

W. K. HARRIS.
BLOCK PRINTING MACHINE.
APPLICATION FILED OCT. 25, 1919.

1,333,308.

Patented Mar. 9, 1920.
3 SHEETS—SHEET 1.

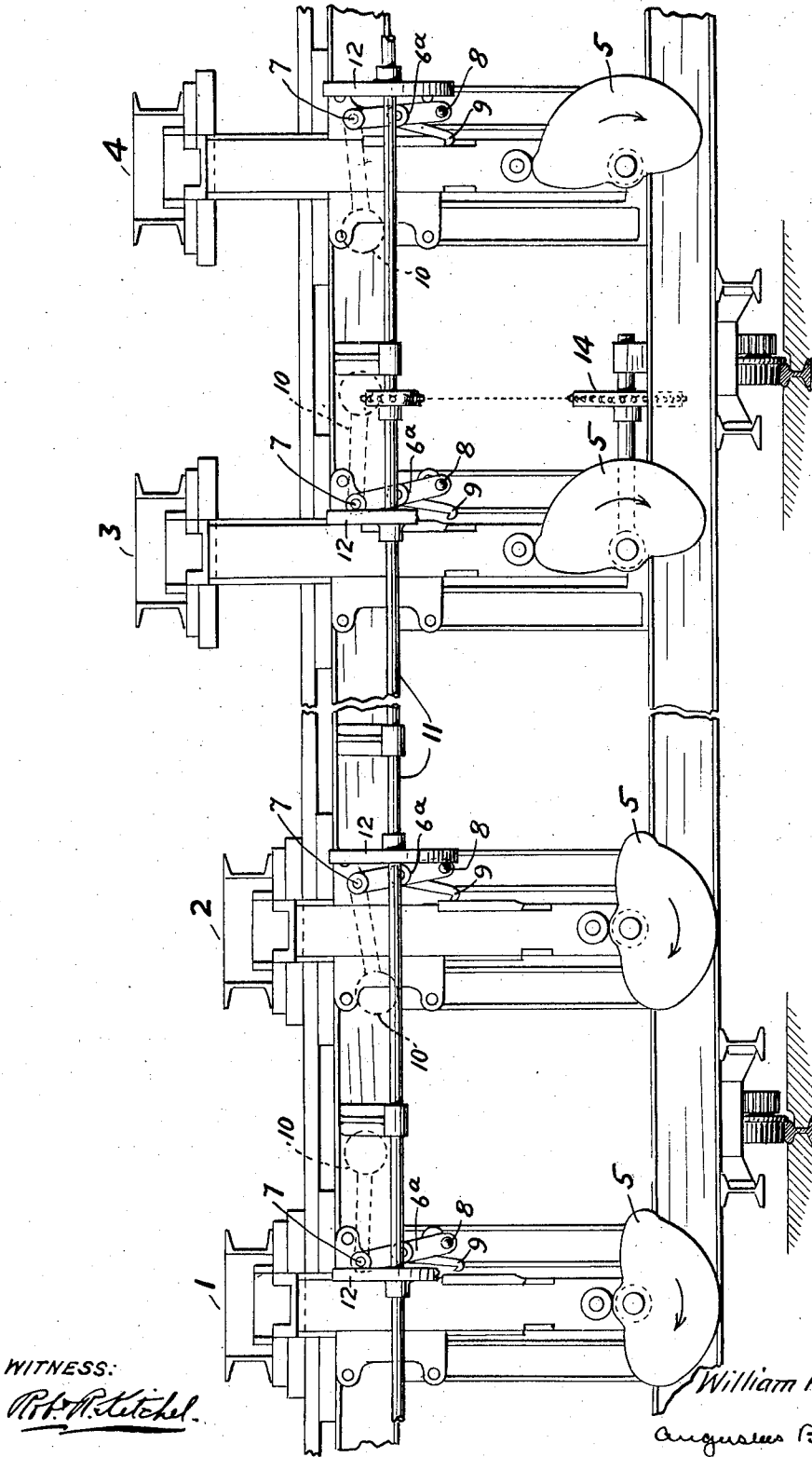


FIG. 1.

