

S. SCHIFF.
CHECK PERFORATOR.
APPLICATION FILED JAN. 19, 1910.

962,167.

Patented June 21, 1910.

2 SHEETS—SHEET 1.

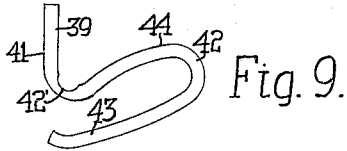


Fig. 9.

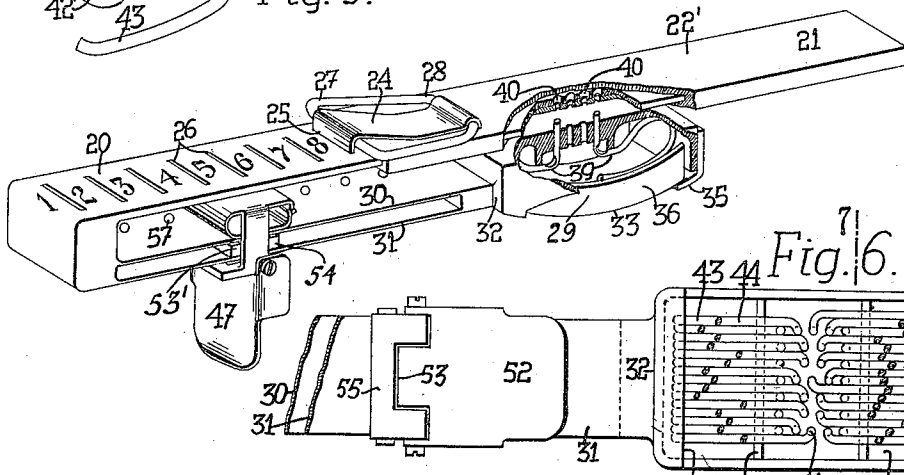


Fig. 1.

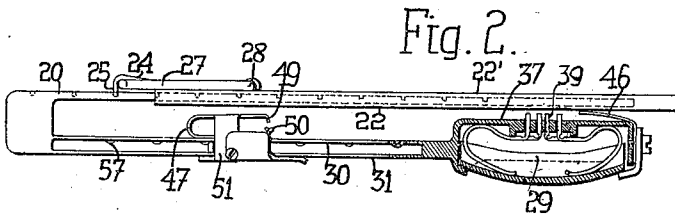


Fig. 2.

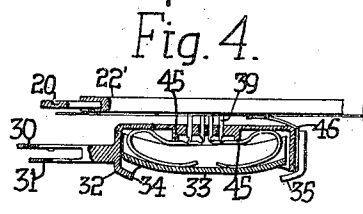


Fig. 4.

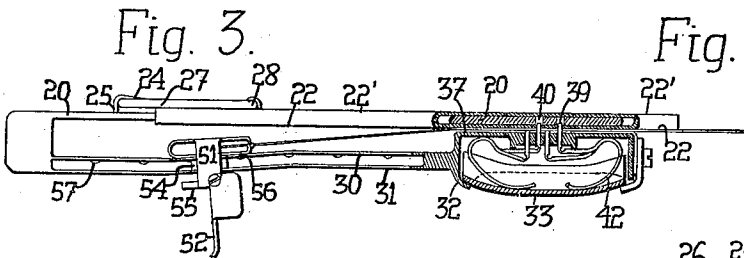


Fig. 3.

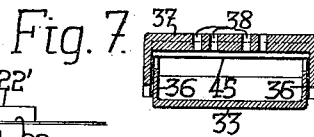


Fig. 7.

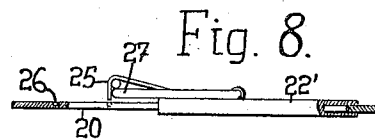


Fig. 8.

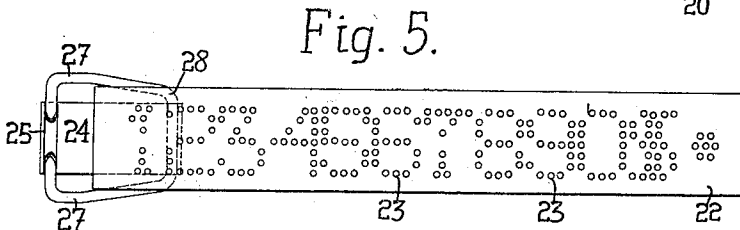


Fig. 5.

Witnessed.

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Inventor.
Sigmund Schiff
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2 SHEETS—SHEET 2.

