

Fourth Class Returned & Remailed

Fourth class, pill samples, 1 cent per ounce independent of distance if less than or equal to 4 ounces. APEX 69033

Note, message on reverse explains the postal rate the cover was sent at, "Please note that though apparently sealed, it carries its contents at the postage rate of unsealed matter."

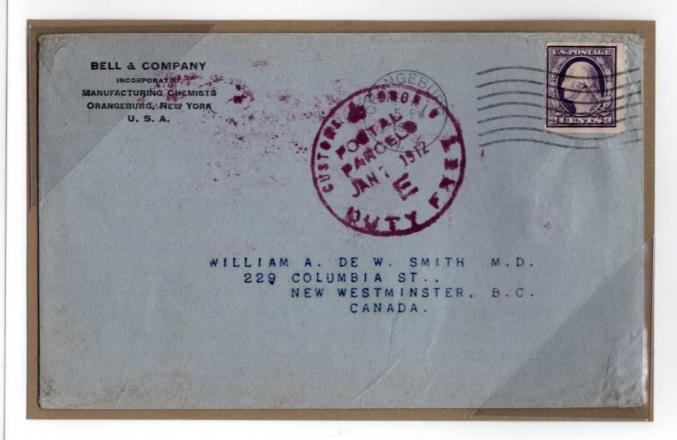


Reduced photo copy of reverse side.



### Third Class Triple Weight

One cent per 2 ounces, printed matter.

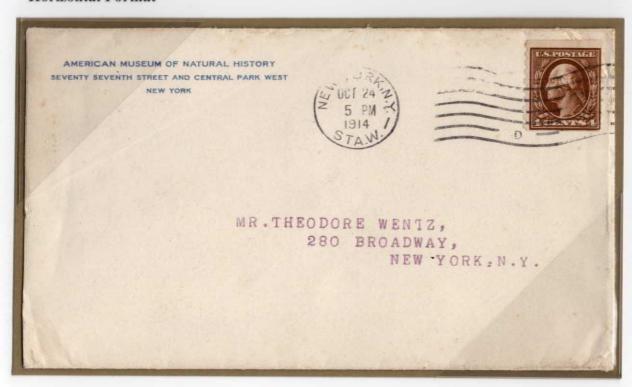


### **Treaty Rate**

Fourth class, treaty rate, 1 cent per ounce independent of distance if less than or equal to 4 ounces.



First class, UPU rate, 5 cents first ounce.



First class, double weight, 2 cents per ounce.

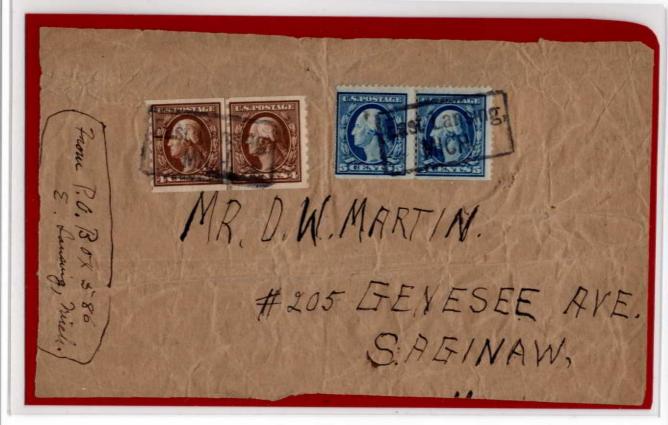
### **Provisional Plate Printing**

One of two documented provisional plate printings on cover. Note, the guide line at the left on the tips of the perforations. This verifies the position of the strip, the center of the sheet. Provisional plates have a 2.75mm spacing between stamp designs. Star plates will have a 2mm spacing in the center of the sheet



### Largest Known Multiple on Cover

First class, 2 cents per ounce plus 10 cents registry fee. Registry back stamp, May 8, 1915, Cincinnati, Ohio



Parcel Post/Line Pair

Fourth class, parcel post, zone 2, 50 to 150 miles. First pound at 6 cents with each additional pound at 4 cents. Total weight at 4 pounds = 18 cents.



First class, double UPU rate, 5 cents for first ounce, 3 cents for each additional ounce.

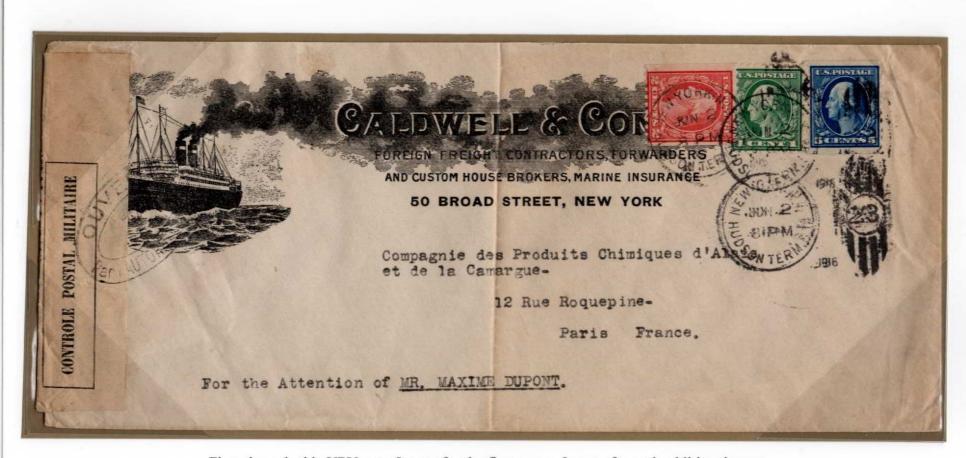


First class, UPU rate, 5 cents per ounce.

### **Guide Line Pair**

First class, 2 cents per ounce plus 10 cents registry fee. Registry back stamp, May 7, 1916, Philadelphia, PA.









First class, triple UPU rate, 5 cents for first ounce, 3 cents for each additional ounce.

# 6015





1912 Issue



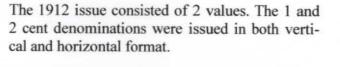
















### Major production changes for the 1912 Issues

- 1) The words for the denominations were changed to a combination of words and numerals to conform to the Universal Postal Union.
- 2) Washington replaced the bust of Franklin on the 1 cent denomination.
- 3) All "Star" plates were retired from use.
- 4) The "A" plates were used to produce the early issues of 1912.
- 5) The "Provisional" plates were used to produce later and all subsequent flat plate coils.
- 6) The "COIL STAMPS" plates were developed for vertical coils.



The 1 cent leader strip from the 1910 issue illustrates the problem the Bureau had with vertical coils. Note, the craft leader paper is wider than the strip of coil stamps. This strip came from either the 10th or 11th row in the center of the pane.



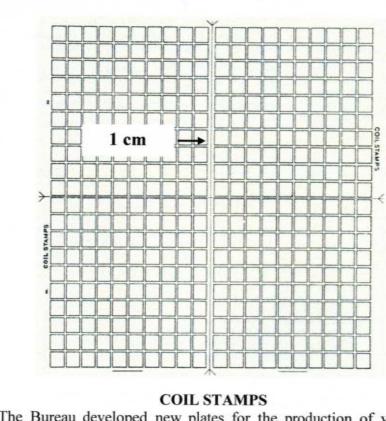




New Design

The new design for the 1912 issue incorporated the use of words and numerals to conform to the UPU regulations.

It had been an unwritten rule since 1851 that Franklin's bust should appear on every 1 cent issue. The change was made to clear up any confusion between denominations and color for the issues.

