

C. E. HOLLAND.
 PROTECTOR FOR CHECKS.
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998,177.

Patented July 18, 1911

2 SHEETS—SHEET 1.

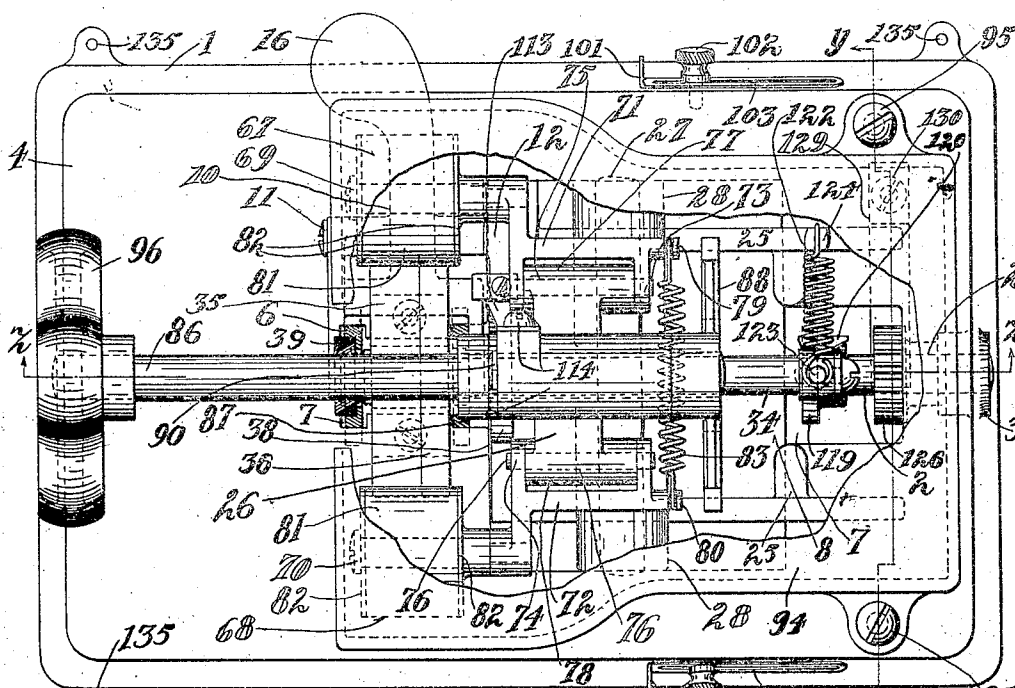


Fig. 1.

