

THE DEVELOPMENT OF PERFORATIONS ON U.S. POSTAGE STAMPS DURING THE TOPPAN, CARPENTER ERA, 1855 - 1857

November 2019

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Toppan, Carpenter Era 1851-61

Initial 4 yr. contract turned into 10 yr. business with little competitive bidding

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□ Era pieced together from a myriad of sources:

▣ 3rd Asst. PMG Records, including:

- Letter Books
- Incoming letter files
- Outgoing letter files
- Travers Papers
- Original documents at the Smithsonian
- Original documents at the National Archives



Charles Toppan & Samuel Carpenter

□ TCC Records (letter books, incoming & outgoing letter files) believed destroyed in fire 1873

Timeline

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- Catalysts Mar. '55
- Investigative Phase Mar-Sep. '55
- Machine Ordered 21 Sep. '55
- Construction Delays Oct. '55-Sep. '56
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- 2nd Postage Stamp Contract Apr. –Jun. '57

Key Drivers

As viewed in March 1855

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- Use of stamps anticipated to increase significantly
- Existing methods for separation were inadequate
 - ▣ Scissors
 - ▣ Rulers and/or straight edges
 - ▣ Rouletting
 - ▣ Manual tearing



1850's H. Chapin U.S. Standard #15
Boxwood and Brass Rule Ruler



1850s Henry Sears & Co. Scissors



1855 Waterbury Roulette

- Perforated British stamps showing up in U.S.

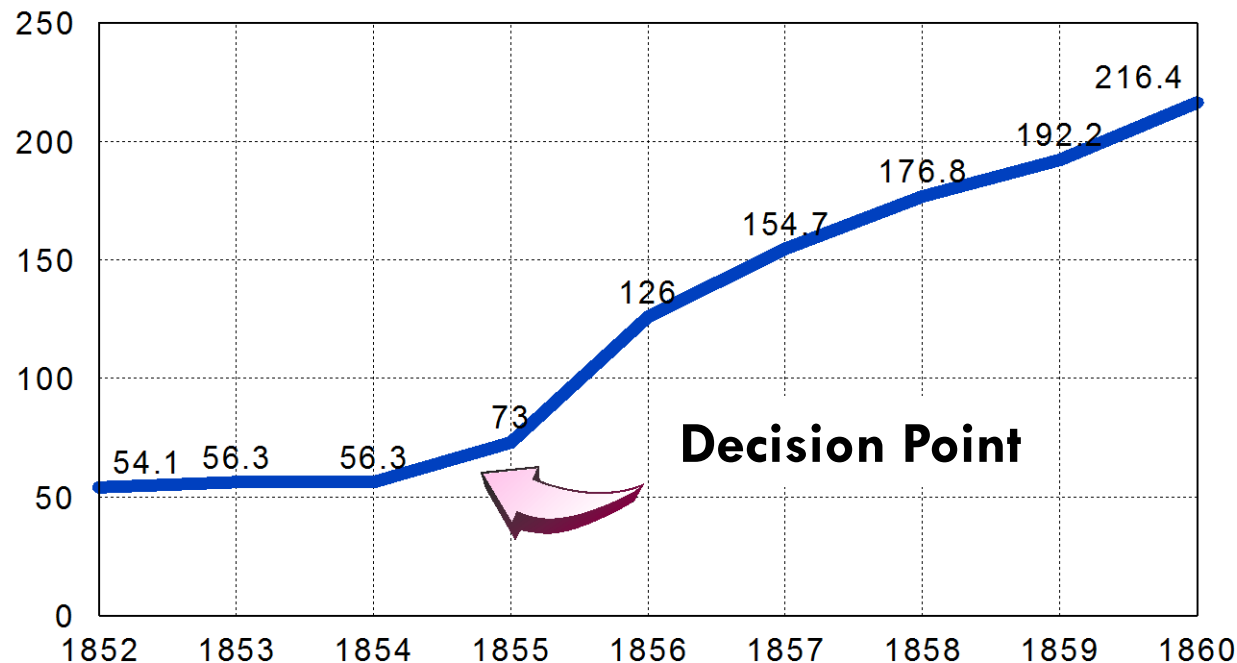
Use of Stamps Forecast to Increase

As viewed in March 1855

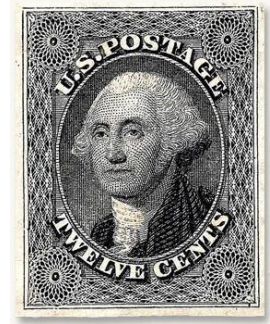
5

Annual Quantities of U.S. Postage Stamps Issued

Twelve Months Ending June 30 of Year Given



Source: Origin & Use of Postage Stamps, Stamped Envelopes &c. Report of A.D. Hazen, Third Assistant Postmaster General, for fiscal year ending June 30, 1878.