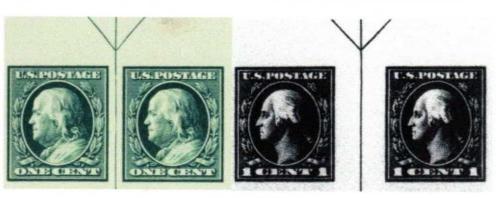


The Bureau developed new plates for the production of vertical coils due to a spacing problem. When the 400 subject panes were cut in half for production of vertical coils, it was discovered the 10th and 11th rows were narrower when the sheets were slit into coils. To correct the problem, the Bureau widened the center row to 1 centimeter so all of the coils would be uniform in width when slit.

The imprint, "COIL STAMPS", was placed in the margins to alert Bureau employee's of the special coil plate.

"A" Plate Proof

**COIL STAMPS Plate Proof** 



2.75mm

1 cm

### Original photo copies of plate proofs from the Bureau archives

Note, the obvious difference in spacing between the 10th and 11th rows in the 400 subject panes.

### **COIL STAMPS Plates**

- There were 4 plates prepared and used for printing the 1 and 2 cert vertical coils. There were 4 additional plates for the 2 cent coil that were approved but never put into production.
- The 1 cent plates: 6581, 6582, 6586, and 6589.
- The 2 cent plates: 6568, 6570, 6571, and 6572
- · The "COIL STAMPS" imprint was only placed in the lower left and upper right of the pane.

### Upper Right Block

The plate block below has the same plate number, # 6582, as the miscut coil to the right. The coil pair is from the bottom right, otherwise it would show part of the letter "C".

U







### **Plate Numbers**

- Plate numbers and prefixes identify the plate the coils came from.
- The 1912 issue was printed on two plates, but is found with 3 different Bureau imprints.
- Both types of plates had the 2.75mm spacing.
- The type of Bureau imprint can be identified by the plate number.
- The "A" plate was carried over from the 1910 issue.
- · It is found with 2 different Bureau imprints.
- The Provisional plate came after the "A" plate.
- The Provisional plate imprint is only found with the plate number.
- The prefix, "A" was dropped when the older plates were retired.

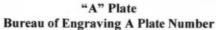
### One of Two Documented Pairs Plate # 6582

The miscut cut vertical coil shows the partial plate number from the side of the COIL STAMPS plates. This example is from the bottom right quadrant of the 400 subject pane. During production the side margins of the 400 subject pane were trimmed off. Due to the margins being cut off plate numbers from the side are not usually seen. This variety is quite scarce.

PSE 1352907







Only four 1c vertical plates 5727, 5732, 5733, and 5735 are found with the full Bureau imprint, letter A, and plate number. The 2c vertical coil is found on 2 plates. The 1 cent horizontal coil is only known on 1 plate, and the 2c horizontal is not known with this full Bureau imprint.





"A" Plate Letter "A" and Plate Number

The 1c vertical coil is found on 12 plates, the 2 cent vertical coil is found on 8 plates. The 1 cent horizontal coil is found on 10 plates, while the 2 cent horizontal coil is found on 9 plates.



### One of Four Plates

The imperforate pair with plate #5859 is a new discovery and unreported.

### Provisional Plate, Number Only

The 1c vertical plates start at 6005, 2c vertical plates at 5925, the 1c horizontal plates at 6005, and the 2c horizontal plates at 5920.



6486







### Unreported Plate Numbers

The 5 plate numbers highlighted in red are unreported plate numbers and new discoveries.





Separated paste-up to show the plate number and two different shades.





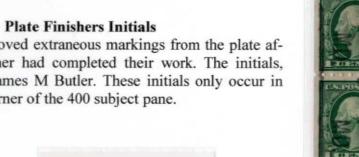








Plate finishers removed extraneous markings from the plate after the siderographer had completed their work. The initials, J.M.B. stand for James M Butler. These initials only occur in the bottom right corner of the 400 subject pane.











### **Guide Lines and Arrows**

Guidelines appear every 20 stamps on a flat plate coil. Their purpose was to show where the 400 subject panes were to be separated. The arrows are located at the top, bottom, right, and left of the pane. The vertical 2 cent pair comes from the center of the pane.



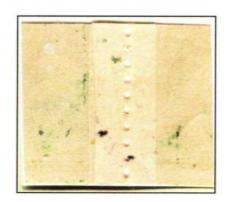
### Paste-ups

A paste-up occurs once every 20 stamps in a coil. In some cases the edges did not match up evenly and a step, or uneven edge occurs in the paste-up. Note, the top of the strip of four has a step, or uneven edge.



### Paste-up with Splice Repair

The paste-up strip broke during production and was repaired with a perforated strip, or splice. A very scare combination.



Enlarged photo copy of reverse.





PF 255516



### **Local Precancels**

In some cities and businesses coil stamps were precancelled. The coil roll had to be unrolled, the precancel applied, then rolled back up until used. The Federalsburg MD precancel was used by the Stowell Printing company















1912: 1c Perforated Issue

### Vertical Format



Postage Due Paid With Coil

First class, 1 cent per piece. Postage due was assessed for excessive writing. If the writing went outside the designated area it was charged the 2 cent letter rate..



Third Class with Precancel
Third class, double weight, 1 cent per 2 ounces.



Line Pair
First class, 2 cents per ounce.



First class, double weight, 2 cents per ounce.

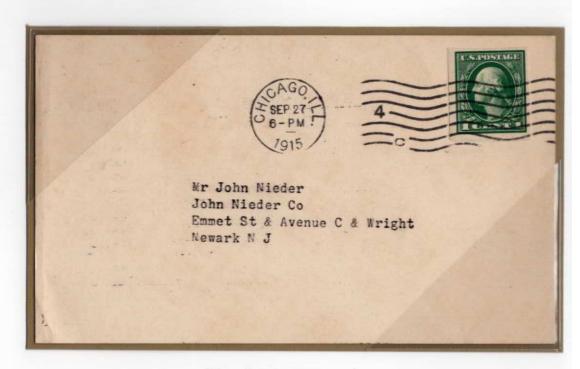


First class, treaty rate, 2 cents per ounce.

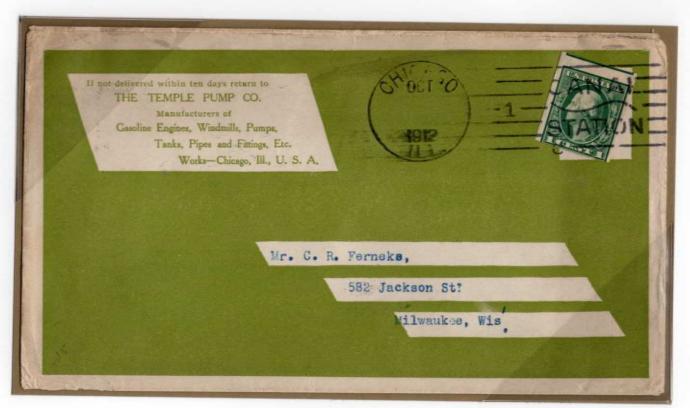


Third class, International printed matter, 1 cent per 2 ounces.





First class, 1 cent per piece.



Third class, 1 cent per 2 ounces.



First class, 2 cents per ounce.



First class, war rate, 2 cents per ounce, plus 1 cent war tax.



First class, 2 cents per ounce.



First class, double weight, 2 cents per ounce plus 10 cents registry fee. Registry back stamp, Bovey, Minn., June 4, 1914



First class, treaty rate, 2 cents per ounce.