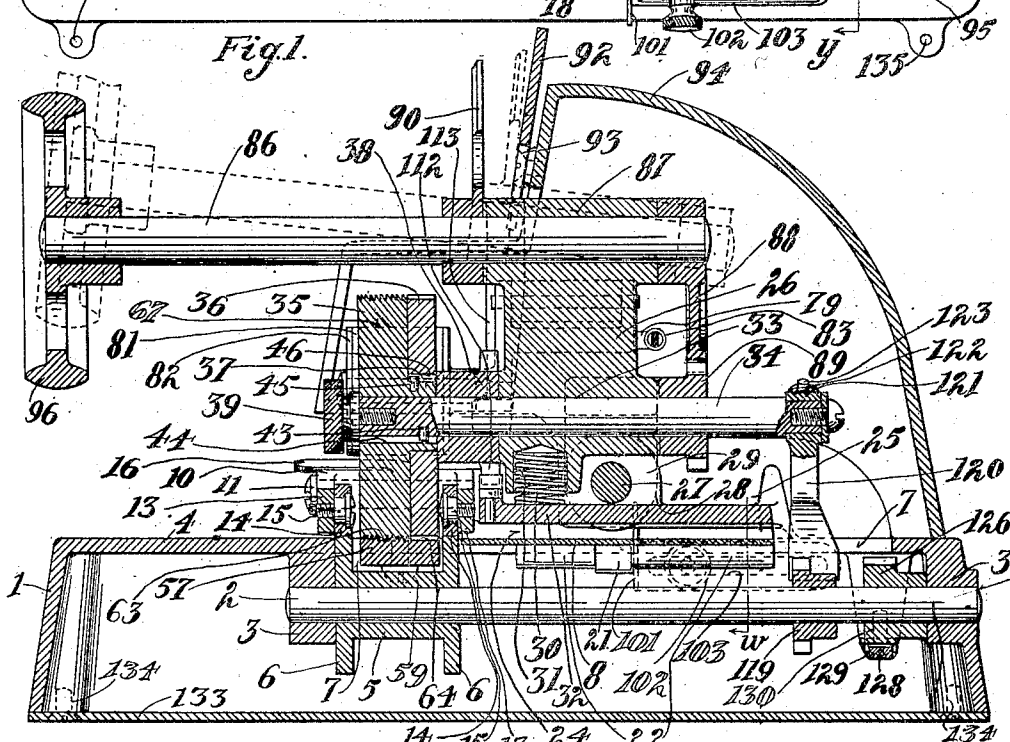


Fig. 2.

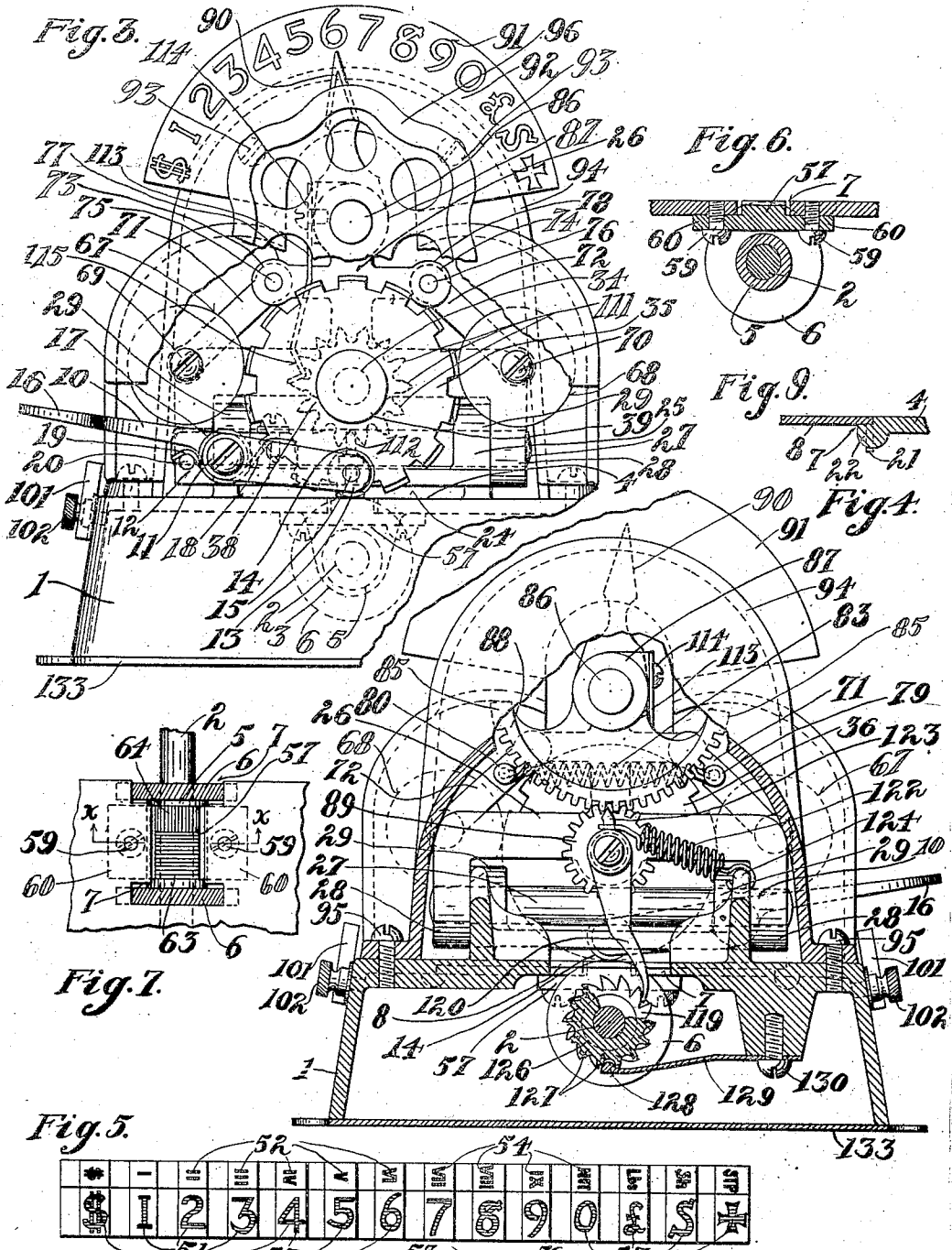
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 Jacob A. Hollander
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Inventor:
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

