

63TC5 – Henry Loewenberg Patent No. 42,207 dated April 5, 1864

Wove paper coated with a starch solution on the side of the paper to be printed with the image of the postage stamp. Creates a water-soluble barrier which will allow the design to be washed off.



TESTED



63TC⁵ - James MacDonough Patent No. 52,869 dated February 27, 1866

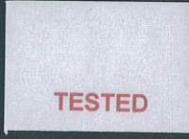
A sensitive and soluble glycerin-based printing ink which will wash off when trying to remove a cancellation.



TESTED

63TC5 & 6 – William C. Wyckoff Patent No. 53,723 dated April 3, 1866

Wove paper coated with water-color pigment (China White) on the side of the paper to be printed with the image of the postage stamp. Creates a water-soluble barrier which will allow the design to be washed off.



UNITED STATES PATENT OFFICE.

HENRY LOEWENBERG, OF NEW YORK, N. Y.

IMPROVEMENT IN POSTAGE AND REVENUE STAMPS.

Specification forming part of Letters Patent No. 42,207, dated April 5, 1864.

To all whom it may concern:

Be it known that I, HENRY LOEWENBERG, of No. 400 Fourth street, in the city, county, and State of New York, have invented a new and Improved Stamp for Postage, Revenue, and other Uses; and I do hereby declare the following to be a full and exact description of the same.

The object of my said invention is to produce stamps which, after being canceled by over-printing, or in any other way, will not permit the removal of such cancellation-marks without destroying the print. This object I effect by so preparing the paper or other substance on which the print is to be produced as to prevent the penetration of the ink, printing on this prepared surface, and applying to the opposite side the adhesive material by which the stamp is to be secured to the letter or other document. By these means a print is produced which, when canceled by over-printing in the usual way, cannot possibly be restored, for any successful attempt to remove or wash

off the canceling-mark will inevitably result in the removal or defacement of the print itself.

In some instances the effect may be improved by employing for the printing an ink which, when dry, will be more readily soluble than that employed for canceling.

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

A postage, revenue, or other stamp produced by printing on size applied to paper or other material to prevent the penetration of the ink, and applying the adhesive material to the opposite side of the paper, so that when the said stamp has been attached to a letter or other document and canceled by over-printing in the usual way the cancellation-marks cannot be removed without destroying or effacing the print.

HENRY LOEWENBERG.

Witnesses:

CHAS. L. DU BOIS,
OCTAVIUS KNIGHT.

UNITED STATES PATENT OFFICE.

JAMES MACDONOUGH, OF NEW YORK, N. Y.

IMPROVEMENT IN THE MANUFACTURE OF INK FOR PRINTING POSTAGE-STAMPS.

Specification forming part of Letters Patent No. 52,869, dated February 27, 1866.

To all whom it may concern:

Be it known that I, JAMES MACDONOUGH, of the city and county of New York, in the State of New York, have invented certain new and useful Improvements in Printing-Ink adapted for printing revenue-stamps, postage-stamps, and the like, which are to be canceled when used; and I do hereby declare that the following is a full and exact description thereof.

My invention is intended, without expense or difficulty, to lessen or avoid altogether the chance of a removal of the canceling mark or marks.

My ink is so readily dissolved by acids or other chemical reagents, as also by water, oil, and, in fact, nearly or quite all kinds of liquids, that a canceling-mark cannot be taken off without dissolving and thus removing or obscuring the ink with which the devices are originally printed, and it is at the same time "short" and adapted for plate-printing, is capable of being handled with freedom, and of being bent, folded, pressed together, and otherwise treated in the ordinary manner required for the handling, packing, and transporting of the printed stamps without involving the removing or changing the whole or any portion of the ink.

I have experimented for a long period on the employment of glycerine in printing-inks. Nearly or quite all coloring-matters may be ground in glycerine and thus manufactured into ink, and the glycerine will dissolve with such facility as to render it impossible to wash the canceling-ink from the stamp without removing the original glycerine-ink. The extreme ease with which devices so printed may be destroyed or obscured renders it desirable to modify and diminish the solubility of the ink by the use of an additional material. Gelatine, animal or fish glue may be employed for this purpose with success; so, also, may starch or flour; so, also, may dextrine, gum-tragacanth, gum-arabic, or other gums which are soluble in water. Albumen may be employed with success; but the expense makes it preferable to use some of the other materials. Linseed-oil or linseed-varnish (boiled oil) may also be used with success; but the tenacity with which linseed-oil retains its hold on the coloring material and resists the action of any reagent for

a little time renders it less desirable. A drier should, of course, be employed with raw linseed-oil, and driers may be used with any of the materials I have above designated as desirable to modify the soluble character of my glycerine-ink.