First class, treaty rate, double war rate, 3 cents per ounce plus 10 cents registry fee. Registry back stamp New York, N.Y., May 24, 1918



First class, forwarded, 2 cents per ounce.



First class, double weight, 2 cents per ounce.



First class, 1 cent per piece. "Held for Postage", One cent postage due assessed for the attachment.



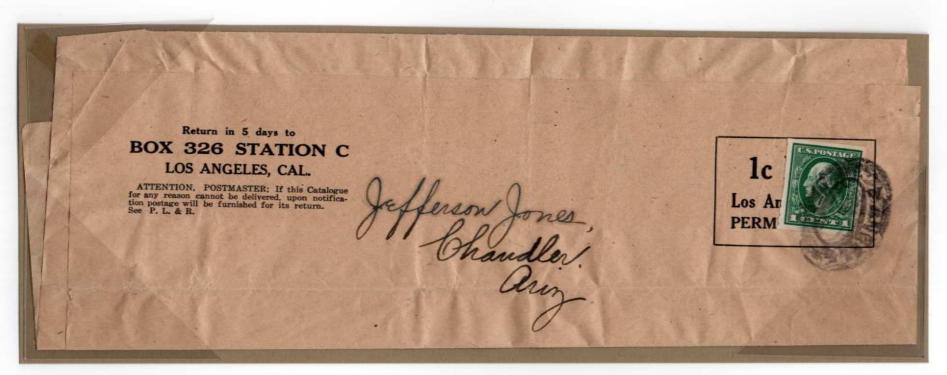
Reduced color photo copy of reverse side shows the attachment, "Felt Pennant Flag"



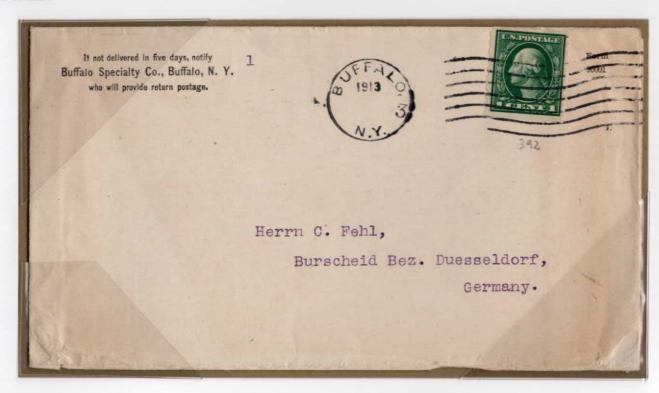
Largest Known Franking
First class, double weight, 2 cents per ounce, plus 10 cents registry fee.
May 7, 1915 Saginaw, Michigan back stamp



Line Pair
First class, UPU, 2 cents per piece.



Third class, printed matter, 1 cent per 2 ounces. The third class permit could not be used due to two possible reasons. One, it did not meet the 2,000 minimum number of pieces being sent, or the enclosure was different than what was usually sent.



Third class, 1 cent per 2 ounces, International printed matter rate.



German Treaty Rate

First class, treaty rate, 2 cents per ounce. If the letter traveled aboard a German steamship the rate was only 2 cents. Otherwise, at the UPU rate it would have been 5 cents per ounce.

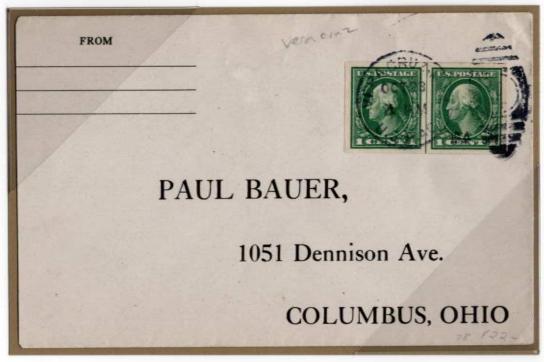
Horizontal Format



One of 4 Documented Uses

First class, Inner City War Rate, 2 cents per ounce.

APEX 213613



United States Postal Agency Vera Cruz, Mexico First class, 2 cents per ounce.

AFTER FIVE DAYS RETURN TO

COVEL MFG. CO.

BENTON HARBOR, MICH., U. S. A.

Horizontal Format



Wordester,

Norton Company,

Mass.

**Earliest Documented Use** 

First class, 2 cents per ounce.

**APEX 213614** 



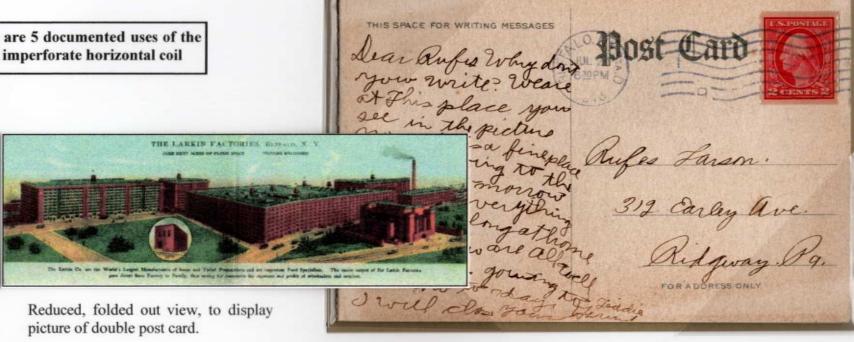
### **Only Documented Third Class Use**

Third class, 1 cent per two ounces.

**APEX 195182** 

**Horizontal Format** 

There are 5 documented uses of the 1 cent imperforate horizontal coil



First class, 2 cent letter rate for oversize fold out card.

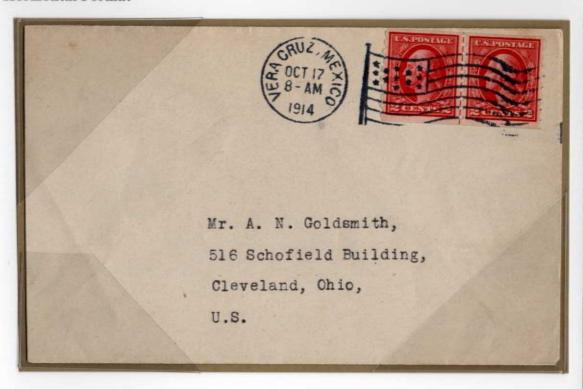


First class, UPU rate, 2 cents

per piece.

First class, treaty rate, 2 cents per ounce





### U.S. Postal Agency

First class, double weight, 2 cents per ounce.



### U.S. Territory Forwarded to UPU Destination

First class, 2 cents per ounce to Surigao, Philippine Islands. Forwarded to Rome, Italy, assessed 3 cents postage due because of partial payment. Forwarded and returned to sender in New York, assessed postage due of 3 cents again because of partial payment.



German Treaty Rate

First class, 2 cents per ounce. Treaty rate of 2 cents per ounce with Germany if letter traveled aboard a German Steamship.

2c PAID
O.
16

Third class, printed matter, double weight, 1 cent per 2 ounces. The third class permit could not be used since it did not meet the 2,000 minimum number of pieces, or the enclosure was different than what the permit was granted for.

T. A. Jones & Co.,

Santa Maria, Cal.

# BRAUN CORPORATION

LOS ANGELES, U. S. A.







