

# Basic Stamp Information

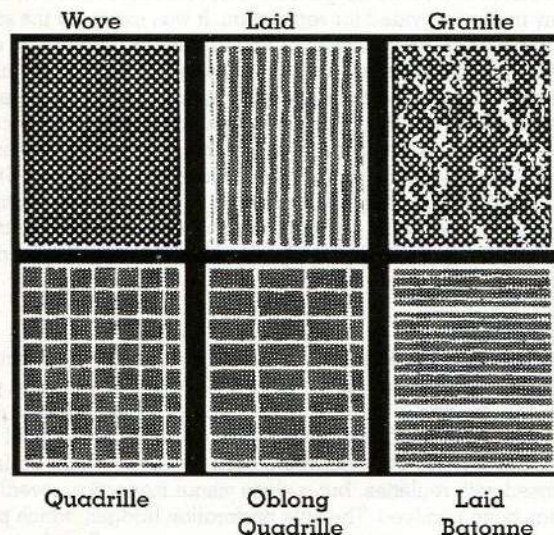
A stamp collector's knowledge of the combined elements that make a given stamp issue unique determines his or her ability to identify stamps. These elements include paper, watermark, method of separation, printing, design and gum. On the following pages each of these important areas is briefly described.

## Paper

Paper is an organic material composed of a compacted weave of cellulose fibers and generally formed into sheets. Paper used to print stamps may be manufactured in sheets, or it may have been part of a large roll (called a web) before being cut to size. The fibers most often used to create paper on which stamps are printed include bark, wood, straw and certain grasses. In many cases, linen or cotton rags have been added for greater strength and durability. Grinding, bleaching, cooking and rinsing these raw fibers reduces them to a slushy pulp, referred to by paper makers as "stuff." Sizing and, sometimes, coloring matter is added to the pulp to make different types of finished paper.

After the stuff is prepared, it is poured onto sieve-like frames that allow the water to run off, while retaining the matted pulp. As fibers fall onto the screen and are held by gravity, they form a natural weave that will later hold the paper together. If the screen has metal bits that are formed into letters or images attached, it leaves slightly thinned areas on the paper. These are called watermarks.

When the stuff is almost dry, it is passed under pressure through smooth or engraved rollers - dandy rolls - or placed between cloth in a press to be flattened and dried.



Stamp paper falls broadly into two types: wove and laid. The nature of the surface of the frame onto which the pulp is first deposited causes the differences in appearance between the two. If the surface is smooth and even, the paper will be of fairly uniform texture throughout. This is known as wove paper. Early papermaking machines poured the pulp onto a continuously circulating web of felt, but modern machines feed the pulp onto a cloth-like screen made of closely interwoven fine wires. This paper, when held to a light, will show little dots or points very close together. The proper name for this is "wire wove," but the type is still considered wove. Any U.S. or British stamp printed after 1880 will serve as an example of wire wove paper.

Closely spaced parallel wires, with cross wires at wider intervals, make up the frames used for what is known as laid paper. A greater thickness of the pulp will settle between the wires. The paper, when held to a light, will show alternate light and dark lines. The spacing and the thickness of the lines may vary, but on any one sheet of paper they are all alike. See Russia Scott 31-38 for examples of laid paper.

*Batonne*, from the French word meaning "a staff," is a term used if the lines in the paper are spaced quite far apart, like the printed ruling on a writing tablet. *Batonne* paper may be either wove or laid. If laid, fine laid lines can be seen between the batons.

*Quadrille* is the term used when the lines in the paper form little squares. *Oblong quadrille* is the term used when rectangles, rather than squares, are formed. Grid patterns vary from distinct to extremely faint. See Mexico-Guadalajara Scott 35-37 for examples of oblong quadrille paper.

Paper also is classified as thick or thin, hard or soft, and by color. Such colors may include yellowish, greenish, bluish and reddish.

Brief explanations of other types of paper used for printing stamps, as well as examples, follow.

**Colored** — Colored paper is created by the addition of dye in the paper-making process. Such colors may include shades of yellow, green, blue and red. *Surface-colored papers*, most commonly used for British colonial issues in 1913-14, are created when coloring is added only to the surface during the finishing process. Stamps printed on surface-colored paper have white or uncolored backs, while true colored papers are colored through. See Jamaica Scott 71-73.

**Pelure** — Pelure paper is a very thin, hard and often brittle paper that is sometimes bluish or grayish in appearance. See Serbia Scott 169-170.

**Native** — This is a term applied to handmade papers used to produce some of the early stamps of the Indian states. Stamps printed on native paper may be expected to display various natural inclusions that are normal and do not negatively affect value. Japanese paper, originally made of mulberry fibers and rice flour, is part of this group. See Japan Scott 1-18.

**Manila** — This type of paper is often used to make stamped envelopes and wrappers. It is a coarse-textured stock, usually smooth on one side and rough on the other. A variety of colors of manila paper exist, but the most common range is yellowish-brown.

**Silk** — Introduced by the British in 1847 as a safeguard against counterfeiting, silk paper contains bits of colored silk thread scattered throughout. The density of these fibers varies greatly and can include as few as one fiber per stamp or hundreds. U.S. revenue Scott R152 is a good example of an easy-to-identify silk paper stamp.

Silk-thread paper has uninterrupted threads of colored silk arranged so that one or more threads run through the stamp or postal stationery. See Great Britain Scott 5-6 and Switzerland Scott 14-19.

**Granite** — Filled with minute cloth or colored paper fibers of various colors and lengths, granite paper should not be confused with either type of silk paper. Austria Scott 172-175 and a number of Swiss stamps are examples of granite paper.

**Chalky** — A chalk-like substance coats the surface of chalky paper to discourage the cleaning and reuse of canceled stamps, as well as to provide a smoother, more acceptable printing surface. Because the designs of stamps printed on chalky paper are imprinted on what is often a water-soluble coating, any attempt to remove a cancellation will destroy the stamp. *Do not soak these stamps in any fluid.* To remove a stamp printed on chalky paper from an envelope, wet the paper from underneath the stamp until the gum dissolves enough to release the stamp from the paper. See St. Kitts-Nevis Scott 89-90 for examples of stamps printed on this type of chalky paper.

**India** — Another name for this paper, originally introduced from China about 1750, is "China Paper." It is a thin, opaque paper often used for plate and die proofs by many countries.

**Double** — In philately, the term double paper has two distinct meanings. The first is a two-ply paper, usually a combination of a thick and a thin sheet, joined during manufacture. This type was used experimentally as a means to discourage the reuse of stamps.

The design is printed on the thin paper. Any attempt to remove a cancellation would destroy the design. U.S. Scott 158 and other Banknote-era stamps exist on this form of double paper.

The second type of double paper occurs on a rotary press, when the end of one paper roll, or web, is affixed to the next roll to save

time feeding the paper through the press. Stamp designs are printed over the joined paper and, if overlooked by inspectors, may get into post office stocks.

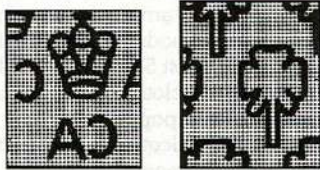
**Goldbeater's Skin** — This type of paper was used for the 1866 issue of Prussia, and was a tough, translucent paper. The design was printed in reverse on the back of the stamp, and the gum applied over the printing. It is impossible to remove stamps printed on this type of paper from the paper to which they are affixed without destroying the design.

**Ribbed** — Ribbed paper has an uneven, corrugated surface made by passing the paper through ridged rollers. This type exists on some copies of U.S. Scott 156-165.

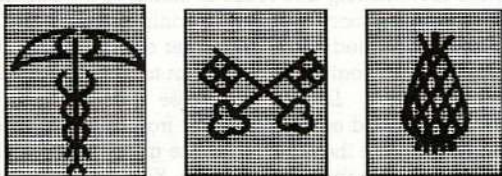
Various other substances, or substrates, have been used for stamp manufacture, including wood, aluminum, copper, silver and gold foil, plastic, and silk and cotton fabrics.

## Watermarks

Watermarks are an integral part of some papers. They are formed in the process of paper manufacture. Watermarks consist of small designs, formed of wire or cut from metal and soldered to the surface of the mold or, sometimes, on the dandy roll. The designs may be in the form of crowns, stars, anchors, letters or other characters or symbols. These pieces of metal - known in the paper-making industry as "bits" - impress a design into the paper. The design sometimes may be seen by holding the stamp to the light. Some are more easily seen with a watermark detector. This important tool is a small black tray into which a stamp is placed face down and dampened with a fast-evaporating watermark detection fluid that brings up the watermark image in the form of dark lines against a lighter background. These dark lines are the thinner areas of the paper known as the watermark. Some watermarks are extremely difficult to locate, due to either a faint impression, watermark location or the color of the stamp. There also are electric watermark detectors that come with plastic filter disks of various colors. The disks neutralize the color of the stamp, permitting the watermark to be seen more easily.



Multiple watermarks of Crown Agents and Burma



Watermarks of Uruguay, Vatican City and Jamaica

**WARNING:** Some inks used in the photogravure process dissolve in watermark fluids (Please see the section on Soluble Printing Inks). Also, see "chalky paper."

Watermarks may be found normal, reversed, inverted, reversed and inverted, sideways or diagonal, as seen from the back of the stamp. The relationship of watermark to stamp design depends on the position of the printing plates or how paper is fed through the press. On machine-made paper, watermarks normally are read from right to left. The design is repeated closely throughout the sheet in a "multiple-watermark design." In a "sheet watermark," the design appears only once on the sheet, but extends over many stamps. Individual stamps

may carry only a small fraction or none of the watermark.

"Marginal watermarks" occur in the margins of sheets or panes of stamps. They occur on the outside border of paper (ostensibly outside the area where stamps are to be printed). A large row of letters may spell the name of the country or the manufacturer of the paper, or a border of lines may appear. Careless press feeding may cause parts of these letters and/or lines to show on stamps of the outer row of a pane.