WITNESS:

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INVENTOR

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BY

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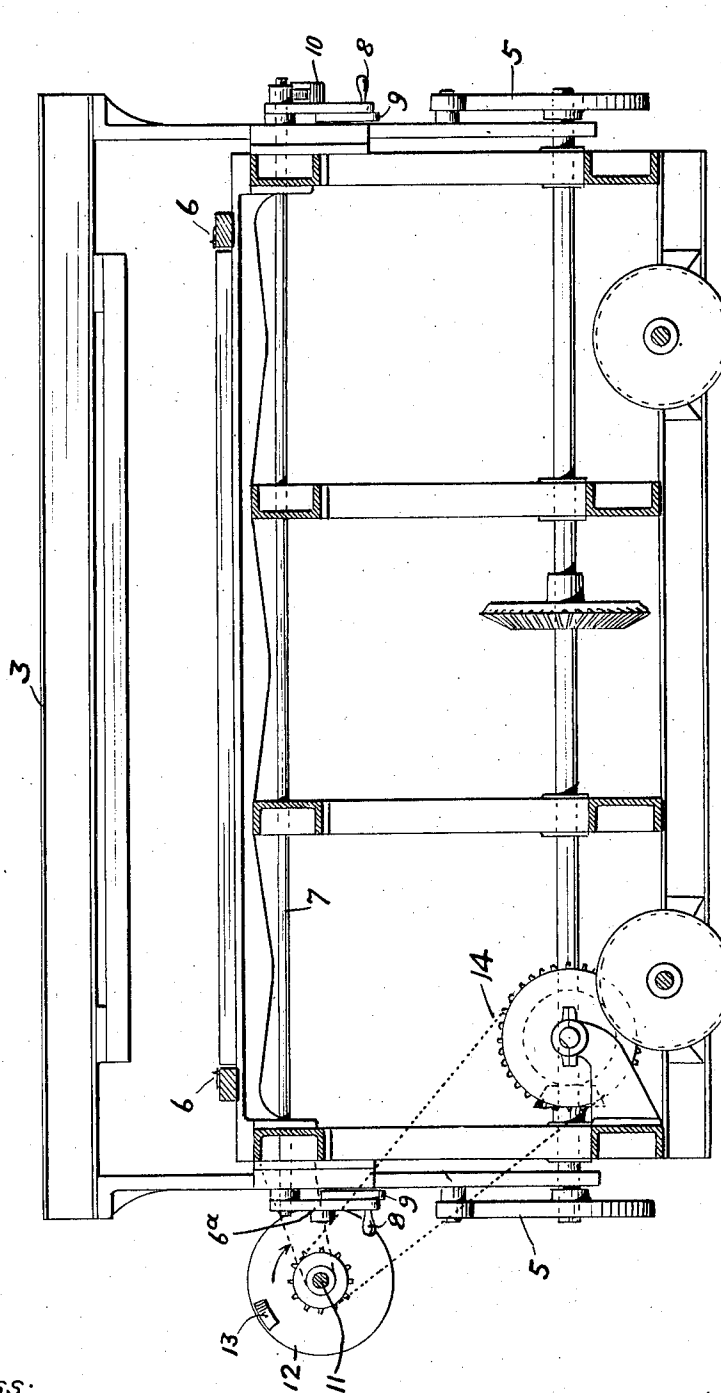


FIG. 2.

