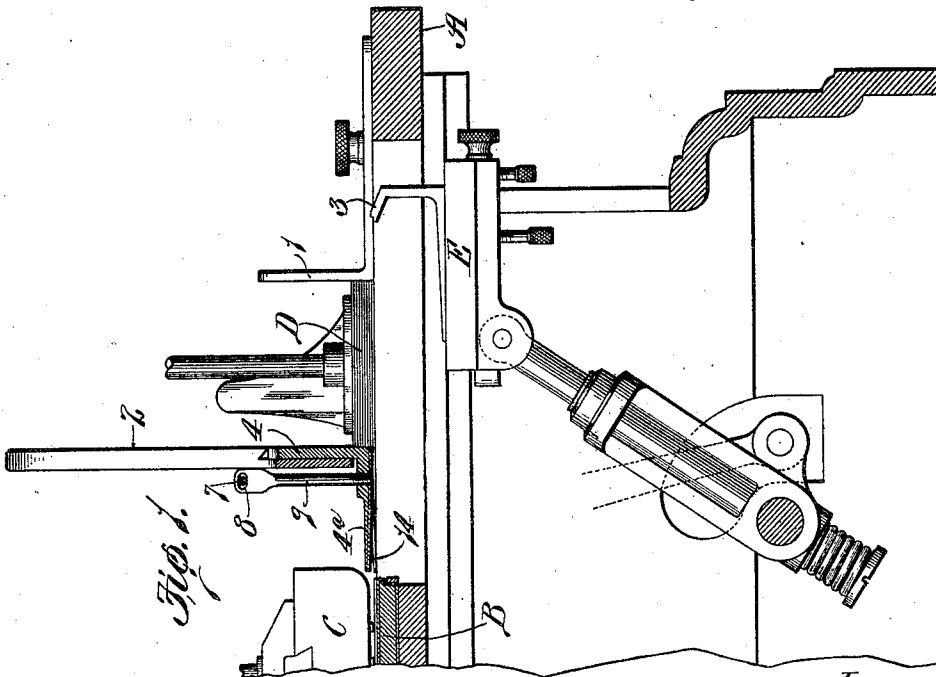
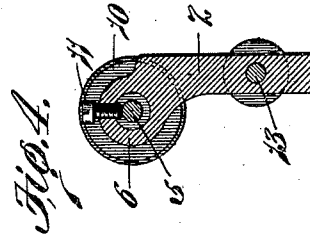
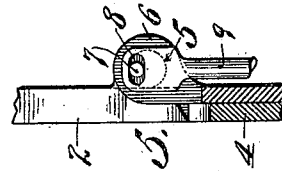
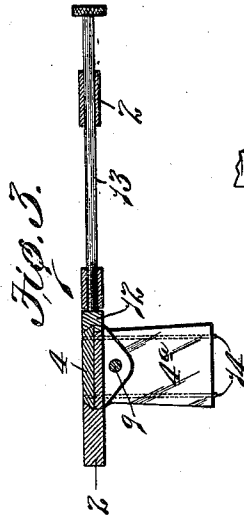
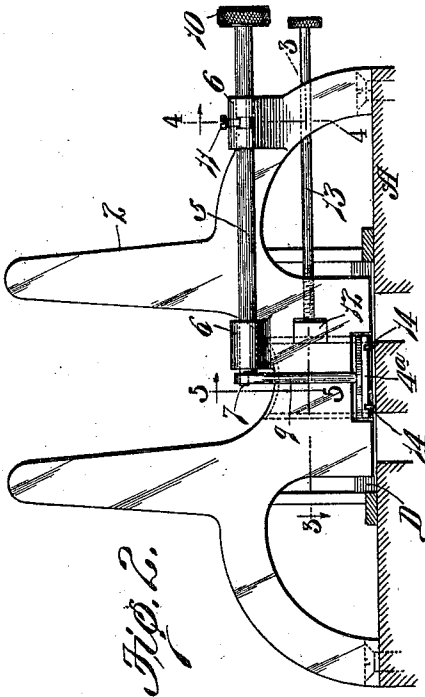


M. H. MANN.
CARD PRINTING MACHINE.
APPLICATION FILED DEC. 14, 1909.

972,554.

