

Abstracts from the Specifications of Patents, connected with Postage and Revenue Stamps, granted by the United States Patent Office from 1863 to 1898.

BY THE EARL OF CRAWFORD, K.T.

(Continued from page 187.)

SANGSTER, JAMES, of Buffalo, N.Y. (Assignor of one-half to Robert Dunbar and Co., of the same place). 1.5.77. Filed 17.3.77. No. 190,376. *Preparing Paper for . . . Stamps. . . .*

[Unsize?] paper is printed over with a soluble size without colour, in lines, bars, circles, or other device, so that part of the paper is left unsize.

On the paper thus prepared the ordinary printing of the stamp is effected.

The composition of the soluble size may be gum arabic, starch, gelatine, dextrine, or other equivalent, dissolved in water, the pattern of which remains invisible. Sugar may be added to increase its affinity for water. But it should not be too sensitive.

Any attempt to wash off a cancel mark dissolves the size on the stamp, even where the printing ink overlies it. Consequently parts wash off corresponding to the device of size originally placed upon it, and the printed design of the stamp is destroyed.

Is aware of other patents, but claims the placing a design, bars, lines, etc., of size as a substratum, instead of covering the whole.

BEAUMONT, DAVID G., of Austin, Texas. 10.7.77. Filed 12.5.77. No. 192,893. *Double Paper, one being cut throughout.*

The stamps are made of two thicknesses of paper, the lower one of which is gummed in the ordinary way. Incisions are then cut in the upper sheet of the paper in parallel lines and at suitable distances apart by means of suitable knives or dies. The upper sheet is then smoothly placed on the lower and they are secured together by mucilage.

The printing of the stamps is then made on the compound paper. Perforation is then performed in the usual way.

With this construction it will be impossible to clean off the cancelling ink without mutilating the surface of the stamps.

I have some of these stamps prepared, but think that samples were only made for Revenue purposes.

BIERCE, WILLIAM W., of Memphis, Tenn. (Assignor of one-half to John C. Spencer, of New York City). 10.7.77. Filed 26.6.76. No. 192,968. Patented in Canada, 30.10.76; England, 26.10.76; France, 8.1.77.

The principle here consists in a stamp the central portion of which is raised above the surrounding parts, and is *perforated* around the raised part.

A cancel mark is almost impossible to clean off—as any rubbing with water or other fluid will cause the central part to be wholly or partially broken away where the perforation has weakened its connection with the main body of the stamp. Further, the cancel ink gets in and behind the stamp through the perforation holes.

Recommends cancellation to be done by means of a wire brush cut square. With gentle pressure the raised part and the perforations get torn away by the brush.

This is better performed if the raised centre is shielded at the back by a screen of thin paper, so that the gum does not touch it.

BIERCE, WILLIAM W., of Memphis, Tenn. (Assignor of one-half to John C. Spencer, of New York City). 14.8.77. Filed 7.11.76. No. 194,212. *Patented in Canada 30.10.76 for five years.*

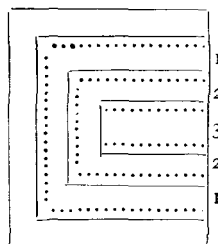
Practically no difference in this patent from his former one of 10.7.77, excepting, perhaps, in the *claim* at the end, where he protects the stamp having a portion of its back ungummed, which portion is raised above the plane of the rest. And in a second claim, that such raised and ungummed portion of the stamp be surrounded with perforation or indentations.

My impression is that Mr. J. C. Spencer was one of the chief employés of the National Bank Note Company of New York.

Anyhow, this patent was used by them and advertised as their property, and a vast number of trials for colour and design were made of it.

FOX, JOHN, of New York City, N.Y. 12.2.78. Filed 13.11.77. No. 200,187.

Paper of ordinary kind is used and the stamps printed thereon. The sheet is then cut or incised in the most convenient way, so that each stamp is severed into two or more portions.



Thus after incision the model would come into pieces at 1.1, 2.2, and 3.3.

The whole is backed with fine tissue paper without disturbing the pattern of the design. It is then perforated, and is ready for use.

Any attempt to remove a stamp or subject it to a cleaning process would cause it to come to pieces at once.

DEWE, JOHN, of Ottawa, Ontario, Canada. 26.2.78. Filed 17.11.77. No. 200,702.

The invention can be applied to any stamps in the sheet before the process of gumming.

The sheet of stamps is treated with a coating of soluble colour at the back. When dry it is passed between toothed rollers or parallel knives, by which it is slit by short cuts all over. It is then submitted to pressure, the action of which causes the small slits to close up, and then the sheet is gummed and perforated, and it is ready for use.