WITNESS:

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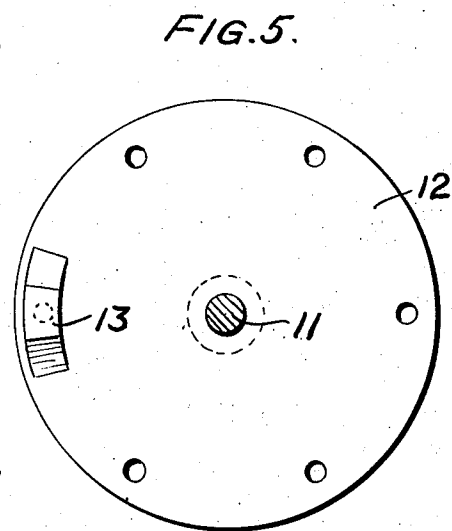
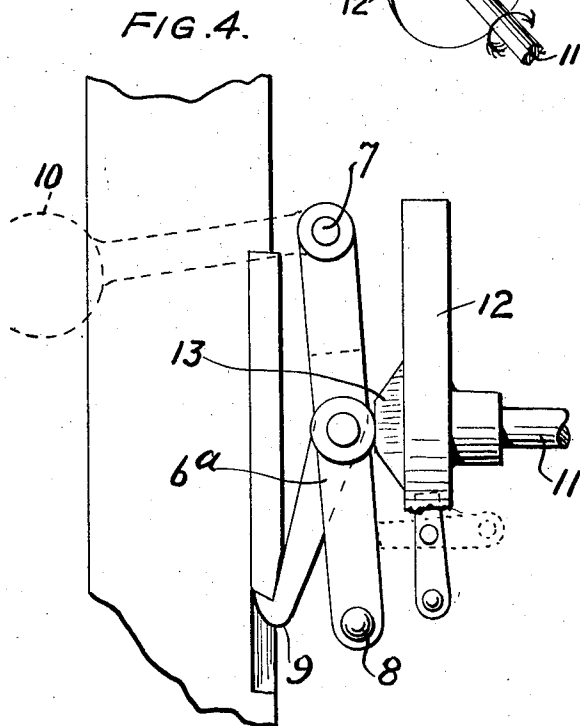
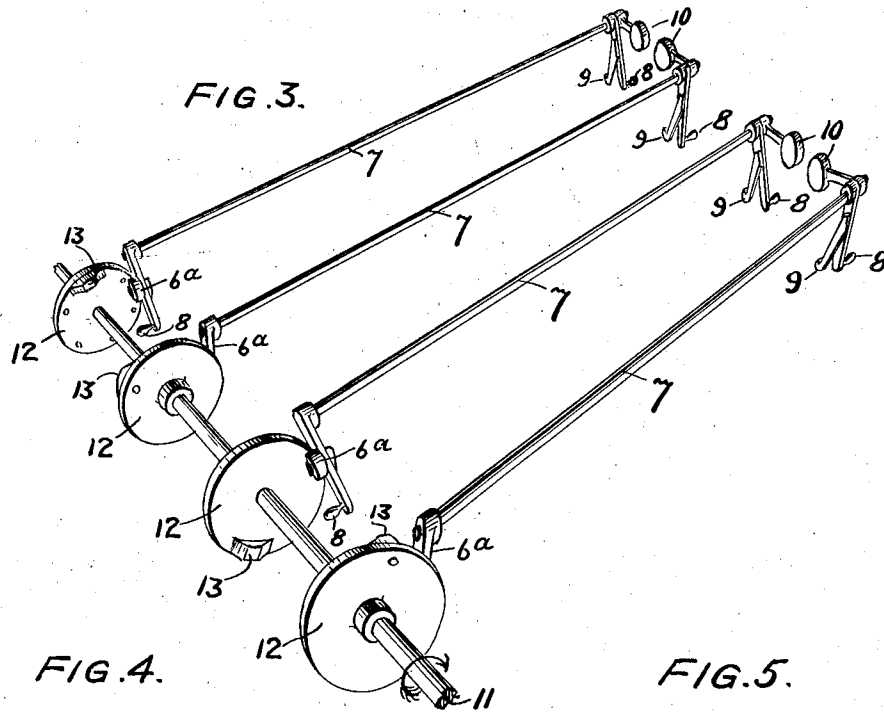
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3 SHEETS—SHEET 3.



WITNESS:

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UNITED STATES PATENT OFFICE.

