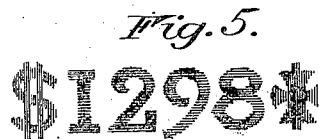
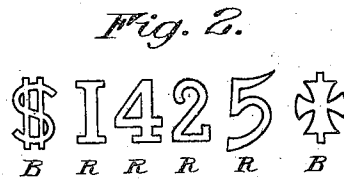


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 METHOD OF PROTECTING COMMERCIAL PAPERS.
 APPLICATION FILED MAY 25, 1908.

1,145,447.

Patented July 6, 1915.



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UNITED STATES PATENT OFFICE.

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TO G. W. TODD & CO., A FIRM COMPOSED OF G. W. TODD AND LIBANUS M. TODD, BOTH
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METHOD OF PROTECTING COMMERCIAL PAPERS.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, LIBANUS M. TODD and CHARLES G. TIEFEL, of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Methods of Protecting Commercial Papers; and we do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the reference-numerals marked thereon.

Our present invention has for its object to provide a novel method of protecting commercial paper, such as bank checks, drafts or other negotiable instruments having a monetary value, whereby fraudulent attempts to change or alter the original amounts for which they are drawn or made out will be prevented and the invention consists in applying to such instruments characters indicating the amount above which the instrument is not to be honored in such a manner that any attempt to change or alter them will be apparent and readily detectable.

In carrying the invention into effect we employ two classes of characters, one, such as numerals, employed for indicating a limiting amount or the exact monetary amount or value of the instrument, the other characters being used for stopping off or limiting the length of the line of numerals or corresponding characters, whereby additional numerals cannot be applied either in front of or behind those originally impressed upon the instrument by the maker thereof. These two classes of characters are made especially distinctive by making them by means of impressions having different characteristics such, for instance, as printing the amount indicating characters in an ink of one color and the other in an ink of contrasting color, or the character of the impressions may be made particularly distinguishable by making the stopping off or limiting characters of a conventional design appearing in relief within a field, while the amount indicating characters are of block type form, all to the end that the superpos-

ing of a numeral on either of the limiting characters, without such alteration of the instrument being apparent, will be prevented.

The invention has for its further object to apply the above mentioned characters in such a manner that the fibers of the instrument will be disrupted so that any attempt at erasure or alteration thereof will result in effectively destroying that portion of the paper, and the invention also comprehends the impressing of the amount indicating characters or numerals in such a manner that the superposing of one of a higher order upon another of a lower order will act to destroy the paper and the alteration of a numeral of a low order by hand work to represent another will be capable of detection.

To these and other ends the invention consists in certain improvements and combinations of parts all as will be hereinafter more fully described, the novel features being pointed out in the claims at the end of the specification.

In the drawings the several figures show a series of impressions each consisting of a plurality of amount indicating and limiting characters which may be used for marking commercial paper in accordance with our invention, Figure 1 showing the preferred manner of forming the impressions of both classes of characters and Figs. 2, 3, 4 and 5 illustrating various modifications thereof.

In carrying out our invention the characters employed will be preferably stamped or applied to a note, draft, stock certificate, or other instrument by a suitable printing apparatus such as that disclosed in the prior joint application Serial No. 412,224, filed by Charles G. Tiefel and Libanus M. Todd for printing apparatus, January 22, 1908, which is adapted to successively impress or print upon a check or other instrument various characters in inks of contrasting colors.

The amount indicating characters which are employed for indicating the exact amount for which an instrument is made out or an amount above which the instru-

ment will not be honored are preferably the ten digits one or more of which may be selected for this purpose. When several of them are used they will be preferably arranged in a straight line and located in juxtaposition for the evident purpose of preventing the insertion of others between any two of them. In order to prevent prefixing and suffixing other numerals there are to be arranged at each end of the line of printing in proximity to the terminal numerals the additional limiting or stopping off characters such as the dollar sign or pound sterling mark *a* and *b* respectively which may be located at the left hand end of the line to indicate the kind of currency denominated in the instrument, and another conventional character *c* which occupies a corresponding position at the right hand end of the line.