Note to U.S. PMG James Campbell from trusted friend reinforced the need to Act

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Hon. James Campbell
Postmaster General U.S.

Philada.
61 South 6th
March 15, 1855

My dear Sir,

During my visit to England last year, I was struck while sending [letters] in London with the convenience of the English P.O. Stamps, which are pierced with small holes so as to enable the public to dispense with scissors, knife of any other implement other than the fingers in separating them from the Sheet. I enclose a set of four upon which the experiment may be tried. It is said, moreover, that the fringe which is formed by the small semi-circles secures a firmer adhesion to the paper. I do not know by what machine the holes are perforated but it must be a simple one such as American ingenuity would easily continue if the English invention is unacceptable.

I can hardly doubt that the introduction of the improvement would be generally acceptable and popular, and I should be very glad to see your name associated with it.

Very Truly
Your friend and Sevt.
Horace Binney, Jr.

NOTE: Campbell answered informally 16 Mar. '55

Timeline

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U.S.P.O.D. immediately forwarded Binney's letter to Toppan, Carpenter

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**Messrs. Toppan, Carpenter, Casilear & Co.
Philadelphia, Pa.**

**Post Office Department
Finance Office March 16, 1855**

Gentlemen:

We have frequently been urged of late to adopt the English plan of perforating their stamps so as to render them separable without cutting, and I send you four penny stamps, just received from Horace Binney, Jr. Esq. It is claimed for this plan that they can be separated with the fingers, and that the jagged edges render them more adhesive. As prepayment of all inland letters after the 1st proximo, will bring our stamps such more into use, and as the Postmaster General desires as much practicable to promote the public convenience, he wishes you to look into the matter with the view of adopting the plan of perforating at an early day. Do you know the English process and what it costs? Can we get the requisite machinery here, and what with the process cost us per thousand? You will see that it is done after the stamps are gummed.

I am very respectfully,

J. Marron

Third Asst. P.M. Gen'l.

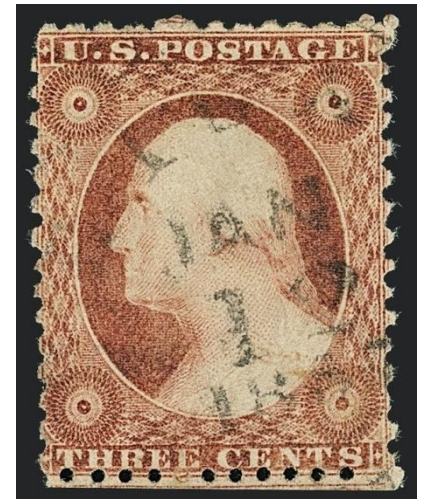


1854 Penny Red, C6 Plate 20 "BJ"
P14 Crown Wmk. Perf 14, Unused

Toppan, Carpenter took steps and quickly identified the Bemrose machine

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- Requested help from U.S. Commissioner of Patents
- Wrote Perkins Bacon in England for Advice & Counsel
- Entertained offers & ideas from U.S. entrepreneurs (e.g., R.K. Swift & E.W. Hadley, Chicago)
- Carpenter's son-in-law sent to England to investigate the Bemrose process (Apr. '55)
- Carpenter's partner W.C. Smillie went to Derby, England Aug. '55



"Chicago" Perforated 12.5
58L3 JAN 12 1857

Timeline

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TCC Order Rouletting Machine from Bemrose

Ordered "slitter" and Smillie asked for set of perforating wheels of character used on English stamps if available, 21 Sept. '55

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Copy
New York, Sept. 21st 1855
Paid 2.50 for M^{rs} B
Cdn. 08.00.00

My dear Sir,
I should be pleased in addressing you were I to
know that this intercourse so pleasantly begun with you by the States in London
last, to date as a trial, one of your perforating or slitting machines.
The order would have been forwarded some time ago, if the firm had
not thought it desirable to see me previously, although I suppose I had
imprudently, with regard to the claims of your machine to make that uncer-
tain.