## Soluble Printing Inks

**WARNING:** Most stamp colors are permanent; that is, they are not seriously affected by short-term exposure to light or water. Many colors, especially of modern inks, fade from excessive exposure to light. There are stamps printed with inks that dissolve easily in water or in fluids used to detect watermarks. Use of these inks was intentional to prevent the removal of cancellations. Water affects all aniline inks, those on so-called safety paper and some photogravure printings - all such inks are known as fugitive colors. *Removal from paper of such stamps requires care and alternatives to traditional soaking.*

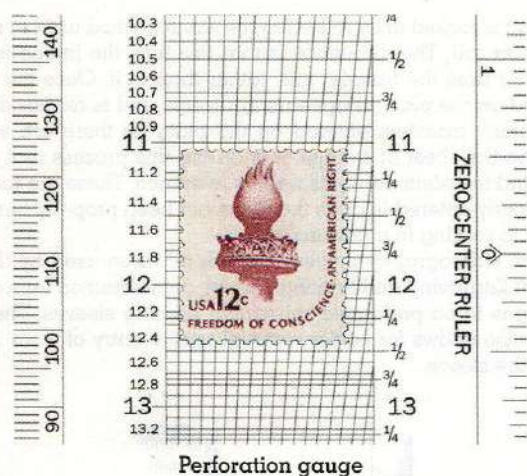
## Separation

"Separation" is the general term used to describe methods used to separate stamps. The three standard forms currently in use are perforating, rouletting and die-cutting. These methods are done during the stamp production process, after printing. Sometimes these methods are done on-press or sometimes as a separate step. The earliest issues, such as the 1840 Penny Black of Great Britain (Scott 1), did not have any means provided for separation. It was expected the stamps would be cut apart with scissors or folded and torn. These are examples of imperforate stamps. Many stamps were first issued in imperforate formats and were later issued with perforations. Therefore, care must be observed in buying single imperforate stamps to be certain they were issued imperforate and are not perforated copies that have been altered by having the perforations trimmed away. Stamps issued imperforate usually are valued as singles. However, imperforate varieties of normally perforated stamps should be collected in pairs or larger pieces as indisputable evidence of their imperforate character.

## PERFORATION

The chief style of separation of stamps, and the one that is in almost universal use today, is perforating. By this process, paper between the stamps is cut away in a line of holes, usually round, leaving little bridges of paper between the stamps to hold them together. Some types of perforation, such as hyphen-hole perfs, can be confused with roulettes, but a close visual inspection reveals that paper has been removed. The little perforation bridges, which project from the stamp when it is torn from the pane, are called the teeth of the perforation.

As the size of the perforation is sometimes the only way to differentiate between two otherwise identical stamps, it is necessary to be able to accurately measure and describe them. This is done with a perforation gauge, usually a ruler-like device that has dots or graduated lines to show how many perforations may be counted in the space of two centimeters. Two centimeters is the space universally adopted in which to measure perforations.



Perforation gauge

To measure a stamp, run it along the gauge until the dots on it fit exactly into the perforations of the stamp. If you are using a graduated-line perforation gauge, simply slide the stamp along the surface until the lines on the gauge perfectly project from the center of the bridges or holes. The number to the side of the line of dots or lines that fit the stamp's perforation is the measurement. For example, an "11" means that 11 perforations fit between two centimeters. The description of the stamp therefore is "perf. 11." If the gauge of the perforations on the top and bottom of a stamp differs from that on the sides, the result is what is known as *compound perforations*. In measuring compound perforations, the gauge at top and bottom is always given first, then the sides. Thus, a stamp that measures 11 at top and bottom and 10½ at the sides is "perf. 11 x 10½." See U.S. Scott 632-642 for examples of compound perforations.

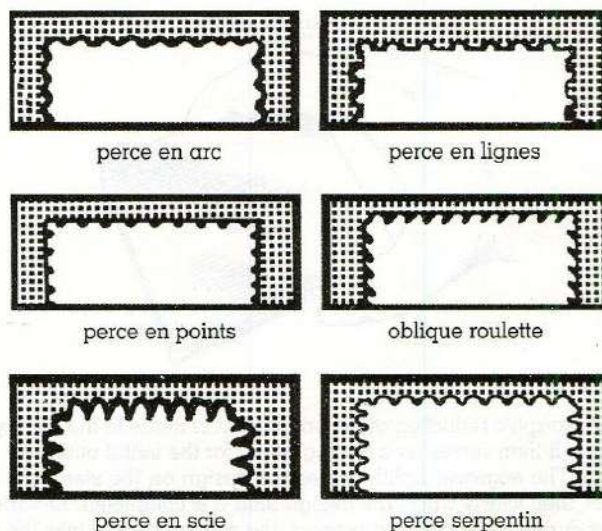
Stamps also are known with perforations different on three or all four sides. Descriptions of such items are clockwise, beginning with the top of the stamp.

A perforation with small holes and teeth close together is a "fine perforation." One with large holes and teeth far apart is a "coarse perforation." Holes that are jagged, rather than clean-cut, are "rough perforations." *Blind perforations* are the slight impressions left by the perforating pins if they fail to puncture the paper. Multiples of stamps showing blind perforations may command a slight premium over normally perforated stamps.



The term *syncopated perfs* describes intentional irregularities in the perforations. The earliest form was used by the Netherlands from 1925-33, where holes were omitted to create distinctive patterns. Beginning in 1992, Great Britain has used an oval perforation to help prevent counterfeiting. Several other countries have started using the oval perfs or other syncopated perf patterns.

A new type of perforation, still primarily used for postal stationery, is known as microperfs. Microperfs are tiny perforations (in some cases hundreds of holes per two centimeters) that allows items to be intentionally separated very easily, while not accidentally breaking apart as easily as standard perforations. These are not currently measured or differentiated by size, as are standard perforations.



## ROULETTING

In rouletting, the stamp paper is cut partly or wholly through, with no paper removed. In perforating, some paper is removed. Rouletting derives its name from the French roulette, a spur-like wheel. As the wheel is rolled over the paper, each point makes a small cut. The number of cuts made in a two-centimeter space determines the gauge of the roulette, just as the number of perforations in two centimeters determines the gauge of the perforation.

The shape and arrangement of the teeth on the wheels varies. Various roulette types generally carry French names:

*Perce en lignes* - rouletted in lines. The paper receives short, straight cuts in lines. This is the most common type of rouletting. See Mexico Scott 500.

*Perce en points* - pin-rouletted or pin-perfed. This differs from a small perforation because no paper is removed, although round, equidistant holes are pricked through the paper. See Mexico Scott 242-256.

*Perce en arc* and *perce en scie* - pierced in an arc or saw-toothed designs, forming half circles or small triangles. See Hanover (German States) Scott 25-29.

*Perce en serpentin* - serpentine roulettes. The cuts form a serpentine or wavy line. See Brunswick (German States) Scott 13-18.

Once again, no paper is removed by these processes, leaving the stamps easily separated, but closely attached.

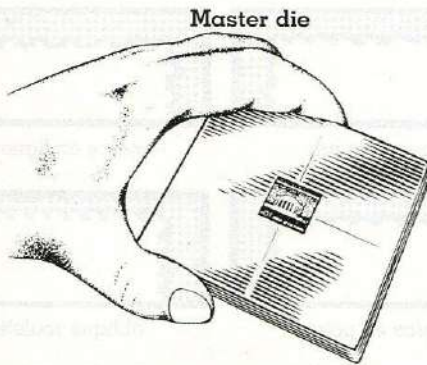
## DIE-CUTTING

The third major form of stamp separation is die-cutting. This is a method where a die in the pattern of separation is created that later cuts the stamp paper in a stroke motion. Although some standard stamps bear die-cut perforations, this process is primarily used for self-adhesive postage stamps. Die-cutting can appear in straight lines, such as U.S. Scott 2522, shapes, such as U.S. Scott 1551, or imitating the appearance of perforations, such as New Zealand Scott 935A and 935B.

## Printing Processes

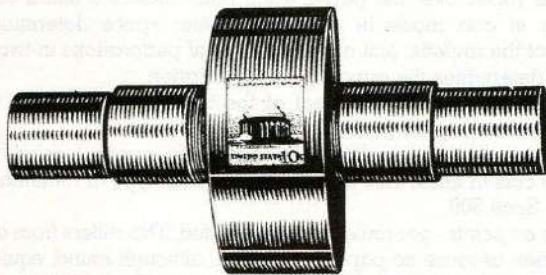
### ENGRAVING (Intaglio, Line-engraving, Etching)

**Master die** — The initial operation in the process of line engraving is making the master die. The die is a small, flat block of softened steel upon which the stamp design is recess engraved in reverse.



Master die

Photographic reduction of the original art is made to the appropriate size. It then serves as a tracing guide for the initial outline of the design. The engraver lightly traces the design on the steel with his graver, then slowly works the design until it is completed. At various points during the engraving process, the engraver hand-inks the die and makes an impression to check his progress. These are known as progressive die proofs. After completion of the engraving, the die is hardened to withstand the stress and pressures of later transfer operations.



Transfer roll

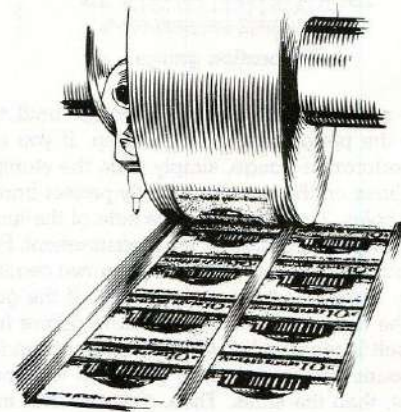
**Transfer roll** — Next is production of the transfer roll that, as the name implies, is the medium used to transfer the subject from the master die to the printing plate. A blank roll of soft steel, mounted on a mandrel, is placed under the bearers of the transfer press to allow it to roll freely on its axis. The hardened die is placed on the bed of the press and the face of the transfer roll is applied to the die, under pressure. The bed or the roll is then rocked back and forth under increasing pressure, until the soft steel of the roll is forced into every engraved line of the die. The resulting impression on the roll is known as a "relief" or a "relief transfer." The engraved image is now positive in appearance and stands out from the steel. After the required number of reliefs are "rocked in," the soft steel transfer roll is hardened.

Different flaws may occur during the relief process. A defective relief may occur during the rocking in process because of a minute piece of foreign material lodging on the die, or some other cause. Imperfections in the steel of the transfer roll may result in a breaking away of parts of the design. This is known as a relief break, which will show up on finished stamps as small, unprinted areas. If a damaged relief remains in use, it will transfer a repeating defect to the plate. Deliberate alterations of reliefs sometimes occur. "Altered reliefs" designate these changed conditions.

**Plate** — The final step in pre-printing production is the making of the printing plate. A flat piece of soft steel replaces the die on the bed of the transfer press. One of the reliefs on the transfer roll is positioned over this soft steel. Position, or layout, dots determine the correct position on the plate. The dots have been lightly marked on the plate in advance. After the correct position of the relief is determined,

the design is rocked in by following the same method used in making the transfer roll. The difference is that this time the image is being transferred from the transfer roll, rather than to it. Once the design is entered on the plate, it appears in reverse and is recessed. There are as many transfers entered on the plate as there are subjects printed on the sheet of stamps. It is during this process that double and shifted transfers occur, as well as re-entries. These are the result of improperly entered images that have not been properly burnished out prior to rocking in a new image.

