

United States Patent Office.

GEORGE T. JONES, OF CINCINNATI, OHIO.

Letters Patent No. 101,020, dated March 22, 1870.

IMPROVEMENT IN THE MANUFACTURE OF REVENUE AND OTHER STAMPS.

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

I, GEORGE T. JONES, of the city of Cincinnati, in the State of Ohio, bank-note engraver, have invented certain new and useful Improvements in the Manufacture of Internal-Revenue, Postage, and other Stamps, which improvements are described as follows:

Nature and Objects of the Invention.

My improvements relate to the manufacture of engraved and printed stamps of the kinds demanded by the United States Internal Revenue, and the United States Post-Office Department, and all analogous stamps whatsoever, whether for governmental or private need, upon which marks or checks made by the pen with writing-inks, or with printing-ink applied by mechanical means, or with other coloring-matter applied by any suitable means, are prescribed or required by law, or employed in practice, as evidence of their cancellation.

The first object of my improvements is to prevent the fraudulent reuse or subsequent issue of any such stamps after cancellation, by extracting or obliterating the ink or marks used to cancel them.

The second object of my improvements is to furnish an effective check against fraudulent imitations by the usual methods known and employed in counterfeiting.

General Description.

The most important principle of my invention consists in the printing of stamps from separate steel dies or surfaces engraved in relief (or from plates) with two or more kinds of ink of different colors, differing in their chemical nature or composition, whereby the use of an ink of one color, or of a class tested and known as sensitive to, and soluble under the action of alkaline agents, being used in direct relation to and combination with another colored ink, or inks, alike sensitive to the action of acids, the application of either an acid or alkaline agent to the stamps so printed for the purpose of extracting the commercial writing-inks generally used for cancellation, or of removing the oil-prepared printing-ink affixed by mechanical means for the same object, will so immediately and inevitably deface or remove one or more of the colored inks used upon the stamp, that its vitiated and changed condition is so unmistakably apparent as to render it utterly unfit for further use.

The respective devices printed upon the stamps with these different kinds of ink should be so disposed and combined that any cancellation-mark applied to the stamp will be certain to cross parts of both or all such devices, so that the defacement or destruction of the stamp will inevitably result from an attempt to remove the cancellation-mark from any part, by any agent.

A part or all of the printing of my improved stamps

may be performed upon paper before the same is sized, or when it is but partially sized, and one mode of carrying out the first part of my invention, hereinbefore set forth, consists in printing a portion of the devices or work of the stamp upon unsized or partially sized paper, then applying a size or coating of material readily soluble in alkalies, and afterwards printing upon this surface with an ink soluble in or sensitive to acids or printing with ink soluble in or sensitive to alkalies on a surface of a material readily soluble in acids, so that the use of either an acid or an alkaline agent to remove cancellation-marks from such a stamp will inevitably cause the destruction or defacement of the devices last printed thereon, by the removal of either the ink or the surface on which it is applied.

My invention also includes the introduction and use of inks of the most permanent kinds known, in combination with those inks already referred to as sensitive or soluble, by which means any portions of a stamp that are deemed essential to its specific identity can be so firmly imprinted and incorporated with the texture of the paper that removal cannot be effected without causing obvious and irreparable injury if not destruction of that fabric.

The foregoing indicates the main object and advantages of my invention in respect to prevention of the reuse of stamps. In this connection I would refer to the hindrance and difficulties presented by my process to some of the various modes and resources usual in counterfeiting as a direct and necessary result from my adaptation and use of the chemically-prepared colored inks, and by which several of the most important aids to fraudulent imitation, such as are inherent to the ordinary methods of engraving and printing stamps, and similar instruments, are essentially defeated and rendered worthless. The usual facilities for softening the single common ink and transferring the same for the purposes of the counterfeit plate are thwarted.

Similar obstacles likewise to imitation by the lithographic mode are also produced, while counterfeiting by the photographic process is rendered virtually impracticable and useless.

As further and effective means of preventing counterfeiting, the stamps proposed by my invention admit of the use of, and should have, the most perfect vignettes and elaborate devices that the skill of the best artists and mechanics can produce.

The new method of color printing from the separate adjustable steel surfaces, or dies, besides affording unusual scope and variety in the choice and use of colors, and insuring completeness in execution with entire uniformity and accuracy in production, will form a powerful additional warrant against any successful imitations.

In the practical use of my invention I do not purpose or propose any limitation as to the number of inks or colors that may be used upon any stamp, except that sufficient and proper inks shall always form such constituent parts as to demonstrate the action of my improvement for the prevention of reuse of such stamps by the removal of any marks of cancellation which have been put upon it. Nor do I restrict myself to any particular materials or ingredients in the manufacture of the inks.

For the purpose of illustration I subjoin recipes for two inks of different colors, which may be used with good effect in carrying out my invention.

For red ink, take of carmine, sixteen parts; magnesia, eight parts; copperas, two parts; ammonia, one part.

The above is delicately sensitive to and soluble in acids.

For purple ink, take of aniline blue, sixteen parts; drop lake, sixteen parts; magnesia, eight parts; pearl-ash, one part.

This ink is readily soluble in alkalies.

Claims.

The following is claimed as new:

1. A stamp for internal-revenue, postal, or other purposes, printed with two or more inks of different kinds, one of which is sensitive to or soluble under alkaline agents, and another of which is sensitive to or soluble under the action of acids, substantially as and for the purposes set forth.

2. The printing of stamps for internal-revenue, postal, or other purposes, with two or more inks of different colors, and one or more of them sensitive to or soluble in acids or alkalies, for the object stated.

3. The combination of one or more fugitive, sensitive, or readily soluble inks, with a more permanent or insoluble ink, substantially as set forth, in the printing of internal-revenue, postage, or other stamps.

4. The combination of any suitable ink or coloring-matter employed in printing internal-revenue, postage, or other stamps, with a surface for printing upon delicately sensitive to the action of chemical agents.

5. The stamp, made substantially as hereinbefore described, for internal-revenue, postal, or other purposes.

GEO. T. JONES.

Witnesses:

OCTAVIUS KNIGHT,
WM. H. BRERETON, Jr.