We do have orders for at this time, but the individuals of the firm were
having enjoyed the opportunity I did, of seeing the thing itself, deem it
in the whole unwarrantable to order but one.

Will you therefore give immediate attention to it, and I will
be properly giving it all the additional strength you can, a few
hundred, for the reason that we may want some heavier punch
than that you were using when I saw you. If you know
that the machine will perforate, as I suspected you say, an
impression like to that in use on the English stamps, then you
will please make a dentilist of wheels or punches - one of the
characters you use when I was present, and the other of the
characters of the English P. O. stamps, and in number corresponding the
impression of stamps left with you.

The earliest day in your power, and I shall be thankful
you to do everything possible to expedite it, that the time
already lost may be redeemed. One reason that suggests
itself of importance to yourselves is that, as there is a firm
here who has written us on the subject, you will undoubtedly
derive advantage by being in advance.

Will you please do us the favor of acknowledging
the post of this future mail, that we may know you are
progressing, and you desire to know anything further of
the responsibility of the firm, please address me in
London.

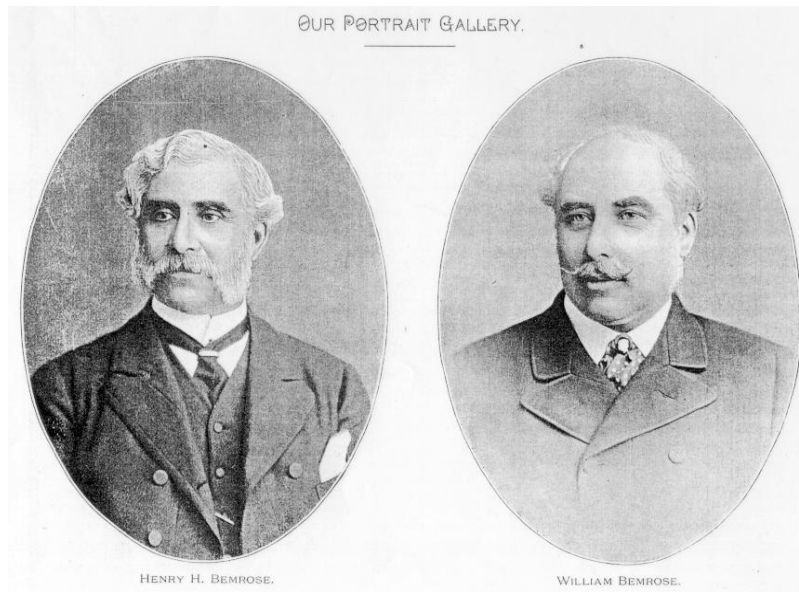
When you write you had received the cost
of the machine, and we will arrange to remit.
Say also when we can look for it.

Yours most perfectly
T. P. Bemrose & Co.
Rivington Buildings

Sept. 21st
T. P. Bemrose & Co.
Rivington Buildings
London

The Inventors – Henry & William Bemrose

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- ❑ Printers, Publishers, and Stationers from Derby, England
- ❑ Patented the Rotary Perforating Machine that Toppan, Carpenter used to perforate U.S. Stamps



Midland Place, early 1900's



Midland Place, early 1990's

Timeline

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Numerous Delays in Obtaining Machinery

Not all due to Bemrose & Sons

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- Machine ordered by TCC 21 Sept. '55 (date of letter) and sailed on Steamer *Africa*, 26 Sept. '55
- Order received Bemrose, if by *Africa* ~6 Oct. '55
 - ▣ Anticipated U.S. arrival 6 Dec. '55 (based on 15 Nov. '55 completion & shipping allowance)
- Many delays due to complexity of making machine work, experienced by Bemrose (in Perkins Bacon correspondence)
- Shipped to N.Y. 22 Mar. '56 per Steamer *Asia*; arrived 4 Apr. '56
- Issues over Customs Duties 12 Apr. '56 – 7 Jul. '56; Machine released to TCC ~8 Jul. '56
- Repairs and Trials on machine mid-Jul. – Oct. '56

Total Time Order to Machine Ready = 13 mo.; Total Time Order to Stamps in Use = 17 mo.

