## Abstants from the Specifitations of watents, con-  granted bo the ednited States fatent (1)ffice from 1863 to 1898.

by the EARL of cRAWFORD, K.t.
[The Earl of Crawford, in building up his truly magnificent collection of the postal issues of the United States, aims at not only accumulating all the known postage stamps, but at the presentation of the complete history of each specimen from its inscription to the date of its issue. No trouble has been too great for the President of the Royal Philatelic Society in his successful prosecution of this striking historical philatelic work, and amongst other features has been the search in the United States Patent Office for patents connected with postage stamps in that country. This search has revealed many points of importance in the philatelic history of the stamps of that country, which Lord Crawford has very kindly placed at our disposal for the benefit of his brother Philatelists, by whom, we are convinced, they will be read with considerable interest.-ED.]
Herron. 7.7.63. No. 39,147. Preserving Postage Stamps. [Out of print.]
Gibson. 5.I.64. No. 41,118. Postage and other Stamps. [Out of print.]
Harmon. 9.2.64. No. 41,505. Postage and Revenue Stamps. [Out of print.]
Harmon, Emanuel. 22.3.64. No. 41,991. Mode of Cancelling Revenue and other Stamps.
Nature of my invention consists in the clipping or cutting from the stamp the date or mark representing the approximation to the date of the month and the year of its use as a method of cancellment.

Figures a stamp. Around it are a series of letters and dots to show approximate date. Jan. begins at left lower corner and follows round with the sun. The dots are periods of five days, cancelled by snipping out portions of this outer frame, containing initials of months and dots, e.g. two dots snipped out showing date to be between 10 and 20 March.

Claims.-The method of cancelling combined with engraving months and dots on the stamps.


Loewenberg, Henry, of New York. 5.5.64. No. 42,207. Improvement in Postage and Revenue Stamps.
Object.-To produce stamps which after being cancelled by overprinting ... weill not permit the removal of such cancell marks without destroying the print.

Paper is prepared on one surface to prevent the printing ink from penetrating the substance, and gumming the opposite side.

Claims.-A stamp is produced by printing on size applied to paper or other material to prevent the penetration of the ink, the other side being gummed.

When cancelled by overprinting, the marks cannot be removed without at the same time removing or destroying or defacing the print on the stamp itself.

Harris, Charles W., of Pittsburg, Pen. I 5.i i.64; 1.2.64; antedated. No. 45,038. Mode of cancelling Postage and Revenue Stamps.
To furnish a rapid and efficient mode of cancelling or destroying so as to prevent a second use of postage or revenue stamps without injury to the letter or instrument to which the stamp is affixed.

Destruction of such stamps by ink, whether printing or writing, seems but partial-ink stains often removed by chemical process; but tearing is not liable to these objections.

I place under the stamp when it is fixed to the letter or document a piece of fine tape or thread so that it may lie flat on the under side of the stamp on and secured by the gum; after execution of the deed or posting, the string or thread (a) is pulled-this tears the stamp in two and effectually cancels it.

Claim.-(a) Mode of cancelling government or other stamps by tearing them by means of thread between the stamp and the letter or instrument.
(b) Constructing such stamps with thread attached as described.

Loewenberg, Henry, of New York. 15.11.64. No. 45,057. Improvements in Adhesive Postage and Revenue Stamps.
Consists in applying adhesives to transparent paper or other material, and then producing any design, picture, or characters upon the surface of such adhesive substance; so that the designs, etc., shall be distinctly visible through the paper or material without coming in contact therewith; so that the stamp thus made, when once applied to any surface, cannot be removed without being destroyed.

Thus any suitable transparent paper, cloth, etc., may be used. To one surface apply coating of dextrine, gum arabic, or other. On this surface I produce the desired picture or design, by printing with non-reversed types or engravings, or by lithograph or photo or other process, the designs, etc., being distinctly visible through the transparent material from the other side.

When this is stuck down the design is nearest to the envelope, then comes the gum, and then the transparent paper. Any attempt to remove it by moisture will infallibly destroy the design by disturbing the gum.

Clains.-A self-cancelling stamp, by applying to a transparent material an adhesive and printing the design on the adhesive as described.

Hulot, Anatole A. (Director of the Mint), of Paris, France. 23.5.65. No. 47,909. Improved Printing Ink.
Makes an ink which is destroyed if attempts are made to clean off the obliteration marks, containing neither fatty substances, fatty varnishes, or water.