The colouring at the back is only very faintly visible, but if an attempt be made to damp off the stamp or cancel mark, the colouring matter on the back dissolves and oozes through every little slit and ruins the design.

Again, any attempt to remove the stamp without softening the gum will break or tear the stamp at any or many of the lines of weakness caused by the slits.

FOX, ADDISON C., of Baltimore, Maryland (Assignor of three-sixths to T. F. Eigelberner, of same place; said Fox and Eigelberner assignors of one-sixth their right to Edward B. Cram, of Portland, Maine). 26.3.78. Filed 26.1.78. No. 201,769.

States that the cancellation of a stamp by means of a colouring matter so as to preclude the re-use of the stamp is a *theoretical*, and has been found to be a *practical*, impossibility.

Constructs his stamp in such a manner that its cancellation is effected by cutting or tearing away a portion of the stamp. To this end the stamp is made having a rib, or ridge, or pleat in the paper, the lower sides of the pleat being attached together by gum in order to give it the necessary stiffness. Thus a section of the stamp:—



The pleat is to be shaved or scraped off by the cancelling agent.

SANGSTER, JAMES, of Buffalo, N.Y. 23.4.78. Filed 11.2.78. No. 202,760.

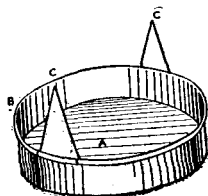
Object.—To cause parts of the stamp to be more absorbed than others, so that the colouring matter of the cancellation may sink in and render cleaning impossible.

Effected by.—The parts of the stamp which the design leaves *clear* paper are treated with caustic potash or caustic soda, or any acid or chemical that will, to a certain extent, loosen or dissolve the size in the part being treated. This spreads the fibre of the paper, and leaves it absorbent.

It is best to apply the alkali or acid by ruling machine or dotting, after the printing.

It is necessary to wash or neutralize the part treated to prevent the action from spreading in the substance of the paper and affecting the ink of the design.

NEVILLE, GEORGE L., and GODWIN, LEROY C., of Portsmouth, Virginia. 25.6.78. Filed 1.11.77. No. 205,292.



A thin metal cap having sharp edges and two points to fold down is used.

- a* = the top of the cap.
- b* = the rim or thin edge.
- c* = the point sticking up from the rim.

One of these caps to be stuck through a stamp and the points turned down over the face, which will look thus:—

(*a*) is the edge view of the stamp, (*b*) is the cap held up against the underside of the stamp by the points (*c*) which pierce the paper and turn down.



The stamp being stuck to an envelope, the top of the *cap* rests on the *envelope*, and the *rim* prevents a part of the stamp from sticking down flat, and it is cancelled by a blow from a pad furnished with a soft rubber head; thus the sharp rim of the little cap cuts clean through the stamp, and the cap itself falls off.

SPENCER, CHARLES F., of Rochester, N.Y. 24.9.78. Filed 2.8.78. No. 208,433.

The gummed side of the stamp is prepared so that a blow from the cancelling pad shall destroy the surface of the stamp.

Effected by.—When the gum is applied to the stamp mixed with it is a portion of *emery, sand*, ground glass or other hard granular or abrading material—so that it may cover the whole of the back of the stamp, or the material may be sifted on to the central part of each stamp after the gum is applied, and allowed to sink into it.

When dried it will not interfere with the adhesive quality of the gum, and if struck with a hammer pad or cancelling machine having an elastic face, the emery or granular material bedded in the gum at the back will be forced up and through the surface of the stamp, thus effectually destroying it and preventing its being cleaned and used a second time.

ANDERSON, AXEL W., of Bedford, Penn. 7.1.79. Filed 7.8.78. No. 211,207. *For a Fibre-faced Paper.*

In making the paper the pulp is prepared as usual. Just before, or as it is spread to form sheets, and while yet soft, fibres of silk or other material, cut, carded, and loosened up, are spread over the surface of the pulp, which then passes under a roller embedding the fibres firmly into the body of the paper. It then passes over the wire screen to free water, and below a second roller. It is then treated by wire scratch brushes operated by suitable mechanism, to raise the fibre on the surface of the paper and form a sort of nap. In this state it passes forward to the calendering rolls for heating and drying, the fibres now standing erect on the surface. By rotary zigzag motion these fibres are bent down, confused, and intermingled, and the paper has a confused nap.

It is then sized lightly, and is then ready for printing upon—which may be done in any way—and used.