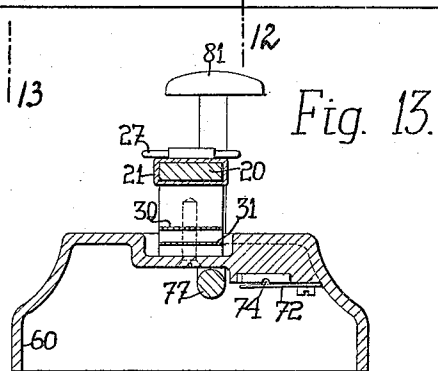
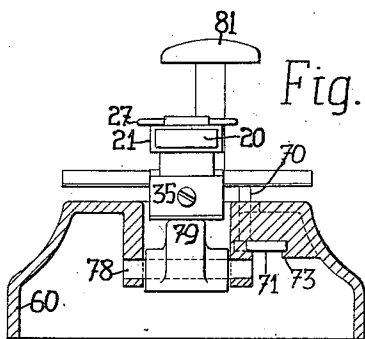
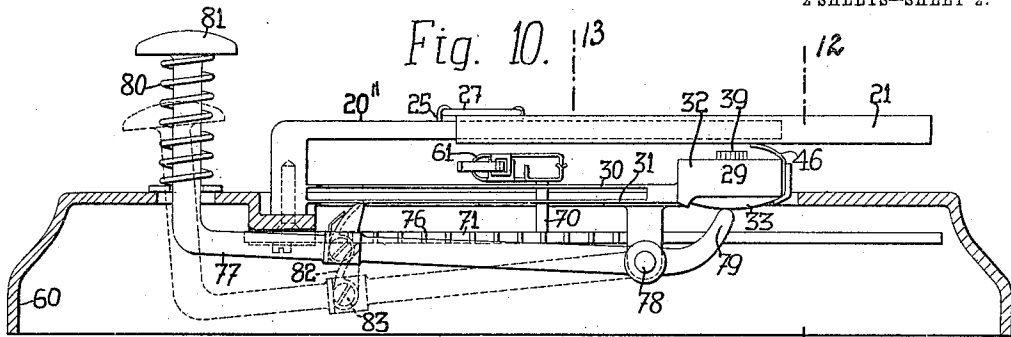
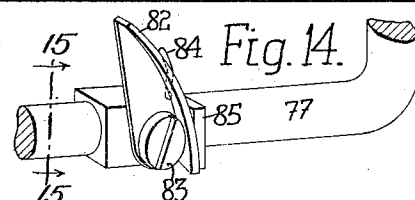
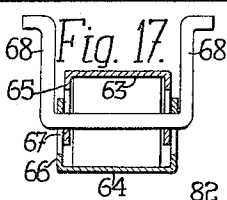
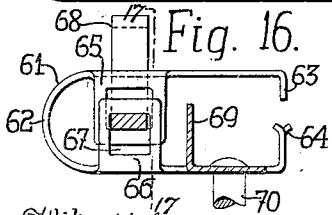
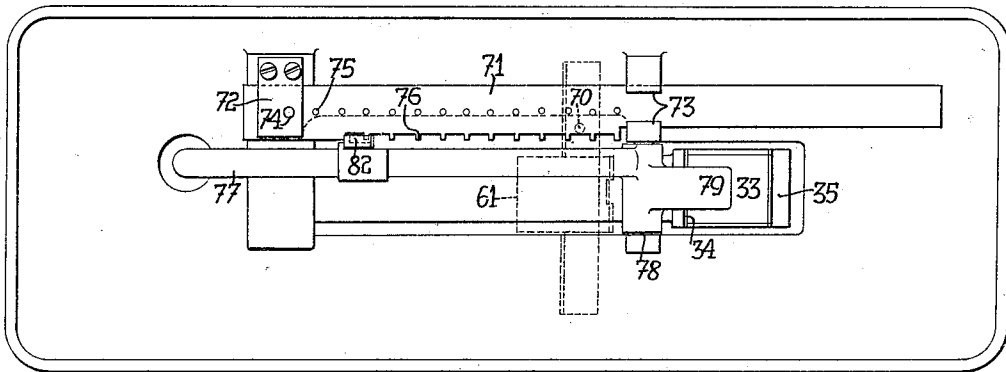
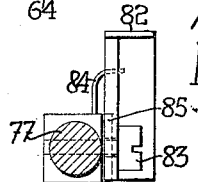


Fig. 11.