Modern siderography processes, such as those used by the U.S. Bureau of Engraving and Printing, involve an automated form of rocking designs in on preformed cylindrical printing sleeves. The same process also allows for easier removal and re-entry of worn images right on the sleeve.



Transferring the design to the plate

Following the entering of the required transfers on the plate, the position dots, layout dots and lines, scratches and other markings generally are burnished out. Added at this time by the siderographer are any required *guide lines*, *plate numbers* or other *marginal markings*. The plate is then hand-inked and a proof impression is taken. This is known as a plate proof. If the impression is approved, the plate is machined for fitting onto the press, is hardened and sent to the plate vault ready for use.

On press, the plate is inked and the surface is automatically wiped clean, leaving ink only in the recessed lines. Paper is then forced under pressure into the engraved recessed lines, thereby receiving the ink. Thus, the ink lines on engraved stamps are slightly raised, and slight depressions (debossing) occur on the back of the stamp. Prior to the advent of modern high-speed presses and more advanced ink formulations, paper had to be dampened before receiving the ink. This sometimes led to uneven shrinkage by the time the stamps were perforated, resulting in improperly perforated stamps, or misperfs. Newer presses use drier paper, thus both *wet* and *dry printings* exist on some stamps.

**Rotary Press** — Until 1914, only flat plates were used to print engraved stamps. Rotary press printing was introduced in 1914, and slowly spread. Some countries still use flat-plate printing.

After approval of the plate proof, older *rotary press plates* require additional machining. They are curved to fit the press cylinder. "Gripper slots" are cut into the back of each plate to receive the "grippers," which hold the plate securely on the press. The plate is then hardened. Stamps printed from these bent rotary press plates are longer or wider than the same stamps printed from flat-plate presses. The stretching of the plate during the curving process is what causes this distortion.

**Re-entry** — To execute a re-entry on a flat plate, the transfer roll is re-applied to the plate, often at some time after its first use on the

press. Worn-out designs can be resharpened by carefully burnishing out the original image and re-entering it from the transfer roll. If the original impression has not been sufficiently removed and the transfer roll is not precisely in line with the remaining impression, the resulting double transfer will make the re-entry obvious. If the registration is true, a re-entry may be difficult or impossible to distinguish. Sometimes a stamp printed from a successful re-entry is identified by having a much sharper and clearer impression than its neighbors. With the advent of rotary presses, post-press re-entries were not possible. After a plate was curved for the rotary press, it was impossible to make a re-entry. This is because the plate had already been bent once (with the design distorted).

However, with the introduction of the previously mentioned modern-style siderography machines, entries are made to the preformed cylindrical printing sleeve. Such sleeves are dechromed and softened. This allows individual images to be burnished out and re-entered on the curved sleeve. The sleeve is then rechromed, resulting in longer press life.

**Double Transfer** — This is a description of the condition of a transfer on a plate that shows evidence of a duplication of all, or a portion of the design. It usually is the result of the changing of the registration between the transfer roll and the plate during the rocking in of the original entry. Double transfers also occur when only a portion of the design has been rocked in and improper positioning is noted. If the worker elected not to burnish out the partial or completed design, a strong double transfer will occur for part or all of the design.

It sometimes is necessary to remove the original transfer from a plate and repeat the process a second time. If the finished re-worked image shows traces of the original impression, attributable to incomplete burnishing, the result is a partial double transfer.

With the modern automatic machines mentioned previously, double transfers are all but impossible to create. Those partially doubled images on stamps printed from such sleeves are more than likely re-entries, rather than true double transfers.

**Re-engraved** — Alterations to a stamp design are sometimes necessary after some stamps have been printed. In some cases, either the original die or the actual printing plate may have its "temper" drawn (softened), and the design will be re-cut. The resulting impressions from such a re-engraved die or plate may differ slightly from the original issue, and are known as "re-engraved." If the alteration was made to the master die, all future printings will be consistently different from the original. If alterations were made to the printing plate, each altered stamp on the plate will be slightly different from each other, allowing specialists to reconstruct a complete printing plate.

**Dropped Transfers** — If an impression from the transfer roll has not been properly placed, a dropped transfer may occur. The final stamp image will appear obviously out of line with its neighbors.

**Short Transfer** — Sometimes a transfer roll is not rocked its entire length when entering a transfer onto a plate. As a result, the finished transfer on the plate fails to show the complete design, and the finished stamp will have an incomplete design printed. This is known as a "short transfer." U.S. Scott No. 8 is a good example of a short transfer.

### **TYPOGRAPHY (Letterpress, Surface Printing, Flexography, Dry Offset, High Etch)**

Although the word "Typography" is obsolete as a term describing a printing method, it was the accepted term throughout the first century of postage stamps. Therefore, appropriate Scott listings in this catalogue refer to typographed stamps. The current term for this form of printing, however, is "letterpress."

As it relates to the production of postage stamps, letterpress printing is the reverse of engraving. Rather than having recessed areas trap

the ink and deposit it on paper, only the raised areas of the design are inked. This is comparable to the type of printing seen by inking and using an ordinary rubber stamp. Letterpress includes all printing where the design is above the surface area, whether it is wood, metal or, in some instances, hardened rubber or polymer plastic.

For most letterpress-printed stamps, the engraved master is made in much the same manner as for engraved stamps. In this instance, however, an additional step is needed. The design is transferred to another surface before being transferred to the transfer roll. In this way, the transfer roll has a recessed stamp design, rather than one done in relief. This makes the printing areas on the final plate raised, or relief areas.

For less-detailed stamps of the 19th century, the area on the die not used as a printing surface was cut away, leaving the surface area raised. The original die was then reproduced by stereotyping or electrotyping. The resulting electrotypes were assembled in the required number and format of the desired sheet of stamps. The plate used in printing the stamps was an electroplate of these assembled electrotypes.

Once the final letterpress plates are created, ink is applied to the raised surface and the pressure of the press transfers the ink impression to the paper. In contrast to engraving, the fine lines of letterpress are impressed on the surface of the stamp, leaving a debossed surface. When viewed from the back (as on a typewritten page), the corresponding line work on the stamp will be raised slightly (embossed) above the surface.

### **PHOTOGRAVURE (Gravure, Rotogravure, Heliogravure)**

In this process, the basic principles of photography are applied to a chemically sensitized metal plate, rather than photographic paper. The design is transferred photographically to the plate through a halftone, or dot-matrix screen, breaking the reproduction into tiny dots. The plate is treated chemically and the dots form depressions, called cells, of varying depths and diameters, depending on the degrees of shade in the design. Then, like engraving, ink is applied to the plate and the surface is wiped clean. This leaves ink in the tiny cells that is lifted out and deposited on the paper when it is pressed against the plate.

Gravure is most often used for multicolored stamps, generally using the three primary colors (red, yellow and blue) and black. By varying the dot matrix pattern and density of these colors, virtually any color can be reproduced. A typical full-color gravure stamp will be created from four printing cylinders (one for each color). The original multicolored image will have been photographically separated into its component colors.

Modern gravure printing may use computer-generated dot-matrix screens, and modern plates may be of various types including metal-coated plastic. The catalogue designation of Photogravure (or "Photo") covers any of these older and more modern gravure methods of printing.

For examples of the first photogravure stamps printed (1914), see Bavaria Scott 94-114.

### **LITHOGRAPHY (Offset Lithography, Stone Lithography, Dilitho, Planography, Collotype)**

The principle that oil and water do not mix is the basis for lithography. The stamp design is drawn by hand or transferred from engraving to the surface of a lithographic stone or metal plate in a greasy (oily) substance. This oily substance holds the ink, which will later be transferred to the paper. The stone (or plate) is wet with an acid fluid, causing it to repel the printing ink in all areas not covered by the greasy substance.

Transfer paper is used to transfer the design from the original stone or plate. A series of duplicate transfers are grouped and, in turn, transferred to the final printing plate.

**Photolithography** — The application of photographic processes to

lithography. This process allows greater flexibility of design, related to use of halftone screens combined with line work. Unlike photography or engraving, this process can allow large, solid areas to be printed.

**Offset** — A refinement of the lithographic process. A rubber-covered blanket cylinder takes the impression from the inked lithographic plate. From the "blanket" the impression is *offset* or transferred to the paper. Greater flexibility and speed are the principal reasons offset printing has largely displaced lithography. The term "lithography" covers both processes, and results are almost identical.

### EMBOSSSED (Relief) Printing

Embossing, not considered one of the four main printing types, is a method in which the design first is sunk into the metal of the die. Printing is done against a yielding platen, such as leather or linoleum. The platen is forced into the depression of the die, thus forming the design on the paper in relief. This process is often used for metallic inks.

Embossing may be done without color (see Sardinia Scott 4-6); with color printed around the embossed area (see Great Britain Scott 5 and most U.S. envelopes); and with color in exact registration with the embossed subject (see Canada Scott 656-657).

### HOLOGRAMS

For objects to appear as holograms on stamps, a model exactly the same size as it is to appear on the hologram must be created. Rather than using photographic film to capture the image, holography records an image on a photoresist material. In processing, chemicals eat away at certain exposed areas, leaving a pattern of constructive and destructive interference. When the photoresist is developed, the result is a pattern of uneven ridges that acts as a mold. This mold is then coated with metal, and the resulting form is used to press copies in much the same way phonograph records are produced.

A typical reflective hologram used for stamps consists of a reproduction of the uneven patterns on a plastic film that is applied to a reflective background, usually a silver or gold foil. Light is reflected off the background through the film, making the pattern present on the film visible. Because of the uneven pattern of the film, the viewer will perceive the objects in their proper three-dimensional relationships with appropriate brightness.

The first hologram on a stamp was produced by Austria in 1988 (Scott 1441).

### FOIL APPLICATION

A modern technique of applying color to stamps involves the application of metallic foil to the stamp paper. A pattern of foil is applied to the stamp paper by use of a stamping die. The foil usually is flat, but it may be textured. Canada Scott 1735 has three different foil applications in pearl, bronze and gold. The gold foil was textured using a chemical-etch copper embossing die. The printing of this stamp also involved two-color offset lithography plus embossing.

### THERMOGRAPHY

In the 1990s stamps began to be enhanced with thermographic printing. In this process, a powdered polymer is applied over a sheet that has just been printed. The powder adheres to ink that lacks drying or hardening agents and does not adhere to areas where the ink has these agents. The excess powder is removed and the sheet is briefly heated to melt the powder. The melted powder solidifies after cooling, producing a raised, shiny effect on the stamps. See Scott New Caledonia C239-C240.