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15

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Extensive Trials Conducted

Needed to determine ongoing cost of operation

16

- Per letter dated 22 Oct. '56 machine can punch or slit 180 sheets of 100 stamps per hour
- “The slitting wheels will last a long time. The punch wheels must be renewed every two months.”
- Cost estimates were provided. These estimates used to provide this service ‘at cost’ to the P.O.
- At this time, decision to perforate or roulette had not been made.



Bemrose-style Perforating Machine
(ca. 1861)

Timeline

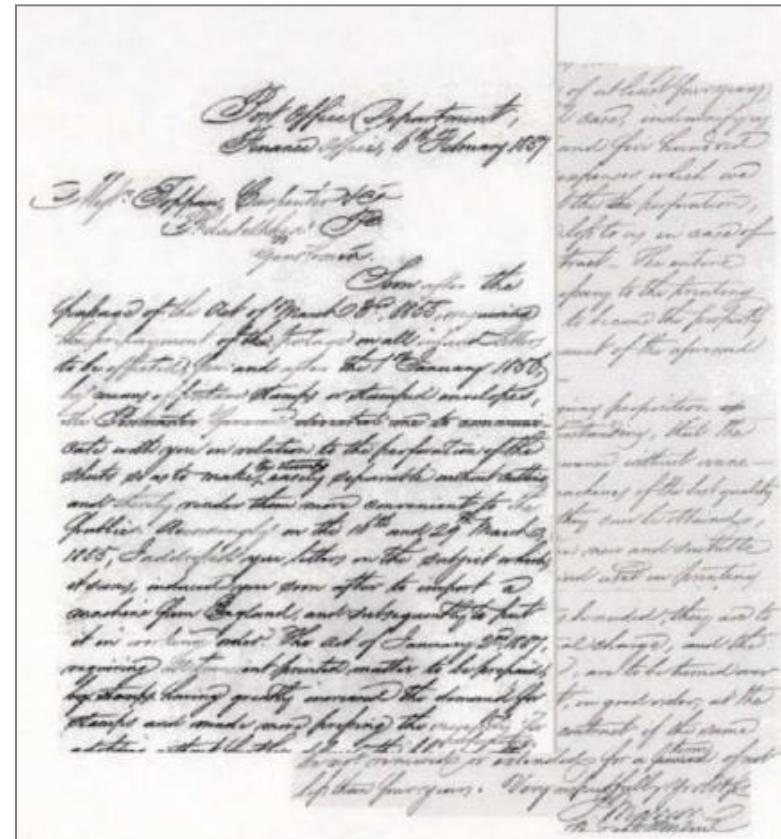
17

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Modification to 1851 Stamp Contract

18

- Buchanan elected President and would replace Pierce after 3 Nov. '56 election
- TCC (S. Carpenter) realized entire investment at risk; submitted 3 proposals dated 4 Nov. '56 to perforate postage stamps for the Post Office 'at cost'
- TCC nervous, S. Carpenter provides frequent follow-ups
- On 3 Jan. '57, PMG Campbell decides to let succeeding administration decide the matter
- S. Carpenter convinces PMG Campbell to change his mind



"First Contract" Modifications Letter
From P.O.D to TCC, 6-9 Feb. 1857

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19

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Provisions of Modifications & Rollout

20

- Provisions of Contract modification stipulated that TCC:
 - ▣ shall perforate all stamps at 3¢/thousand
 - ▣ Shall commence without delay, using 3 machines and suitable plates.
 - ▣ If contract not renewed for 4 years, government will indemnify TCC for \$9500 for equipment and plates
- Capacity was insufficient for U.S.-wide rollout
- Contract called for deliveries by end of month, only one machine was available, TCC needed three
- Carpenter worried about non-continuity of supply and that Campbell due to leave public office 5 Mar. '57

Rollout of Perforated Stamps

21

- ACTIONS: proceeded with rollout, positioned with public as a “test”. Only 3¢ stamps were perforated during this period, two more machines were ordered.
- On 20 Feb. '57, TCC promised 500K perforated 3¢ stamps ready for delivery on 24 Feb. '57
- On 26 Feb. '57, the Stamp Agent was telegraphed to send parcels to certain offices
- On 27 Feb. '57, newspaper editorial in the *North American and United States Gazette* indicates “...90,000 ordered for New York and Philadelphia and 30,000 for New Orleans and cities South, West.”
- Earliest known use of officially perforated U.S. stamp 28 Feb. '57

Earliest Documented Use

22



#25 - 3¢ Dull Red, Type I

Tied by two strikes of
"New-York Feb. 28, 1857"
circular datestamp with
clear year date on small
cover to New Milford Conn.