If any cancellation marks are treated for removal the necessary moisture of friction disturbs the fibres below the size, and the design or face of the stamp becomes woolly and impossible to use a second time.

WHEELER, KENDRICK, of Brooklyn, N.Y. 18.2.79. Filed 17.6.78. No. 212,416.

The difference between this patent and that of Addison C. Fletcher, No. 175,242 of 28.3.76, lies solely in the fact that when the cutting tool is in action it is charged with a coloured ink of a fugitive nature.

If an attempt be made to clean the stamp after cancellation, the colour on the cuts will also be removed, and it would not be possible to restore it, as the little tongues of paper shrink if wet, and the cuts would no longer coincide.

This device was also used by the United States Government, but not to any great extent. The 3 cent stamp was thus treated. It is excessively rare.

SANGSTER, JAMES, of Buffalo, N.Y. 30.9.79. Filed 9.7.77.

Parts of the design on a stamp are treated so as to chemically change the oily material which holds together the colouring matter.

Done by.—Lines, dots, or characters are ruled or placed on the surface of the stamp of a solution of caustic soda and borax, or such-like alkali, having a specific gravity of 1.356, or thereabouts.

The alkali on the lines or dots combines or unites with or changes the oily, fatty, or resinous matter in the ink of the design, producing a soapy compound, rendering it soluble under the action of water or other cleaning fluids.

Thus if attempts are made to remove the cancel marks, the parts of the design which have been treated wash away, and the stamp is effectually destroyed and cannot be used a second time.

This was apparently the original idea of Sangster, as he applied for his patent in July, '77. The month of February, '78, he patented the converse of this idea, i.e. the treatment of the part of the stamp *not* covered by the design—granted on 23.4.78 (q.v.). And now he resorts to his former desire, and protects it also.

KIRCHER, JULIUS, of Brooklyn, N.Y. (Assignor of three-fifths of his right to Benno Loewy, of New York). 6.1.80. Filed 28.11.79. No. 223,363.
Printing Ink.

Object.—An ink for the design of the stamp, *more easily destroyed* than any writing fluid or medium used in cancelling it.

Effected by.—Making an ink composed of ten parts by weight of a suitable resin, such as rosin gum-dammar, olibanum, mastic benzoin, or copal, dissolved in 10 to 15 parts of turpentine, benzine, copaiba balsam, or other material or essential oil at a moderate temperature. These proportions may be varied.

On complete solution add 1 part (weight), or a little more, of linseed or other drying oil, such as poppy oil, to unite with the resin. To this add 1 part, or a little more, olive or other non-drying oil, such as oleine, palm oil, cocoa oil, tallow, butter, fat, or the like, to unite with the fibre of the paper, or protect it from absorbing the ink. The mass is then heated, and suitable pigment stirred in, according to the depth of colour sought, say from 10 to 20 parts.

The design of a stamp printed with this ink will be durable for all legitimate purposes, but any attempt to clean it after cancellation would efface it before any action would be apparent on the cancelling marks.

KIRCHER, JULIUS, of Brooklyn, N.Y. (Assigned in respect to three-fifths, as in original). Re-issued Letters Patent 23.3.80. Application for re-issue filed 21.1.80. No. 9126. Original No. 223,363. Date 6.1.80.

This patent is almost word for word as the last, and I see no reason for the re-issue, but suppose that some unperformed act had vitiated the original.

MACDONOUGH, JAMES, of New York, N.Y. * (Assignor to himself and the American Bank Note Company, of same place). 1.6.80. Filed 6.4.80. No. 228,365. *Improved means of making Stamps, partly fugitive.*

The methods of applying a soluble gum or size as a substratum to printing ink are not successful, as the soluble portion spreads and diffuses itself in the paper.

* Macdonough was the head official or Managing Director of the American Bank Note Company.

New Proposal or Invention.—Substitutes for the soluble size: a coating of shellac or other hard substance unaffected by water. This is ruled in cross lines or other pattern on the paper previous to printing. The ordinary printer's ink will lie, and produce the same effect to the eye as on the other parts of the paper, but under different conditions; on the parts not covered by ruling it will take a permanent hold, but over the shellac rulings it will lie higher and with little or no penetration either into the paper or into the shellac.*

Any such friction as would be required to clean off the cancelling mark will remove the ink overlying the shellac before the other is affected, and the design on the stamp will be destroyed.

SAWYERS, REESE P., of St. Louis, Missouri (Assignor as to one-fourth his right to Robt. R. Hutchinson, of same place). 25.1.81. Filed 18.2.80. No. 236,960.