### COMBINATION PRINTINGS

Sometimes two or even three printing methods are combined in producing stamps. In these cases, such as Austria Scott 933 or Canada 1735 (described in the preceding paragraph), the multiple-printing

technique can be determined by studying the individual characteristics of each printing type. A few stamps, such as Singapore Scott 684-684A, combine as many as three of the four major printing types (lithography, engraving and typography). When this is done it often indicates the incorporation of security devices against counterfeiting.

### INK COLORS

Inks or colored papers used in stamp printing often are of mineral origin, although there are numerous examples of organic-based pigments. As a general rule, organic-based pigments are far more subject to varieties and change than those of mineral-based origin.

The appearance of any given color on a stamp may be affected by many aspects, including printing variations, light, color of paper, aging and chemical alterations.

Numerous printing variations may be observed. Heavier pressure or inking will cause a more intense color, while slight interruptions in the ink feed or lighter impressions will cause a lighter appearance. Stamps printed in the same color by water-based and solvent-based inks can differ significantly in appearance. This affects several stamps in the U.S. Prominent Americans series. Hand-mixed ink formulas (primarily from the 19th century) produced under different conditions (humidity and temperature) account for notable color variations in early printings of the same stamp (see U.S. Scott 248-250, 279B, for example). Different sources of pigment can also result in significant differences in color.

Light exposure and aging are closely related in the way they affect stamp color. Both eventually break down the ink and fade colors, so that a carefully kept stamp may differ significantly in color from an identical copy that has been exposed to light. If stamps are exposed to light either intentionally or accidentally, their colors can be faded or completely changed in some cases.

Papers of different quality and consistency used for the same stamp printing may affect color appearance. Most pelure papers, for example, show a richer color when compared with wove or laid papers. See Russia Scott 181a, for an example of this effect.

The very nature of the printing processes can cause a variety of differences in shades or hues of the same stamp. Some of these shades are scarcer than others, and are of particular interest to the advanced collector.

### Luminescence

All forms of tagged stamps fall under the general category of luminescence. Within this broad category is fluorescence, dealing with forms of tagging visible under longwave ultraviolet light, and phosphorescence, which deals with tagging visible only under shortwave light. Phosphorescence leaves an afterglow and fluorescence does not. These treated stamps show up in a range of different colors when exposed to UV light. The differing wavelengths of the light activates the tagging material, making it glow in various colors that usually serve different mail processing purposes.

Intentional tagging is a post-World War II phenomenon, brought about by the increased literacy rate and rapidly growing mail volume. It was one of several answers to the problem of the need for more automated mail processes. Early tagged stamps served the purpose of triggering machines to separate different types of mail. A natural outgrowth was to also use the signal to trigger machines that faced all envelopes the same way and canceled them.

Tagged stamps come in many different forms. Some tagged stamps have luminescent shapes or images imprinted on them as a form of security device. Others have blocks (United States), stripes, frames (South Africa and Canada), overall coatings (United States), bars (Great Britain and Canada) and many other types. Some types of tagging are even mixed in with the pigmented printing ink (Australia Scott 366, Netherlands Scott 478 and U.S. Scott 1359 and 2443).

The means of applying taggant to stamps differs as much as the

intended purposes for the stamps. The most common form of tagging is a coating applied to the surface of the printed stamp. Since the taggant ink is frequently invisible except under UV light, it does not interfere with the appearance of the stamp. Another common application is the use of phosphored papers. In this case the paper itself either has a coating of taggant applied before the stamp is printed, has taggant applied during the papermaking process (incorporating it into the fibers), or has the taggant mixed into the coating of the paper. The latter method, among others, is currently in use in the United States.

Many countries now use tagging in various forms to either expedite mail handling or to serve as a printing security device against counterfeiting. Following the introduction of tagged stamps for public use in 1959 by Great Britain, other countries have steadily joined the parade. Among those are Germany (1961); Canada and Denmark (1962); United States, Australia, France and Switzerland (1963); Belgium and Japan (1966); Sweden and Norway (1967); Italy (1968); and Russia (1969). Since then, many other countries have begun using forms of tagging, including Brazil, China, Czechoslovakia, Hong Kong, Guatemala, Indonesia, Israel, Lithuania, Luxembourg, Netherlands, Penrhyn Islands, Portugal, St. Vincent, Singapore, South Africa, Spain and Sweden to name a few.

In some cases, including United States, Canada, Great Britain and Switzerland, stamps were released both with and without tagging. Many of these were released during each country's experimental period. Tagged and untagged versions are listed for the aforementioned countries and are noted in some other countries' listings. For at least a few stamps, the experimentally tagged version is worth far more than its untagged counterpart, such as the 1963 experimental tagged version of France Scott 1024.

In some cases, luminescent varieties of stamps were inadvertently created. Several Russian stamps, for example, sport highly fluorescent ink that was not intended as a form of tagging. Older stamps, such as early U.S. postage dues, can be positively identified by the use of UV light, since the organic ink used has become slightly fluorescent over time. Other stamps, such as Austria Scott 70a-82a (varnish bars) and Obock Scott 46-64 (printed quadrille lines), have become fluorescent over time.

Various fluorescent substances have been added to paper to make it appear brighter. These optical brighteners, as they are known, greatly affect the appearance of the stamp under UV light. The brightest of these is known as Hi-Brite paper. These paper varieties are beyond the scope of the Scott Catalogue.

Shortwave UV light also is used extensively in expertizing, since each form of paper has its own fluorescent characteristics that are impossible to perfectly match. It is therefore a simple matter to detect filled thins, added perforation teeth and other alterations that involve the addition of paper. UV light also is used to examine stamps that have had cancels chemically removed and for other purposes as well.

## Gum

The Illustrated Gum Chart in the first part of this introduction shows and defines various types of gum condition. Because gum condition has an important impact on the value of unused stamps, we recommend studying this chart and the accompanying text carefully.

The gum on the back of a stamp may be shiny, dull, smooth, rough, dark, white, colored or tinted. Most stamp gumming adhesives use gum arabic or dextrine as a base. Certain polymers such as polyvinyl alcohol (PVA) have been used extensively since World War II.

The *Scott Standard Postage Stamp Catalogue* does not list items by types of gum. The *Scott Specialized Catalogue of United States Stamps and Covers* does differentiate among some types of gum for certain issues.

Reprints of stamps may have gum differing from the original issues. In addition, some countries have used different gum formulas for different seasons. These adhesives have different properties that may become more apparent over time.

Many stamps have been issued without gum, and the catalogue

will note this fact. See, for example, United States Scott 40-47. Sometimes, gum may have been removed to preserve the stamp. Germany Scott B68, for example, has a highly acidic gum that eventually destroys the stamps. This item is valued in the catalogue with gum removed.

## Reprints and Reissues

These are impressions of stamps (usually obsolete) made from the original plates or stones. If they are valid for postage and reproduce obsolete issues (such as U.S. Scott 102-111), the stamps are *reissues*. If they are from current issues, they are designated as *second*, *third*, etc., *printing*. If designated for a particular purpose, they are called *special printings*.

When special printings are not valid for postage, but are made from original dies and plates by authorized persons, they are *official reprints*. *Private reprints* are made from the original plates and dies by private hands. An example of a private reprint is that of the 1871-1932 reprints made from the original die of the 1845 New Haven, Conn., postmaster's provisional. *Official reproductions* or imitations are made from new dies and plates by government authorization. Scott will list those reissues that are valid for postage if they differ significantly from the original printing.

The U.S. government made special printings of its first postage stamps in 1875. Produced were official imitations of the first two stamps (listed as Scott 3-4), reprints of the demonetized pre-1861 issues (Scott 40-47) and reissues of the 1861 stamps, the 1869 stamps and the then-current 1875 denominations. Even though the official imitations and the reprints were not valid for postage, Scott lists all of these U.S. special printings.

Most reprints or reissues differ slightly from the original stamp in some characteristic, such as gum, paper, perforation, color or watermark. Sometimes the details are followed so meticulously that only a student of that specific stamp is able to distinguish the reprint or reissue from the original.

## Remainders and Canceled to Order

Some countries sell their stock of old stamps when a new issue replaces them. To avoid postal use, the *remainders* usually are canceled with a punch hole, a heavy line or bar, or a more-or-less regular-looking cancellation. The most famous merchant of remainders was Nicholas F. Seebeck. In the 1880s and 1890s, he arranged printing contracts between the Hamilton Bank Note Co., of which he was a director, and several Central and South American countries. The contracts provided that the plates and all remainders of the yearly issues became the property of Hamilton. Seebeck saw to it that ample stock remained. The "Seebecks," both remainders and reprints, were standard packet fillers for decades.

Some countries also issue stamps *canceled-to-order* (CTO), either in sheets with original gum or stuck onto pieces of paper or envelopes and canceled. Such CTO items generally are worth less than postally used stamps. In cases where the CTO material is far more prevalent in the marketplace than postally used examples, the catalogue value relates to the CTO examples, with postally used examples noted as premium items. Most CTOs can be detected by the presence of gum. However, as the CTO practice goes back at least to 1885, the gum inevitably has been soaked off some stamps so they could pass as postally used. The normally applied postmarks usually differ slightly from standard postmarks, and specialists are able to tell the difference. When applied individually to envelopes by philatelically minded persons, CTO material is known as *favor canceled* and generally sells at large discounts.

## Cinderellas and Facsimiles

*Cinderella* is a catch-all term used by stamp collectors to describe phantoms, fantasies, bogus items, municipal issues, exhibition seals, local revenues, transportation stamps, labels, poster stamps and many other types of items. Some cinderella collectors include in

their collections local postage issues, telegraph stamps, essays and proofs, forgeries and counterfeits.

A *fantasy* is an adhesive created for a nonexistent stamp-issuing authority. Fantasy items range from imaginary countries (Occusi-Ambeno, Kingdom of Sedang, Principality of Trinidad or Torres Straits), to non-existent locals (Winans City Post), or nonexistent transportation lines (McRobish & Co.'s Acapulco-San Francisco Line).

On the other hand, if the entity exists and could have issued stamps (but did not) or was known to have issued other stamps, the items are considered *bogus* stamps. These would include the Mormon postage stamps of Utah, S. Allan Taylor's Guatemala and Paraguay inventions, the propaganda issues for the South Moluccas and the adhesives of the Page & Keyes local post of Boston.

*Phantoms* is another term for both fantasy and bogus issues.