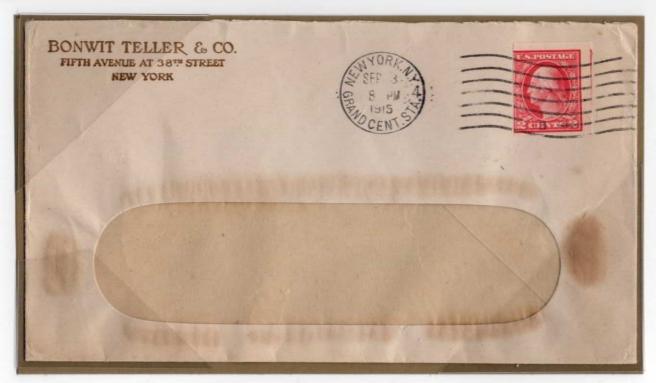
Koeniglichen Porzellan Manufaktur,

Meissen,

Germany.

Perforated 10

Horizontal Format



One of 3 Documented Uses

First class, 2 cents per ounce.

APEX 159834

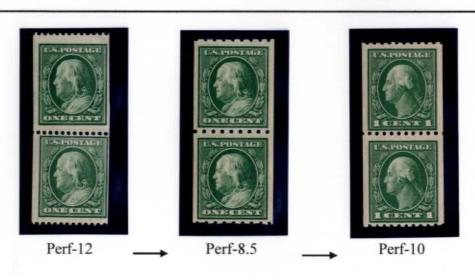




The 1914 perf-10 coils consisted of five values. The 1 and 2 cent denominations were printed in vertical and horizontal format while the 3, 4, and 5 cent values only came in horizontal format.

### Major production changes for 1914 perf-10 series.

- 1) Perforation gauge changed from 8.5 to 10.
- An extra cutting wheel was added to trim off the excess paper on the outer edges of the coil roll before it was slit.
- 3) This was the last flat plate coil series produced by the Bureau.



### Perforations

The first government coils with gauge 12 perforations were found to break easily during the winding stage in production. The gauge was changed to 8.5 which was stronger, but it was found too difficult to separate easily. The Bureau changed to gauge 10 in 1914. These perforations were found to be just right and were used on all subsequent issues.



















### **Plate Numbers**

**Guide Lines** 

The purpose of the guide line was to

show where the 400 subject pane was to

be divided when separating the sheet. It

occurs once every twenty stamps in both

vertical and horizontal coils.

The horizontal coils for the 1914 issue were all printed from the provisional plates which had a uniform horizontal spacing of 2.75mm between stamp designs. The plate marking only consisted of a plate number. All previous plates had been retired from use by the Bureau. The vertical coils were printed from the COIL STAMPS plates. The plate numbers were trimmed off in production.



### **Plate Finishers Initials**

These initials only appear once on the 400 subject plate in the lower right corner. The initials WES stand for Walter E. Spring and GHD stands for George H. Davis, plate finishers who worked for the Bureau of Printing and Engraving.

### **Coil Construction**

### Paste-up/Slitting/Coiling

- The 1914 issue was prepared in the same manner as the 1910 and 1912 issue.
- · In 1914 the Bureau added an extra cutting wheel on each side to trim off the excess paper.
- This eliminated the step, or excess paper at the paste-up. See the two examples below.
- All paste-ups in the 1914 issue will have neat even edges at the top and bottom.





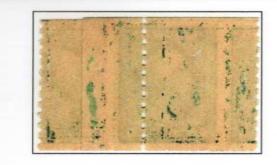




Neat, even paste-up edges.

1914 Issue



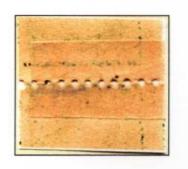


### Paste-up/Misperf

The color copy of the reverse side shows a larger margin for the paste-up. This would usually be narrower. The sheets were perforated before being pasted together and then slit into coils. This coil somehow eluded the quality control check and was sent out for use.

Step

1912 Issue



### **Enlarged Color Photo Copy of Splice**

### Leader Strip w/Splice Repair

The vertical leader strip broke during production and it was repaired with a perforated strip, or splice.

plate coils.

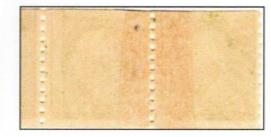
The strip of four has a repair splice be-

tween the third and fourth stamp. Repair

splices are very scarce with perf-10 flat

PF 374773



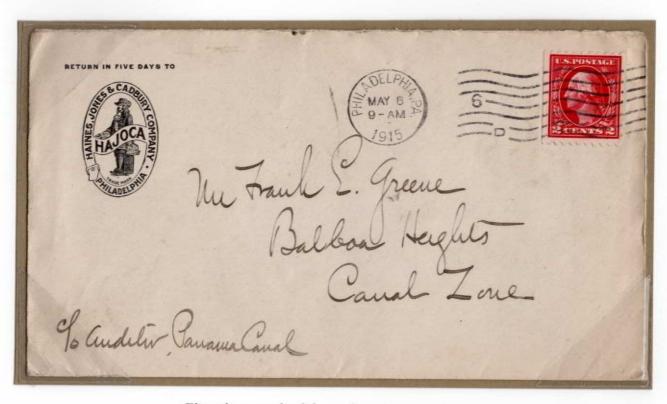


Enlarged Scan of Reverse





First class, 2 cents per ounce.



First class, territorial use, 2 cents per ounce.



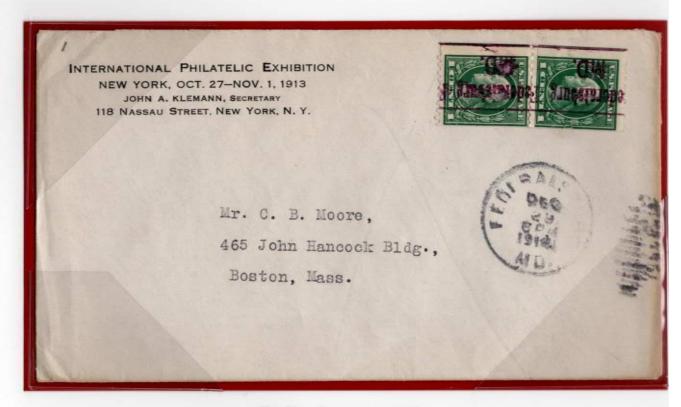
First class post card, 1 cent per piece.

The 1 cent paste-up pair is precancelled Federalsburg, Maryland. This precancel was used by the Stowell Printing Company. They prepared and mailed advertisements and auction catalogs for the American Philatelic Society.

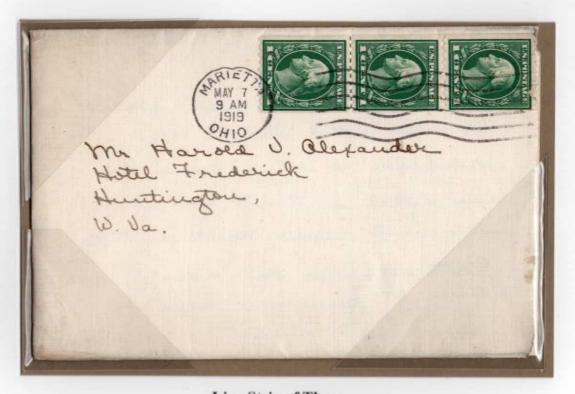
Based on a current census of the 1 cent vertical perf-10 coil, there are 15 reported uses. Of those 15, there are 3 pairs on first class letters, 3 strips of three on war rate letters, 7 singles on post cards, and only 2 reported as third class uses.



Third class, printed matter, 1 cent per 2 ounces.



Earliest Documented Use First class, 2 cents per ounce.



Line Strip of Three
First class letter, war rate, 3 cents per ounce.

