

C. S. CARRIER.
CHECK PROTECTOR.

APPLICATION FILED JULY 30, 1913.

Patented Mar. 30, 1915.

2 SHEETS-SHEET 1.

1,133,459.

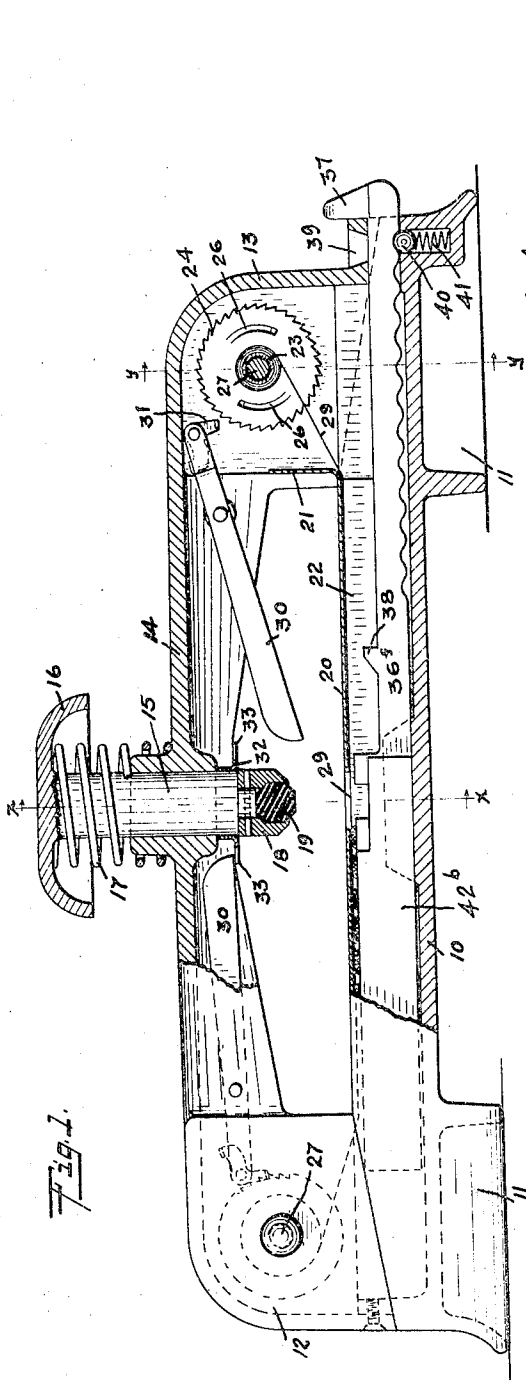
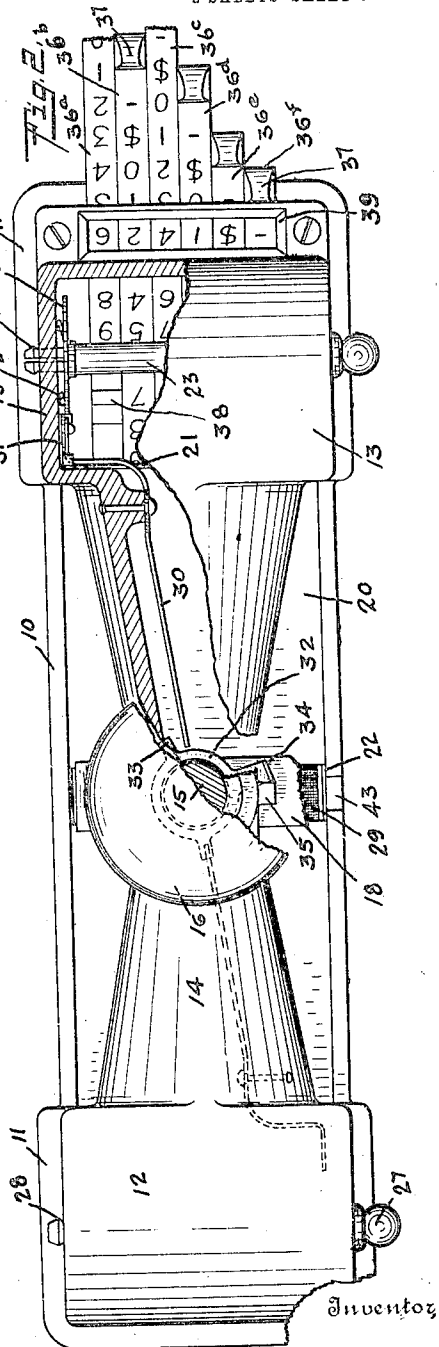