*Facsimiles* are copies or imitations made to represent original stamps, but which do not pretend to be originals. A catalogue illustration is such a facsimile. Illustrations from the Moens catalogue of the last century were occasionally colored and passed off as stamps. Since the beginning of stamp collecting, facsimiles have been made for collectors as space fillers or for reference. They often carry the word "facsimile," "falsch" (German), "sanko" or "mozo" (Japanese), or "faux" (French) overprinted on the face or stamped on the back. Unfortunately, over the years a number of these items have had fake cancels applied over the facsimile notation and have been passed off as genuine.

## Forgeries and Counterfeits

Forgeries and counterfeits have been with philately virtually from the beginning of stamp production. Over time, the terminology for the two has been used interchangeably. Although both forgeries and counterfeits are reproductions of stamps, the purposes behind their creation differ considerably.

Among specialists there is an increasing movement to more specifically define such items. Although there is no universally accepted terminology, we feel the following definitions most closely mirror the items and their purposes as they are currently defined.

*Forgeries* (also often referred to as *Counterfeits*) are reproductions of genuine stamps that have been created to defraud collectors. Such spurious items first appeared on the market around 1860, and most old-time collections contain one or more. Many are crude and easily spotted, but some can deceive experts.

An important supplier of these early philatelic forgeries was the Hamburg printer Gebruder Spiro. Many others with reputations in this craft included S. Allan Taylor, George Hussey, James Chute, George Forune, Benjamin & Sarpy, Julius Goldner, E. Oneglia and L.H. Mercier. Among the noted 20th-century forgers were Francois Fournier, Jean Sperati and the prolific Raoul DeThuin.

Forgeries may be complete replications, or they may be genuine stamps altered to resemble a scarcer (and more valuable) type. Most forgeries, particularly those of rare stamps, are worth only a small fraction of the value of a genuine example, but a few types, created by some of the most notable forgers, such as Sperati, can be worth as much or more than the genuine. Fraudulently produced copies are known of most classic rarities and many medium-priced stamps.

In addition to rare stamps, large numbers of common 19th- and early 20th-century stamps were forged to supply stamps to the early packet trade. Many can still be easily found. Few new philatelic forgeries have appeared in recent decades. Successful imitation of well-engraved work is virtually impossible. It has proven far easier to produce a fake by altering a genuine stamp than to duplicate a stamp completely.

*Counterfeit* (also often referred to as *Postal Counterfeit* or *Postal Forgery*) is the term generally applied to reproductions of stamps that have been created to defraud the government of revenue. Such items usually are created at the time a stamp is current and, in some cases, are hard to detect. Because most counterfeits are seized when the perpetrator is captured, postal counterfeits, particularly used on

cover, are usually worth much more than a genuine example to specialists. The first postal counterfeit was of Spain's 4-cuarto carmine of 1854 (the real one is Scott 25). Apparently, the counterfeiters were not satisfied with their first version, which is now very scarce, and they soon created an engraved counterfeit, which is common. Postal counterfeits quickly followed in Austria, Naples, Sardinia and the Roman States. They have since been created in many other countries as well, including the United States.

An infamous counterfeit to defraud the government is the 1-shilling Great Britain "Stock Exchange" forgery of 1872, used on telegraph forms at the exchange that year. The stamp escaped detection until a stamp dealer noticed it in 1898.

## Fakes

*Fakes* are genuine stamps altered in some way to make them more desirable. One student of this part of stamp collecting has estimated that by the 1950s more than 30,000 varieties of fakes were known. That number has grown greatly since then. The widespread existence of fakes makes it important for stamp collectors to study their philatelic holdings and use relevant literature. Likewise, collectors should buy from reputable dealers who guarantee their stamps and make full and prompt refunds should a purchased item be declared faked or altered by some mutually agreed-upon authority. Because fakes always have some genuine characteristics, it is not always possible to obtain unanimous agreement among experts regarding specific items. These students may change their opinions as philatelic knowledge increases. More than 80 percent of all fakes on the philatelic market today are regummed, reperfored (or perforated for the first time), or bear forged overprints, surcharges or cancellations.

Stamps can be chemically treated to alter or eliminate colors. For example, a pale rose stamp can be re-colored to resemble a blue shade of high market value. In other cases, treated stamps can be made to resemble missing color varieties. Designs may be changed by painting, or a stroke or a dot added or bleached out to turn an ordinary variety into a seemingly scarcer stamp. Part of a stamp can be bleached and reprinted in a different version, achieving an inverted center or frame. Margins can be added or repairs done so deceptively that the stamps move from the "repaired" into the "fake" category.

Fakers have not left the backs of the stamps untouched either. They may create false watermarks, add fake grills or press out genuine grills. A thin India paper proof may be glued onto a thicker backing to create the appearance an issued stamp, or a proof printed on cardboard may be shaved down and perforated to resemble a stamp. Silk threads are impressed into paper and stamps have been split so that a rare paper variety is added to an otherwise inexpensive stamp. The most common treatment to the back of a stamp, however, is regumming.

Some in the business of faking stamps have openly advertised fool-proof application of "original gum" to stamps that lack it, although most publications now ban such ads from their pages. It is believed that very few early stamps have survived without being hinged. The large number of never-hinged examples of such earlier material offered for sale thus suggests the widespread extent of regumming activity. Regumming also may be used to hide repairs or thin spots. Dipping the stamp into watermark fluid, or examining it under longwave ultraviolet light often will reveal these flaws.

Fakers also tamper with separations. Ingenious ways to add margins are known. Perforated wide-margin stamps may be falsely represented as imperforate when trimmed. Reperforating is commonly done to create scarce coil or perforation varieties, and to eliminate the naturally occurring straight-edge stamps found in sheet margin positions of many earlier issues. Custom has made straight-edged stamps less desirable. Fakers have obliged by perforating straight-edged stamps so that many are now uncommon, if not rare.

Another fertile field for the faker is that of overprints, surcharges and cancellations. The forging of rare surcharges or overprints began in

the 1880s or 1890s. These forgeries are sometimes difficult to detect, but experts have identified almost all. Occasionally, overprints or cancellations are removed to create non-overprinted stamps or seemingly unused items. This is most commonly done by removing a manuscript cancel to make a stamp resemble an unused example. "SPECIMEN" overprints may be removed by scraping and repainting to create non-overprinted varieties. Fakers use inexpensive revenues or pencanceled stamps to generate unused stamps for further faking by adding other markings. The quartz lamp or UV lamp and a high-powered magnifying glass help to easily detect removed cancellations.

The bigger problem, however, is the addition of overprints, surcharges or cancellations - many with such precision that they are very difficult to ascertain. Plating of the stamps or the overprint can be an important method of detection.

Fake postmarks may range from many spurious fancy cancellations to a host of markings applied to transatlantic covers, to adding normally appearing postmarks to definitives of some countries with stamps that are valued far higher used than unused. With the increased popularity of cover collecting, and the widespread interest in postal history, a fertile new field for fakers has come about. Some have tried to create entire covers. Others specialize in adding stamps, tied by fake cancellations, to genuine stampless covers, or replacing less expensive or damaged stamps with more valuable ones. Detailed study of postal rates in effect at the time a cover in question was mailed, including the analysis of each handstamp used during the period, ink analysis and similar techniques, usually will unmask the fraud.

## Terminology

**Booklets** — Many countries have issued stamps in small booklets for the convenience of users. This idea continues to become increasingly popular in many countries. Booklets have been issued in many sizes and forms, often with advertising on the covers, the panes of stamps or on the interleaving.

The panes used in booklets may be printed from special plates or made from regular sheets. All panes from booklets issued by the United States and many from those of other countries contain stamps that are straight edged on the sides, but perforated between. Others are distinguished by orientation of watermark or other identifying features. Any stamp-like unit in the pane, either printed or blank, that is not a postage stamp, is considered to be a *label* in the catalogue listings.

Scott lists and values booklet panes. Modern complete booklets also are listed and valued. Individual booklet panes are listed only when they are not fashioned from existing sheet stamps and, therefore, are identifiable from their sheet stamp counterparts.

Panes usually do not have a used value assigned to them because there is little market activity for used booklet panes, even though many exist used and there is some demand for them.

**Cancellations** — The marks or obliterations put on stamps by postal authorities to show that they have performed service and to prevent their reuse are known as cancellations. If the marking is made with a pen, it is considered a "pen cancel." When the location of the post office appears in the marking, it is a "town cancellation." A "postmark" is technically any postal marking, but in practice the term generally is applied to a town cancellation with a date. When calling attention to a cause or celebration, the marking is known as a "slogan cancellation." Many other types and styles of cancellations exist, such as duplex, numerals, targets, fancy and others. See also "precancels," below.

## Restoration and Repairs

Scott bases its catalogue values on stamps that are free of defects and otherwise meet the standards set forth earlier in this introduction. Most stamp collectors desire to have the finest copy of an item possible. Even within given grading categories there are variances. This leads to a controversial practice that is not defined in any universal manner: *stamp restoration*.

There are broad differences of opinion about what is permissible when it comes to restoration. Carefully applying a soft eraser to a stamp or cover to remove light soiling is one form of restoration, as is washing a stamp in mild soap and water to clean it. These are fairly accepted forms of restoration. More severe forms of restoration include pressing out creases or removing stains caused by tape. To what degree each of these is acceptable is dependent upon the individual situation. Further along the spectrum is the freshening of a stamp's color by removing oxide build-up or the effects of wax paper left next to stamps shipped to the tropics.

At some point in this spectrum the concept of *repair* replaces that of restoration. Repairs include filling thin spots, mending tears by reweaving or adding a missing perforation tooth. Regumming stamps may have been acceptable as a restoration or repair technique many decades ago, but today it is considered a form of fakery.

Restored stamps may or may not sell at a discount, and it is possible that the value of individual restored items may be enhanced over that of their pre-restoration state. Specific situations dictate the resultant value of such an item. Repaired stamps sell at substantial discounts from the value of sound stamps.

**Coil Stamps** — These are stamps that are issued in rolls for use in dispensers, affixing and vending machines. Those coils of the United States, Canada, Sweden and some other countries are perforated horizontally or vertically only, with the outer edges imperforate. Coil stamps of some countries, such as Great Britain and Germany, are perforated on all four sides and may in some cases be distinguished from their sheet stamp counterparts by watermarks, counting numbers on the reverse or other means.

**Covers** — Entire envelopes, with or without adhesive postage stamps, that have passed through the mail and bear postal or other markings of philatelic interest are known as covers. Before the introduction of envelopes in about 1840, people folded letters and wrote the address on the outside. Some people covered their letters with an extra sheet of paper on the outside for the address, producing the term "cover." Used airletter sheets, stamped envelopes and other items of postal stationery also are considered covers.