CHARLES E. HOLLAND, OF NEW YORK, N. Y., ASSIGNOR TO THE DEFENDER MANUFACTURING COMPANY, OF CINCINNATI, OHIO, A CORPORATION OF OHIO.

PROTECTOR FOR CHECKS.

998,177.

Specification of Letters Patent. Patented July 18, 1911.

Application filed March 5, 1910. Serial No. 547,572.

To all whom it may concern:

Be it known that I, CHARLES E. HOLLAND, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Protectors for Checks and the Like, of which the following is a specification.

My invention relates to protectors intended for use in connection with checks, drafts, bonds, or other commercial paper for marking the same to prevent the raising of the amount for which the paper is originally drawn.

It is the object of my invention to provide a small and compact machine by means of which the paper may be simultaneously cut and stamped with indelible ink with a character or characters representing the amount for which the paper is drawn; to so construct the machine and to provide convenient means therefor whereby all the working parts are readily accessible for inking, cleaning or adjustment; further, to provide a machine of this kind with characters of different kinds representing similar duplicate values, so that the designation of the amount may be applied to the paper in duplicate in characters of different kinds, whereby the danger of raising the amount is eliminated; further, to provide means whereby the characters of different kinds, representing the same amounts in duplicate, respectively appear in different manners in the paper; further, in providing means whereby the paper is subjected to cutting action from both sides, whereby the characters are sharply cut through the paper, and, further, in simultaneously applying ink to the cut surfaces whereby the characters appear upon both sides of the paper.

The invention will be further readily understood from the following description and claims, and from the drawings, in which latter:

Figure 1 represents a plan view of my improved device with the hood thereof partly broken away. Fig. 2 is a longitudinal vertical axial section of the same on the line $z-z$ of Fig. 1. Fig. 3 is a front elevation of the same, partly broken away for better illustration of parts. Fig. 4 is a cross-section of the same on the line $y-y$ of Fig. 1. Fig. 5 is a plan view of the character-wheels

laid out in plane. Fig. 6 is a cross-sectional detail on the line $x-x$ of Fig. 7, showing the manner of supporting the anvil. Fig. 7 is a plan view of the anvil and adjacent parts. Fig. 8 is an enlarged detail in section showing the cutting action of the characters and anvil upon the paper; and, Fig. 9 is a detail of the support for the filling-plate, on the line w of Fig. 2.

1 represents the main frame, which is preferably a one-piece casting and so constructed as to support all the working parts which are stationarily mounted, the manner of constructing the frame and arranging the parts permitting this to be done.

2 is a shaft journaled in bearings 3 in the frame under the table-plate 4 thereof, and supports a feed roller 5 provided with feeding flanges 6, the upper portions of the peripheries of which are received through an opening 7 in the top of the frame and preferably extend above the upper surface of the table-plate 4. A supporting plate 8 for the paper is received at the rear of said feed roller, across said opening. It has lugs 21 received between lugs 22 at the respective walls of said opening.