Fig. 1.

Witnesses:

J. O. Detweiler
M. Dunbar.



Courtland S. Carrier.

331

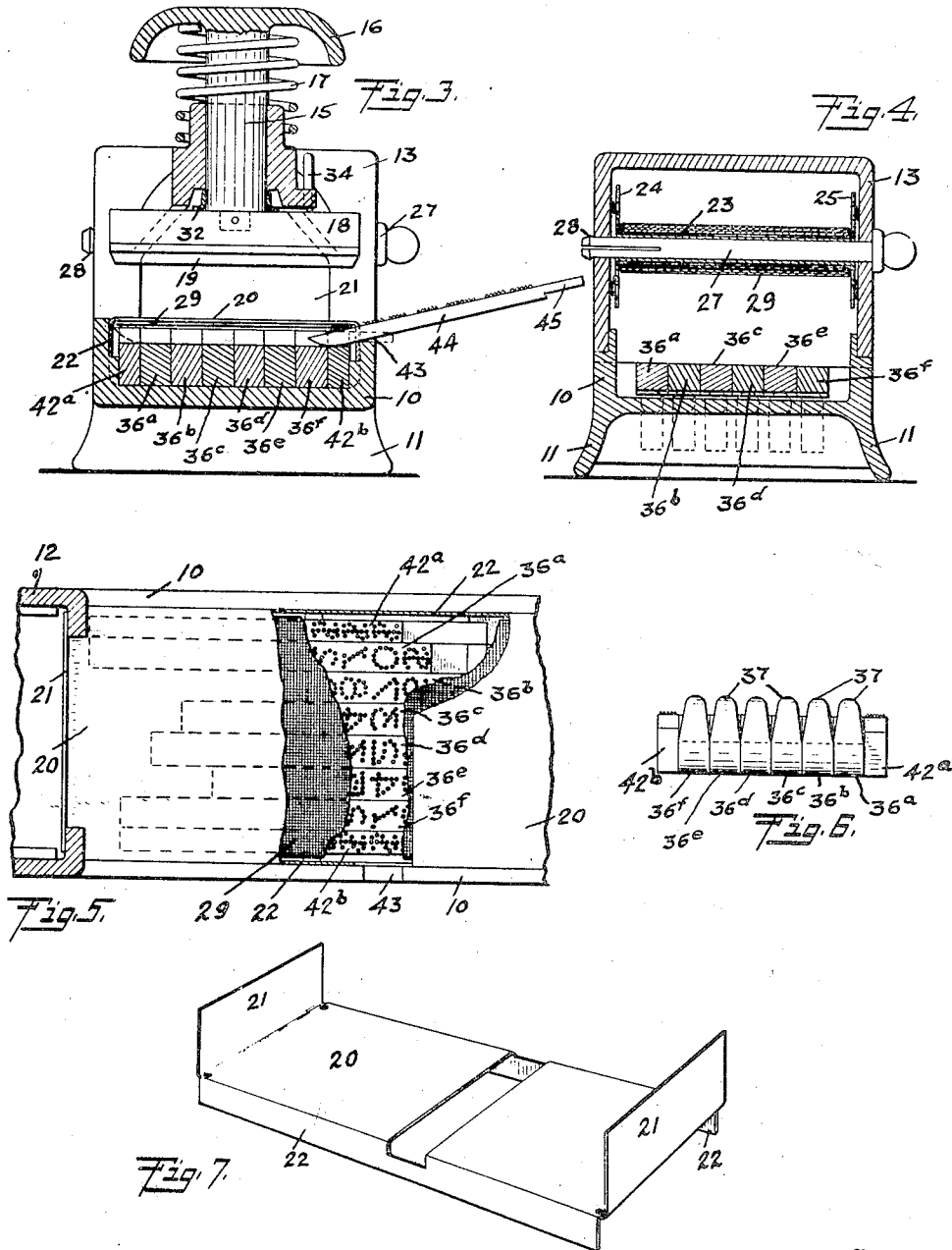
David O. Barnell,
Attorney.