**Errors** — Stamps that have some major, consistent, unintentional deviation from the normal are considered errors. Errors include, but are not limited to, missing or wrong colors, wrong paper, wrong watermarks, inverted centers or frames on multicolor printing, inverted or missing surcharges or overprints, double impressions, missing perforations, unintentionally omitted tagging and others. Factually wrong or misspelled information, if it appears on all examples of a stamp, are not considered errors in the true sense of the word. They are errors of design. Inconsistent or randomly appearing items, such as misperfs or color shifts, are classified as freaks.

**Color-Omitted Errors** — This term refers to stamps where a missing color is caused by the complete failure of the printing plate to deliver ink to the stamp paper or any other paper. Generally, this is caused

by the printing plate not being engaged on the press or the ink station running dry of ink during printing.

**Color-Missing Errors** — This term refers to stamps where a color or colors were printed somewhere but do not appear on the finished stamp. There are four different classes of color-missing errors, and the catalog indicates with a two-letter code appended to each such listing what caused the color to be missing. These codes are used only for the United States' color-missing error listings.

**FO** = A *foldover* of the stamp sheet during printing may block ink from appearing on a stamp. Instead, the color will appear on the back of the foldover (where it might fall on the back of the selvage or perhaps on the back of the stamp or another stamp). FO also will be used in the case of *foldunders*, where the paper may fold underneath the other stamp paper and the color will print on the platen.

**EP** = A piece of *extraneous paper* falling across the plate or stamp paper will receive the printed ink. When the extraneous paper is removed, an unprinted portion of stamp paper remains and shows partially or totally missing colors.

**CM** = A misregistration of the printing plates during printing will result in a *color misregistration*, and such a misregistration may result in a color not appearing on the finished stamp.

**PS** = A *perforation shift* after printing may remove a color from the finished stamp. Normally, this will occur on a row of stamps at the edge of the stamp pane.

**Measurements** — When measurements are given in the Scott catalogues for stamp size, grill size or any other reason, the first measurement given is always for the top and bottom dimension, while the second measurement will be for the sides (just as perforation gauges are measured). Thus, a stamp size of 15mm x 21mm will indicate a vertically oriented stamp 15mm wide at top and bottom, and 21mm tall at the sides. The same principle holds for measuring or counting items such as U.S. grills. A grill count of 22x18 points (B grill) indicates that there are 22 grill points across by 18 grill points down.

**Overprints and Surcharges** — Overprinting involves applying wording or design elements over an already existing stamp. Overprints can be used to alter the place of use (such as "Canal Zone" on U.S. stamps), to adapt them for a special purpose ("Porto" on Denmark's 1913-20 regular issues for use as postage due stamps, Scott J1-J7) or to commemorate a special occasion (United States Scott 647-648).

A *surcharge* is a form of overprint that changes or restates the face value of a stamp or piece of postal stationery.

Surcharges and overprints may be handstamped, typeset or, occasionally, lithographed or engraved. A few hand-written overprints and surcharges are known.

**Personalized Stamps** — In 1999, Australia issued stamps with *se-tenant* labels that could be personalized with pictures of the customer's choice. Other countries quickly followed suit, with some offering to print the selected picture on the stamp itself within a frame that was used exclusively for personalized issues. As the picture used on these stamps or labels vary, listings for such stamps are for any picture within the common frame (or any picture on a *se-tenant* label), be it a "generic" image or one produced especially for a customer, almost invariably at a premium price.

**Precancels** — Stamps that are canceled before they are placed in the mail are known as precancels. Precanceling usually is done to expedite the handling of large mailings and generally allow the affected mail pieces to skip certain phases of mail handling.

In the United States, precancellations generally identified the point of origin; that is, the city and state. This information appeared across

the face of the stamp, usually centered between parallel lines. More recently, bureau precancels retained the parallel lines, but the city and state designations were dropped. Recent coils have a service inscription that is present on the original printing plate. These show the mail service paid for by the stamp. Since these stamps are not intended to receive further cancellations when used as intended, they are considered precancels. Such items often do not have parallel lines as part of the precancellation.

In France, the abbreviation *Affranchis* in a semicircle together with the word *Postes* is the general form of precancel in use. Belgian precancellations usually appear in a box in which the name of the city appears. Netherlands precancels have the name of the city enclosed between concentric circles, sometimes called a "lifesaver." Precancellations of other countries usually follow these patterns, but may be any arrangement of bars, boxes and city names.

Precancels are listed in the Scott catalogues only if the precancel changes the denomination (Belgium Scott 477-478); if the precanceled stamp is different from the non-precanceled version (such as untagged U.S. precancels); or if the stamp exists only precanceled (France Scott 1096-1099, U.S. Scott 2265).

**Proofs and Essays** — Proofs are impressions taken from an approved die, plate or stone in which the design and color are the same as the stamp issued to the public. Trial color proofs are impressions taken from approved dies, plates or stones in colors that vary from the final version. An *essay* is the impression of a design that differs in some way from the issued stamp. "Progressive die proofs" generally are considered to be essays.

**Provisionals** — These are stamps that are issued on short notice and intended for temporary use pending the arrival of regular issues. They usually are issued to meet such contingencies as changes in government or currency, shortage of necessary postage values or military occupation.

During the 1840s, postmasters in certain American cities issued stamps that were valid only at specific post offices. In 1861, postmasters of the Confederate States also issued stamps with limited validity. Both of these examples are known as "postmaster's provisionals."

**Se-tenant** — This term refers to an unsevered pair, strip or block of stamps that differ in design, denomination or overprint.

Unless the *se-tenant* item has a continuous design (see U.S. Scott 1451a, 1694a) the stamps do not have to be in the same order as shown in the catalogue (see U.S. Scott 2158a).

**Specimens** — The Universal Postal Union required member nations to send samples of all stamps they released into service to the International Bureau in Switzerland. Member nations of the UPU received these specimens as samples of what stamps were valid for postage. Many are overprinted, handstamped or initial-perforated "Specimen," "Canceled" or "Muestra." Some are marked with bars across the denominations (China-Taiwan), punched holes (Czechoslovakia) or back inscriptions (Mongolia).

Stamps distributed to government officials or for publicity purposes, and stamps submitted by private security printers for official approval, also may receive such defacements.

The previously described defacement markings prevent postal use, and all such items generally are known as "specimens."

**Tete Beche** — This term describes a pair of stamps in which one is upside down in relation to the other. Some of these are the result of intentional sheet arrangements, such as Morocco Scott B10-B11. Others occurred when one or more electrotypes accidentally were placed upside down on the plate, such as Colombia Scott 57a. Separation of the *tete-beche* stamps, of course, destroys the *tete beche* variety.

[Imagen 1]

## INTRODUCCIÓN Información Básica del Sello

El conocimiento de un coleccionista de sellos sobre los elementos combinados que hacen que una emisión de sellos sea única determina su capacidad para identificar sellos. Estos elementos incluyen el papel, la filigrana, el método de separación, la impresión, el diseño y la goma. En las siguientes páginas se describe brevemente cada una de estas áreas importantes.

### Papel

El papel es un material orgánico compuesto por un tejido compactado de fibras de celulosa y generalmente formado en hojas. El papel utilizado para imprimir sellos puede fabricarse en hojas, o puede haber sido parte de un rollo grande (llamado bobina) antes de ser cortado a medida. Las fibras más utilizadas para crear el papel en el que se imprimen los sellos incluyen corteza, madera, paja y ciertas hierbas. En muchos casos, se han añadido trapos de lino o algodón para mayor resistencia y durabilidad. Triturar, blanquear, cocinar y enjuagar estas fibras crudas las reduce a una pulpa fangosa, a la que los fabricantes de papel se refieren como "pasta". Se añaden apresto y, a veces, colorante a la pulpa para hacer diferentes tipos de papel terminado.

Una vez preparada la pasta, se vierte sobre marcos de tipo tamiz que permiten que el agua escurra, reteniendo la pulpa apelmazada. A medida que las fibras caen sobre la malla y son retenidas por la gravedad, forman un tejido natural que luego mantendrá el papel unido. Si la malla tiene trozos de metal con letras o imágenes adheridas, deja áreas ligeramente más delgadas en el papel. Estas se llaman filigranas.

Cuando la pasta está casi seca, se pasa bajo presión a través de rodillos lisos o grabados (rodillos dandy) o se coloca entre tela en una prensa para aplanarse y secarse.

### Tejido Cuadrícula Tendido Cuadrícula Oblonga Granito Acostado Batonne

El papel para sellos se divide en dos tipos principales: tejido y tendido. La naturaleza de la superficie del marco sobre el que se deposita por primera vez la pulpa provoca las diferencias de apariencia entre los dos. Si la superficie es lisa y uniforme, el papel tendrá una textura bastante uniforme en todo. Esto se conoce como papel tejido. Las primeras máquinas de fabricación de papel vertían la pulpa sobre una red de fieltro en circulación continua, pero las máquinas modernas alimentan la pulpa sobre una malla similar a una tela hecha de alambres finos estrechamente entrelazados. Este papel, cuando se mira a la luz, mostrará pequeños puntos muy juntos. El nombre propio para esto es "tejido de alambre", pero el tipo sigue siendo considerado tejido. Cualquier sello de EE. UU. o británico impreso después de 1880 servirá como ejemplo de papel tejido de alambre.

Alambres paralelos espaciados estrechamente, con alambres transversales a intervalos más amplios, componen los marcos utilizados para lo que se conoce como papel tendido. Una mayor densidad de la pulpa se asentará entre los alambres. El papel,

cuando se mira a la luz, mostrará líneas claras y oscuras alternas. El espaciado y el grosor de las líneas pueden variar, pero en cualquier hoja de papel son todos iguales. Consulte Rusia Scott 31-38 para ver ejemplos de papel tendido.

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Batonne, del francés que significa "un bastón", es un término utilizado si las líneas en el papel están bastante separadas, como las líneas impresas en una tableta de escritura. El papel Batonne puede ser tejido o tendido. Si es tendido, se pueden ver finas líneas tendidas entre los bastones. Cuadrícula es el término utilizado cuando las líneas en el papel forman pequeños cuadrados. Cuadrícula oblonga es el término utilizado cuando se forman rectángulos, en lugar de cuadrados. Los patrones de cuadrícula varían de distintos a extremadamente débiles. Consulte México-Guadalajara Scott 35-37 para ver ejemplos de papel de cuadrícula oblonga.

El papel también se clasifica como grueso o delgado, duro o blando, y por color. Dichos colores pueden incluir amarillento, verdoso, azulado y rojizo. A continuación se presentan breves explicaciones de otros tipos de papel utilizados para imprimir sellos, así como ejemplos.

