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SAFETY PAPER

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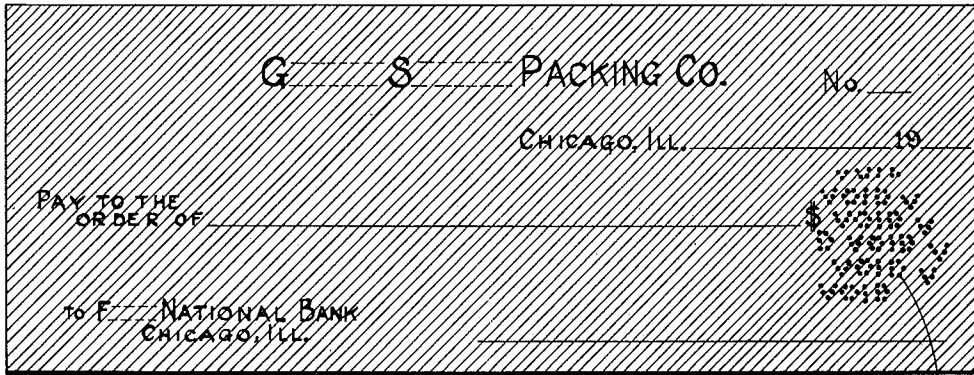


Fig. 1

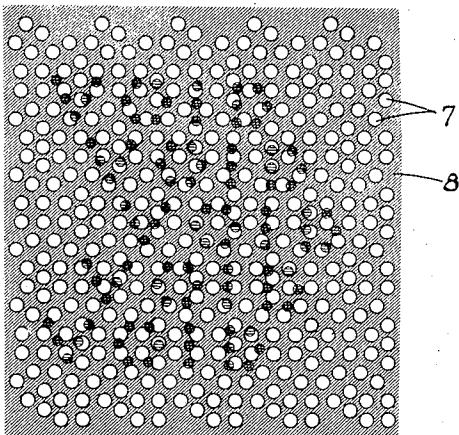


Fig. 2

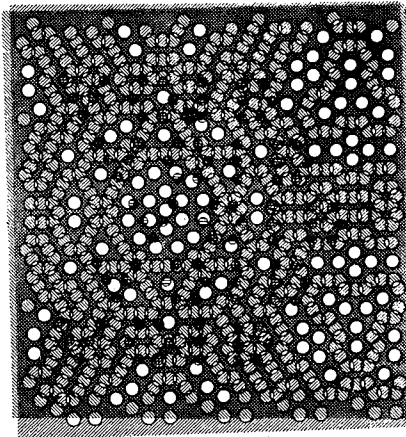


Fig. 3

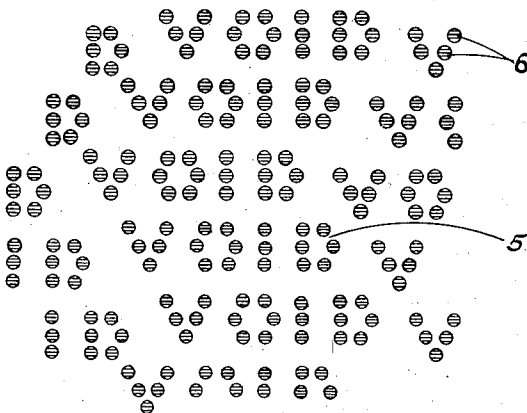


Fig. 4

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SAFETY PAPER.

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This invention relates to safety papers for checks, drafts, bonds, and the like, being in the nature of an improvement upon the invention disclosed and claimed in my copending application for Letters Patent, Serial No. 532,334, filed Jan. 27, 1922, for protective papers and methods of making same, of which the present application is in part a continuation. My prior invention comprises a safety paper provided with an indelible marking or symbol of an inherently warning character obscured or camouflaged and rendered inconspicuous by an additional marking or pattern of a sensitive and deleble or fugitive nature adapted to be removed by the action of chemical eradicators to thereby expose the indelible symbol to warn of unauthorized alteration. One object of the present invention is to obviate the use of such deleble marking substances with their tendency to fade in the course of time and to provide a safety paper embodying the main advantages of my prior invention with the additional advantageous feature of the use of marking substances or inks all of an indelible and permanent nature, to thus afford a paper of a more durable character particularly adapted for bonds, certificates and other instruments intended for use and preservation over a long period of time. From a more specific aspect, this invention provides a safety paper having an indelible warning marking obscured or camouflaged by an additional indelible marking, the warning marking being applied by a sensitive ink adapted to be developed in tint or color and thus made to conspicuously appear through the camouflaging when a chemical eradiator is applied to the paper. A further object is to provide a safety paper of an initially lighter tint or color affording a higher degree of legibility for matter written thereon and obtained by the use of a marking substance for the warning symbols adapted to be altered or deepened in color by reaction with chemical eradicators making it practicable to apply such warning means initially in a relatively light tint or color so that the obscuring or camouflaging marking and the finished paper may also be made light in tint or color for the purpose stated. 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:

Figure 1 shows a check having the invention applied thereto with the warning means developed by an attempted erasure at the figure space.

Figure 2 is an enlarged fragmentary view showing the warning means camouflaged by an additional marking.

Figure 3 is a view similar to Figure 2 with additional camouflaging matter, and

Figure 4 is an enlarged view showing the warning means.

Similar reference numerals throughout the several views indicate the same parts.