### 1914: Production Coil Construction







First class, 2 cents per ounce, plus 10 cents registry fee. Registry back stamp, February 14, 1916, Philadelphia, PA.

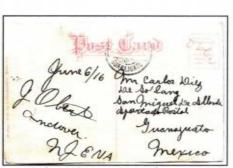


First class, treaty war rate, 3 cents per ounce, plus 10 cents registry fee. Registry back stamp November 23, 1917, Philadelphia, PA.



farkat warmt Jagte

First class, UPU rate, 2 cents per piece.



Color photo copy showing destination.



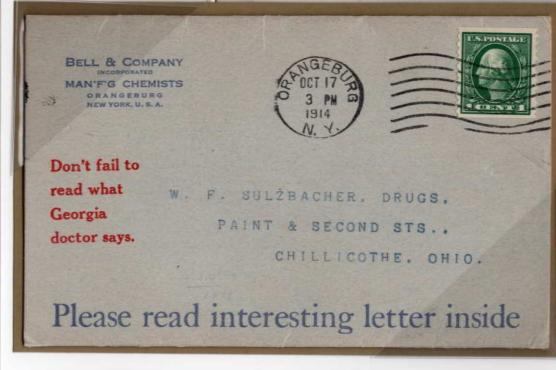
First class, treaty rate, 1 cent per piece.

Printed advertisement, ink blotters, enclosed with post card.

# INDIGESTION PA-PĀY-ANS BELL

Third class, international printed matter, double weight, 1 cent per 2 ounces.





PLEASE KEEP THIS GOOD BLOTTER

NDIGESTION PĀY-ANS BELL

TWO TO FOUR TABLETS WITH HOT WATER, REPEATED AS NECESSARY.

D ANNUALLY. BOTTLES OF 100 TABLETS AT ALL DRUGGISTS.

Fourth class, planting material, 1 cent per ounce, independent of distance.

# SEED -FROMO. M. SCOTT & SONS CO. MARYSVILLE, OHIO R. J. Dillon Hancock, Mal.

Third class, printed matter, 1 cent per 2 ounces.



Fourth Class, COD

Fourth class, 1 pound, zone 5, 8 cents plus 10 cents COD fee.

Reduced color photo copy of reverse side of tag.

First class, double weight, 2 cents per ounce.





First class post card, 2 cents per piece due to an attachment. The design is highlighted by glitter, which is why the post card is contained inside the glassine.



First class letter, 2 cents per ounce.



Reduced photo copy of reverse showing design with glitter

Bell & Company mailed samples of antacid pills to doctors and pharmacists.

**Auxiliary Marking** 

Return to Sender Cannot be found by N.Y.P.O. Jan. 23, 1915 Do Not Post Again In This Envelope Or Wrapper.

Fourth class mail was not allowed forwarding privileges



Fourth class, 1 cent per ounce up to 4 ounces independent of distance.





First class, UPU, 5 cents per ounce. Short paid, assessed 3 cents postage due plus a 3 cent penalty. It was deficient in postage, refused, and returned to sender who had to pay the postage due fee.



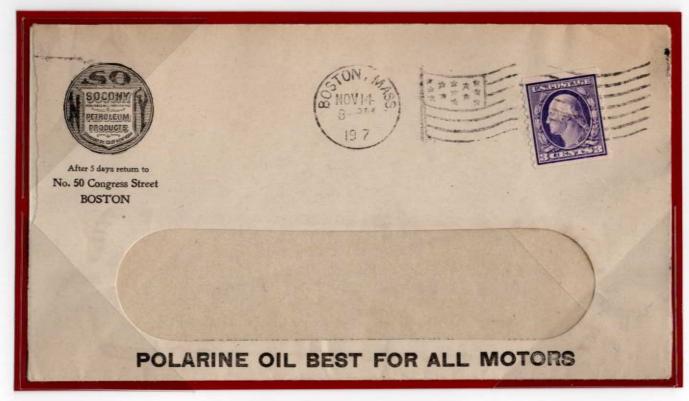


### Largest Known Franking

First class, UPU rate, 5 cents per ounce, plus 10 cents registry fee. Registry back stamp, September 15, 1914, St. Paul, Minnesota



First class, UPU rate, 5 cents first ounce.

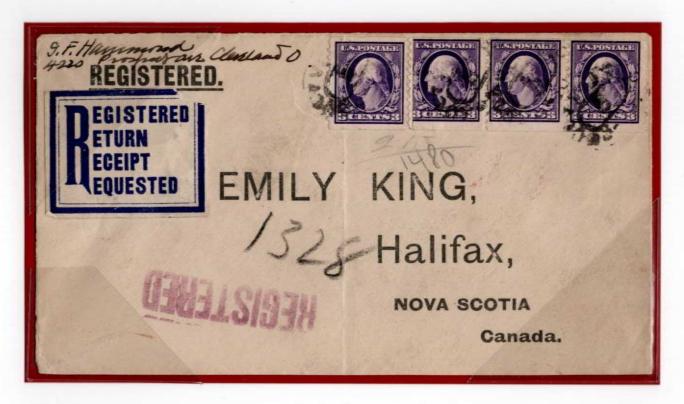


One of Three Documented Single Uses First class, war rate, 3 cents per ounce.



First class, triple weight, 2 cents per ounce.

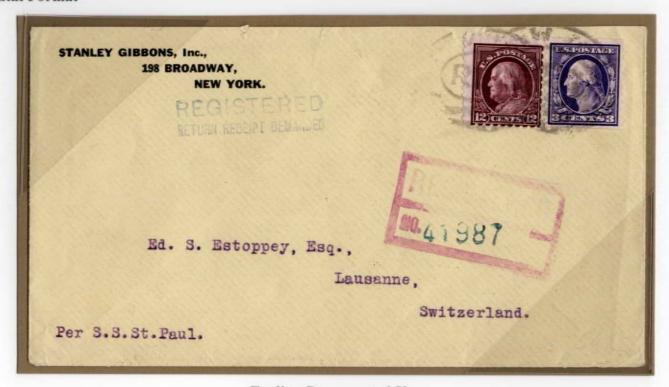




First class, registered treaty rate, 2 cents for the first ounce plus 10 cents registry fee. January 3, 1917 Cleveland registry back stamp. One of two documented registered uses, only use to a treaty rate destination.

### Seven Documented Uses 3 Cent Coil

Of the seven documented covers, there are 3 single uses, 2 registered, 1 to a UPU destination, and 1 pair on a domestic cover.



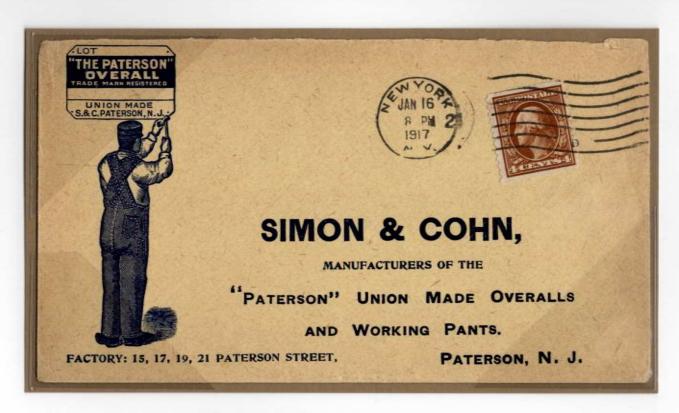
### **Earliest Documented Use**

First class, registered, UPU rate, 5 cents per ounce plus 10 cent registry fee. New York, U.S.A., Foreign oval back stamp, August 8, 1915

APEX 142207



First class, UPU rate, 5 cents first ounce.



