L. H. G. EHRHARDT.

POSTAGE AND REVENUE STAMPS.

No. 180,564.

Patented Aug. 1, 1876.

Fig.1.



Fig.2.



Mitnesses:

Lewis F, Brous, A. P. Grant. Inventor: L. H. G. Chrhardt

δv

John a Diedersheim

UNITED STATES PATENT OFFICE.

LOUIS H. G. EHRHARDT, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF HIS RIGHT TO JOSEPH R. CARPENTER, OF SAME PLACE.

IMPROVEMENT IN POSTAGE AND REVENUE STAMPS.

Specification forming part of Letters Patent No. 180,564, dated August 1, 1876; application filed April 15, 1876.

To all whom it may concern:

Beitknown that I, Louis H.G. EHRHARDT, of the city and county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Postage and Revenue Stamps; and I do hereby declare the following to be a clear and exact description of the nature thereof, sufficient to enable others skilled in the art to which my invention appertains to fully understand, make, and use the same, reference being had to the accompanying drawings, in which the figures are face views of a stamp embodying and illustrating my invention.

My invention relates to a novel improvement in postage and revenue stamps. It has for its object to prevent the removal of any cancellation marks which may be made thereon without destroying the stamp; and, with this object in view, my invention consists of a postage or revenue stamp, printed upon paper previously prepared with a soluble size, as will

be hereinafter more fully set forth.

To enable those skilled to fully understand how to prepare my improved stamp, and thoroughly understand its advantages and the theory of its destruction by any attempt to remove the cancellation, I will describe the process I have successfully practiced to produce the results aimed at.

I take the ordinary unsized paper, and subject to a bath of size, soluble in water, composed of gum-tragacanth four pints, dissolved starch one pint, to which is added of acetate of alumina one ounce, also in a dissolved state, or any other ingredients which will produce a soluble size that will thoroughly permeate the fiber of the paper, and leave one or both surfaces of the same completely covered by said size, upon either of which I then print in the ordinary manner, and with ordinary ink, the design composing the face of the stamp, the opposite surface being gummed in the usual way. The stamp thus produced is then subjected to ordinary calendering and finishing processes, and is ready for use.

When any cancellation mark has been made

upon the face of a stamp thus produced, any attempt to remove the same by any fluid will

the fact that the contact of the fluid with the size dissolves the same, and thus softens the only agent by which the ink-design is held in union with the paper, and any amount of friction necessary to remove the cancellation-mark disturbs and removes the soluble and softened size, and the ink-design resting thereon.

I am aware that all ordinary paper in the market ready for use is sized to greater or less extent with sizes which are not removably af-

fected by contact with water.

I am also aware that it has been proposed to treat paper in such manner as to render it transparent and destructible by the application of fluids, and that it has also been proposed to coat the surface of the paper with a watercolor pigment, which is made to adhere by the addition of some gummy or mucilaginous substance; but all of these methods are essentially different from the features of my invention. The ordinary sized paper is, to all intents and purposes, unaffected by the application of water or other fluids, becoming only temporarily limp and wet, and again being restored to its natural condition.

With paper rendered transparent and destructible by the application of moisture it is difficult to print thereon, for the reason that the sheets are apt to stick to the plate, and only a few out of a large number can be successfully printed, and that when so printed the stamps are liable to stick together, and are very brittle, and readily broken; and with paper coated with a water-color pigment or paint, held in contact by use of any mucilaginous substance, and a design printed thereon, the pigment, if sufficiently thick to be useful as a soluble coating, renders the stamp-design or ink-surface liable to be peeled off, as the pigment is simply an interposed strata, independent of the ink and the paper, and held in contact with the surface of the paper by the gummy admixture, so that any crumpling of the stamp will destroy the interposed pigment strata.

My invention differs from all these in that the size, although a soluble one, becomes, as it were, a part and parcel of the paper, and cannot be cracked or broken off, and may even insure the destruction of the stamp, owing to | be wet, and, if not subjected to any friction,

will dry again, and resume its natural condition, so that stamps printed thereon, which may be accidentally wet, are not necessarily

destroyed.

I of course do not wish to be limited to the peculiar ingredients named as composing the size used by me, or to the method of application, as other sizes may be now or hereafter known embodying the same characteristics, and it may be applied by a brush or in any other manner, though I prefer applying it in the usual manner of applying size, by bathing the paper, as the most rapid, economic, and successful method.

What I claim as new, and desire to secure

by Letters Patent, is—
A postage or revenue stamp, printed upon paper previously treated with a mixture composed, essentially, of gum-tragacanth, starch, and acetate of alumina or other soluble size, removable by moisture and friction, substantially as and for the purposes hereinbefore set forth

L. H. G. EHRHARDT.

Witnesses:

A. M. WALKER, EDWIN LAMASURE,

07