C. S. CARRIER.
CHECK PROTECTOR.
APPLICATION FILED JULY 30, 1913.

1,133,459.

Patented Mar. 30, 1915.

2 SHEETS SHEET 2.



Inventor,
Courtland S. Carrier.

Witnesses:

J. O. Stuever
M. Dunbar

By David O. Barnell.

Attorney

UNITED STATES PATENT OFFICE.

COURTLAND S. CARRIER, OF OMAHA, NEBRASKA.

CHECK-PROTECTOR.

1,133,459.

Specification of Letters Patent.

Patented Mar. 30, 1915.

Application filed July 30, 1913. Serial No. 782,100.

To all whom it may concern:

Be it known that I, COURTLAND S. CARRIER, a citizen of the United States, and a resident of Omaha, in the county of Douglas and State of Nebraska, have invented certain new and useful Improvements in Check-Protectors, of which the following is a specification.

My invention relates to check protecting machines, and it is the object thereof to provide a convenient, inexpensive and effective means for protecting from alteration checks, money orders and the like, by marking on the same the amount thereof in such a manner that the marking cannot without detection be changed to increase the apparent value of the paper.

My invention consists in certain peculiar constructions, arrangements and combinations of parts, as will appear more fully hereinafter.

In the accompanying drawings, Figure 1 is a partial longitudinal vertical section and partial side elevation of a machine embodying my invention, Fig. 2 is a plan view of the same, with portions broken away, Fig. 3 is a transverse vertical sectional view taken on the plane of the line $x-x$ of Fig. 1, Fig. 4 is a sectional view taken on the plane of the line $y-y$ of Fig. 1, Fig. 5 is a detail broken view showing in plan parts of the type-bars, ribbon and cover-plate therefor, Fig. 6 is a front end view of the type-bars in assembled relation, and Fig. 7 is a perspective detail of the cover-plate for the ribbon and type-bars.

In carrying out my invention I provide a base-member 10 having foot-portions 11 at the ends thereof on which it is supported.

Secured upon the base-member is a casing comprising box-like end-portions 12 and 13, and an integral connecting bridge 14 which is spaced from the base so as to leave an elongated transverse opening through the machine below the bridge.

At the center of the bridge is a boss having a vertical opening through which a stem 15 passes slidably.

At the upper end of the stem is a rounded striking-knob 16, beneath which a spring 17 is arranged around the stem, the spring engaging the upper side of the bridge and normally holding the stem and striking-knob in the raised position shown in Fig. 1.

On the lower end of the stem is secured the platen-holder 18 which has in the lower

part thereof a transverse channel adapted to fit around all but one side of the platen 19, the platen consisting of an octagonal prism of rubber or the like. On account of the particular form of the platen it may be inserted in the holder in any one of several positions, so that each of its several faces may be successively presented for wear.

Secured upon the lower side of the casing formed by the bridge and the end-portions 12 and 13, is a thin metal plate 20 having upwardly extending end-flanges 21 which partly close the inner sides of the end-portions of the casing, and having downwardly extending longitudinal flanges 22 which normally extend down just inside the longitudinal side-flanges of the base 1.