Composed.-To make the non-fatty varnish capable of being dissolved in water. Melt two parts in weight of pure honey, and add two parts of neutral glycerine at $28^{\circ} \mathrm{C}$. Agitate, and when well mixed, cool and settle. The vegetable or mineral colouring substance must be perfectly dried and ground. To form the ink add to one part of colour four parts of the non-fatty varnish and work well together. These proportions are varied according as a light or dark shade of colour is desired, the lighter shades requiring more honey. This preparation dries rapidly and renders the colours fast.

A second non-fatty varnish is prepared by using molasses in the place of the honey, but this dries slowly. When mixed in suitable proportions with the first varnish it gives a lustre to the printing. Any mixture of mucilaginous, gelatinous, or albuminous substances are detrimental to the spreading of the ink. Trying to clean it dissolves the ink and defeats the object.

Claims.-The ink as described capable of being washed out, etc.
Francis, Samuel Ward (Dr.), of New York. 27.6.65. No. 48,389. Improvement in Postage and Revenue Stamps.
Object.-To dispense with the cancelling or defacing of stamps by writing over or stamping or other operation other than the affixing the same on to the paper.

Effected by combining with the stamp in its substance two or more ingredients such as will chemically combine to produce a dark stain under the action of moisture. For Revenue stamps both ingredients are in the paper, and the wetting it to stick on the document stains and cancells it. For Postage stamps one ingredient is in the paper; the other is applied at the receiving or cancelling office.

The paper should be little, or not at all, sized or glued. It is soaked in a solution of ferro-cyanide of potassium (yellow prussiate of potash), or in an infusion of nutgalls. Sulphate of iron reduced to an impalpable powder is then rubbed on the back of the stamp, and is gummed in the usual way.

For the Postage stamp the paper is soaked in sulphate of iron before it is gummed. The cancelling clerk has a finger-glove or pad wet with a solution of nutgalls or prussiate of potash, and the fact of touching the stamp causes the decomposition to take place, and the paper is deeply stained.

The Government thought well of this, and ro,000 copies were printed for experimental work.

Bowlsby, George W., of Monroe, Mich. 26.12.65. No. 51,782. Improvement in Postage Stamps.
For preventing the second use of postage stamps. Effected by applying the adhesive matter to only a portion of the under surface of the stamp, so that a part of it does not adhere to the paper.

This loose part is to be torn off by the postmaster before the letter is put into the mail, instead of defacing the stamp with ink.
MacDonough. 27.2.66. No. 52,869. Manufacture of Ink for Postage Stamps. [Out of print.]
Wyckoff, William C., of Brooklyn, New York. 3.4.66. No. 53,ヶ23.
Object.-To prepare the paper on which the stamp is printed so that it cannot be removed by the process of wetting.

Effected by coating the side of the paper on which the printing is to be done with a surface of water-colour pigment or paint, or some sufficiently opake surface to receive a good impression, and be at the same time quickly soluble in water or other fluid.

Paper rather thinner than usual is spread over or painted with an opake water-colour pigment, either by hand or by machinery. I propose to use as the surface, for instance, Oxide of $Z$ inc, which when in the condition technically known as water-colour is known in the market as Chinese White; indeed, Pipe Clay (alumina) may be used with good effect.

I am aware of Patent No. 45,057 granted to Henry Loewenburg for selfcancelling stamps, but I do not wish for or seek transparency of paper or material. On the contrary, I leave it opake and opake soluble material to it.

With my stamp it would not be necessary to cancell the stamp, as it is impossible to remove it from its paper, so that it should be used again.
Loewenberg, Henry (Assignor to himself and Emile Granier), of New York. 9.4.67. No. 63,733. Improved Compound for Printer's Ink.
Take lampblack or other suitable colouring matter, and add to it syrup, molasses, honey, or other equivalent saccharine substance, with or without glycerine or oily matter.

Good results are obtained with the following proportions: syrup or equivalent saccharine substance four parts, with the requisite quantity of colouring material.

If a more soluble ink is required, oil one part, sirup or other four parts, glycerine three parts, and the requisite amount of colouring material, etc. etc.

By the use of sirup, molasses, honey, or other saccharine substance, an ink is obtained which is soluble and of superior brilliancy, not liable to change by age, and the addition of glycerine renders it more or less plastic.

Very useful for postage or revenue stamps, as if attempts are made to remove the cancell marks the stamp is destroyed.

This seems a direct infringement on Hulot.
Steel, Charles F., of Brooklyn, N.Y. 22.10.67. No. 70,147. Improvements in Manufacture of Postage Stamps. (The Grille.)
Object.-To produce a stamp which shall stick better than usual, and impossible to fraudulently remove and use again.

Effected by embossing or partially breaking the paper, so as to open its texture along certain lines without removing any part thereof, causing the stamp to stick better, and allowing the oil of the cancelling ink to sink in very deeply.