WILLIAM K. HARRIS, OF HARMERSVILLE, NEW JERSEY, ASSIGNOR TO SALEM MANUFACTURING COMPANY, OF SALEM, NEW JERSEY, A CORPORATION OF NEW JERSEY.

BLOCK-PRINTING MACHINE.

1,333,308.

Specification of Letters Patent.

Patented Mar. 9, 1920.

Application filed October 25, 1919. Serial No. 333,305.

To all whom it may concern:

Be it known that I, WILLIAM K. HARRIS, a citizen of the United States, residing at Harmersville, in the county of Salem and State of New Jersey, have invented certain new and useful Improvements in Block-Printing Machines, of which the following is a specification.

The principal objects of the present invention are, first, to provide simple, comparatively inexpensive and efficient mechanism for automatically latching carriers out of action in a pre-determined order or manner different from that established by the lifting cams, and for quickly and easily changing or re-adjusting that pre-determined order to suit different kinds or conditions of work; second, to provide for latching the carriers out of the order predetermined or established by that mechanism by the simple expedient of working the latches directly by hand and without the intervention of any mechanism; and third, to provide simple, efficient and reliable mechanism for automatically and manually latching the carriers out of the control of their ordinary lifting cams.

The invention will be claimed at the end hereof but first will be described in connection with the form of embodiment of it selected for illustration in the accompanying drawings in which

Figure 1, is a side view with parts broken away of so much of an ordinary block printing machine as will serve to illustrate features of the invention in application thereto.

Fig. 2, is a cross section drawn to an enlarged scale.

Fig. 3, is a perspective view of mechanism embodying features of the invention.

Fig. 4, is a side view drawn to an enlarged scale illustrating details of the hand grip, cam-follower and crown cam, and

Fig. 5, is a face view of one of the crown cams.

In the drawings, 1, 2, 3 and 4, are some of the carriers that are provided with printing blocks, and 5, are the lifting cams for lifting them and permitting them to descend by gravity one after another in rotation. 6, are means for intermittently feeding the cloth beneath the carriers and through the machine in order that it may be printed. These are some of the well known features of the type of machine to which my invention is applicable.

6^a, are cam followers provided on the latch shafts 7, which are arranged crosswise of the machine and provided with hand grips 8, directly accessible to the hand of the operator, and also with the usual latches 9, and counter-weights 10; however, as shown, the disposition of the counter-weights is peculiar in that some, in the present instance every other one, tends to latch their carriers up, whereas others, in the present instance the intermediate ones, tend to unlatch their carriers. 11, is an endwise immovable rotary cam shaft ranging crosswise of the latch shafts 7, and lengthwise of the machine. 12, are crown cams on the cam shaft 11, and their high parts 13, operate directly on the cam followers 6^a. The cam shaft is rotated from some suitable driven shaft, for example, by means of the gear 14. The high parts 13, of the various crown cams are placed in such relative angular relation that certain of the carriers are automatically latched up out of action in a pre-determined order or manner during the operation of the machine and this order can be changed or adjusted by shifting the relative angular relation of the high parts 13, or by adding or taking away the high parts which for this purpose are adjustably and removably connected with the cams 12. To latch a carrier up out of the order predetermined by the relative angular setting of the high parts 13, use is made of the hand of the operator, who may avail himself of the hand grips 8, or of some other equivalent parts of mechanism shown in Fig. 3, for example of the counter-weights, for turning the shafts 7, when they are free from the control of the crown cams.

It will be obvious to those skilled in the art that modifications may be made in the form of embodiment, hence the invention is not limited to such matters or otherwise than as the prior art and the appended claim may require.

I claim:

In a block printing machine the combination with the carriers of the lifting cams for lifting them and permitting them to descend by gravity, of pivotal latches having hand grips and cam followers and of which some are counter-weighted to latch and some to unlatch, and a series of crown cams having their high parts angularly spaced to operate directly on said cam followers and leave the latches free to be turned by their hand grips.

WILLIAM K. HARRIS.