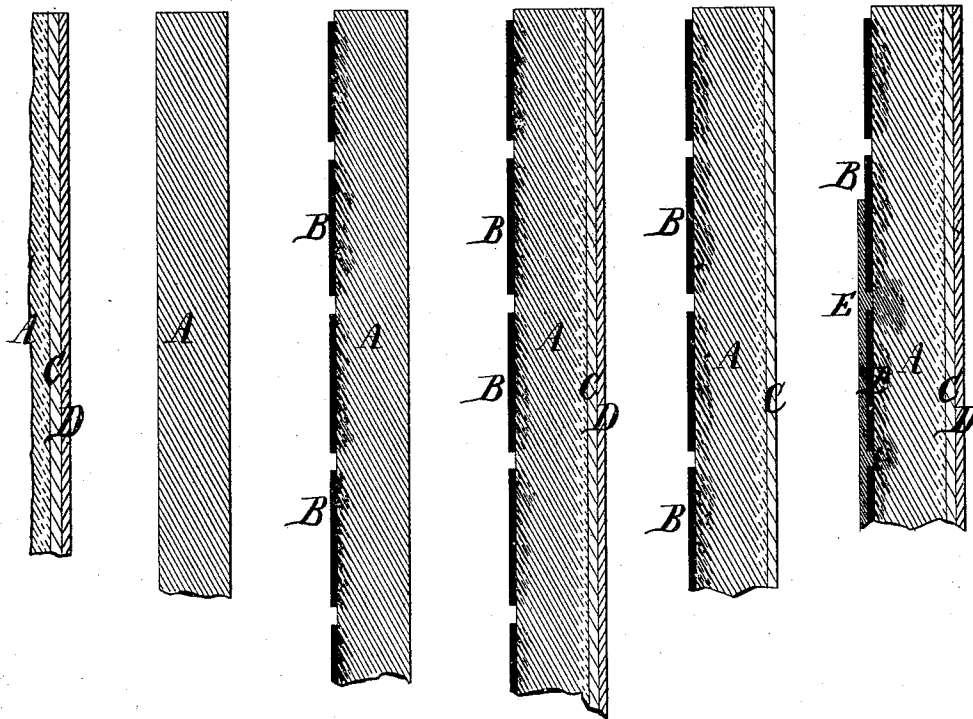


C. F. STEEL.
Postage-Stamp.

No. 169,125.

Patented Oct. 26, 1875.

Fig:1. Fig:2. Fig:3. Fig:5. Fig:4. Fig:6.



Witnesses:

Henry Gentner.
M. A. Van Namee

Inventor:

Charles F. Steel.
by his attorney J. S. S. S.

UNITED STATES PATENT OFFICE.

CHARLES F. STEEL, OF NEW YORK, N. Y.

IMPROVEMENT IN POSTAGE-STAMPS.

Specification forming part of Letters Patent No. **169,125**, dated October 26, 1875; application filed March 15, 1875.

To all whom it may concern:

Be it known that I, CHARLES F. STEEL, superintendent of the manufacture of postage-stamps for the Continental Bank-Note Company, in New York city, in the State of New York, have invented certain Improvements relating to Postage-Stamps, of which the following is a specification:

Many efforts have been made by myself and others to produce a practically successful postage-stamp from which the canceling-ink cannot be removed to allow of their fraudulent reuse. My present invention is for that purpose.

I take a soft unsized paper analogous to blotting-paper, quite soft and absorbent. Having printed the face from the properly engraved plates, and allowed the ink thereon to dry properly, I treat the back with a solution of starch of just a proper consistency, having the effect both to lay a thin coating or covering on the back surface, and also to fill the interstices between the fibers in the paper, so as to give the back surface of the paper a firmer character than the front. Then, after flattening in a press, if desired, I apply British gum or other adhesive layer on the back of the starch layer, and, having again pressed the sheets of stamps, they are ready for shipment and use like ordinary stamps.

My improved stamp is cheaper to produce than the double-thickness stamp described in my patent of 1869, while it possesses in a great degree the same desirable qualities. The soft face will readily absorb the canceling-ink, and will be soaked and washed away on any attempt to remove the latter.

The accompanying drawings form a part of this specification, and represent magnified cross-sections.

Figure 1 represents the condition of my stamp after it has been used and an attempt has been made to remove the canceling-ink. The entire face portion of the paper, including the printed device thereon, is removed and destroyed by the operation. The succeeding figures show the several stages of the operation of manufacture and canceling. Fig. 2 is a section through the soft paper before anything has been done to it. Fig. 3 represents the same after the face device has been printed.

Fig. 4 represents the same after the application of starch to the back. Fig. 5 represents the same after the back of the starched paper has been gummed; and Fig. 6 represents the same after the canceling-ink has been applied and has struck deeply into the soft paper in the space previously unprinted.

Similar letters of reference indicate like parts in all the figures.

A is the soft body of the paper. This should be of such a character as to be removed and destroyed by a moderate friction after being wetted, care being taken to avoid employing so extremely soft a paper as will become destroyed by ordinary unskillful manipulation in affixing the stamp. What is called in the trade "water-leaf" paper will suffice. The ink B may be of any color or character ordinarily used in printing from warm engraved plates. The printed device B may, if preferred, be applied from surface-printing plates in the manner adopted by some foreign nations. C is a layer of starch. This may, if preferred, be made from wheat-flour, rye-flour, or various other materials. It should be of such consistency as to strike a little, but only a little, into the thickness of the paper. D is the ordinary layer of British gum, or other soluble adhesive material, applied on the back of postage-stamps to be moistened by the mouth or otherwise in applying upon a letter.

The canceling ink or substance E cannot be controlled. It is liable, in the multiplicity of offices, large and small, and, under various exigencies, to be very greatly varied in different instances. Whatever it may be, it is usually moist enough to strike deeply into the soft body A.

A hard-bodied paper holds the canceling-ink on the surface. My soft paper A allows it to strike in; but the same quality which allows the canceling-ink to penetrate would allow the gum D to also penetrate through the soft paper and discolor and give an oily appearance to the entire stamp. This is prevented by my stratum of starch, or its equivalent, indicated by C.

Any attempt to remove the canceling-ink E other than by the most delicate chemical means involves both wetting and rubbing.

The soft body A of my stamp will be destroyed and the printed face removed by any considerable friction in a wet state.

The qualities of the soft body induce less disposition in the stamp to curl when moistened and applied on a letter. There is, also, less disposition to curl after the gumming in the process of manufacture. Less care is required in the subsequent pressing and preparation, in the handling, and shipment. A thinner and lighter paper may be employed, and thus the expense of postage in the transmission of sheets of stamps is reduced.

I believe that with a given quantity and kind of adhesive gum my stamp sticks better than the ordinary kind.

I claim as my invention—

A postage or revenue stamp formed wholly of water-leaf or other soft and absorbent paper, provided on the back with a filling coating of starch or analogous material, and a superposed coating of the ordinary gum, substantially as and for the purposes set forth.

In testimony whereof I have hereunto set my hand this 13th day of March, 1875, in the presence of two subscribing witnesses.

CHAS. F. STEEL.

Witnesses:

WM. C. DEY,
M. A. VAN NAMEE.