Witnesses.
S. Binbaum
[Signature]



Inventor.
Sigmund Schiff
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his Attorney.

UNITED STATES PATENT OFFICE.

SIGMUND SCHIFF, OF NEW YORK, N. Y.

CHECK-PERFORATOR.

962,167.

Specification of Letters Patent. Patented June 21, 1910.

Application filed January 19, 1910. Serial No. 538,857.

To all whom it may concern:

Be it known that I, SIGMUND SCHIFF, a subject of the King of Hungary, and a resident of the city of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Check-Perforators, of which the following is a specification.

The present invention relates to improvements in devices for preventing the fraudulent raising of checks, drafts and like documents, of a class designed to perforate in the document numbers or characters, corresponding with the value represented by the check or other document.

One of the objects of the invention is to produce a simple, cheap and efficient device of this general character, and more particularly one adapted to be carried in the pocket.

Another object of the invention is to provide a device of the character specified with a single male perforating die adapted to coact with a series of female dies arranged upon the perforator.

With these and other objects in view, which will more fully appear as the invention is better understood, the same consists of certain novel features of construction and arrangement of parts, hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the appended claims, it being understood that various changes in the form, proportions, size and minor details of construction may be made without departing from the spirit or sacrificing any of the advantages of the invention.

Two of the many possible embodiments of the invention are illustrated in the accompanying drawings, in which:—

Figure 1 is a perspective view of the improved check perforator, Figs. 2, 3 and 4 front elevations of the same, partly in section, showing the parts of the device in different positions; Fig. 5 a plan view of the female die; Fig. 6 a plan view of the male die, its cover being removed so as to more clearly show the construction; Fig. 7 is a section taken on line 7, 7 of Fig. 6; Fig. 8 is a front elevation, partly in section of a detail of construction; and Fig. 9 a front elevation of one of the perforating pins. Fig. 10 is a vertical sectional view of a modified form of the device; Fig. 11 is an inverted plan view of the same; Fig. 12 is a section taken on line 12, 12 of Fig. 10; and Fig. 13

is a section taken on line 13, 13 of Fig. 10. Fig. 14 is a front elevation of a detail of construction, Fig. 15 a section taken on line 15, 15 of Fig. 14; Fig. 16 is a front elevation of another detail of construction, and Fig. 17 is a section taken on line 17, 17 of Fig. 16.

Referring now more particularly to Figs. 1 to 9, inclusive, the numeral 20 designates the base plate of the perforator, which may be made of any suitable material and of any desired dimensions, to provide a strong support for the perforating dies and their accessories. The female die 21 is slidably arranged upon the base plate 20, and comprises a sleeve-like member, preferably of quadrangular cross section, the lower wall 22 of which forms the die plate, provided with perforations 23, 23, which are arranged so as to conform in shape with the required numerals or other characters desired to be perforated in the checks or other documents. The outer wall 22' of the die carries, rigidly attached thereto, at its inner end a spring 24, provided with a downward bent end 25, adapted to engage the recesses 26, 26 in the base plate 20. These recesses are located at intervals which are substantially the same as those of the individual numeral—or character—perforations upon the die plate 22. A frame 27 is hinged at 28 to the outer plate 22' of the die 21; its free end engaging the end 25 of the spring 24, providing thus means for disengaging in an easy and expedient manner the downwardly bent portion 25 from the recesses 26, above described.

The male die 29 is fixedly secured to two spring plates 30 and 31, which are arranged in parallel planes, and attached at a suitable distance below the plane of the base plate 20 to the same. Obviously, the purpose of this arrangement is to provide a parallel motion for the male die, or in other words to cause the perforating pins to move in lines perpendicular to the plane of the base plate 20. The male die consists of a casing 32, having a cover 33 slidably arranged therein, and held thereon by means of a flange 34, formed upon said casing, and a flange 35, secured in any suitable manner to the same. The cover itself is provided with inwardly bent flanges 36, 36, guiding the movement thereof in a well known manner. The bottom 37 of the casing is perforated, as shown at 38, 38, and of a thickness suited to properly guide the movement of the perforating pins 39. The perforations 38 are arranged in such a man-

ner that they form a combination of the perforations of the female die plate 22, whereby, whenever a numeral or character in the female die plate is brought to coincide with the male die, the perforations representing such numeral or character will register with and correspond to a fixed number of perforations in the cover plate 37. The base plate 20 is also provided with a plurality of perforations 40, 40, the number and arrangement of which correspond exactly to the number of and are adapted to register with perforations 38 in the cover 37. The diameter, however, of the perforations 40 may be somewhat larger than that of the perforations 38.

