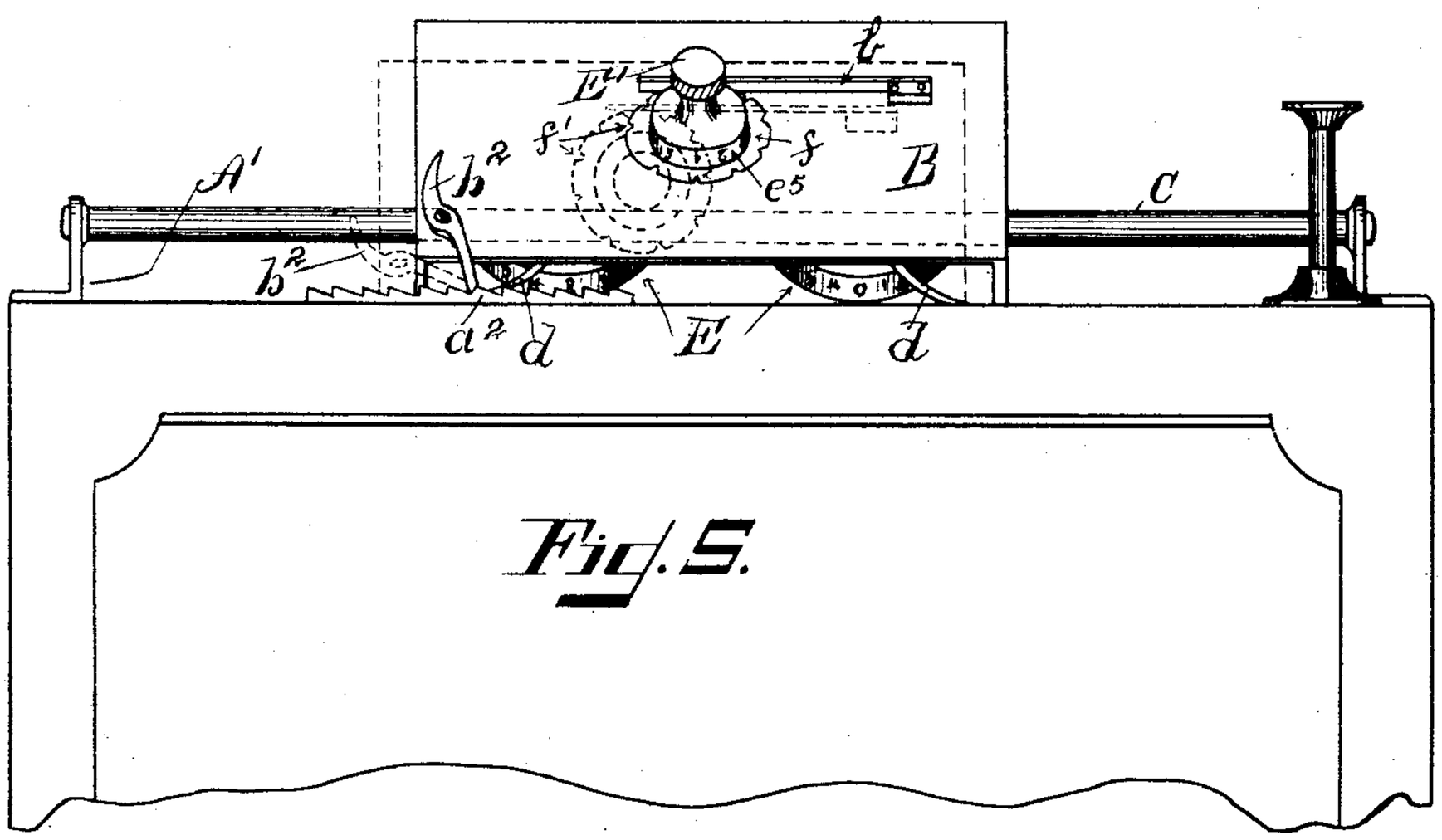


Fig. 5.

WITNESSES
F. Clough.
W. H. Bradford

INVENTOR
Charles H. Coles
by Parker & Burton
his Attorneys.

UNITED STATES PATENT OFFICE.

CHARLES H. COLES, OF OWOSSO, MICHIGAN.

PRINTING CASH-RECORDER.

SPECIFICATION forming part of Letters Patent No. 471,099, dated March 22, 1892.

Application filed September 5, 1891. Serial No. 404,802. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. COLES, a citizen of the United States, residing at Owosso, county of Shiawassee, State of Michigan, have invented a certain new and useful Improvement in Cash-Recorders; and I declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to cash-recorders for stores, and has for its object the production of an attachment for the recorder shown in my application filed April 27, 1891, Serial No. 390,705. In that application I show a recorder adapted to feed two strips of paper under suitable openings in the upper case, through which a portion of the paper is exposed, and in that application I contemplate writing the amount of the sale on the two strips of paper through the openings with a pen or pencil, and thus recording the amount of the sale on separate strips of paper, one to be preserved in the machine and the other torn off and given to the customer.

The attachment shown in this application is designed to print the amount on the strips of paper through the openings instead of writing it with a pencil, and consists in the employment of duplicate printing-wheels provided with suitable characters and operated by the same mechanism, whereby the same characters will be printed on the different slips simultaneously, and in the provision of suitable means for feeding the printing mechanism, and other details of construction designed to facilitate the operation of the device.

In the drawings, Figure 1 is a perspective of a portion of my cash-recorder, showing the printing attachment. Fig. 2 is a view of the frame and duplicate printing-wheels and the gear for revolving the wheels concurrently. Fig. 3 is a vertical section through the frame, rollers, and driving-gear. Fig. 4 is a perspective of a portion of the recorder, showing the openings in the top of the case through which to print the amount of the sale. Fig. 5 is a view showing the means employed to feed the printing-wheels.