Patented Oct. 11, 1910.



Witnesses:
Geo. R. Carlson
Nels L. Chmel.

Inventor:
Miles H. Mann.
By Paul Bakewell Atty.

UNITED STATES PATENT OFFICE.

MILES H. MANN, OF LOUISIANA, MISSOURI, ASSIGNOR TO BUFFUM TOOL COMPANY,
OF LOUISIANA, MISSOURI, A CORPORATION OF MISSOURI.

CARD-PRINTING MACHINE.

972,554.

Specification of Letters Patent.

Patented Oct. 11, 1910.

Application filed December 14, 1909. Serial No. 533,005.

To all whom it may concern:

Be it known that I, MILES H. MANN, a citizen of the United States, residing at Louisiana, Missouri, have invented a certain new and useful Improvement in Card-Printing Machines, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to machines for printing cards, labels, envelopes and other articles, and particularly to the means employed in such machines for separating the bottom card of the pile from the ones above it and feeding it to the printing mechanism of the machine. I have herein shown my invention applied to a printing machine of the type described in my prior Patent No. 910,557, dated Jan. 26, 1909, but I wish it to be understood that said invention could be used with various other types of printing machines which automatically feed the bottom card of the pile from the ones above it.

The machine described in the patent above referred to is provided with a front and a rear guide between which a pile of card blanks is arranged, and the rear guide is provided with a movable portion or device that can be adjusted relatively to the bed plate of the machine so that the space between same and the bed plate will be the same as the thickness of the card blanks.

One object of my present invention is to provide means of novel construction for adjusting and locking the movable portion of said rear guide, and another object of my present invention is to provide means for preventing the card blanks from jamming or catching on the edge of the platen when they are being fed to the printing mechanism.

Other objects and desirable features of my invention will be hereinafter pointed out.

Figure 1 is a vertical sectional view of a portion of a card printing machine embodying my present invention; Fig. 2 is a rear elevational view of the rear guide and the parts associated therewith; Fig. 3 is a horizontal sectional view taken on the line 3—3 of Fig. 2; Fig. 4 is a vertical sectional view taken on the line 4—4 of Fig. 2; and Fig. 5 is a vertical sectional view taken on the line 5—5 of Fig. 2.

Referring to the drawings which illustrate the preferred form of my invention,

A designates the bed plate of the machine, B designates the platen, and C the printing mechanism arranged above the platen. The pile D of card blanks, labels, envelopes or other articles being operated on is arranged on the bed plate between a front guide 1 and a rear guide 2, the bottom card of the pile being fed automatically onto the platen B by means of a feeding mechanism E that comprises fingers 3 which project upwardly through slots in the bed plate of the machine, as shown clearly in Fig. 1. The rear guide 2 is provided with a movable portion 4 that can be adjusted vertically relatively to the bed plate so that the space between the lower edge of same and the top face of the bed plate will be the same as the thickness of the card blanks. The object of having the lower edge of the rear guide spaced slightly away from the bed plate is to permit the cards to be fed one by one from the pile by means of the feeding fingers 3, and the object of providing the rear guide with an adjustable portion 4 is to enable card blanks of different thicknesses to be fed through the machine.