1 of 3 known EDU
(2 NY, 1 Philadelphia).

- ❑ The experimental period continued until 10 June 1857, when the original six-year contract with TCC expired.
- ❑ The contract was renewed 8 April 1857, effective 10 June, after which all stamps perforated as mandated by new contract terms.

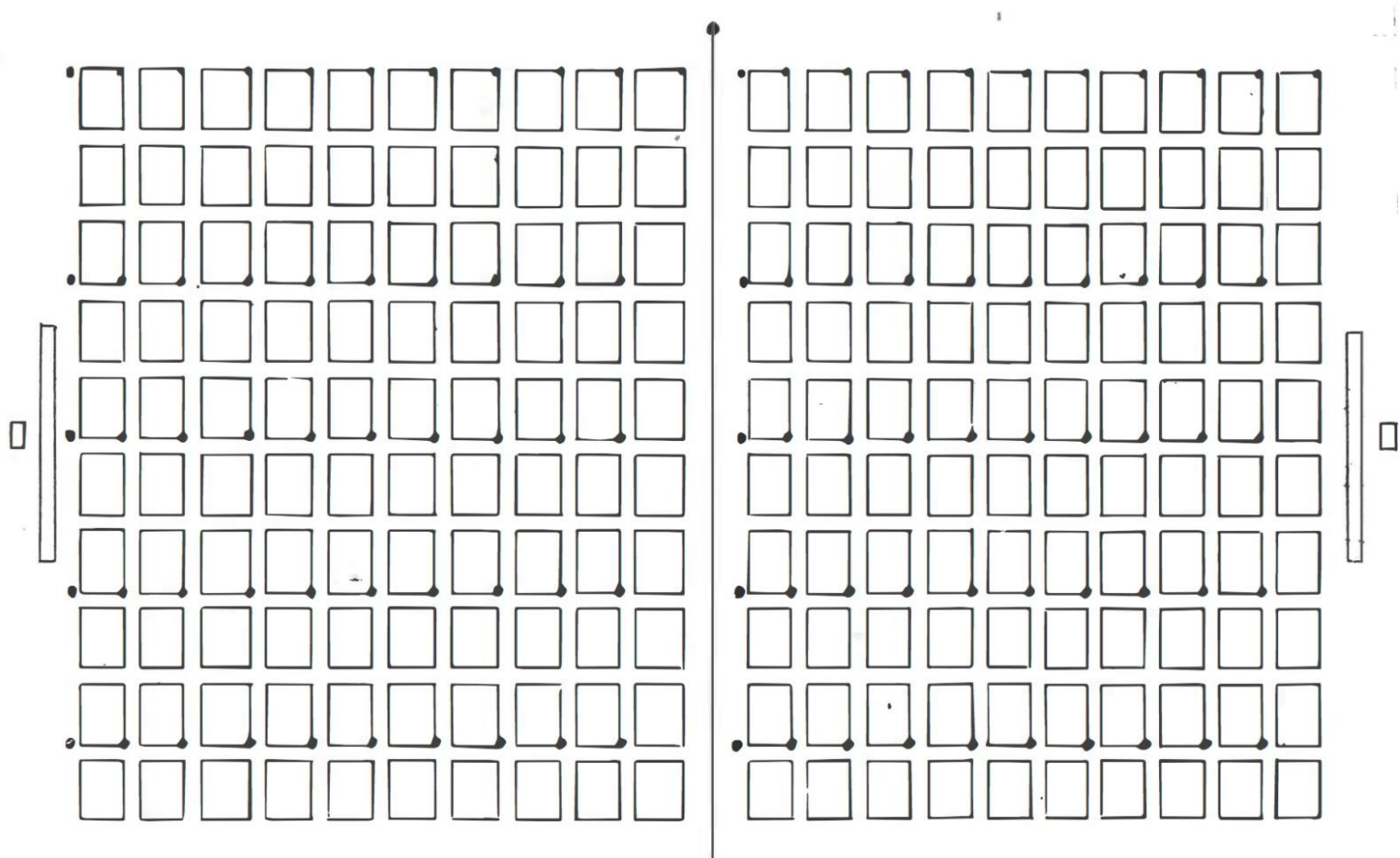
THE SPECIAL PRINTING OF 1855

*THE “BRUSH STROKE” PLATE PROOFS OF THE
3¢ 1851 ISSUE*

The 200 Subject Plate Layout

2 Panes of 100, with TCC Imprint, Plate Number, and Centerline

24



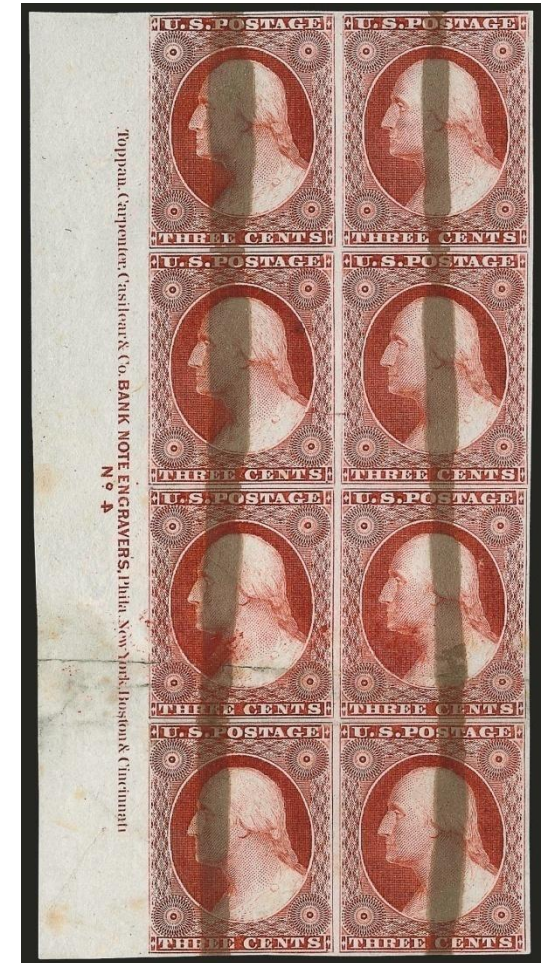
The Special Printing of 1855

25



7-8, 17-18L4

- Scott #11P3
- Obliterated by black, brush-applied ink
- All Items from Plate 4
- 2 sheets of 200
- On ungummed, proof (not India) paper
- Brownish carmine shade



31-32, 41-42, 51-52, 61-62L4

What Happened in 1855...

26

- ❑ Two sheets of 200 stamps (400 in total).
- ❑ Folded separately to ~3x4 inches, placed in same letter.
- ❑ Mailed 3 October 1855 to Perkins, Bacon in England.
- ❑ Arrived in London on 15 October 1855. One sheet forwarded to Bemrose in Derby, England.
- ❑ Used by Bemrose to ensure proper adjustment of cylinder and rouletting wheels to fit stamp layout.
- ❑ Not provided for purpose of proving the machine could work on U.S. stamps. TCC had already been convinced that it would, and had ordered a machine.