In the drawings, A is the case of the cash-recorder proper.

A′ is a section of the top of the case, preferably of metal, and provided with the openings *a a′*, underneath which are moved the two strips of paper, as provided for in my prior application, exposing the same through the openings.

B is the frame or case carrying the duplicate printing-wheels and is pivoted to the transverse rod C. This rod C is mounted on the portion A′ of the frame in any suitable way. The frame B is permitted to travel on the rod C and is provided with any suitable spring to keep it at an elevated position above the paper on which it is designed to print. I employ the spring D, having its center pivoted to the inside of the case B and its free ends resting on the plate A′ at *d d*. (Shown in Fig. 1.)

Within the case B is mounted duplicate printing-wheels E E, provided on their peripheries with the numerals equally distributed. On the shafts *e e* of these wheels is mounted the gears e^2, each one meshing with the gear e^3, mounted on an independent shaft e^4. These three gear-wheels are preferably the same size. On the outside of the case on the shaft e^4 is mounted the knob or hand-wheel E′, having an index wheel or disk e^5, provided with the numerals to correspond with the numeral on the duplicate printing-wheels. On this same shaft is also mounted a disk *f*, provided with notches *f′*, corresponding with the numerals on the index-disk, and on the outside of the case B is the spring *b*, provided at its end with a detent adapted to engage with the notches *f′* in such a manner that the spring will hold the index-wheel and notched disk, but will permit it to be turned out of engagement with the spring by the application of sufficient force. The arrangement of this index-wheel and notched disk and of the numerals on the duplicate wheels is such that when the spring *b* is engaged with one of the notches the numeral on the duplicate wheels that corresponds with the numeral on the disk-wheel e^5 opposite the notch engaged by the spring *b* will be presented to the paper exposed through the openings in the recorder-case.

When it is desired to print any figure on the respective sheets of paper, the index-wheel e^5

is turned until the proper figure presents itself at the top opposite the engagement of the spring *b*, and the whole frame or case B is then depressed and the wheels forced against the paper below.

To provide for inking the printing-wheels, I mount on the shaft e^6 an ink-roller e^7 of sufficient diameter to engage with and ink both rollers. A ribbon may be used, if desired.

The means employed for feeding the traveling carriage and printing-wheels consist of the dog b^2, acting in conjunction with the rack a^2 on the portion A′ of the case. This rack lies parallel with the case B and just in front of the forward lower edge. The dog b^2 is pivoted to the front of the case B, and when the case is elevated, as shown in full lines in Fig. 5, it approaches a perpendicular position, as is shown in that figure, with its point resting in the rack. When the case B is depressed to make an impression, the dog forces the case along into the position shown in dotted lines in Fig. 5.

I would have it understood that any suitable feeding mechanism may be used, there being several well-known methods for feeding such a device. The transverse rod C may be provided with adjustable collars *c c* to limit the traveling movement of the case B, so that if the business in which the recorder is used does not go to ten dollars, then three printing-spaces would be sufficient, and the case need have no more travel, and it may be moved to either extremity against the collar—one if the amount printed commences with dollars and the other if it be designed to print the units of cents.

The operation of my device is as follows: On determining the first figure of the amount to be printed on each of the wheels on its respective sheet of paper the hand-wheel is turned until the desired figure presents itself at the top and the detent on the spring *b* enters the notch *f′* and holds the index in position. The desired figure on the printing-wheels is now directly underneath the printing-wheel and in position to make an impression of that figure on the respective strips of paper below the wheel. If the case is now depressed and each wheel brought in contact with the papers, an impression of the desired figure will be made. If two figures are to be printed, the feeding device will cause the second figure to be suitably spaced and printed the proper distance from the first figure, and the same will be true of any amount or any number of figures. By the adjustment of the collar *c* the frame may be run back against the collar at the extreme left end of the movement, when the first figure printed will be dollars and the figures following cents.

What I claim is—

1. In combination with a cash-recorder, duplicate printing-wheels mounted on a frame, having a traveling movement and adapted to carry said wheels simultaneously into printing contact with separate recording-sheets on said machine, and means for revolving said wheels concurrently, substantially as described.

2. In combination with a cash-recorder, duplicate printing-wheels mounted in a frame having a traveling movement and adapted to carry said wheels into printing contact with separate recording-sheets on said machine, a pinion mounted in said frame meshing with pinions on the shafts of the respective printing-wheels, and means for revolving said driving-pinion, whereby the printing-wheels are revolved concurrently, substantially as described.

3. In combination with a cash-recorder, duplicate printing-wheels mounted in a frame having a traveling movement and adapted to carry said wheels simultaneously into printing contact with separate recording-sheets on said machine, mechanism for feeding said frame one point on each impression, and means for revolving said printing-wheels concurrently, substantially as described.

4. In combination with a cash-recorder, duplicate printing-wheels E E, frame B, gears e^2 e^2 and e^3, transverse supporting-rod C, spacing-rack a^2, and feeding-pawl b^2, substantially as described.

5. In combination with a cash-recorder, duplicate printing-wheels, means for rotating said wheels simutaneously, an inking-wheel adapted to ink both of said duplicate printing-wheels, and means for taking an impression from said wheels on separate sheets of paper, substantially as described.

6. In a cash-recorder, a guiding-rod, a frame hinged to said rod and adapted to travel horizontally thereon, means for advancing said frame, and a printing-wheel rotatably mounted in said frame and provided with a handle, whereby it can be turned axially with respect to said guiding-rod, substantially as described.

In testimony whereof I sign this specification in the presence of two witnesses.

CHARLES H. COLES.

Witnesses:
MARION A. REEVE,
CHARLES H. FISK.