Within each of the end-portions 12 and 13 of the casing is disposed a ribbon-spool comprising a cylindrical sleeve 23 and end-flanges 24 and 25. The flange 24 at one end of the spool is provided with ratchet-teeth, and both of the flanges have tongues 26 cut therefrom and turned outwardly so as to frictionally engage the adjacent inner sides of the casing. Each spool is rotatably held in the casing by means of a pin 27 which passes loosely through the sleeve 23. The pin 27 is provided at one end with a head and at the other end has beveled lips 28. The latter end of the pin has a kerf made therein as shown in Fig. 4, so that the parts of the pin on each side of the kerf may spring inwardly and permit the lipped end-portion of the pin to be forced through the transverse opening in the casing. After the pin has been passed through the casing the lips 28 hold it in position until it is removed by the application of a sufficient force to spring its sides inwardly at the kerf.

An inked ribbon 29 has its ends connected with the spools and passes from one spool to the other around the lower side of the plate 20. For rotating the spools to roll the ribbon from one to the other, the levers 30 are provided, said levers being pivoted on the casing beneath the end-portions of the bridge 14, and the inner ends of the levers extending into proximity to the stem 15. The outer ends of the levers are curved laterally into the end-portions 12 and 13 of the casing, terminating adjacent to the ratchet-toothed end-flanges 24 of the ribbon-spools. Pawls 31 are pivoted on said ends of the levers and are adapted to engage the ratchet-teeth to advance the spools as the

inner ends of the levers are raised to the position of the left-hand lever shown in Fig. 1. The levers are so proportioned that when free to move the inner ends will drop
 5 down to the position of the right-hand lever shown in Fig. 1, so that the pawls are out of engagement with the ratchet teeth. On the stem 15 just above the platen-holder is a collar 32 having two short lugs 33 arranged at
 10 substantially opposite sides thereof, and a tongue 34 which extends laterally above the platen-holder and is then turned upwardly so that when the platen is in the normal raised position thereof said tongue will pass
 15 alongside a stop-lug 35 which projects from the side of the bridge 14. The lugs 33 are so arranged that when the tongue is at one side of the stop-lug 35 one of the lugs 33 will be in position to engage one of the
 20 pawl-levers 30 while the other lug 33 will be out of vertical alinement with the other pawl-lever. The length of the vertical portion of the tongue 34 is such that when the platen is in its lowermost position the upper
 25 end of the tongue will pass beneath the stop-lug 35 so that the collar 32 may be rotated, the tongue moved to the other side of the stop-lug, and the operative connection of the lugs 33 and pawl-levers reversed.

30 It will be obvious that at each movement of the platen-stem a slight rotary movement will be imparted to the ribbon-spool that is then operatively connected through the pawl-lever with the sleeve 32, and that when
 35 the resultant winding of the ribbon onto the respective spool has proceeded until the other spool is nearly empty the ribbon-feed may be reversed by moving the tongue 34 from one side of the stop-lug 35 to the other
 40 while the platen is in the lower position. When it is necessary to renew the ribbon, the casing, carrying with it the plate 20, is removed from the base, after which the pins 27 are withdrawn, the spools removed, the
 45 ends of a new ribbon secured thereto, the spools replaced in the casing, and the casing again secured upon the base.

The type-bars 36^a, 36^b, 36^c, 36^d, 36^e and 36^f are slidably disposed in the base 1 and extend out through the front end thereof beneath the casing end-portion 13. The front
 50 ends of the bars are provided with upturned lugs 37 which may be conveniently grasped for moving the bars longitudinally. Stop-lugs 38 on the upper sides of the bars limit the forward movements thereof by engaging the casing. The rearward portions of the bars have suitable printing-characters formed on their upper sides, each character
 55 preferably consisting of a series of conical projections, as shown. The characters employed in the structure illustrated are \$, 0, 1, 2, 3, 4, 5, 6, 7, 8 and 9. By appropriate movements of the bars each of the said
 60 printing-characters may be brought to a

position beneath the platen 19, such position corresponding longitudinally with the center of a transverse slot in the plate 20.

