

G. A. CROCCO.
 PERFORATING MACHINE FOR BANK DRAFTS AND OTHER DOCUMENTS.
 APPLICATION FILED APR. 15, 1920.

1,347,445.

Patented July 20, 1920.

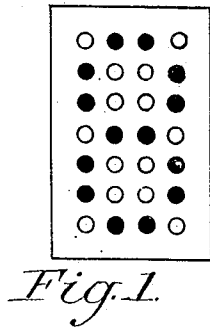


Fig. 1.

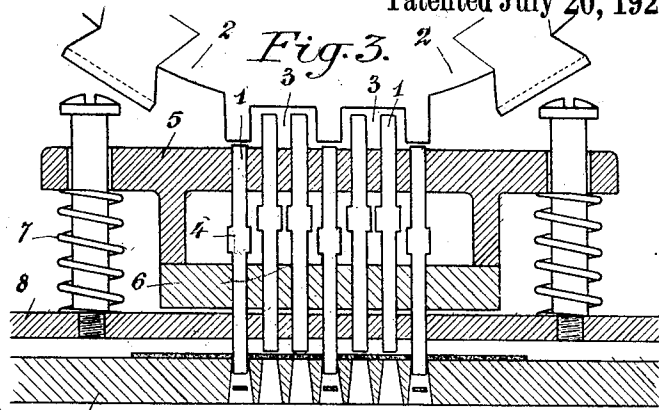


Fig. 2.

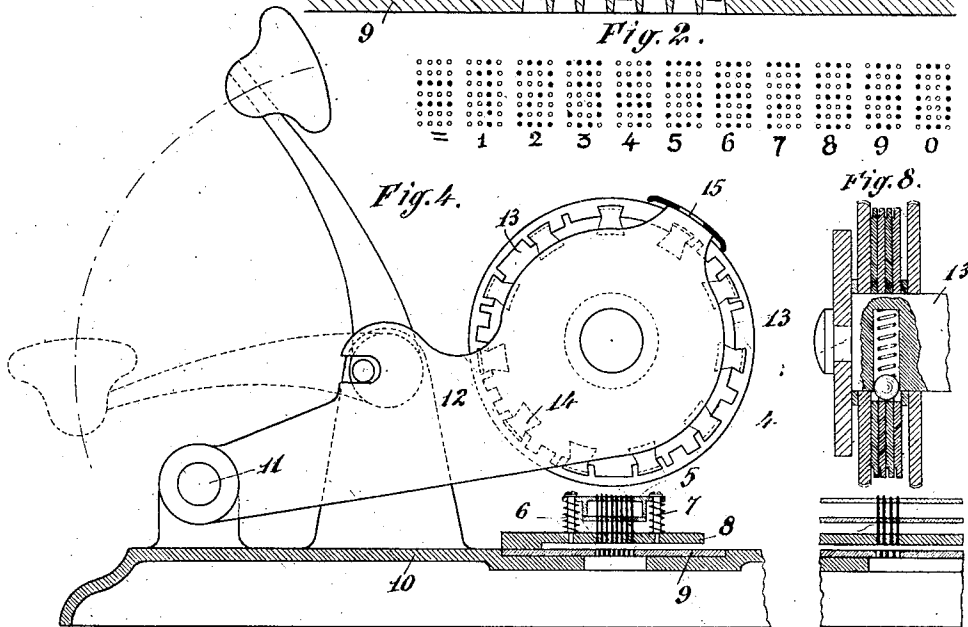


Fig. 4.

Fig. 8.

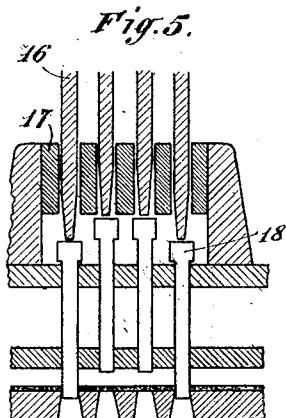
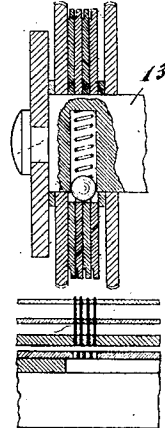


Fig. 5.

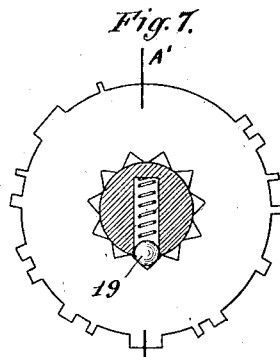


Fig. 7.

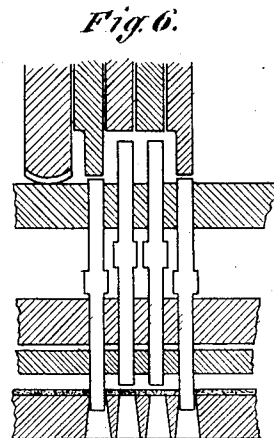


Fig. 6.

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UNITED STATES PATENT OFFICE.

GAETANO ARTURO CROCCO, OF ROME, ITALY.

PERFORATING-MACHINE FOR BANK-DRAFTS AND OTHER DOCUMENTS.