The amount indicating characters or numerals designated by *d* are made distinguishable from the limiting characters and from each other by forming the impression thereof in different ways to the end that a fraudulent intent to raise or alter the amount will be readily detectable. One way in which the two classes of characters may be differently formed or impressed is shown in Fig. 2, in which those indicating the amount may be printed with an ink of a given color, such as red, and those limiting the amount printed in another contrast-color, such as black, which would effectually prevent superposing a character of one color upon another of different color. Reliance need not be placed upon colored inks to lend contrast to the two classes of characters as distinct characteristics may be given to these by merely printing the numerals in block type form, as indicated by *e* in Fig. 3, and inclosing the limiting characters *f* and *g* within surrounding fields or vice versa, which would prevent the superposing of one upon another of their substitution. In order to provide another safeguard and further prevent the alteration of an amount, we provide means for thwarting an attempt to change the numerals themselves by converting or altering the lower digits, such as the one, two, three and zero into the larger remaining ones of the series as, for instance, changing the numeral 1 into numeral 7 or 2 into 8. This object may be accomplished by printing some of them in an ink of one color and others in an ink of another color, or printing each in a different color. However, as these impressions are for convenience made by a suitable machine the application of multiplicity of colored inks to the several characters would be inconvenient and we believe the spirit of the invention may be effected and the fraudulent alteration of commercial paper prevented by using only two colors for printing the numerals

or amount indicating characters, such as red and black, or any other two contrasting inks. The numerals which are more susceptible to changes are those above mentioned, viz., the one, two, three and zero, and these might be printed in black ink, the remaining digits being printed in red as indicated by the reference letters "B" and "R" respectively, in Fig. 1.

Indelible inks used in the manner described will offer a great safeguard but our invention contemplates another step in rendering the amount indicating characters distinguishable from each other and also distinguishable from the amount limiting characters. In carrying out this feature of the invention we emboss the paper by means of suitable type so as to stretch or disrupt the fibers of the paper within the areas defined by the outline of the characters, by means of narrow parallel slits or cuts, which permits the ink or inks to impregnate the fibers of the paper. In the preferred form of the invention the slits in some of the amount indicating characters or numerals will extend in one direction, preferably at an angle to a horizontal line, while others will extend in a different direction and the lines of severance or stretching of the fibers of the paper forming the limiting or stopping off characters will extend in still another direction relatively to those of the numerals. This manner of forming the various characters is important as it prevents any attempt to superpose one of a higher order upon another of a lower order without detection. Should even the simplest change be attempted such as the converting of the numeral one into a seven the alteration will be apparent because the embossed lines of the last mentioned figure extend at an angle to those of the former. Further the superimposing of impressions upon the paper by means of type which embosses the paper in slits extending to each other would result in removing portions of the paper.

In the preferred method of forming the limiting or stopping off characters these will be used in the manner indicated in Fig. 1 by *a*, *b*, and *c*, as the embossing of the paper in fields surrounding the conventional devices will prevent their eradication and any possible superposing of other characters thereon. It will be understood however that these limiting devices may be made similar to the numerals, that is without the surrounding fields, as shown in Fig. 5 but when so designed it is desirable to arrange their lines of embossing at an angle to the corresponding lines of the numerals. Further these characters may be solid fields and while their particular outline or shape is immaterial we prefer in such a case to make them rectangular and approximately of a

length and height equal to or slightly larger than the corresponding dimension of the largest digit as indicated by *d* in Fig. 4.

We claim as our invention:

5 1. The method of protecting negotiable paper instruments against fraudulent alteration, consisting in disrupting the fibers of the paper and impressing thereon one or more amount indicating characters, and also
10 impressing on said disrupted fibers, before and after said amount characters, fields affording grounds within which conventional characters are surcharged, said characters differing in outline from the amount indicating characters.

15 2. The method of protecting paper instruments having a numerical or monetary value consisting in applying thereto, two or more numerals applied to the instrument by impressions of different characteristics which
20 disrupt the fiber of the paper, said numerals being also printed in an ink of a given color, and also applying to the instrument before and after the numerals impressions which
25 disrupt the fiber of the paper and impress thereon conventional characters, said characters being also printed in an ink of a color contrasting that in which the numerals are printed for preventing subsequent printing
30 of a numeral on said characters to pass observance undetected.

35 3. The method of protecting paper instruments having a monetary value consisting in applying to the instrument impressions of two characters which sever the fibers of the

paper in a plurality of parallel lines, the lines of severance in one character extending at an angle to the lines of the other character.

4. The method of protecting commercial paper having a numerical or monetary value consisting in applying to the instrument by impression thereon one or more numerals before and after which limiting characters are applied, said impressions disrupting the
45 fibers of the paper in a plurality of parallel lines, the disrupted lines of the numerals and limiting characters extending in different directions.

5. The method of protecting commercial paper having a numerical or monetary value consisting in applying to the instrument by impression thereon one or more numerals before and after which limiting characters are applied, said impressions disrupting the
55 fibers of the paper in a plurality of parallel lines, the disrupted lines of the numerals and limiting characters extending in different directions, said impressions being made further distinguishable by printing the
60 amount indicating numerals in an ink of a given color and the limiting characters at each end thereof in an ink of contrasting color.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."