**Papel de color** El papel de color se crea mediante la adición de tinte en el proceso de fabricación del papel. Dichos colores pueden incluir tonos de amarillo, verde, azul y rojo. Los papeles de superficie coloreada, utilizados más comúnmente para las emisiones coloniales británicas en 1913-14, se crean cuando se añade color solo a la superficie durante el proceso de acabado. Los sellos impresos en papel de superficie coloreada tienen el reverso blanco o sin color, mientras que los papeles verdaderamente coloreados están coloreados por completo. Consulte Jamaica Scott 71-73.

**Pelure** El papel pelure es un papel muy fino, duro y a menudo quebradizo que a veces tiene un aspecto azulado o grisáceo. Consulte Serbia Scott 169-170.

**Nativo** Este es un término aplicado a los papeles hechos a mano utilizados para producir algunos de los primeros sellos de los estados indios. Los sellos impresos en papel nativo pueden mostrar diversas inclusiones naturales que son normales y no afectan negativamente el valor. El papel japonés, originalmente hecho de fibras de morera y harina de arroz, forma parte de este grupo. Consulte Japón Scott 1-18.

**Manila** Este tipo de papel se usa a menudo para hacer sobres y envoltorios estampados. Es un material de textura gruesa, generalmente liso por un lado y rugoso por el otro. Existe una variedad de colores de papel manila, pero el rango más común es el marrón amarillento.

**Seda** Introducido por los británicos en 1847 como una salvaguarda contra la falsificación, el papel de seda contiene trozos de hilo de seda de colores dispersos por todas partes. La densidad de estas fibras varía mucho y puede incluir tan solo una fibra por sello o cientos. El Scott R152 de ingresos de EE. UU. es un buen ejemplo de un sello de papel de seda fácil de identificar. El papel con hilo de seda tiene hilos ininterrumpidos de seda de colores dispuestos de manera que uno o más hilos atraviesen el sello o el material postal. Consulte Gran Bretaña Scott 5-6 y Suiza Scott 14-19.

Granito Relleno de diminutas fibras de tela o papel de colores de varios colores y longitudes, el papel granito no debe confundirse con ninguno de los dos tipos de papel de seda. Austria Scott 172-175 y varios sellos suizos son ejemplos de papel granito.

Calcáreo Una sustancia similar a la tiza recubre la superficie del papel calcáreo para desanimar la limpieza y reutilización de los sellos cancelados, así como para proporcionar una superficie de impresión más suave y aceptable. Debido a que los diseños de los sellos impresos en papel calcáreo están impresos en lo que a menudo es un recubrimiento soluble en agua, cualquier intento de eliminar una cancelación destruirá el sello. No remoje estos sellos en ningún líquido. Para quitar un sello impreso en papel calcáreo de un sobre, humedezca el papel por debajo del sello hasta que la goma se disuelva lo suficiente como para liberar el sello del papel. Consulte St. Kitts-Nevis Scott 89-90 para ver ejemplos de sellos impresos en este tipo de papel calcáreo.

India Otro nombre para este papel, originalmente introducido desde China alrededor de 1750, es "Papel de China". Es un papel delgado y opaco que a menudo se utiliza para pruebas de plancha y troquel por muchos países.

Doble En filatelia, el término papel doble tiene dos significados distintos. El primero es un papel de dos capas, generalmente una combinación de una hoja gruesa y una delgada, unidas durante la fabricación. Este tipo se utilizó experimentalmente como un medio para desalentar la reutilización de sellos. El diseño está impreso en el papel delgado. Cualquier intento de eliminar una cancelación destruiría el diseño. El Scott 158 de EE. UU. y otros sellos de la era Banknote existen en esta forma de papel doble. El segundo tipo de papel doble ocurre en una prensa rotativa, cuando el final de un rollo de papel, o banda, se adhiere al siguiente rollo para ahorrar

--- PÁGINA 2 ---

[Imagen 1]

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## INTRODUCCIÓN

tiempo de alimentación del papel a través de la prensa. Los diseños de los sellos se imprimen sobre el papel unido y, si los inspectores los pasan por alto, pueden llegar a las existencias de las oficinas de correos.

Piel de batanero Este tipo de papel se utilizó para la emisión de Prusia de 1866, y era un papel resistente y translúcido. El diseño se imprimió a la inversa en el reverso del sello, y la goma se aplicó sobre la impresión. Es imposible quitar los sellos impresos en este tipo de papel del papel al que están adheridos sin destruir el diseño.

Acabado acanalado El papel acanalado tiene una superficie irregular y corrugada, hecha al pasar el papel por rodillos estriados. Este tipo existe en algunas copias de los sellos de EE. UU. Scott 156-165.

Se han utilizado otras sustancias o sustratos para la fabricación de sellos, como madera, aluminio, cobre, plata y oro en láminas, plástico, y telas de seda y algodón.

## Filigranas

Las filigranas son una parte integral de algunos papeles. Se forman en el proceso de fabricación del papel. Las filigranas consisten en pequeños diseños, formados con alambre o cortados de metal y soldados a la superficie del molde o, a veces, en el rodillo dandy. Los diseños pueden tener forma de coronas, estrellas, anclas, letras u otros caracteres o símbolos. Estos trozos de metal, conocidos en la industria papelera como "bits", imprimen un diseño en el papel. El diseño a veces puede verse sujetando el sello a la luz. Algunos se ven más fácilmente con un detector de filigranas. Esta herramienta importante es una pequeña bandeja negra en la que se coloca un sello boca abajo y se humedece con un líquido de detección de filigranas de rápida evaporación que hace aparecer la imagen de la filigrana en forma de líneas oscuras sobre un fondo más claro. Estas líneas oscuras son las áreas más delgadas del papel conocidas como filigrana. Algunas filigranas son extremadamente difíciles de localizar, debido a una impresión débil, la ubicación de la filigrana o el color del sello. También existen detectores eléctricos de filigranas que vienen con discos de filtro de plástico de varios colores. Los discos neutralizan el color del sello, permitiendo que la filigrana se vea más fácilmente.

Filigranas múltiples de Crown Agents y Birmania Filigranas de Uruguay, Ciudad del Vaticano y Jamaica

**ADVERTENCIA:** Algunas tintas utilizadas en el proceso de fotograbado se disuelven en los líquidos para filigranas (Consulte la sección sobre Tintas de Impresión Solubles). Consulte también "papel calcáreo".

Las filigranas pueden encontrarse normales, invertidas, invertidas y volteadas, de lado o en diagonal, vistas desde el reverso del sello. La relación de la filigrana con el diseño del sello depende de la posición de las planchas de impresión o de cómo se alimenta el papel a través de la prensa. En papel hecho a máquina, las filigranas normalmente se leen de derecha a izquierda. El diseño se repite estrechamente en toda la hoja en un "diseño de filigrana múltiple". En una "filigrana de hoja", el diseño aparece solo una vez en la hoja, pero se extiende sobre muchos sellos. Los sellos individuales pueden llevar solo una pequeña fracción o ninguna de la filigrana. Las "filigranas marginales" aparecen en los márgenes de las hojas o pliegos de sellos. Aparecen en el borde exterior del papel (supuestamente fuera del área donde se van a imprimir los sellos). Una fila grande de letras puede deletrear el nombre del país o del fabricante del papel, o puede aparecer un borde de líneas. Una alimentación descuidada de la prensa puede hacer que partes de estas letras y/o líneas aparezcan en los sellos de la fila exterior de un pliego.

## Tintas de Impresión Solubles

**ADVERTENCIA:** La mayoría de los colores de los sellos son permanentes; es decir, no se ven seriamente afectados por una exposición a corto plazo a la luz o al agua. Muchos colores, especialmente los de las tintas modernas, se desvanecen por una exposición excesiva a la luz. Hay sellos impresos con tintas que se disuelven fácilmente en agua o en líquidos utilizados para detectar filigranas. El uso de estas tintas fue intencional para evitar la eliminación de cancelaciones. El agua afecta a todas las tintas de anilina, a las del llamado papel de seguridad y a algunas impresiones de fotograbado; todas estas tintas se conocen como colores fugaces. La remoción de tales sellos del papel requiere cuidado y alternativas al remojo tradicional.

## Separación

"Separación" es el término general utilizado para describir los métodos utilizados para separar sellos. Las tres formas estándar actualmente en uso son la perforación, el dentado y el troquelado. Estos métodos se realizan durante el proceso de producción del sello, después de la impresión. A veces estos métodos se realizan en la prensa o a veces como un paso separado. Las primeras emisiones, como el Penny Black de Gran Bretaña de 1840 (Scott 1), no tenían ningún medio provisto para la separación. Se esperaba que los sellos se cortaran con tijeras o se doblaran y rasgaran. Estos son ejemplos de sellos imperforados. Muchos sellos se emitieron por primera vez en formatos imperforados y luego se emitieron con perforaciones. Por lo tanto, se debe tener cuidado al comprar sellos imperforados sueltos para asegurarse de que fueron emitidos imperforados y no son copias perforadas que han sido alteradas al recortar las perforaciones. Los sellos emitidos imperforados generalmente se valoran como unidades. Sin embargo, las variedades imperforadas de sellos normalmente perforados deben coleccionarse en pares o piezas más grandes como evidencia indiscutible de su carácter imperforado.

## PERFORACIÓN

El estilo principal de separación de sellos, y el que se usa casi universalmente hoy en día, es la perforación. Mediante este proceso, el papel entre los sellos se corta en una línea de agujeros, generalmente redondos, dejando pequeños puentes de papel entre los sellos para mantenerlos unidos. Algunos tipos de perforación, como las perforaciones con agujeros de guion, pueden confundirse con los dentados, pero una inspección visual cercana revela que se ha quitado papel. Los pequeños puentes de perforación, que sobresalen del sello cuando se arranca del pliego, se llaman los dientes de la perforación. Como el tamaño de la perforación es a veces la única forma de diferenciar entre dos sellos idénticos, es necesario poder medirlos y describirlos con precisión. Esto se hace con un medidor de perforaciones, generalmente un dispositivo similar a una regla que tiene puntos o líneas graduadas para mostrar cuántas perforaciones se pueden contar en el espacio de dos centímetros. Dos centímetros es el espacio universalmente adoptado para medir las perforaciones.