First class, double weight, 2 cents per ounce.



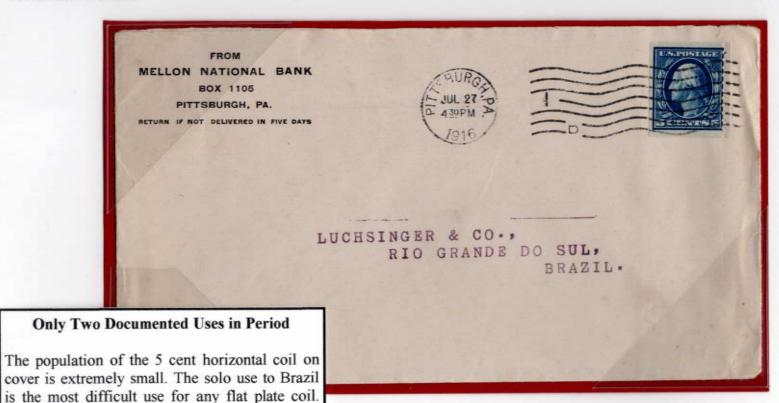
First class, 2 cents per ounce plus 10 cents registry fee. Registry back stamp November, 5, 1915, Annapolis, Maryland. Note, finger advancing pin marks on left edge of coils.

1914: 5c Issue Domestic/UPU

### **Horizontal Format**

The pair on registered cover is the Earliest

Known Use, and the only domestic use in period.



First class, UPU, 5 cents per ounce.



Earliest Known Use

First class, double weight, 2 cents per ounce, plus 10 cents registry fee. Registry back stamp, May 9, 1916, Washington, D.C. APEX 149424

# 1915 Coil Waste

### **Transition From Flat Plate to Rotary Press**

- The Bureau prepared special plates to produce the 1912 and 1914 vertical coils.
- · The Bureau had a large quantity of sheets printed for the production of vertical coils.
- The Rotary Press started production late in the year of 1914.
- The Bureau decided to make use of the printed material and perforated the sheets in both directions.
- The Bureau first released these stamps for sale in Washington D.C. on August 2, 1915.
- The sheets were then sold over the post office window in panes of 100.
- The 1 and 2 cent coil waste sheets were the end of the flat plate coil production.



First class, war rate, 11 times the first class rate. This was sent on December 18, 1918. This was not a registered use, but rather a large heavy package with 11 ounces of contents.

### One of Five Documented Postal Uses With The Imprint COIL STAMPS





This is a fake coil made from an imperforate coil to resemble a plate number paste-up. The vertical coils from the 1914 series were all made from the special COIL STAMPS plates. The special plates did not have plate numbers at the top or bottom.

### "COIL STAMPS" Imprint

The Bureau first released these stamps for sale in Washington D.C. on August 2, 1915. First class, registered, UPU rate, 10 cents plus 5 cents for the first ounce.

Reduced Color Photo Copy of Front

The regular plate set up had plate numbers on the top, sides, and bottom of the pane of 400.

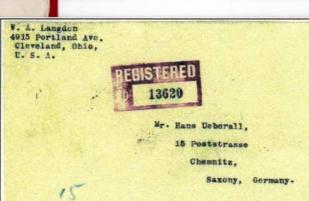


### Original Format / Pane of 400

• This is a top left pane of 100 from a full pane of 400.

7533

- It can be used for comparison to the format of the COIL STAMPS panes for production of vertical coils.
- The only way to tell what plate format the stamp comes from is if it is in a large multiple with the imprint COIL STAMPS.
- The COIL STAMPS panes did not have plate numbers at the top or bottom.
- The original pane had the 2.75 mm horizontal spacing between all stamp designs including the center row.
- The COIL STAMPS panes had a 1 cm vertical spacing in the center, or 10th and 11th row of the plate.

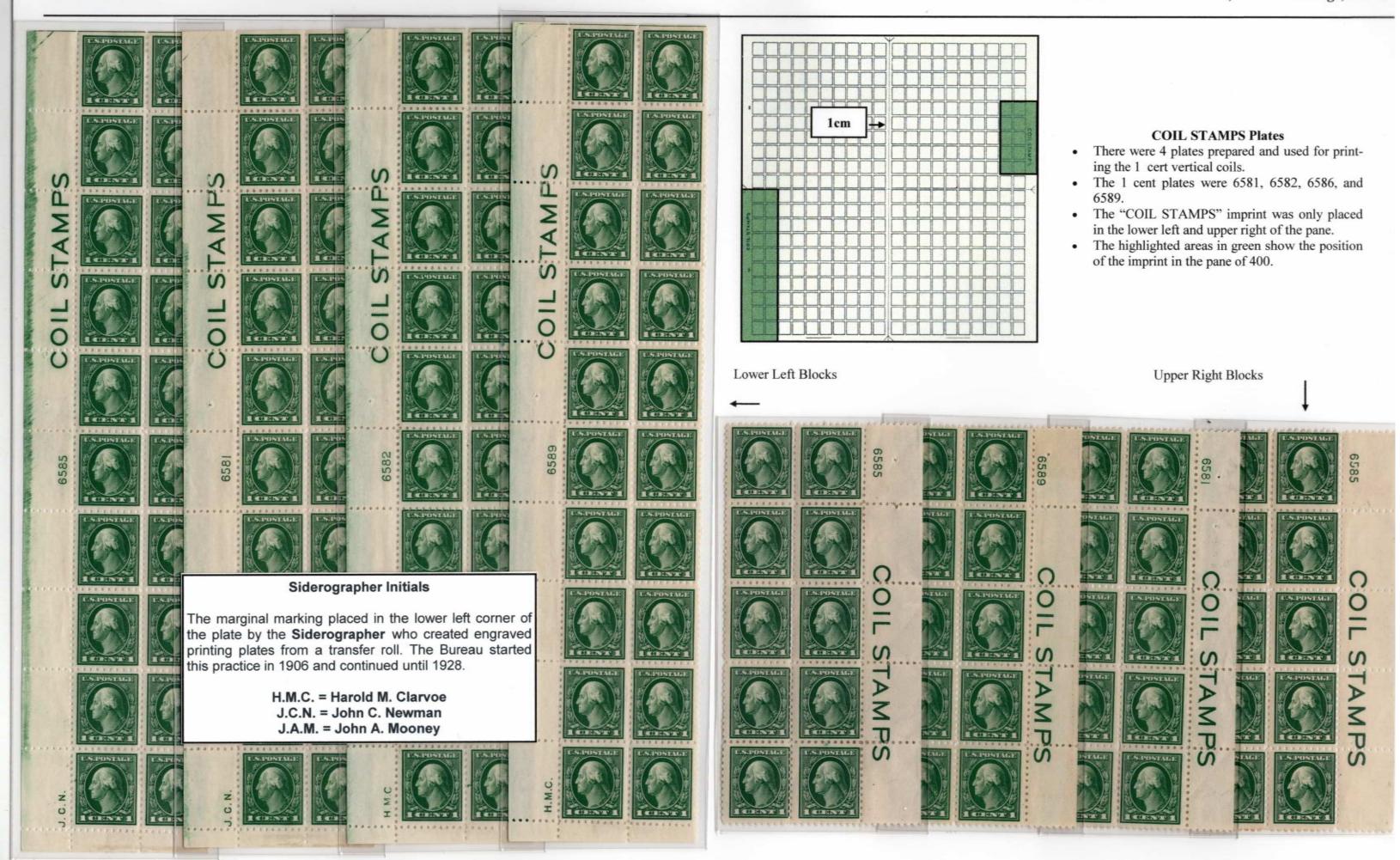




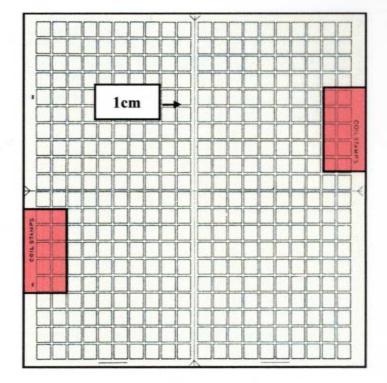








Upper Right Blocks



### **COIL STAMPS Plates**

- There were 4 plates prepared and used for printing the 2 cert vertical coils.
- There were 4 other plates for the 2 cent coil that were approved but never put into production.
- The 2 cent plates were 6568, 6570, 6571, and 6572
- . The "COIL STAMPS" imprint was only placed in the lower left and upper right of the pane.
- The highlighted areas in red show the position of the COIL STAMPS imprints in the pane of 400.