On the upper sides of the forward portions of the type-bars are indicia or indicating marks, the same usually consisting
 70 of characters the same as the printing-characters, but formed by indentation of the surface of the bars instead of projecting points. These indicia are so arranged that
 75 when a printing-character on any of the bars is in position beneath the platen, a like or corresponding character on the respective bar will be presented to view through a transverse slot 39 formed in the casing at
 80 the front end of the machine, as shown.

In the foot-portion of the base below the front part of each of the type-bars is a cylindrical recess in which is disposed a ball 40 and a coil spring 41 adapted to hold the
 85 ball up into engagement with the lower side of the respective type-bar. The lower sides of the bars are of undulating form, the undulations being so proportioned that as each of the printing-characters on a bar is brought into position below the platen, the
 90 ball 40 will enter one of the hollows or transverse depressions in the bar, so as to retain the bar in such position until a sufficient force is applied thereto to force the
 95 ball down into the recess as the adjacent crest of the undulating surface passes over it.

On the outer sides of the outer type-bars 36^e and 36^f are secured the supplementary
 100 type-bars 42^a and 42^b, said bars being provided on their upper faces with suitable printing-characters each preferably formed by a series of conical projections, the same
 105 as the other printing-characters. The printing-characters on the supplementary type-bars are all alike and in the structure shown consist of dollar signs, "\$".

Each of the type-bars has in the upper side thereof a transverse channel adjoining the printing-character nearest to the front
 110 end of the bar. When the type-bars are pushed rearwardly as far as permitted by the lugs 37, the transverse channels are aligned transversely and form a continuous
 115 channel below the platen, as shown in Fig. 1. One of the side-flanges of the base 10 has a notch 43 therein at a position coinciding with the channel through the type-bars, when the latter are in the rearward
 120 position described. The transverse slot in the plate 20 is extended down into the side-flange 22 thereof as far as the bottom of the notch 43 and the channel through the
 125 type-bars.

Special type-bars 44, of the form shown in Fig. 3, may be provided and inserted into the transverse channel so that impressions
 130 may be made therefrom instead of the regular type-bars. The special type-bar 44 is

provided on its upper face with printing-characters formed by projecting points, similarly to the printing-characters of the other type-bars. One end of the bar 44 is beveled or rounded, as shown, and at the other end is a tail-portion 45, slightly thinner than the rest of the bar. In placing the special bar in the machine the pointed end is inserted beneath the ribbon 29 at the notch 43, as shown in Fig. 3, and the bar then pushed across through the channel in the type-bars until it rests flat therein with the tail-portion protruding through the notch 43, as represented by dotted lines in Fig. 3. When in this position the bar is retained in place by the shoulder adjoining the tail-portion, the shoulder dropping down below the lower edge of the notch 43. In removing the bar, the tail-portion is lifted to disengage the shoulder from the side flange, and the bar then pulled out of the transverse channel.

In the ordinary use of the machine for protecting checks and the like by stamping or embossing thereon the value thereof, the type-bar 36^a is moved longitudinally until the indicating-mark thereon appearing through the slot 39 indicates the "units" of the desired value, the bar 36^b is similarly moved so that there is indicated at the slot 39 the "tens", of the desired value, and so on until the entire desired value is shown by the indicating-marks appearing through the slot 39. If the value to be marked is such that less than the full number of the type-bars is utilized to express it then the type-bar at the left of the last bar used for numerical characters is set at the dollar-sign (\$). Thus, to express the value \$1426, the bars would be set as shown in Fig. 2, wherein the bar 36^c is set at the dollar-sign (\$) and the bar 36^d is left at the normal or "blank" position, at which the transverse channel in the bar is below the platen instead of a printing-character; said position being shown by the indicating mark "-" appearing at the slot 39.