10 is a lever pivoted on a screw 11 received in bearings 12 on the frame. The inner end of the lever is forked, the tines 13 thereof being at the respective sides of the impression-wheels hereinafter mentioned, and having rollers 14 journaled thereon on screws 15, the rollers being received above the feeding flanges 6 for co-acting therewith in feeding the check or other paper. The outer end of the lever merges into a thumb-piece 16 which is arranged to be depressed when it is desired to insert a paper between the feed rollers, the upper or idler feed rollers being pressed toward the feeding flanges by means of a helical spring 17 received about the screw 11, one end 18 of the spring bearing against the lever and the other end 19 being received about a pin 20 in one of the bearings 12. The feeding rollers are operated in manner hereinafter described.

26 is an integral rocker-frame, all of the movable parts of the machine being shown mounted on the two integral frames, namely the main frame and the rocker-frame. The rocker-frame is pivoted on a pin 27 received through bearings 28 on the rocker-frame

and bearings 29 on the main frame 1. Its forward end is normally urged upwardly by means of a spring 30 received in a socket 31 on the rocker-frame and bearing against a girt 32 of the main frame. This girt is part of an overhanging bracket 25 extending forwardly from the rear of the main frame, and is spaced from the table-surface by the mouth 24 for receiving the paper.

The rocker-frame is provided with a bearing 33 in which a shaft 34 is journaled. On the forward end of this shaft impression wheels 35 36 are mounted so as to turn therewith. In the form shown, the impression wheel 35 is provided with a hub 37, about which the impression wheel 36 is received, the impression wheels being located side by side. The shaft is provided with a pin 43 received in a radial slot 44 in the bore of impression wheel 35, and the hub of the latter is provided with a pin 45 received in a radial slot 46 in the bore of wheel 36, for causing simultaneous rotation of the shaft and wheels. There is a positioning wheel 38 for the shaft rigidly secured thereto. The impression wheels are received about the shaft between the positioning wheel and the head of a screw 39 threaded into the end of the shaft. If it is desired to use only the impression wheel 35, the screw 39 is unscrewed, the impression wheels slipped endwise off the shaft, the impression wheel 36 slipped endwise off the hub and the impression wheel 35 again returned to the shaft, the parts being so arranged that no further adjustment is necessary, as the impression wheel 35 is positioned endwise of the shaft irrespective of the presence or absence of the impression wheel 36. If desired, the relative positions of the impression wheels may be reversed.

The impression wheel 35 is provided with one kind of characters, as indicated by the characters 51, shown as figures and conventional characters representing dollars, pounds sterling, shares, and stop. The characters on the impression wheel 36 are of a different kind from those on the impression wheel 35, as shown by the characters 52, represented as Roman numerals and other characters, differing from the characters on the impression roller 35, but representing similar denominations whereby each denomination is represented in duplicate by different characters. I further arrange the characters on the respective impression wheels in such manner as to cause impressions of different natures to be made by the respective wheels. Thus I show the characters on the impression wheel 35 as composed of teeth 53 which extend in planes at right angles to the rotary axes of the impression wheels, and the characters 52 as comprising teeth 54 which extend in line with the rotary axes of said impression

wheels, that is to say, the teeth of the respective kinds of characters extend in different directions.

57 is an anvil which is received in the annular space 58 between the flanges 6 of the feed roller 5, and is secured to the lateral walls of the opening 7 by means of screws 59 screwing upwardly into the frame through lugs 60 on the anvil. The anvil-surface is provided with teeth 63 which extend at right angles to the rotary axes of the impression wheels, and correspond with the teeth 53 of the characters 51 on the impression wheel 35, and with teeth 64 which extend in line with the rotary axes of the impression wheels, and correspond with the teeth 54 of the characters 52 on the impression wheel 36. The anvil may be reversed to accommodate for the reversal of position of the wheels 35 36.