The perforating pins 39 comprise vertical portions 41, slidably arranged in the perforations 38, and bent, spring-portions 42, the lower legs 43 of which contact with the curved cover 33, while their upper legs 44 contact with projections 45, 45 upon the bottom 37 of the casing. Obviously in forcing the cover 33 toward the bottom 37 of the casing, the springs are compressed. In order to decrease the power required in compressing the spring-portions 42 of the pins, their cross section may be somewhat decreased, as shown at 42'.

A spring 46 is attached in any suitable manner to the male die and contacts with the die plate 22, for holding the paper to be perforated against said plate. The inner end of the paper is brought into engagement with a gripping mechanism 47, slidably mounted upon the spring plates 30 and 31. The gripping mechanism consists of a, preferably, sheet metal body, provided with jaws 49 and 50, adapted to engage the paper. Downwardly extending lugs 51, 51 are attached to the jaw 49, to which lugs is pivoted the actuating lever 52, having an extension 53, for a purpose to be described. The lugs 51 are in engagement with the walls of the recesses 53', 53' in a block 54, which is inserted between the spring plates 30 and 31, and serves to keep said spring plates at their normal distance when the jaws 49 and 50 of the gripping mechanism are forced toward each other by the actuating lever 52. The upward movement of the jaw 49 is limited by a stop 55, carried by the lugs 51. The body of the gripping mechanism carries a finger 56, adapted to enter the depressions 57 in the spring plate 30. These depressions are located at intervals larger than those of the recesses 26, whereby in shifting the gripping mechanism the required space is left between the perforations upon the checks or other instruments.

The operation of the device is as follows: The check or other instrument to be perforated is inserted between the male and female dies and its end placed between the

jaws 49 and 50 of the gripping mechanism 47, after which the actuating lever 52 is brought into the position shown in Fig. 3 from that illustrated in Fig. 2, whereby the extension 53 of said actuating lever, in bearing against the spring plate 31, forces the jaw 49 into engagement with the jaw 50, firmly holding thus the paper in place. In shifting the gripping mechanism until the finger 56 thereof enters a certain depression 57, the place, at which the check or other instrument will be perforated, is predetermined. The projection 25 of the spring plate 24 is now brought into engagement with that particular recess 26 which is marked with the numeral or character which it is intended to perforate in the check or instrument, whereby the perforations 23, conforming in shape to the required numeral or other character, in the die plate 22 are brought to register with the perforations 40 of the base plate 20. Forcing now the die 29 toward the female die plate by pressing the cover plate 33 toward the bottom 37 of the casing, the springs 42 will be compressed (Fig. 4) until the tension of those springs, the pins of which register with the perforations in the plate 22, is larger than the power required to perforate the paper, after which these pins enter the said perforations, and return thereby to their normal positions. The casing 32 moves then toward and into contact with the plate 22 (Fig. 3). Obviously those pins 39 which do not register with perforations in the die plate 22 will not perforate the paper. After the pressure has been released from the cover plate 33 of the casing 32, the gripper mechanism is shifted so that its finger 56 engages the next depression 57 in the row, and the die plate 22 moved until its spring 24 engages the desired recess 26 upon the base plate, after which the play is again repeated in the manner above described.

Figs. 10 to 15, inclusive, illustrate a check perforator, built upon the principle hereinbefore described, for desk use. In this case, a suitable base 60 is provided upon which is mounted the base plate 20'', having arranged thereon the female die 21. The male die 29 is attached to the spring plates 30 and 31, which are, in turn, secured to the base plate 20''. The gripping mechanism 61 consists of a bow portion 62, provided with jaws 63 and 64. To the jaw 63 are attached downwardly extending lugs 65, while to the jaw 64 are secured upwardly extending lugs 66, 66. The lugs 65 and 66 are provided with openings 67, 67, in engagement with an actuating bar 68, preferably of oblong cross section. A stop 69 determines the downward movement of the jaw 63 relative to the jaw 64. It will be observed that, when the greater axis of the cross section of the actuating bar 68 is arranged in a hori-