STA









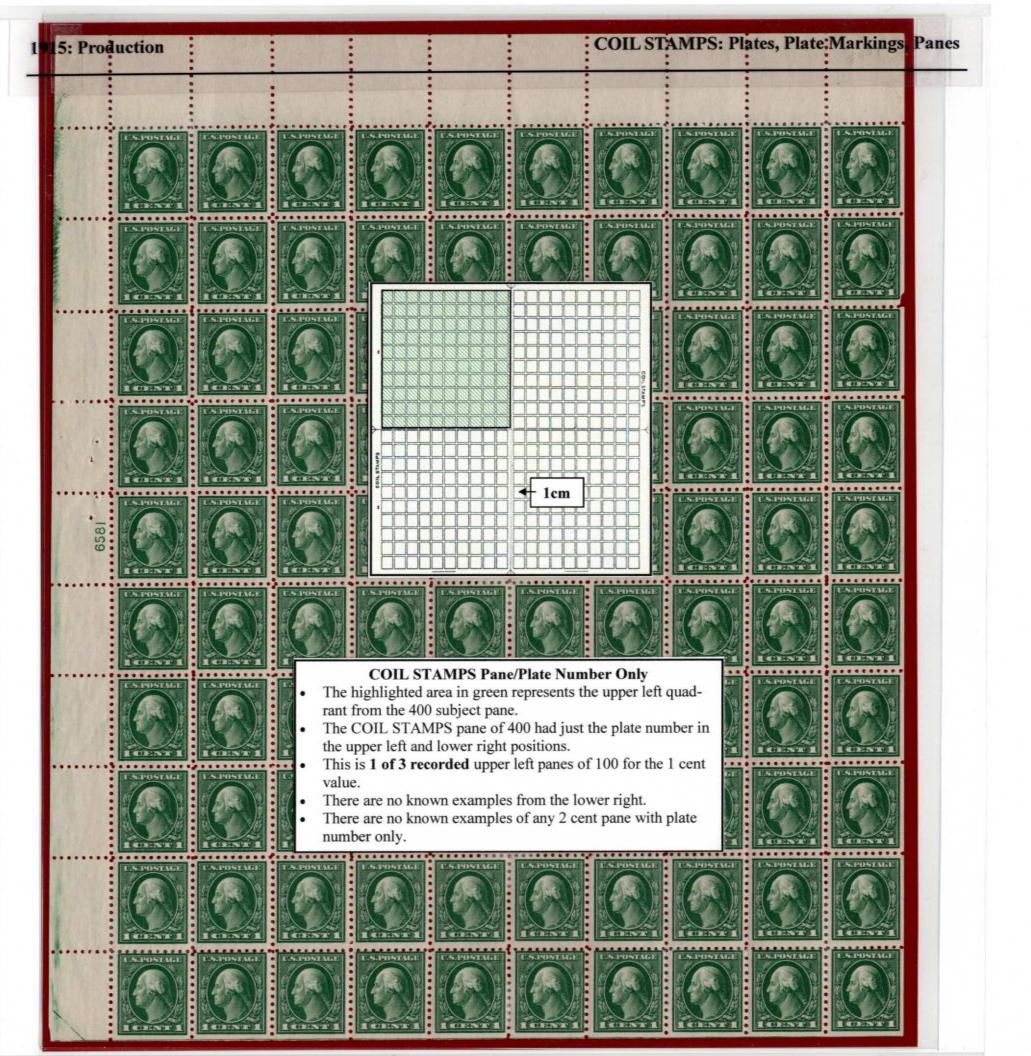
S

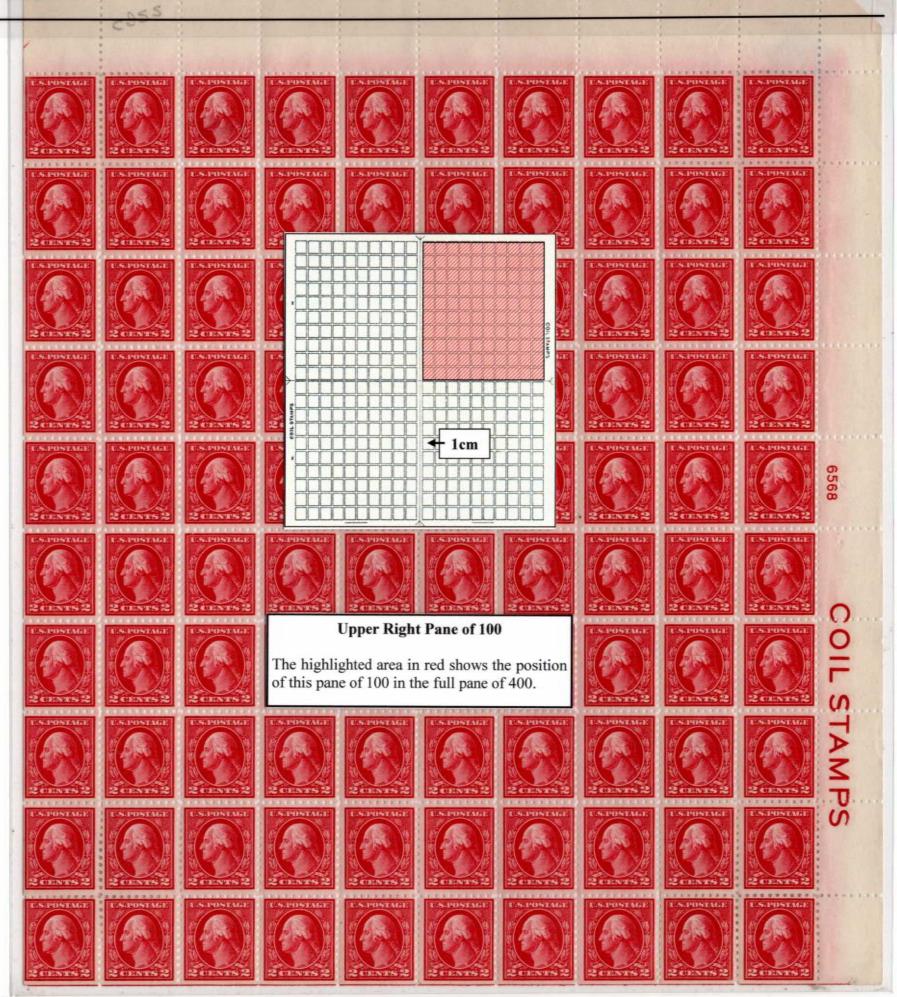


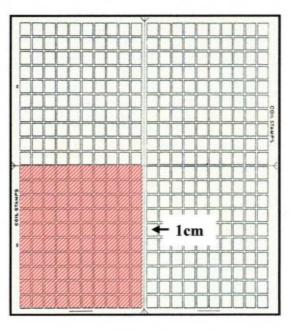




Lower Left Blocks







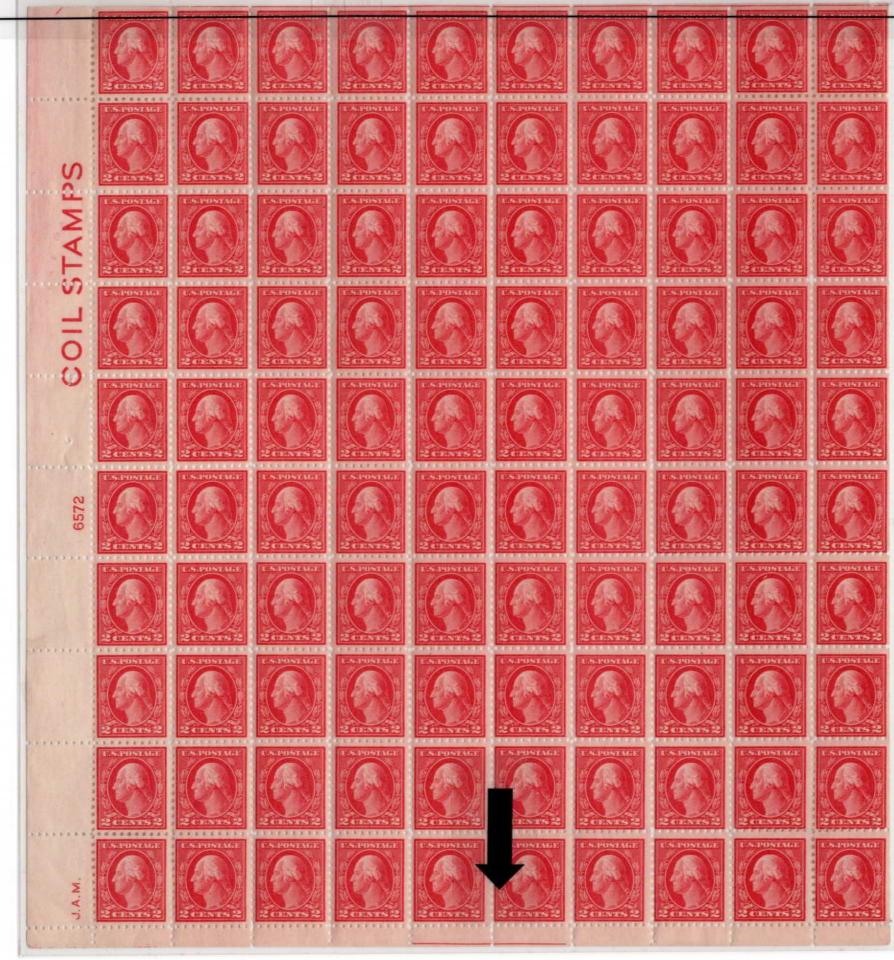
### Lower Left Pane of 100

The highlighted area in red shows the position of the pane of 100 in the full pane of 400



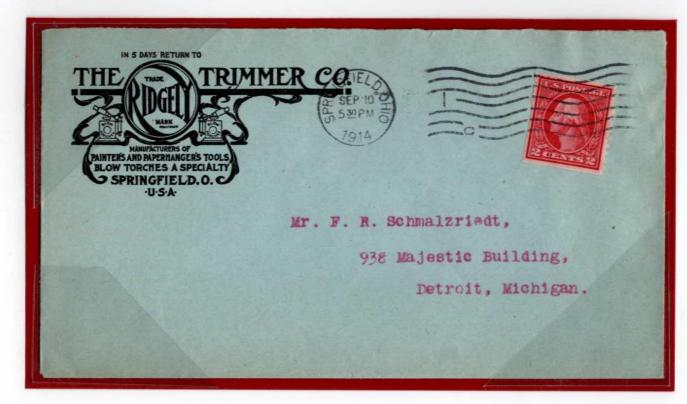
### **Alignment Markings**

The engraved lines at the bottom of the lower left pane of 100 were to be used as reference markings for the workers at the Bureau. They were suppose to help show where the panes were to be lined up when pasted together. Note the enlarged color scan of the markings.



## **Epilogue: Flat Plate to Rotary Press**

The invention of the Stickney rotary press brought to end an era of flat plate printing. The new press increased the production of coils to meet the demands of the public and businesses. It reduced the number of people needed to produce coils and made it more cost effective. The new format also created a number of new varieties for collectors. The Bureau made numerous changes in the design of the two cent stamp creating three different types. Many of these changes went unnoticed by collectors and were discovered some time later after production had stopped.



### **Earliest Documented Use for All Rotary Press Coils**

The horizontal 2 cent Type I coil was the very **First Perforated Rotary Press Coil** produced by the Bureau of Engraving and Printing. This use is the earliest use of any perforated rotary press coil.