1855 Letter from Perkins, Bacon to Bemrose

Discusses TCC panes and shrinkage

27

**London No. 69 Fleet Street
16th October 1855**

Gentlemen,

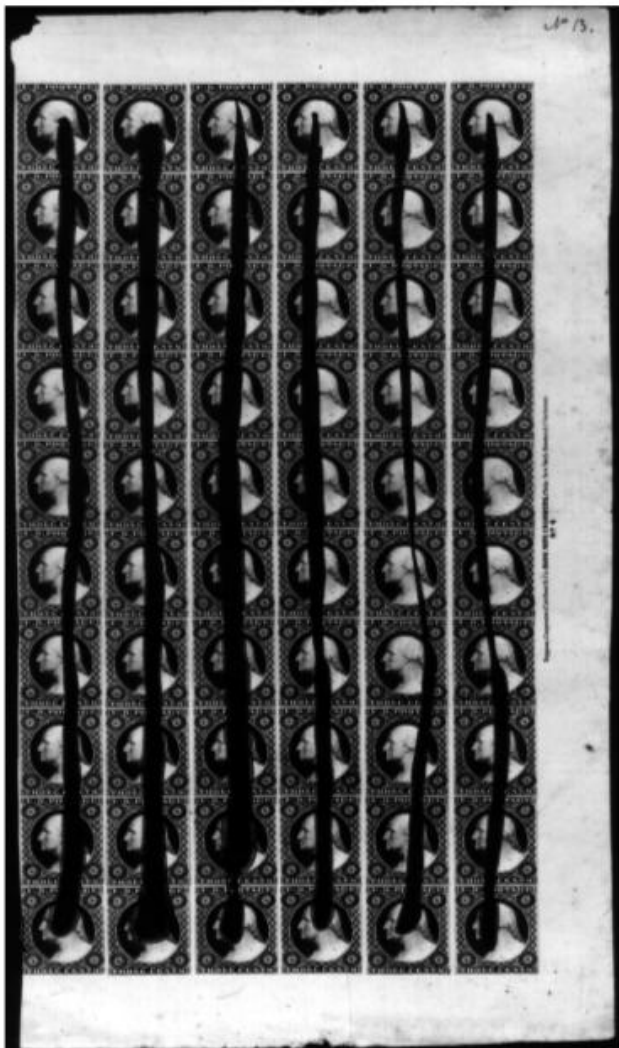
...Messrs. T.C. & Co. are right as to the size of the heads being alike in the English & American stamps & they are right also as the number of 20 heads one way but those 20 are not placed at all the same as to distance between each stamp....

We have examined the subject of Shrinkage of the paper by gumming & although the American paper is less tough & consequently may shrink less than the English... the differences... must be trifling..., so that you may act upon this information or wait for a gummed sheet from the United States whichever you think best.