90 100 110 120 130 140 10.3 10,4 10.5 231 10.6 10.7 10.8 431 10.9 11 11 11.2 114  
11.6 11.8 12 USA12C ENTRADA UN DERECHO AMERICANO 13 21 12.2  
LIBERTAD DE CONCIENCIA 12.4 12.6 12.8 13- 13.2 12 41 ½ 13 4 1 0 REGLA DE  
CENTRO CERO INTRODUCCIÓN perforación en arco perforación en líneas  
perforación en puntos dentado oblicuo

**Medidor de perforaciones** Para medir un sello, deslícelo a lo largo del medidor hasta que los puntos se ajusten exactamente a las perforaciones del sello. Si está utilizando un medidor de perforaciones de línea graduada, simplemente deslice el sello a lo largo de la superficie hasta que las líneas del medidor se proyecten perfectamente desde el centro de los puentes o agujeros. El número al lado de la línea de puntos o líneas que se ajustan a la perforación del sello es la medida. Por ejemplo, un "11" significa que 11 perforaciones caben entre dos centímetros. La descripción del sello, por lo tanto, es "perf. 11". Si el calibre de las perforaciones en la parte superior e inferior de un sello difiere del de los lados, el resultado es lo que se conoce como perforaciones compuestas. Al medir perforaciones compuestas, el calibre de la parte superior e inferior siempre se da primero, luego los lados. Así, un sello que mide 11 en la parte superior e

inferior y 10½ en los lados es "perf. 11 x 10½". Consulte EE. UU. Scott 632-642 para ver ejemplos de perforaciones compuestas. También se conocen sellos con perforaciones diferentes en tres o en los cuatro lados. Las descripciones de dichos artículos son en el sentido de las agujas del reloj, comenzando por la parte superior del sello. Una perforación con agujeros pequeños y dientes muy juntos es una "perforación fina". Una con agujeros grandes y dientes muy separados es una "perforación gruesa". Los agujeros que son irregulares, en lugar de limpios, son "perforaciones rugosas". Las perforaciones ciegas son las ligeras impresiones que dejan las agujas perforadoras si no perforan el papel. Los múltiplos de sellos que muestran perforaciones ciegas pueden tener una ligera prima sobre los sellos normalmente perforados.

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## INTRODUCCIÓN

**Alineación de perforaciones** Las perforaciones de un sello deben estar centradas y alineadas con la imagen del sello. **Dentado**

Los sellos que tienen cortes o incisiones cortas en lugar de agujeros perforados se denominan "dentados". Una "perforación en línea" consiste en incisiones cortas de un lado al otro del sello. Una "perforación en sierra" consiste en dientes cortos, triangulares o similares a una sierra, cortados en el papel entre los sellos. Algunos dentados se hicieron con un dispositivo similar a una máquina de coser que "cosía" o cortaba ranuras en el papel entre los sellos. Otros se crearon con una pequeña rueda giratoria que tiene pequeños dientes cortantes o que presiona una cuchilla que se extiende a través del papel para romperlo.

### Corte Troquelado

Los sellos troquelados son los que se cortan mediante un troquel afilado que presiona a través del papel, produciendo un corte limpio y suave. Un ejemplo son los sellos autoadhesivos de EE. UU. que tienen forma de diamante, cuadrado, pentágono o incluso corazón. Otros ejemplos son los sellos sin perforar, como los de EE. UU. Scott 1-2, que se recortaban con tijeras. Los sellos individuales de estos tipos solo se valoran si tienen un borde decente. Los sellos en general, sin importar cómo se separen de la hoja, deben tener un diseño legible, claro y centrado. Los sellos que no están troquelados, pero que fueron impresos para ser separados con tijeras o cortados con una cuchilla, generalmente se conocen como "sin perforar".

### Impresión

La impresión se refiere al proceso utilizado para transferir un diseño a una hoja de papel o a un sustrato. Hay varios métodos de impresión, cada uno de los cuales tiene sus propias características distintivas. Los métodos de impresión más comunes son el grabado, la tipografía, la litografía y el fotograbado. Los métodos más raros incluyen la xilografía, la serigrafía, la perforación de puntos y el termograbado.

**Grabado o Huecograbado** Este método de impresión, también conocido como "impresión en huecograbado", produce una imagen a partir de un diseño grabado en hueco en una placa de metal o un rollo. En este proceso, se corta un diseño en la superficie de un troquel de acero endurecido y se calienta el troquel para imprimir el diseño en una placa de impresión, un paso conocido como "transferencia". Luego, la placa se trata para endurecer la superficie y se coloca en la prensa de impresión para producir el sello. La placa se entinta y se limpia antes de cada impresión, de modo que la tinta solo queda en las líneas grabadas. Esto produce una imagen nítida y clara con líneas finas y distintivas que a menudo tienen un aspecto ligeramente elevado. Las líneas en la imagen impresa se sentirán ásperas al tacto en el reverso del sello. El diseño en el anverso del sello puede sentirse un poco rugoso. El grabado también se ha utilizado para imprimir cancelaciones en algunos sellos de EE. UU. Este proceso también se conoce como "calcografía" o "impresión calcográfica".

**Tipografía o Relieve** La impresión tipográfica se produce a partir de un diseño en relieve, donde las partes del diseño que se van a imprimir están elevadas. La tinta se transfiere de las partes elevadas del diseño al papel. La impresión tipográfica fue uno de los métodos más tempranos de impresión. Un signo revelador de la impresión tipográfica son las muescas en el papel en el reverso del sello, que coinciden con las áreas impresas en el anverso. Este proceso también se conoce como "tipografía", "impresión tipográfica", "impresión en relieve" y "impresión de letterpress".

**Litografía** La litografía es un método de impresión "plana" que se basa en el principio de que el aceite y el agua no se mezclan. El diseño se dibuja o se transfiere a una superficie de piedra o metal lisa con un lápiz graso o tinta. Luego, la superficie se trata con una solución de goma arábica y ácido nítrico, que hace que las áreas no grabadas repelan la tinta. Cuando se entinta la superficie, la tinta se adhiere solo a las áreas grabadas. Este método de impresión produce una imagen que se ve plana y sin relieve. Cuando se mira de cerca con una lupa, los puntos de la imagen litográfica parecen estar hechos de puntos de tinta indistintos y densos. Esto se debe a que la tinta se absorbe en el papel. Este proceso también se conoce como "offset".

**Fotograbado** La impresión de fotograbado es un método de impresión que utiliza una placa o un cilindro con pequeñas celdas o huecos grabados, cada uno de los cuales contiene una cantidad de tinta. La imagen se crea fotografiando el diseño a través de una pantalla, que descompone la imagen en una serie de puntos. Cuanto más oscura es la parte de la imagen, más profunda es la celda y más tinta contiene. La tinta se transfiere de las celdas al papel, produciendo una imagen continua. Los sellos impresos con fotograbado muestran una textura similar a la de un patrón en un diseño de punto cruz. Los puntos individuales aparecen como pequeñas motas cuadradas. A veces, se utilizan puntos circulares o de otros diseños. La tinta en los sellos de fotograbado se asienta sobre la superficie del papel, lo que los hace fáciles de limpiar y reutilizar si se eliminan las cancelaciones. Este es el método de impresión más utilizado hoy en día. Este proceso también se conoce como "huecograbado".

## Diseño

El diseño de un sello se refiere a su apariencia general, que incluye los elementos artísticos, el tema, la orientación y otros aspectos visuales. La orientación de los sellos se indica en este catálogo como vertical u horizontal. Los sellos en orientación

horizontal son más anchos que altos. Los sellos en orientación vertical son más altos que anchos. Los valores de catálogo se aplican al diseño tal como se representa en el catálogo, a menos que se indique lo contrario.

## Goma

La goma de un sello es el adhesivo aplicado al reverso para que el sello pueda adherirse a un sobre o paquete. Los sellos modernos pueden tener goma activada por humedad o ser autoadhesivos. En el siglo XXI, el tipo más común de goma de sello es la sensible a la presión o "autoadhesiva". Sin embargo, durante más de 150 años, la goma más utilizada en el reverso de los sellos ha sido la goma a base de agua que debe humedecerse antes de su uso. Hay sellos sin goma que se imprimieron de esa manera para el correo de periódicos, por ejemplo. Hay sellos con goma brillante o sin brillo, lisa o rugosa, o sin goma en absoluto. Las abreviaturas utilizadas para el estado de la goma se encuentran en la introducción general de este catálogo.

A veces, la goma de un sello puede cambiar de color. Esto puede suceder cuando los productos químicos de la goma interactúan con la tinta, o por la humedad del medio ambiente. Algunas gomas cambiarán de color a un tono rojizo cuando se humedecen y se secan. Esto se denomina "goma oxidada". Las gomas oxidadas generalmente no afectan el valor de un sello.

Los sellos, especialmente los autoadhesivos, no deben manipularse por la goma o la parte impresa. El tacto humano puede dejar residuos de grasa que pueden alterar la goma con el tiempo.

## Múltiples filigranas de Crown Agents y Birmania

### Filigranas de Uruguay, Ciudad del Vaticano y Jamaica

La goma de los sellos se valora de la siguiente manera: OG..... Goma original

NH..... Nunca charnelado

LH..... Ligeramente charnelado

H..... Charnelado

HR..... Con rastro de charnela

NG..... Sin goma

RG..... Regomado

Se-tenant Este término se refiere a un par, tira o bloque de sellos sin cortar que difieren en diseño, denominación o sobreimpresión.

A menos que el elemento se-tenant tenga un diseño continuo (ver EE. UU. Scott 1451 $\alpha$ , 1694a), los sellos no tienen que estar en el mismo orden que se muestra en el catálogo (ver EE. UU. Scott 2158a).

Muestras La Unión Postal Universal exigía a las naciones miembros que enviaran muestras de todos los sellos que ponían en servicio a la Oficina Internacional en Suiza. Las naciones miembros de la UPU recibían estas muestras como ejemplos de qué sellos eran válidos para franqueo. Muchos están sobreimpresos, estampados a mano o perforados con iniciales "Specimen", "Canceled" o "Muestra". Algunos están marcados con barras a través de las denominaciones (China-Taiwán), agujeros perforados (Checoslovaquia) o inscripciones en el reverso (Mongolia).

Los sellos distribuidos a funcionarios gubernamentales o con fines publicitarios, y los sellos presentados por impresores de seguridad privados para aprobación oficial, también pueden recibir tales desfiguraciones.

Las marcas de desfiguración descritas anteriormente impiden el uso postal, y todos estos artículos generalmente se conocen como "muestras".

Tete Beche Este término describe un par de sellos en los que uno está al revés en relación con el otro. Algunos de estos son el resultado de arreglos intencionales de la hoja, como Marruecos Scott B10-B11. Otros ocurrieron cuando uno o más electrotipos se colocaron accidentalmente al revés en la plancha, como Colombia Scott 57a. La separación de los sellos tete-beche, por supuesto, destruye la variedad tete-beche.