

J. SANGSTER.  
Postage and Revenue Stamp.

No. 220,092.

Patented Sept. 30, 1879.

Fig. 1      Fig. 2



Witnesses,  
C. L. Pond  
H. F. L. K.

Inventor  
James Sangster

# UNITED STATES PATENT OFFICE.

JAMES SANGSTER, OF BUFFALO, NEW YORK, ASSIGNOR OF ONE-HALF OF HIS RIGHT TO ROBERT DUNBAR AND GEORGE H. DUNBAR, OF SAME PLACE.

## IMPROVEMENT IN POSTAGE AND REVENUE STAMPS.

Specification forming part of Letters Patent No. **220,092**, dated September 30, 1879; application filed July 9, 1877.

*To all whom it may concern:*

Be it known that I, JAMES SANGSTER, of the city of Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Postage, Revenue, or other Stamps, which improvements are fully set forth in the following specification.

In the drawings, Figure 1 represents a finished stamp; and Fig. 2, a postage-stamp, showing the appearance of the same after an attempt has been made to wash off the canceling-ink.

The object of this invention is to produce upon portions of the stamp-design a chemical change in the oily or other material which holds the particles of the coloring-matter of the ink together, so that when an attempt is made to wash or otherwise erase the canceling-ink from the stamp for fraudulent reuse the parts so changed will wash out and expose the attempt by destroying the appearance of the stamp; and it consists of a postage or other stamp having lines, dots, or characters ruled or otherwise placed upon its surface, composed of a material that unites with and changes the oily, fatty, or resinous matter in the ink, thereby forming a soapy compound, or otherwise rendering it soluble in water or other liquids in such lines or dots, without seriously injuring the appearance of the coloring-matter therein. There are many of the alkalies that may be used for this purpose; but in practice I find that caustic soda answers a good purpose. It ceases to be caustic in a short time after being put on, as it rapidly absorbs carbonic acid from the air and becomes carbonate of soda, after which it remains without change, and does not readily absorb water or become wet from the atmosphere, like caustic potash or its equivalent.

The caustic soda may be used in combination with many of the alkalies in such proportions that the compound will be strong enough

for the purpose. I have used a solution of caustic soda and borax, which worked well; also caustic potash, carbonate of ammonia, cyanide of potassium, and other alkaline solutions; but a solution of caustic soda and water, having a specific gravity of 1.356, or thereabout, answers a good purpose; but it may be further diluted with water and work well, according to the coarseness or fineness of the lines, very fine lines requiring a stronger solution than coarser lines.

The depth at which the solution penetrates the ink or paper may also be regulated by the width of the lines, as coarse lines hold a greater quantity of the solution and will penetrate deeper into the ink and paper than fine lines, which do not hold so much.

The stamp may be ruled or otherwise impressed with the solution on either side; but such lines or dots should be coarse enough to hold sufficient material to pass through the paper, so as to reach and act upon the material in the ink, as hereinbefore mentioned. When such lines are placed on the face of the stamp (which is better) it is not necessary that the solution should pass through the paper, but only far enough to act on the ink. Consequently they may be made finer, or sufficiently narrow to produce the desired effect.

I claim as my invention—

A postage or other stamp having on its face lines, dots, or characters consisting of caustic soda, or other material that combines or unites with or changes the oily, fatty, or resinous matter in the ink employed to form the design, as described, thereby producing a soapy compound, or otherwise rendering the ink soluble in water or other liquids, as specified.

JAMES SANGSTER.

Witnesses:

HUGH SANGSTER,  
C. L. POND.