States that patents have been granted to gumming half the stamp and perforating along the gummed line; a failure, because dishonest persons were able to match stamps and use them again, owing to the regular line of the tear.

Remedy.—The gum is applied in a wavy line on the back of the stamp, so that the stamp, which is not perforated, and has to be torn by pulling the loose corners, has no regular line of severance, and therefore cannot be matched with the portion taken from another.

MASSEY, GIDEON B., of New York, N.Y. (Assignor of one-fourth his share to Francis E. Norris, of same place). 6.12.81. Filed 15.3.81. No. 250,376. *A Double Paper is used.*

The lower sheet is of strong paper which is usually used for stamps; the upper of this paper having holes perforated in a pattern near the centre of each stamp.

The lower sheet, by means of stencil-plate or otherwise, is coated with a mucilage, so the centre of each stamp is not touched by the gum; thus when the upper sheet is applied to the lower the central part of each stamp is not stuck down.

This compound sheet is then printed in the ordinary manner on the thin paper, is gummed on the reverse, perforated, and is ready for use.

The printing ink passes freely through the pattern of holes in the upper sheet and takes on the lower sheet.

Cancellation is to be done in the post office by using a pen or any sharp point which will tear away the loose central part of the stamp, thus only showing the ink marks in the pattern on the lower sheet.

CLAPP, WILLIAM JOHN, of Nantyglo, Monmouth, Wales. 16.0.84. Filed 23.4.84. No. 305,292. Patented in Great Britain 15.10.83. No. 4905.

This is for paper to be used for cheques, bank-drafts, etc., prepared to change colour when written on. Of no importance to the present matters.

* Very probably this device was tried on some of the 3 c. value, but I have not met with or detected them.

COOKE, ALBERT W., of Boston, Mass. 14.10.84. Filed 17.4.84. No. 306,674.
Book for Holding Stamps.

Patents a book preferably to go into the vest pocket; placed in it are alternately a sheet of postage or other stamps and a sheet of paper prepared by wax, paraffin, or other substance, so that the gummed side of the stamp shall not stick to it under the action of heat or moisture.

FLETCHER, ADDISON C., of New York, N.Y. 6.1.91. Filed 10.10.90.
 No. 444,344.

At the back of the sheet of stamps is applied a thin sheet of tissue-paper pierced with holes and then embossed in lines between the holes, giving a lattice-work of low relief.

The principal object seems to be *prevention* of the sheets of stamps sticking one to another. (Of no importance to this inquiry.)

BRIGHT, GEORGE M., of Abingdon, Virginia. 7.3.93. Filed 14.9.92.
 No. 492,912.

For a new design for a postage stamp, in which one-half of the stamp is available for postage of half the face value of the whole.

(Somewhat similar to the Geneva 10 c., 5 c. + 5 c.)

POPE, WALLACE M., of Cincinnati, Ohio (Assignor to the Ault and Wibora Company of Ohio). 12.6.94. Filed 7.4.94. No. 521,177.

A cancelling composition which shall be indelible, and which in process of attempted erasure will cause a change in the colour of the paper on which the stamp is placed.

Composition is formed of *rosin oil*, 100 lb.; *lamp-black*, 10 lb.; *rosin soap*, 5 lb.; and a *coal tar acid*, preferably *picric acid*, 5 lb. To this is added for colour *basic aniline blue*, 5 lb.; but this is not essential to the composition.

HALL, FRANCIS B., of Plattsburg, New York. 28.6.98. Filed 20.1.98.
 No. 606,542.

For a vehicle for mixing inks which is stable in all conditions for ordinary printing purposes and yet only sensitive to action of water, alcohol, ether, and other liquids which are used for cleaning cancellations, or against the putting over the stamp a film to protect its face from the action of the cancelling ink (which can subsequently be removed with the marks).

States that this is not unfrequently done to defraud the revenue.

A stamp and envelope is covered with a thin film of gelatine, then over it a thin film of pyroxiline (collodion?) is placed. This receives the cancel mark, and keeps the ink from defacing the stamp or envelope; then it is washed off, and it may be used again.

The composition of the basis is a solution of sugar in water having *salicylic acid* in it to an excess; 4 oz. of *cold* water will hold 8 oz. of *sugar* in solution and 5 *grains* of *salicylic acid*, but in the sugared water 6 *drams* is taken up, and the sugar can then be increased to 24 oz.

The sugar and acid combine to form a compound apparently stable, of viscid constitution and snow-white opacity, forming an excellent medium for mixing colours for inks, and very sensitive to water, alcohol, ether, and any cleaning fluid, which all destroy the design.