

UNITED STATES PATENT OFFICE.

SAML. WARD FRANCIS, OF NEW YORK, N. Y.

IMPROVEMENT IN POSTAGE AND REVENUE STAMPS.

Specification forming part of Letters Patent No. **48,389**, dated June 27, 1865.

To all whom it may concern:

Be it known that I, SAMUEL WARD FRANCIS, of New York, in the county and State of New York, have invented certain new and useful Improvements in Revenue, Postage, and other Stamps; and I hereby declare that the following is a full, clear, and exact description of the same.

The object of this invention is to dispense with the canceling or defacing of stamps by writing over or stamping or by any operation other than the affixing of the same onto the paper.

For certain purposes, such as postal, its further object is to so prepare stamps as to admit of their obliteration or defacing, after being affixed in the most expeditious manner, without the necessity of stamping or mode heretofore employed of canceling the same.

To carry my invention into effect due regard must be had to the mode of using the stamps and the means of protection against fraud provided by the laws and the government. Thus, revenue-stamps should be canceled as soon as used or attached to the instrument in writing. The danger of using it again arises mostly from the omission to cancel the same. If, therefore, a stamp be made self-canceling or self-destructive, by the very act of attaching it the object of this invention will be attained; but for postage the self-cancellation would afford no means of protection against fraudulent use of stamps already canceled. Such stamps should reach the office of deposit clean, so that the inspecting-officer may satisfy himself that the stamp had never been used before. The cancellation, however, is effected, according to my invention, by simply handling or disturbing the letter, thus saving great loss of time attending the defacing and stamping of each individual letter.

My invention therefore consists in incorporating with or applying onto the stamp two or more ingredients, such as will chemically combine to produce a dark color or stain under the action of the moisture. For revenue-stamps both or all ingredients may be embodied in or combined with the stamp before delivered for sale, so that when moistened for the purpose of sticking the same onto paper it may be defaced at once and become unsalable and unfit to be used again. For postage-stamps but one of the ingredients is used, so that no chemical combination or stain will be effected by merely

moistening it, the other ingredient or ingredients being used at the receiving-office and applied to the stamp in the manner hereinafter described, for the purpose of producing the combination which effects the cancellation.

To enable others to make and use my invention, I shall now proceed to describe the manner in which it is or may be carried into effect.

I use for the stamps paper but little or not at all sized or glazed. This paper is soaked in a solution of ferro-cyanide of potassium or an infusion of nut-galls. The solution may be applied on the side which is to be gummed, and the paper is then allowed to dry. Sulphate of iron reduced to an impalpable powder is rubbed onto the opposite side or face of the stamp, and the back is gummed over in the usual manner.

I prefer to gum the back of the stamps in such manner as to leave a central ring, bar, cross, or other figure, device, or letter free from gum. For this purpose the gum may be spread over the paper by means of stencil-plates. It will be understood that by wetting the stamp or paper the ferro-cyanide of potassium will combine with the sulphate of iron and produce a stain of a deep-blue color, which will permanently deface the stamp. With the gallic or tannic solutions a pergallate or pertannate of iron will be formed, which is black. Of course other ingredients, both organic and inorganic, may be used to produce combinations with similar effects, to determine which is the province of the chemist. The face of the stamp may be coated with a varnish or sizing, so that no ordinary dampness may affect the stamp before it is used. Instead of soaking the paper with an infusion of nut-galls, the paper may be soaked with a solution of sulphate of iron, and fine-powdered nut-galls may be used in lieu of the powdered sulphate of iron. For postage-stamps the paper is soaked in sulphate of iron before it is gummed. Otherwise the stamp is prepared in the usual manner. These stamps may be affixed by moistening them without defacing them, and the letters are dropped into the post-office with clean stamps on them. To cancel these the sorting-clerk, who takes the letters up to ascertain their destination, uses a finger-glove or some other equivalent device provided with a sponge-pad or other contrivance imbibed with a solution of nut-galls or the chemical equivalent thereof. By simply

taking up the letter with the fingers, and but slightly pressing it at the part bearing the stamp, the stamp becomes immediately and permanently defaced, without staining any other portion of the envelope or letter. In this way an army of defacing-clerks employed in the post-offices is done away with, and a great expense to the government is saved.

Having thus described my invention, I would observe that it is susceptible of many modifications without departure from the principle thereof. I therefore do not confine myself to the ingredients specified or the manner of applying the same; but

What I claim is—

Incorporating with or applying onto stamps, either before or partly before and partly after being used, ingredients such as will chemically combine to produce a dark color or stain under the action of moisture, substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification before two subscribing witnesses.

SAML. W. FRANCIS.

Witnesses:

JOHN A. M. SORLEY,
WM. B. GRANT.