Referring more particularly to the drawings, Figure 1 shows a check made of paper stock of any usual or suitable variety which, if desired, may contain a chemical ingredient adapted to react with the usual bleaching substances or ink eradicators, to produce a conspicuous stain, as well understood in the art. Such paper is marked or printed with a sign or symbol of any suitable nature adapted to inherently express a warning of the invalidity of the instrument. It is preferred to use a word for such warning means and particularly the word "Void", as at 5, Figures 1 and 4, because of its universally recognized significance. Preferably also this word is repeated in relatively small size and close arrangement over the paper, or the writing spaces of the instrument made therefrom, so as to protect all small portions such, for example, as the space usually provided on a check for the inscription of the amount or value thereof in figures.

To reduce the initial visibility of the warning means and to facilitate the camouflaging of the same by the additional marking hereafter described, the lines of the letters of the words are preferably broken up into substantially isolated areas in the present instance in the form of circular dots 6 best shown in Figure 4. The words themselves are arranged in staggered relation to break up their align-

ment and also to stagger the dots to prevent continuous alignment of the same for any substantial distance.

The impression of the warning symbols in the form described above is made with the use of an indelible ink of a composition adapted to react with and to be conspicuously altered or deepened in color by the action of chemical reagents such as the usual bleaching or ink eradicating substances as well known in the art. It has been found for example that inks containing sensitive substances such as manganese ferro-cyanide, tolidine hydrochloride, benzedine sulphate or the like employed as a medium in a vehicle of oil varnish or water varnish having as its base glycerine or gum arabic, are well adapted for this purpose. The ink may contain any suitable substance for giving it the desired color which should be comparatively light to facilitate camouflaging by additional printed matter or patterns of a comparatively light tint, or should be initially of such a color as to blend with the camouflaging, provided a sufficient proportion of the sensitive substance is employed to produce a resulting color after reaction with an eradicator to render the warning symbols conspicuously visible through the camouflaging pattern.

The additional matter for obscuring or camouflaging the warning means is preferably of such a nature as to produce a non-uniform light reflecting action with which the dots forming the warning characters may be commingled in such a way as to camouflage or render the latter sufficiently inconspicuous to prevent their observation in the use of the paper. It has been found, as described in my said copending application, that this result is admirably accomplished with the use of a pattern composed of a multiplicity of substantially isolated areas, preferably small dots, 7, Figure 2, repeated in proximity and in such relative arrangement as to prevent continuous alignment of the pattern for any substantial distance. Preferably also such dots are printed in negative form as blank surfaces on a printed ground 8. This latter arrangement and the use of circular elements as conventionally shown, Figure 2, makes a pattern which is difficult to counterfeit in the first place and to restore when removed as by abrasive treatment of the paper.

The additional camouflaging matter in the present instance comprises two or more patterns as described above which may be combined and printed simultaneously or printed separately in succession and the arrangement or spacing of the elements or dots of two patterns so employed is preferably different to effect such a commingling of the elements of the patterns and of the latter with the dots of the warning means that the latter is effectively camouflaged and its presence on the

paper obscured. Figure 2 shows the warning means camouflaged by a single pattern, while two such patterns are shown in Figure 3.

The camouflaging matter is printed in an indelible manner adapted to remain unchanged for an indefinite period of time so that all of the marking on the paper is of a permanent character and the paper thus rendered suitable for the manufacture of instruments intended for preservation. By applying the camouflaging pattern as an essentially surface impression, it is made to serve also as a protection against attempts at alteration of matter written on the paper by erasure through abrasive treatment of the paper. When once so removed at a portion of the paper it is practically impossible to reform the pattern to restore the paper to the appearance of surrounding portions.

When an attempt is made to alter matter written on paper as described, by the application of chemical reagents, the latter, in reaction with the sensitive ink of the warning symbols, so alters or deepens the color of the symbols, as by developing a dark color, as to render them conspicuously visible through the camouflaging pattern, as shown in Figure 1, where an eradicator has been applied at the figure space of the check, the camouflaging shown in Figure 3 being represented in Figure 1 by a conventional lining. Such appearance of the warning symbol "Void" at once suggests the necessity for investigating the validity of the instrument.

I claim as my invention:

1. A safety paper having an inherently warning character printed thereon in ink of an indelible character adapted to have its color conspicuously altered by reaction with chemical eradicators, and having additional matter adapted to camouflage said warning character printed on said paper in indelible ink to obscure said warning character until the latter is rendered conspicuous by the application of said eradicators.

2. A safety paper having an inherently warning character printed in relatively small size and closely repeated arrangement thereon and in indelible ink of a character adapted to react with and to have its color conspicuously altered by the application of chemical eradicating means, and having a pattern adapted to camouflage said warning characters printed on the paper in indelible ink to obscure said warning characters until the latter are rendered conspicuous by the application of said eradicating means.

3. A safety paper having one or more warning words printed in permanent and sensitive ink in repetition thereon with the lines of the letters of said words broken up into substantially isolated areas, said sensitive ink being adapted to have its color conspicuously altered by reaction with chemical eradicating means applied to the paper and said paper

having printed thereon also in permanent ink a pattern of a character adapted to combine with and camouflage said warning words until the latter are developed by the application
5 of said eradicating means.

4. As an article of manufacture, a check made of safety paper having an inherently warning character printed in repetition thereon in indelible ink of a character
10 adapted to have its color conspicuously altered by reaction with chemical ink eradicating means, and having printed thereon also in indelible ink a pattern adapted to combine with and camouflage said warning characters
15 until the latter are developed by the application of said eradicating means.

5. As an article of manufacture, a check made of safety paper having one or more words expressing a warning printed in repetition thereon in indelible ink of a character
20 adapted to have its color conspicuously altered by reaction with chemical ink eradicating means, the lines of the letters of said words being broken up into substantially isolated areas, and said paper having printed
25 thereon also in indelible ink a pattern composed of a multiplicity of substantially isolated areas combining with said warning words to camouflage and obscure the same
30 until developed by the application of said eradicating means.

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