The proportions of the ingredients may vary according to the uses for which the ink is intended and the climates or conditions in which it is to be used or through which it is to be transported. It is found, for example, that stamps prepared in New York to be used in a hot climate must be prepared with precautions which are unnecessary in manufacturing stamps to be used in Maine or Iowa. It will usually be found expedient when gelatine is employed to use about the same quantity of gelatine as of glycerine, when albumen is employed to use about equal parts of albumen and glycerine, when starch or flour is employed to use a smaller quantity—say about one-half as much starch or one-half as much flour as of glycerine, and to use still less of dextrine or analogous gums. In using linseed-oil (raw) it is well to use about one-half as much oil as glycerine, and in using varnish (boiled or burned linseed-oil) to use about one-quarter as much varnish as glycerine.

I can use any two or more of these materials instead of one, to be mingled with the glycerine and thus form the vehicle for the coloring material. The compound vehicle, composed of glycerine with one or more of the modifying materials designated, may be made by the means described a long period in advance of the addition of the coloring-matter, and may be transported and sold for use as a vehicle, allowing the purchaser to grind it with various pigments, according to the color he may require.

The mode of proceeding which I consider the best to carry out my invention, having economy and convenience as well as efficiency in view, is to put on the stone or in the tub equal quantities of ordinary glycerine and ordinary gelatine of commerce and add sufficient coloring-matter with a very small quantity of the common drier known in the trade as "patent drier." The gelatine should be reduced to the consistency of jelly by previously soaking it with water and afterward warming it before presenting it to the other ingredients.

After incorporating these thoroughly with the knife or other suitable agitator, grind the whole together in the mill, and the ink is ready for use.

The proportions of the ingredients may be varied to suit any required condition. Other driers may be used, as litharge or sugar of lead, or the drier may be varied at pleasure or may be omitted altogether when sufficient time can be allowed for the ink to harden without it, and all the ordinary precautions may be employed which are known among ink-manufacturers to make the ink of a proper consistency and quality, whether for plate or surface printing.

I propose to use this ink for the printing of postage, revenue, royalty, proprietary, and all other stamps which represent a pecuniary value and require to be canceled to prevent a fraudulent second use.

I am aware that several parties have proposed the preparation of stamps which would not require a canceling-mark, or which were self-canceling, or from which the canceling-mark could not easily be removed without removing the original ink or destroying the stamp; but the means proposed by them were different from my improved ink. My ink will more certainly and more economically accomplish the desired result, inasmuch as stamps printed with my ink may be made just sufficiently sensitive, and are as portable as those now in use, and they can be manufactured with about the same facility without change of machinery, addition of processes, or serious increase of expense, and without changing the body color of the ink.

It will be observed that mine is an ink which can be used either for plate or surface printing, and which possesses the peculiar property or quality of being readily decomposed or destroyed when even the most simple and an-

tagonistic solvents are applied to it mechanically. Reagents cannot be applied chemically with any greater success, for while they would have free access to the body of the ink, the mere immersion and necessary handling of the printed impression while it was being acted upon would remove the ink.

Impressions with my improved ink may be printed upon with another color of the same or a different ink when desired. The method adopted by the Treasury Department of the Government and by the banks for securing legal-tender notes and other issues, coupon-bonds, bank-notes, and other papers representing value and requiring to be secured against scientific counterfeiting and alteration can be well carried out by the use of this ink—viz., the printing of two colors upon the face of the document, so arranged that one color is printed partially over the other. If one of the colors were printed in this ink, the other, printed in the ordinary printing-ink, could not be removed without destroying the impression.

Having now fully described my invention, what I claim as new therein, and desire to secure by these Letters Patent, (marked A,) is as follows:

1. A sensitive and soluble printing-ink adapted for both plate and surface printing, made with glycerine, for the purpose of printing postage and other stamps and preventing the fraudulent removal of canceling-marks, substantially as herein set forth.
2. Glycerine in combination with gelatine or an equivalent material adapted to reduce the solubility of ink made therewith, substantially as and for the purpose herein set forth.

J. MACDONOUGH.

Witnesses:

T. D. STETSON,
D. W. STETSON.

UNITED STATES PATENT OFFICE.

WILLIAM C. WYCKOFF, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN POSTAGE AND REVENUE STAMPS.

Specification forming part of Letters Patent No. 53,723, dated April 3, 1866.