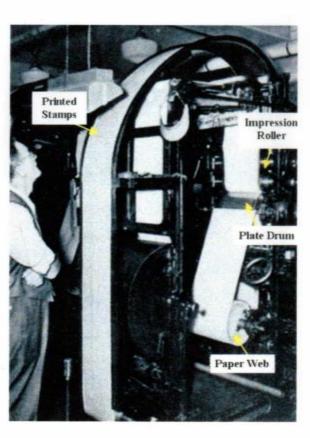
APEX 212376

### **Rotary Press Coils**

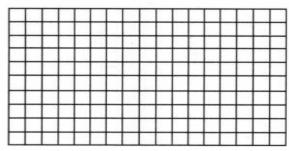
- The Stickney Rotary press increased coil production from 1 to 6 million per day.
- The Stickney Rotary press eliminated 23 steps from the previous flat plate printing method.
- The new process saved the Bureau over 50% in printing costs.
- The Bureau was able to increase coil production to 14 billion per year.
- There was a total of 22 different varieties of rotary press coils.
- The Stickney Rotary press was adapted to print booklets and sheet stamps.
- The Stickney Rotary press was so successful it remained in use until 1962

### **Rotary Press Plates**





Stickney Rotary Press



Horizontal Plate Consists of a 17 x 10 layout



Rotary Press

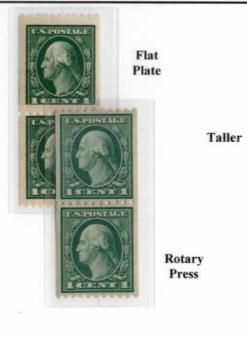
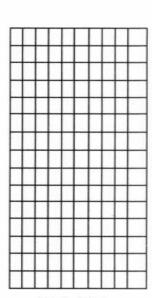


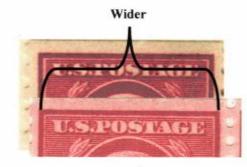
Photo is a copy of the original picture contained in the Bureau archives.

### **Key Differences**

- Layout of the plates were different than flat plate.
- The frame line around the design is wider or taller depending on the format of the coil.
- The colors are not as clear and sharp as flat plate printings



Vertical Plate Consists of a 10 x 15 layout



Note the difference in the size of the frame lines. The horizontal coils are wider while the vertical coils are taller. This is due to the plates being bent to fit around the rotary press cylinder. When the metal was heated and bent it stretched the design of the stamp.