The teeth on the impression wheels and anvil are preferably cutting teeth, as indicated in Fig. 8, in which the teeth between the wheel 35 and the anvil are shown in cross-section, the teeth between the wheel 36 and the anvil being of similar form. The mating teeth are provided with mating cutting edges 55 65 and mating shearing surfaces 56 66 for cutting the paper sharply, and, after being cut, permitting the cut edges of the paper to again lie side by side for avoiding "bunching" of the paper at the marked portion. The construction also causes the cutting edges to remain sharp by acting on each other. The respective teeth on the anvil and on said impression wheels, at the moment that the paper is being cut, are located in each other's lateral planes so as to cause the teeth to cleanly cut slits into the paper preferably in lines extending at right angles to each other in the respective kinds of characters, so as to provide the paper not only with different kinds of characters but also to impress those different kinds of characters through the paper in different manners, the characters on the impression wheels being provided with indelible ink in manner to be presently described, the ink being simultaneously applied upon the paper by the action thereof of the impression wheels and anvil, whereby the cut edges of the paper are inked for causing the characters to appear on both sides of the paper and thus impregnate the paper throughout its thickness with the ink, the paper being simultaneously cut from both sides of the same, thus indelibly and irremovably affixing the duplicate characters of different kinds into the paper. I prefer to make one of the kinds of characters more prominent than the other, for instance, I make the characters 51 of larger size than the characters 52.

For applying ink to the rollers I provide ink-rollers 67 68 at the respective sides of

said impression wheels, which are respectively loosely journaled on screws 69 70 secured in the outer ends of the yokes 71 72 journaled by bearings 73 74 on pins 75 76 located in bearings 77 78 of the rocker-frame 26. A spring 83 is secured at its respective ends to lugs 79 80 on the respective yokes for drawing the swinging ends of said yokes toward each other and causing impact of the inking rollers against the character-faces. These inking rollers preferably each comprise a body 81 of felt or suitable absorbent material into which the ink is saturated and which is located between flanges 82.

86 is an operating shaft journaled in a bearing 87 of the rocker-frame 26. It has a segment-wheel 88 at its inner end which meshes with a pinion 89 on the shaft 34. For limiting rotary movement of the operating shaft the segment is provided with obstructing ends 85. The operating shaft is provided with a pointer 90 arranged to be brought into registry with the various characters of a gage 91 on a gage-plate 92 secured by means of screws 93 to a hood 94 which is received about the operating parts and inking rollers of the machine and secured to the main frame by screws 95 so arranged that the hood may be readily removed for access to and adjustment of the working parts.

The forward end of the operating shaft carries a hand-wheel 96 by means of which the operating shaft may be turned for bringing the pointer into registry with any of the characters on the gage 91, thereby, through the medium of the wheels 88 89 operating the impression-wheel shaft 34 for bringing the corresponding duplicate characters of different kinds into positions above the anvil 57. When turning the handwheel, the impression rollers 35 36 are in raised position above the anvil 57, and the pointer 90 is in position closely adjacent to the plate 92, the hand-wheel 96 being also in raised position, as indicated in dotted lines in Fig. 2. While the parts are in raised position the check or other paper is slipped under the impression wheels into the mouth 24. Adjustable stop-gages 101 are provided for positioning the paper, the same being adjustable forward and back and secured in place by means of screws 102 screwed into the frame through slots 103 in the respective gages. When the paper is in place, the rocker-frame is depressed by means of the hand-wheel 96 which serves the double purpose of turning the wheel-shaft through the segment and pinion and of rocking the rocker-frame.

The positioning wheel 38 is provided with teeth 111 between which a positioning tooth 112 secured to the girt 32 is arranged to be selectively received when the rocker-frame

is depressed for properly positioning the desired characters on the impression wheels above the anvil. For further aiding in positioning the impression wheels about their axes, a spring 113 is secured to the rocker-frame by a screw 114 and has a tooth 115 yieldingly received between the teeth of the positioning-wheel. For feeding the check or other paper with a step-by-step movement so as to advance the same after each impression thereon by the character-wheels, I provide the feed-shaft 2 with a ratchet-wheel 119, the teeth of which are adapted to be engaged by a pawl 120, which has a bearing 121 received about the rear end of the shaft 34, the pawl being held in engagement with the teeth by a spring 122 located between a lug 123 on the pawl and a lug 124 on the frame. The pawl is thus mounted on the shaft 34 which rocks with the rocker-frame and is depressed after each impression made by the impression wheels. This upward movement of the forward end of the rocker-frame causes depression of the pawl and consequent turning of the ratchet-wheel for the distance of say one tooth thereof. This turning of the ratchet-wheel causes turning of the feed-wheel shaft and consequent operation of the feed-rollers and advancement of the paper to the extent or distance desired by the character impressions thereon. When the operating shaft is depressed, the pawl is raised into range of the next tooth so that a consequent additional movement may be imparted to the feed-rollers upon the next upward movement of the forward end of the rocker-frame. For locating the feed-rollers at the ends of their feeding movement, the feed-roller shaft is provided with a positioning roller 126 having teeth 127 arranged to be engaged by a tooth 128 on a spring 129 secured to the main frame by a screw 130. For closing the main frame from below and providing a suitable securing plate therefor, I provide a plate 133 secured to the bottom of the main frame by screws 134, the plate being provided with holes 135 through which suitable screws may be received into a desk or other support on which the protector may be placed.