Referring now to Fig. 5, the use of the supplementary type-bars 42^a and 42^b will be apparent. When all of the regular type-bars are used for printing numerals the character "\$" is supplied by the supplementary bar 42^b at the left of the numeral printed by the type-bar 36^e, and at all times a similar character is supplied by the bar 42^a at the right of the numeral printed from the type-bar 36^e. The character "\$" thus appears at both ends of the row of numerical characters and serves as a safeguard against "raising" the value of the check by the addition of other numerical characters at the end of the row of characters printed or embossed upon the paper by the machine. In Fig. 5 the bars are set to print the following row of characters: \$142370\$. In the set-

ting of the bars to print the foregoing, only the numerical characters 142370 would be taken into account by the operator in noting the indicating-marks at the slot 39, the "safety-characters", \$ \$, being supplied automatically by the supplementary type-bars. After the type-bars are set at the desired position, the paper to be printed is placed face down on the plate 20, extending through the transverse opening below the bridge, and the particular part of the paper sheet to be marked is disposed below the platen. A sharp blow upon the striking-knob 16 then forces the platen down onto the paper, which is pressed down through the slot in the cover-plate 20, engages the inked ribbon 29 and presses it against the row of printing-characters, so that the raised points of which the characters are formed indent or emboss the paper, breaking the fibers thereof of more or less, and at the same time offsetting from the ribbon a certain amount of coloring matter which impregnates the paper and mingles with the broken fibers. The paper is thus marked so that it is practically impossible to remove the marking therefrom or to alter it without leaving evidences of the removal or alteration.

The special type-bars 44 may be supplied as desired and used for printing characters or words other than such as may be formed by the regular and supplementary type-bars. Thus it might be desired to have special type-bars having thereon the words "Canceled", "Void", "Duplicate" or the like, and it is very convenient to have the machine so constructed as to enable the use thereof for such special markings.

Now, having described my invention, what I claim and desire to secure by Letters Patent is:

1. In a machine of the class described, the combination with a movable platen, of a die formed by a series of adjoining parallel movable type-bearing members, each of said members having a series of raised printing-characters thereon and being movable so that each of the characters may be brought to a position for coöperation with the platen, and a supplementary type-bearing member secured to one of the first-mentioned type-bearing members and movable therewith, said supplementary member having printing-characters thereon at positions coinciding transversely with the characters on the other member.

2. In a machine of the class described, the combination with a platen, of a die formed by a series of adjoining parallel movable type-bearing members, each of said members having a series of printing-characters thereon and each also having a transverse channel in the same side as that having the printing-characters on it, the members being movable so that each of the printing-

characters thereon may be placed adjacent to the platen and so that the transverse channels may also be disposed in a like position and with the channels coincident transversely through the several members, and type-bars having printing-characters thereon and adapted to be removably disposed in the coincident transverse channels for cooperation with the platen.

10 3. In a machine of the class described, the combination with a platen, of a die formed by a series of adjoining parallel members each having thereon a series of printing-characters and each being movable to bring

15 any of the printing-characters into position for coöperation with the platen, some of the printing-characters on each member being numerals and one of said characters on each bar being a non-numerical "safety"

20 character, and supplementary parts secured to the outer sides of the outer members of the die and movable with the respective members to which they are secured, said parts having a series of printing-characters

25 thereon at positions coinciding transversely

with the numerals on the adjoining die-members, and all of the said printing-characters on said parts being non-numerical.

4. In a machine of the class described, the combination with a movable platen, of a die 30 formed by a series of adjoining parallel movable type-bearing members each having a series of printing-characters thereon, said members being movable to bring each of the characters thereon to a position for coöperation with the platen, so that the characters thus positioned form a line adjacent to the platen, and supplementary type-bearing members actuated by the adjacent ones of the first-mentioned members to automati- 40 cally provide supplementary characters at the ends of the line of characters formed adjacent to the platen.

In testimony whereof I have hereunto subscribed my name in the presence of two 45 witnesses.

COURTLAND S. CARRIER.

Witnesses:

EDWARD L. BRADLEY,
D. O. BARNELL.