1,347,445.

Specification of Letters Patent.

Patented July 20, 1920.

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To all whom it may concern:

Be it known that I, GAETANO ARTURO CROCCO, a subject of the Kingdom of Italy, residing at Rome, in the Kingdom of Italy, have invented certain new and useful Improvements in Perforating-Machines for Bank-Drafts and other Documents, of which the following is a specification.

The present invention refers to perforating machines for bank drafts and other valuable papers of that class in which numbers and words are first prepared singly by rotating the lettered or numbered disks of a setting device which is then brought in such position as to cause groups of pins or punches to pass through and to pierce the paper leaving in same a number of holes arranged in such manner as to show the figures or the letters which are to be im-

pressed. In perforating machines of said class there is a punch plate carrying a group of pins spaced at equal intervals within a rectangle out of which are composed the figures and the letters every time they are required by lowering or pushing against them the drums of the setting device, the drums having holes allowing free passage to the punches which must not be lowered, while the other punches forming the letter or number are pushed through the paper.

The invention has the object of simplifying the construction of such machines by substituting for the drums of the setting device with perforated periphery, blocks of disks with conveniently indented periphery, which, when put together form a drum showing in relief the characters and around them recesses within which may enter the punches which must not be depressed.

In the drawing annexed hereto, which illustrates this invention:

Figure 1 shows, on an enlarged scale, the arrangement of the punch carrying plate with the pins for a single drum the figure 8 being shown by way of example in solid black.

Fig. 2 shows a complete punch carrying plate for a group of eleven characters.

Fig. 3 shows in a section a group of pins while the machine is about to pierce the paper.

Fig. 4 is a view of the complete apparatus set in a lateral elevation;

Figs. 5, 6, 7 and 8 show details of the construction.

Fig. 1 shows in what manner can be obtained for instance, figure 8 from a group of pins comprising seven rows of four pins each: the pins to be lowered by the drum of the setting device are marked thereon in solid black, while the pins shown with a small empty circle are those which remain lifted and do not pierce the paper.

Fig. 2 device the whole punch carrying plate with the ten figures 1, 2, 3, 4, 5, 6, 7, 8, 9, 0 and the character = in black.

Fig. 3 is a schematical section showing in which manner works the device bearing the set of pins; some of the pins 1 are lowered under the push of the parts in relief of the disk 2, while the others remain lifted engaging the recesses 3 of the disk.

The pins are provided in their middle with a shoulder 4 which prevents them from getting out of the punch carrier, limiting their stroke between the two perforated plates 5, 6 by which they are controlled. The frame with the aforesaid metal plates is movable and is kept up by means of suitable springs 7; while plates 8 and 9 within which the paper to be perforated is introduced, and which they also bear holes for the passage of the pins, are fixed at the base plate of the apparatus.

The general arrangement of the machine is schematically shown in Fig. 4. It consists of a base plate 10 whereon are arranged the guiding plates 8 and 9 and the frame 5, 6 of the punch carrier. Upon a pivot 11 is mounted a handle 12 bearing the setting and printing device. This may consist of a single drum 13 and in this case it is necessary to add one of the usual devices for the forward movement of the paper sheet along the space corresponding to a figure before passing to the following in perforating one figure after another; said device is not shown in the drawing.

The machine may instead have a plurality of drums with punch holders extending under all the drums; in such a case the sheet of paper remains fixed and the number composed beforehand is pierced at one single stroke.

In order to facilitate the task of the operator in composing the number, the drums have some intervening spaces 14 between

the different figures or letters where are engraved the corresponding figures or letters, but on the side diametrically opposite, and the latter appear behind an opposite opening 15.

Another form of the apparatus is schematically represented in Fig. 5 which shows the pins with a head 18 at the top, as customary, and the check to prevent the pins 10 to disengage from the punch carrier consists of a number of metal plates 17 placed in the interval between the pins and having a thickness greater than the space between the pin heads.

15 In this form of execution the drums with their figures are formed by thin disks 16 set at intervals which penetrate between the fixed plates 17, of the punch carrier and each one of them is made in such a way as 20 to press on the heads of the pins which must be lowered. Disks of a smaller diameter are mounted on the axis of the drum between the preceding disks and hold them at the distance required.

25 In Fig. 8 the drum is shown formed of a plurality of their juxtaposed plates having

their edges cut off or rabbeted to form the projections and recesses.

A spring actuated ball 19 stops exactly the drums in the proper position for printing each letter or number. 30

It will be easily understood that the disks 2 may be cut in great quantity and even from hard metal plates as steel and the like, with great speed and economy. 35

Claims—

1. In a perforating machine, a drum for operating the perforating pins having peripheral projections and recesses, said drum being formed of a plurality of thin disks. 40

2. In a perforating machine, a drum for operating the perforating pins formed of a plurality of thin juxtaposed disks having their edges cut off or rabbeted to form peripheral projections and recesses. 45

In testimony whereof I have affixed my signature in the presence of two witnesses, at Rome this 22nd day of March, 1920.

GAETANO ARTURO CROCCO.

Witnesses:

LETBENO GABERCUTTE,
ROSSETTI ENRICO.