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

1. In a protector for checks or the like, the combination of an impressing part provided with characters arranged in a plurality of lines designating similar denominations in said respective lines in a plurality of ways arranged for acting simultaneously on said check or the like, feeding means for said check or the like, said feeding means and impressing part having parallel rotary axes extending at substantially right angles to the directions in which said plu-

5 rality of lines extend, means for rocking
said impressing part, and connecting means
between said impressing part and feeding
means for operating the latter with a step-
by-step movement, said feeding means act-
ing successively on said check or the like
with a step-by-step movement in the direc-
tion in which said plurality of lines extend,
and constructed and arranged for marking
10 said check or the like successively with suc-
cessive characters respectively designating
similar denominations each in a plurality of
ways, substantially for the purpose described.

15 2. In a protector for checks or the like,
the combination of an impressing part pro-
vided with characters designating denomi-
nations in a plurality of manners in sepa-
rate lines each of which provides the paper
with a different kind of impression and
20 means for feeding said check or the like
with a step-by-step movement for causing
said respective characters to successively act
on said check or the like for collectively
marking said check or the like with a de-
sired collective designation in a plurality of
25 manners arranged in a plurality of lines,
substantially for the purpose described.

30 3. In a protector for checks or the like,
the combination of a plurality of impres-
sion wheels having common rotary axes and
having a plurality of lines of characters of
different kinds designating the same de-
nominations, said impression wheels being
rigidly secured together for rotating in
35 unison, an anvil, means for causing ap-
proach between said anvil and impression
wheels, means for simultaneously turning
said impression wheels for presenting char-
acters of different kinds in a plurality of
40 lines designating the same denomination to
said anvil, and constructed and arranged
for marking said check or the like with a
plurality of lines one above the other desig-
nating said similar denominations in a plu-
45 rality of ways, substantially for the pur-
pose described.

50 4. In a protector for checks or the like,
the combination of a plurality of impres-
sion wheels rigidly secured together having
thereon characters of different kinds for
designating the same denominations ar-
ranged in a plurality of lines, the charac-
ters on each impression wheel having im-
55 pression surfaces differing from the impres-
sion surfaces of the other of said impres-
sion wheels, an anvil, means for causing
simultaneous turning of said wheels for
simultaneously presenting characters of dif-
ferent kinds designating the same denomi-
60 nation to said anvil, and means for causing
approach between said anvil and wheels, and
constructed and arranged for providing said
check or the like with a plurality of lines
of impressions which collectively designate
65 the same denominations in characters of dif-

ferent kinds in said respective lines, sub-
stantially for the purpose described.

70 5. In a protector for checks or the like,
the combination of an impressing part hav-
ing a plurality of kinds of characters desig-
nating similar denominations thereon, an
anvil, and means for causing approach be-
tween said anvil and impressing part, the
said characters and anvil being provided
75 with mating cutting teeth having shearing
faces extending in parallel lines in the di-
rection of said approach between said im-
pressing part and anvil for cutting the paper
therebetween from both sides thereof, sub-
stantially as described.