The means herein shown for adjusting the movable portion 4 of the rear guide vertically consists of the horizontally arranged shaft 5 journaled in bearings 6 on the rear guide and provided at its inner end with an eccentrically disposed pin 7 that projects into a slot 8 in the upper end of a standard 9 that is secured to a rearwardly projecting wing 4^a on the movable portion 4 of the rear guide. The shaft 5 is long enough so that an operator standing at one side of the machine can manipulate or turn it, and a knurled knob 10 is preferably mounted on the outer end of said shaft so as to enable it to be turned easily. Some suitable means is provided for preventing the shaft 5 from moving longitudinally in its bearings, such, for example, as a set screw 11 in one of the bearings that projects into a groove in the shaft, as shown in Fig. 2. The movable portion 4 of the rear guide is slidingly mounted in a groove or channel in said guide, and a clamping block 12 is mounted on the rear guide adjacent the groove which receives the movable portion 4, said clamping block being adapted to be forced into intimate engagement with the movable portion 4 by means of a horizontally arranged screw 13 which is mounted in the rear guide 2, as

shown in Fig. 2. With such a construction it is a very simple matter to adjust the movable portion 4 of the rear guide for the adjusting shaft 5 and also the locking screws 13 are so arranged that they can be manipulated easily by an operator standing at one side of the machine.

The rearwardly extending wing or flange 4^a on the movable portion 4 of the rear guide is deflected upwardly from the bed plate slightly, as shown in Fig. 1, so that the space between the rear edge of same and the bed plate will be greater than the space between the bed plate and the lower edge of the movable portion 4. One or more yielding devices 14, which preferably consist of pieces of spring wire, are connected to the movable portion 4 of the rear guide or to the wing 4^a thereon in such a manner that they exert downward pressure on the card blanks and thus prevent said card-blanks from rising or passing out of the control of the feed fingers 3 when said blanks reach the wing 4^a, said wing being provided on its under side with grooves that permit the springs 14 to move upwardly far enough not to obstruct the passage of the card onto the platen B when the edge of the card reaches the platen. The advantage of such a construction is that it overcomes the possibility of the card becoming jammed between the platen and the rear end of the wing 4^a for the space between the platen and the rear end of the wing 4^a is much greater than the thickness of the card blank. The springs 14 exert sufficient pressure on the card blank to hold it down on the feeding fingers 3 when it is being fed from the pile onto the platen but when the card strikes the front edge of the platen said springs 14 will yield and thus permit the card to travel onto the platen.

While I have herein shown a construction in which only a portion of the rear guide is adjustable it will, of course, be obvious that the entire rear guide could be adjusted, and it will also be obvious that various other means than that herein shown could be employed for exerting downward pressure on the card blanks while they are traveling from the pile onto the platen.

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

1. In a machine for printing cards and

other articles, a bed plate, a stationary guide arranged above the bed plate, an adjustable member mounted in a groove in said guide and provided with a rearwardly projecting wing which is spaced away from the top face of said bed plate and under which the articles are fed, a shaft journaled in said stationary guide above said bed plate and extending to one side thereof, cooperating means on said shaft and on said adjustable member for causing said member to move vertically when said shaft is turned, and a clamping device arranged in said groove for locking said adjustable member.

2. In a machine of the character described, a bed plate, a stationary guide on said bed plate that forms a wall or abutment for one side of a pile of cards or similar articles, said guide being provided with a movable portion whose lower edge is spaced away from the bed plate a distance equal to the thickness of the cards in said pile, a horizontally arranged adjusting shaft journaled in said stationary guide and provided at its inner end with an eccentrically disposed pin, a device on the movable portion of said guide provided with an opening for receiving said pin, and independent means for clamping the movable portion of the guide against the stationary portion thereof so as to lock said movable portion in position.

3. In a machine for printing cards and other articles, a platen, a bed plate, a guide arranged above the bed plate and provided with a vertically adjustable portion whose lower edge is spaced away from the bed plate of the machine, a rigid wing on said vertically adjustable portion that projects toward the platen and which terminates a short distance from the edge of the platen, a yielding device on the under side of said wing, said wing being provided with a slot or recess up into which said yielding device can be forced, and means for feeding the bottom card of a pile under the wing on the adjustable portion of said guide and onto said platen.

In testimony whereof I hereunto affix my signature in the presence of two witnesses, this 1st day of Nov. 1909.

MILES H. MANN.

Witnesses:

EUGENE PEARSON,
RAS PEARSON.