To all whom it may concern:

Be it known that I, WILLIAM C. WYCKOFF, of the city of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Postage and Revenue Stamps; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, forming a part of this specification.

The said drawings illustrate my invention by a face view, Figure 1 and enlarged section, Fig. 2, of the proposed stamp.

It is alleged, and with good reason, that extensive frauds are committed against the Government by persons removing from letters, envelopes, wrappers, documentary papers, &c., postage and revenue stamps that have once been used, and that these stamps, after being cleaned by certain processes which are simple and effective, unless, indeed, they should, through oversight, have escaped cancellation, are used again or sold at a discount for use by others who are not cognizant of the fraud practiced, inasmuch as it is represented to such persons that the stamps came singly and in disconnected states as remittances for subscriptions to papers, &c. Thus the stamps that have once been used are sold readily, and the Government, it is supposed, suffers considerably by such frauds.

The object of my invention is to prepare the paper on which the stamp is to be printed in such manner that a stamp cannot be removed from an envelope or whatever it has been attached to by the process of wetting, steaming, or soaking; and to this end my invention consists in coating the side of the paper on which the printing is to be done with a surface of water-color pigment or paint, or some sufficiently opaque surface to receive a good impression, and be at the same time quickly soluble in water or other fluid.

As one means of carrying out my invention, I prepare sheets of paper, which it is not essential to have as thick as the ordinary paper used for stamps, and spread over or paint the surface of the paper on the side which is to receive the impression of the plate an opaque water-color pigment or paint. This can be done by very simple machinery or by hand, such

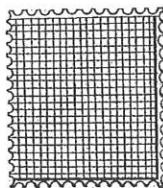
pigment or paint being prepared by the method usual and long known in what are called "water-colors," and consisting of the admixture with the coloring-matter of some adhesive substance to hold it together. The color I propose to use as the surface to receive the design may be made in various ways—for instance, oxide of zinc, which, when it is in the condition of water-color, is known in the market as "Chinese white"—or indeed pipe-clay (alumina) may be used with good effect, as it can be spread evenly for the purpose and furnishes a smooth surface and receives the impression well.

The stamp thus prepared can be used as any ordinary stamp, and it is to be used in the same way, and it accomplishes the end sought, as it can under no circumstance be removed from whatever it has been attached to by soaking or wetting, for the moment the surface comes in contact with water or other fluid the stamp becomes defaced and is consequently destroyed. Hence in using such stamps there would be no necessity of canceling the same. Therefore it is not only applicable to postage-stamps, but also to revenue-stamps, many of which latter are used without being canceled—as proprietary stamps, for instance; and if such stamps are properly "stuck" to the article it would be impossible to remove them, and indeed it is believed that many revenue-stamps are removed by soaking or wetting the checks, notes, or other articles on which they are placed, and used again, and the fact of their previous cancellation is not noticed.

I am aware of the existence of a patent granted to Henry Lowenberg for self-canceling stamps; and I wish here to remark that my invention differs from his in very important particulars. It will be understood that I do not require or wish transparency of paper or material on which to print, but, on the contrary, I leave the paper in its natural opaque condition and add to it some opaque soluble substance, for the reason that it is very difficult to obtain a good impression upon a glazed surface, or indeed upon any glutinous surface. Stamps made thereby are impracticable for ordinary use, aside from the above disadvantage in printing, for the reason that they are

W.C. Wyckoff,
Postage and Revenue Stamps.
N^o 53,723. Patented Apr. 3, 1866.

Fig; 1.



Fig; 2.



Witnesses;
Chas. A. Warland
Chas. M. De Lacy

Inventor;
W.C. Wyckoff

either sticky or too brittle, the latter being a great fault. Hence, to make such stamps on an extensive scale, as does the Government, is impracticable. The preparation of the material in a state ready for the impression is exceedingly expensive, the material receives the impression poorly, the sheets of stamps when printed are apt to stick together or break in pieces, and indeed much time would be consumed in the mere matter of handling and counting sheets of such stamps, and there would be some difficulty in counting them accurately; and these are no inconsiderable items, as is well known to those who do engraving and printing for the Government. I therefore wish it distinctly understood

that I lay no claim to Mr. Lowenberg's invention.

What I claim as my invention, and desire to secure by Letters Patent, is—

Coating the side of the paper which is to receive the print of the postage or revenue stamp with a surface of water-color pigment or paint, or some sufficiently opaque or non-transparent surface as to receive a good impression from the types or plates, and at the same time be soluble in water or other fluid, substantially as described.

WM. C. WYCKOFF.

Witnesses:

B. W. BECK,

W. J. HOY.