80 6. In a protector for checks or the like,
the combination of an impressing part hav-
ing a plurality of kinds of characters desig-
nating similar denominations thereon, an
anvil, and means for causing approach be-
85 tween said anvil and impressing part, the
said characters and anvil being provided
with mating cutting teeth for cutting the
paper therebetween from both sides thereof,
the said mating cutting teeth of one of said
90 kinds of characters and the opposing part
thereof of said anvil extending in different
direction from the direction in which the
mating cutting teeth of the other of said
95 kinds of characters and the opposing part
thereof of said anvil extends, substantially
as described.

100 7. In a protector for checks or the like,
the combination of an impression-wheel
shaft, and a plurality of impression wheels
releasably secured thereto in continuous
rigid relation to each other and to said shaft,
said impression-wheels having thereon char-
acters of different kinds representing similar
105 denominations in duplicate, and means for
rotating said shaft and thereby simultane-
ously turning said impression wheels con-
tinuously during rotation of said shaft.

110 8. In a protector for checks or the like,
the combination of an impression-wheel
shaft, an impression wheel releasably se-
cured thereto and having a hub thereon, a
second impression wheel received about said
hub, means for causing said impression
115 wheels to rotate together, said impression
wheels having thereon mating impression
characters designating similar denomina-
tions in different manners, substantially as
described.

120 9. In a protector for checks or the like,
the combination of an anvil, an impression-
wheel shaft, a plurality of impression wheels
mounted thereon and rigidly secured with
relation to each other and to said shaft, said
125 impression wheels having thereon characters
of different kinds representing similar de-
nominations, means for rotating said shaft
and thereby simultaneously turning said
impression wheels continuously during rota-
130 tion of said shaft for simultaneously pre-

senting different characters of similar denominations to said anvil, and means for causing approach between said impression wheels and anvil, substantially as described.

5 10. In a protector for checks or the like, the combination of an anvil, an impression-wheel shaft, a plurality of impression wheels mounted thereon having thereon characters of different kinds representing similar denomi-
10 nominations, means for simultaneously turning said impression wheels, and means for causing approach between said impression wheels and anvil, the said anvil and the said characters on said impression wheels being
15 provided with co-acting cutting means comprising cutting teeth having shearing faces extending in parallel lines in the direction of said approach between said impression
20 wheels and anvil for penetrating the paper placed between them from both sides of said paper, substantially as described.

11. In a protector for checks or the like, the combination of an anvil, an impression-wheel shaft, a plurality of impression wheels mounted thereon having thereon characters of different kinds representing similar denomi-
25 nominations, means for simultaneously turning said impression wheels, means for causing approach between said impression wheels and anvil, the said anvil and the said characters on said impression wheels being pro-
30 vided with co-acting cutting surfaces, comprising cutting teeth having shearing faces extending in parallel lines in the direction of said approach between said impression
35 wheels and anvil for penetrating the paper placed between them from both sides of said paper, and means for applying ink to a cutting surface whereby the ink is caused to
40 show on both sides of said paper when cut, substantially as described.

12. In a protector for checks or the like, the combination of a main frame comprising
45 a table-plate having an opening therein and a bracket extending forwardly from the rear part of said main frame and comprising a cross-girt above said opening, a rocker-frame, said bracket having a pivot bearing thereon
50 for said rocker-frame, a shaft journaled in said rocker-frame, an impression wheel secured thereto, an inking device for said impression wheel, a rotatable and oscillating operating shaft journaled in said rocker-frame,
55 means for operating said impression-wheel shaft from said operating shaft, a hood received over said inking device and rocker-frame and releasably secured to said main frame, said hood having a reclining indicating
60 gage thereon above said rocker-frame but free of connection with said rocker-frame and constructed and arranged for providing a hood for said inking device and rocker-frame having a gage thereon which is removable therewith but stationary during
65 operation of said rocker-frame, and a pointer

on said operating shaft movable toward and from said gage, substantially as described.