zontal line the jaws 63 and 64 are kept at a distance from each other in their normal positions. When, however, the actuating lever 68 is given a turn of about 90°, the jaws are brought into engagement with each other, gripping thereby the paper. The gripping mechanism 61 is carried by a post 70, attached to a rack 71, shiftably mounted upon the underside of the base 60. More particularly, a flat spring 72 and keepers 73 and 73 hold the rack in engagement with the base 60. The spring 72 carries a finger 74, adapted to engage the depressions 75 in the rack; said depressions being spaced apart as the teeth 76 of the rack. The male die 29 is operated by a lever 77, pivoted at 78 to the base; its shorter arm 79 engaging the cover plate 33 of the casing 32. A spring 80, bearing against the base 60 and head 81 of the lever 77, tends to bring the said lever back to its normal position. The rack 71 is actuated by a cam 82, pivoted at 83 to the lever 77. The eccentricity of the cam 82 corresponds to the distance of the center lines of the teeth 76. The cam must, therefore, be loosely mounted upon the lever 77, to allow a slight movement of the same around its pivot toward the vertical portion of the lever upon the downward movement of the latter, since otherwise the rack could not be shifted in the proper manner. A spring 84, bearing against the cam, brings the same back to its normal position, while a stop 85, carried by the lever, prevents the movement of the cam toward the pivot 78 of the lever.

The operation of this device is as follows: The check or other instrument is inserted in the manner above described and the die plate 21 set to the desired position; the head 81 of the lever is then forced downward, perforating thus the paper. Upon the upward movement of the head 81, the cam face 82 shifts the rack 71 toward the vertical portion of the lever 77 a distance, corresponding exactly to the distance of the center lines of the teeth 76, whereby the gripping mechanism 62 is shifted a like distance, feeding thus the paper to the desired position, to receive the next perforation.

What I claim is:

1. A male perforating die comprising a casing having a perforated bottom portion, a cover slidably arranged in said casing, and a plurality of springs arranged upon said cover in said casing contacting with each other and having one of their respective ends formed as perforating pins which are slidably arranged in said perforations.

2. In a perforating male die comprising a casing having a perforated bottom portion, a cover slidably arranged in said casing, and a plurality of springs arranged upon said cover in said casing contacting

with each other and having one of their respective ends bent at right angles to said bottom portion, said bent portions being in engagement with said perforations and being weakened in cross section at their lower ends.

3. In a check perforator, the combination with a base plate, of a die plate slidably mounted thereon having perforations arranged conforming to the required numerals or other characters desired to be perforated, and a single perforating die comprising a casing having a perforated bottom portion, a cover slidably arranged in said casing, and a plurality of perforating pins engaging the cover and protruding through the perforations of said casing and arranged in such a manner that predetermined groups of the same are adapted to enter all perforations of said die plate forming an individual numeral or character brought into operative position with respect to said perforating die.

4. In a check perforator, the combination with a base plate, of a die plate slidably mounted thereon having perforations arranged conforming to the required numerals or other characters desired to be perforated, and a single perforating die comprising a casing having a perforated bottom portion, a cover slidably arranged in said casing, and a plurality of springs arranged upon said cover in said casing contacting with each other and having one of their respective ends formed as perforating pins in engagement with the perforations of said bottom portion and arranged in such a manner that the predetermined groups of the same are adapted to enter all perforations of said die plate forming an individual numeral or character brought into operative position with respect to said perforating die.

5. In a check perforator, the combination with a base plate, of a die plate slidably mounted thereon having perforations arranged conforming to the required numerals or other characters desired to be perforated, and a single perforating die comprising a casing having a perforated bottom portion, a cover slidably arranged in said casing, and a plurality of springs arranged upon said cover in said casing contacting with each other and having one of their respective ends formed as perforating pins which are slidably arranged in the perforations of said bottom portion and in such a manner that the predetermined groups of the same are adapted to enter all perforations of said die plate forming an individual numeral or other character brought into operative position with respect to said perforating die.

6. In a check perforator, the combination with a base plate, of a die plate slidably arranged thereon having perforations conforming to the required numerals or other

characters desired to be perforated, and a
single perforating male die comprising a
casing having a perforated bottom portion,
a cover slidably arranged in said casing, and a
5 plurality of springs arranged upon said cover
in said casing contacting with each other
and having one of their respective ends bent
at right angles to said bottom portion, said
bent ends being engaged with the perfora-
10 tions of said bottom portion, whereby pre-
determined groups of the same are adapted

to enter all perforations of said die plate
forming an individual numeral or character
brought into operative position with re-
spect to said perforating die. 15

Signed at New York, in the county of
New York and State of New York, this 18th
day of January, A. D. 1910.

SIGMUND SCHIFF.

Witnesses:

SIGMUND HERZOG,
S. BIRNBAUM.