United States Patent Office.

JOHN M. STURGEON, OF NEW YORK, N. Y.

Letters Patent No. 79,157, *dated June* 23, 1868; *antedated June* 10, 1868.

IMPROVEMENT IN POSTAGE-STAMPS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, JOHN M. STURGEON, of the city of New York, in the county of New York, and State of New York, have invented a new and useful Method of Cancelling Stamps; and I do hereby declare that the following is a full, clear, and exact description thereof.

The nature of my invention consists—

First, in attaching the stamp to a paper or other surface, by means of a cement or mucilage, so insoluble in water that any application of water or steam, for the purpose of facilitating the removal of the stamp, will destroy the integrity of the paper before dissolving or materially diminishing the adhesiveness of the cement.

Second, in printing upon the face or back of the stamp, with perfectly colorless and invisible ink, the word "cancelled," or any other cancelling-device, said ink having the property of becoming dark-colored and visible whenever dampened.

Third, in the preparation of a new colored vegetable ink, peculiarly adapted to the printing of stamps, bills, bonds, and other like instruments, to which said colorless and invisible ink is to be applied, as aforesaid,

The first part of my invention I carry into effect as follows: I make a cement or mucilage by mixing together animal glue, saccharine matter, either honey or molasses, and acetic acid. The proportions will depend in some degree upon the density of the glue, as well as of the saccharine matter, but a sufficiency of the latter must be used to form a mucilage of the proper consistency. These ingredients are to be well ground together, and will form a cement so far insoluble in water that it cannot be softened and its tenacity destroyed, by the application of water or steam, without destroying the integrity of the paper. Stamps may be coated with this mucilage for future use in the ordinary way.

The second part of my invention I carry into effect as follows: I make a preparation of four parts tannic acid, one part sulphate of iron, one part gallic acid, two parts of starch, and two parts balsam Riga, reduced to impalpable powder and well ground together, forming a paste of about the consistency of printers' ink. I do not, however, limit myself to these proportions, as they may be considerably varied. With this preparation I print words, figures, or devices on the face or back of the stamp, which are colorless and invisible until dampened, when they will turn a dark color and become perfectly distinct. The whole face or back of the stamp may be coated with this preparation in any suitable way, in which case the whole face of the stamp will turn a very dark color on being dampened. When this preparation is applied to the back of the stamp, the color will be brought out by wetting the mucilage for the purpose of attaching the stamp, and will show through the paper, so as to become apparent on the face of the stamp, which will thus become cancelled in the very act of attaching it, but when applied to the face, the cancelling-device will only become apparent on an attempt to remove the stamp by wetting it.

The third part of my invention I carry into effect as follows: I take scarlet, crimson, or other lakes, sap green, indigo, or other suitable vegetable coloring-matter, and add flour, starch, and balsam copaiba, in such proportions as will produce a proper consistency, the coloring-matter to be applied in sufficient quantity to produce the desired tint, all to be pulverized and well ground together.

The first and second parts of my invention may be used separately, for the purpose specified, but to get the best results I recommend the use of all in combination.

Having thus fully described my invention, and the several modes of carrying it into effect, what I claim as my invention, and desire to secure by Letters Patent, is—

1. Attaching stamps to papers or other surfaces by means of an insoluble mucilage or cement, prepared substantially as herein described, for the purpose set forth.

2. I also claim printing upon the face or back of the stamp with the colorless and invisible ink above described, or its equivalent, any cancelling-mark or device, which will become visible on being dampened by water or steam, as and for the purpose set forth.

3. I also claim, as an article of manufacture, the insoluble mucilage or cement above described.

4. I also claim, as an article of manufacture, a stamp coated with the insoluble mucilage or cement above described.

5. I also claim, as an article of manufacture, a stamp having a cancelling-device printed upon its face or back in the above-described colorless ink, or its equivalent, as and for the purpose described.

6. I also claim, as a new manufacture, the colored vegetable printing-ink, prepared substantially as described

JNO. M. STURGEON.

Witnesses:

J. J. COOMBS,

HENRY FAYETT.