13. In a protector for checks or the like, the combination of a main frame comprising
70 a table-plate having an opening therein and a bracket extending forwardly from the rear part of said main frame embracing a girt above said opening, a removable supporting plate inserted in said opening, the said table-
75 plate and supporting plate having paper supporting surfaces located in and extending in substantially similar planes, a feed-wheel shaft journaled in said main frame under said table-plate, a feed-wheel thereon projecting through said opening, a rocker-
80 frame pivoted to said bracket, an impression-wheel shaft journaled in said rocker-frame, an impression wheel thereon, an operating shaft for said impression-wheel shaft, a spring between said cross-girt and
85 rocker-frame located between said impression wheel and the pivot of said rocker-frame, and a ratchet and pawl connection between said impression-wheel shaft and feed-wheel shaft extending through said
90 opening, the said removable supporting plate forming removable cover-plate spanning said opening under said girt between said feed-roller and ratchet and pawl connection, substantially as described.
95

14. In a protector for checks or the like, the combination of an integral main frame, an integral rocker-frame pivoted thereon, said integral main frame comprising a table-
100 plate having an opening therein, bearings thereunder for a feed-shaft, and a bracket extending forwardly from the rear part of said main frame and comprising a girt above said opening, a feed-shaft journaled in said
105 first-named bearings, feeding means thereon projecting through said opening, said feeding means comprising feeding flanges which are spaced apart, an anvil in said space, a plurality of impression wheels above said
110 anvil provided with characters of different kinds designating similar denominations in a plurality of ways, means for simultaneously rotating said impression wheels for bringing characters of similar denomination
115 opposite said anvil, means for causing approach between said impression wheels and anvil, a spring between said girt and rocker-frame, and feeding means between said rocker-frame and feed-shaft, substantially
120 as described.

15. In a protector for checks and the like, the combination of a main frame, a feed-shaft journaled therein, feeding means thereon comprising feeding flanges spaced apart,
125 an anvil located in the space between said feeding flanges, a plurality of impression-wheels thereabove, the said impression wheels having thereon a plurality of kinds of characters designating similar denomi-
130 nations in different lines, the said characters

and anvil being provided with mating cutting teeth for cutting the paper therebetween from both sides thereof, the said mating cutting teeth of one of said kinds of characters and the opposing part therefor of said anvil extending in different direction from the direction in which the mating cutting teeth of the other of said kinds of characters and the opposing part therefor of said anvil extends, a lever, pressure-rollers thereon spaced apart for receiving said plurality of impression-wheels therebetween, said pressure-rollers acting with said feeding flanges for feeding the paper, a rocker-frame on which said impression-wheels are mounted, and feeding means between said rocker-frame and feed-shaft, substantially as described.

16. In a protector for checks and the like, the combination of an integral main frame comprising a table-plate provided with an opening, bearings under said table-plate for a feed-shaft, and a bracket extending forwardly from the rear of said table-plate and forming a mouth thereunder and having a bearing thereon for the pivot of a rocker-frame, an integral rocker-frame pivoted by said pivot to said main frame, a feed-shaft journaled in said first-named bearings, a feed-roller thereon projecting through said opening, an impression-wheel shaft journaled in said rocker-frame, a ratchet and pawl connection between said shafts projecting through said opening, and a removable supporting plate inserted in said opening, the said table-plate and supporting plate having paper-supporting surfaces extending

in substantially similar planes at similar level, substantially as described.

17. In a protector for checks and the like, the combination of an integral main frame, an integral rocker-frame pivoted thereon, said integral main frame comprising a table-plate having an opening therein, bearings thereunder for a feed-shaft, and a bracket extending forwardly from the rear part of said main frame and comprising a girt above said opening, a feed-shaft journaled in said first-named bearings, feeding means thereon projecting through said opening, said feeding means comprising feeding flanges which are spaced apart, an anvil in said space, a removable supporting plate received across said opening under said girt, an impression wheel above said anvil provided with impressing characters, means for manually rotating said impression wheel for bringing said several characters opposite said anvil, means for manually causing approach between said impression wheel and anvil, means for automatically causing retraction between the forward ends of said integral rocker-frame and integral main frame, and feeding means between said rocker-frame and feed-shaft, substantially as described.

In testimony whereof, I have signed my name hereto in the presence of two subscribing witnesses.

CHARLES E. HOLLAND.

Witnesses:

LILLIAN BURNETT,
EDWARD SOUTHWORTH.