The gum should be applied before the breaking operation.
The paper is smoothed after the breaking up prior to printing.
It is preferable to leave parts of the broken surface clean or unprinted.
Process.-Suitable paper is gummed and dried, pressed between embossed plates or rollers; parts or the whole is then flattened to nearly remove the embossing, but the fibre of the paper remains disturbed and partly broken. I print on this surface.

It is greatly preferable to leave a portion of each stamp unflattened and unprinted upon, as the cancelling ink cannot be cleaned away when once it penetrates the substance of the paper.

Illustrated, plans and sections.
Cardsi. 14.1.68. No. 73,296. System of Postage Stamps. [Out of print.] Sturgeon, John M., of New York. Dated 23.6.68; antedated 10.6.68. No. 79,157. Improvernent in Cancellation.
ist. A cement or mucilage is used so insoluble in water, that immersion or application of steam for facilitating the removal of the stamp will destroy the integrity of the paper before dissolving the gum.

2nd. The use of a perfectly colourless and invisible ink for printing on the face or back of the stamp the word "Cancelled" or any other device. This ink becoming dark and visible whenever dampened.

3rd. The use of a new coloured vegetable ink.
The cement is made by mixing animal glue, saccharine matter, either honey or molasses, and acetic acid. To be well ground together, becoming so far insoluble that it cannot be softened and its tenacity impaired by the application of water or steam. The proportions depend on the density of the glue. A sufficiency of the honey, etc., must be used to form a gum of the proper consistency.

The invisible ink.-Take four parts tannic acid, one part sulphate of iron, one part gallic acid, two parts starch, and two parts balsam Riga. Reduceto impalpable powder and well grind together, forming a paste about the consistency of printer's ink. These proportions may be varied; anything printed on the face or back remains invisible till wet, when the ink darkens at once.

The coloured ink.--Take scarlet, crimson, or other lakes, sap-green, indigo, or other vegetable colouring matter, and add flour starch and balsam copaiba in such proportions as will produce a proper consistency. Pulverize and grind together.
Greenfield, Henry, of New York. il.8.68. No. 80,943. Mode of Cancelling.
The paper is prepared with a suitable chemical such as Acetate of Lead (or the stamps themselves may be treated) and exposing them afterwards for the purposes of cancellation to the action of some other chemical, such as Sulphate of Ammonia, or the fumes of Sulphur. By stamping with a solution of Sulphate of Ammonia the stamp is effectually cancelled. By applying the fumes of Sulphur in a closed receiver the stamps can be cancelled in bulk without handling.

The action is to turn the stamp a brown colour, which cannot be effaced.

Steel, Charles F, of New York. 16.2.69. No. 86,952. Improvement in Stamps. Double Paper.
Is in the employ of the National Bank Note Co. as superintendant of the manufacture of Postage Stamps.

The stamp is made with the face of the paper of entirely a different character from the back. The face blotting-paper, the back is hard wellsized paper.

Take sheets of hard well-sized paper a little thinner than usual, apply thin coating of wheat paste or suitable cement, lay upon it a corresponding sheet of tissue paper, and press the whole together. Print on the tissue, gum on the hard paper.

The ink and cancelling sink into the soft paper deeply, and any attempt to wash or rub it breaks up the surface and destroys it at once. Fugitive inks can be equally well used. With sketch.

Used for regular issue, 1873.
Fletcher, Addison C., of New York. 8.6.69. No. 91,io8.
The stamp is provided with flaps covering a portion of its face. The printing extending over the face and the flap, which protects the part under it from being printed on. For cancellation the flap or flaps are torn away or mutilated. With sketch.
(To be continued.)

# The Efinst $\mathfrak{E s s u x}$ of fle Zealamo (pinted in fondon). 

By M. P. CASTLE.



EFERENCE to the files of philatelic iiterature will reveal the fact that New Zealand has been a much bewritten country, and having regard to the numerous contributions that treat of the old issues, it may well be a cause for wonder that any one could find anything further to write about. My remarks, however, do not pretend to introduce any new facts or striking discovery, but have for their object the resuscitation of former valuable information which seems to be in danger of being forgotten alike by those who sell and those who buy the early issues of this colony. The number of collectors of the stamps of New Zealand must be enormous, judging by the rapid shrinkage of the supply in recent years. It is not beyond the limits of truth to say that the majority of the specimens of the issues from 1854 to 1872 are to-day scarcer and higher priced used than they were unused twenty years since. I am not surprised at this popularity, as the "fullface portraits," as the old stamps are generally designated in Australia, have everything to recommend them-beauty of design, handsome colouring, varieties of impression, re-engraving of plates, provisional papers, perforations