Perkins, Bacon

The Right Perkins, Bacon Pane: *Prior to its 1953 Breakup*

28



**All of the
proofs were
cancelled
with black
ink brush
strokes to
prevent use
as postage**



**There is a "No 13." in
upper right corner**

1855 Letter from Bemrose to Perkins, Bacon

Bemrose have TCC panes & requested gummed

29

Derby, Oct. 17, 1855

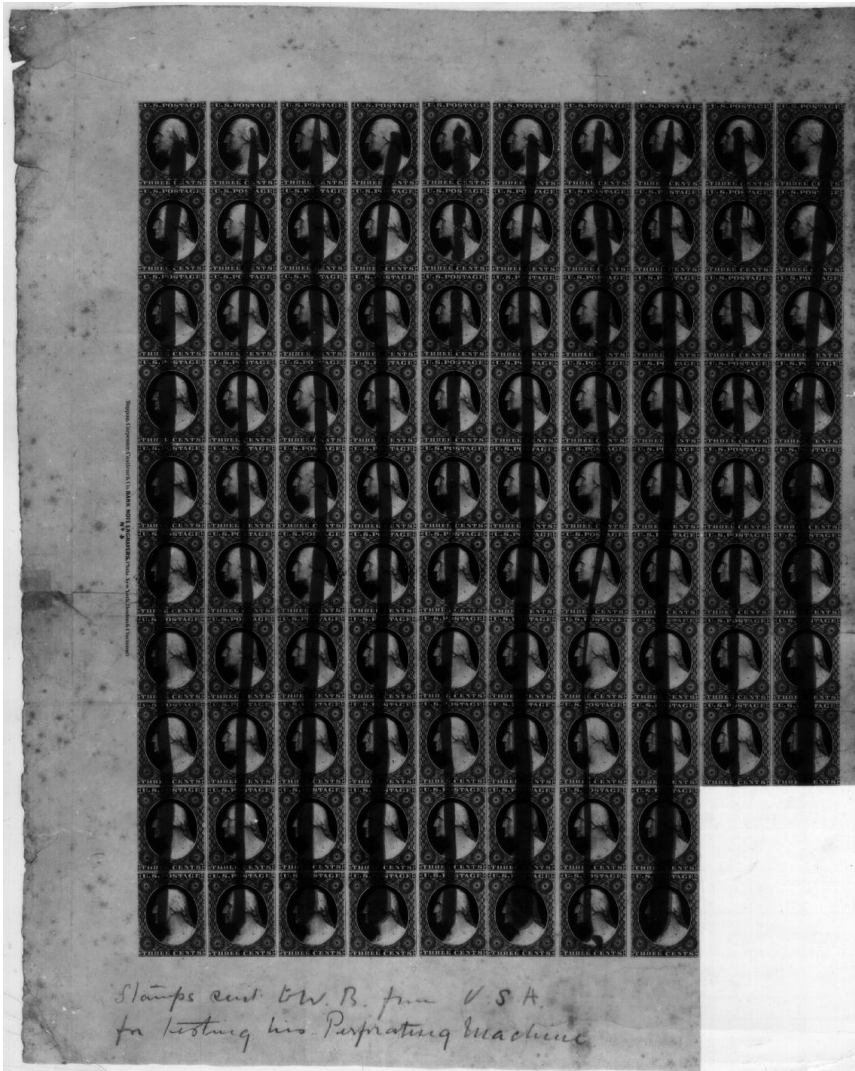
Messrs. Perkins Bacon & Co.
Gentlemen,

**...We have Messrs. Toppan's in hand, & have
written them for a gummed sheet that we may adjust as
nearly as possible....**

Wm. Bemrose & Sons

The Left Bemrose Pane: *Prior to its 1962 Breakup*

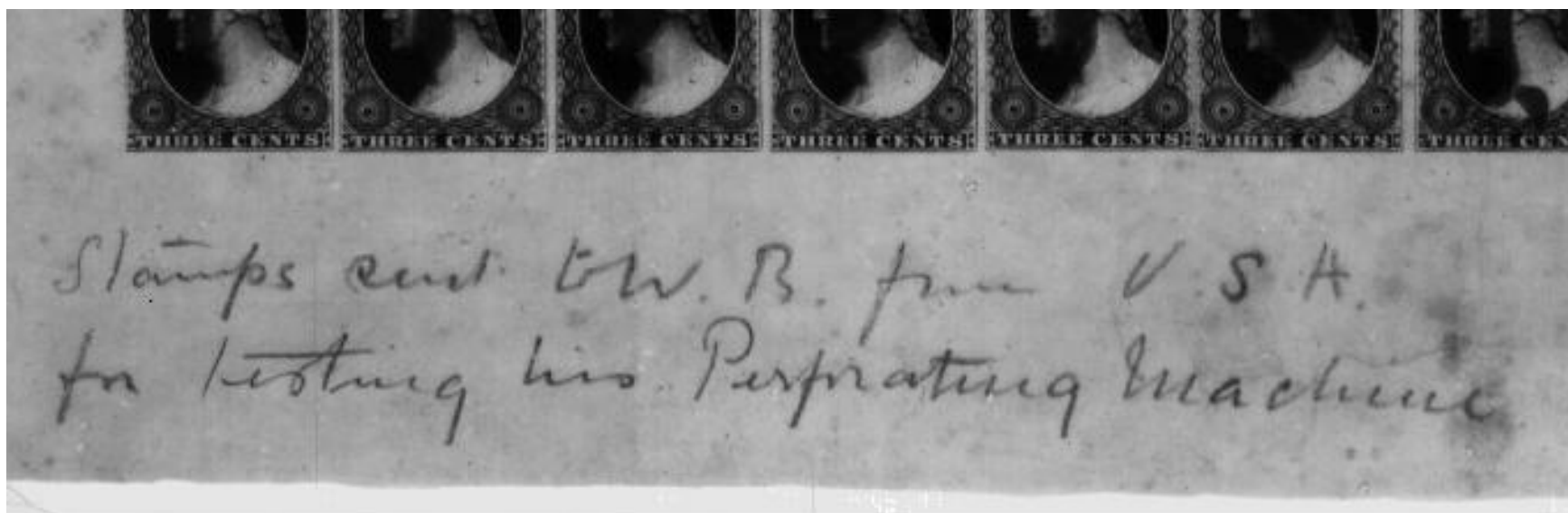
30



**All of the proofs
were cancelled
with black ink
brush strokes to
prevent use as
postage**

Lower Left Corner of Left Bemrose Pane

31

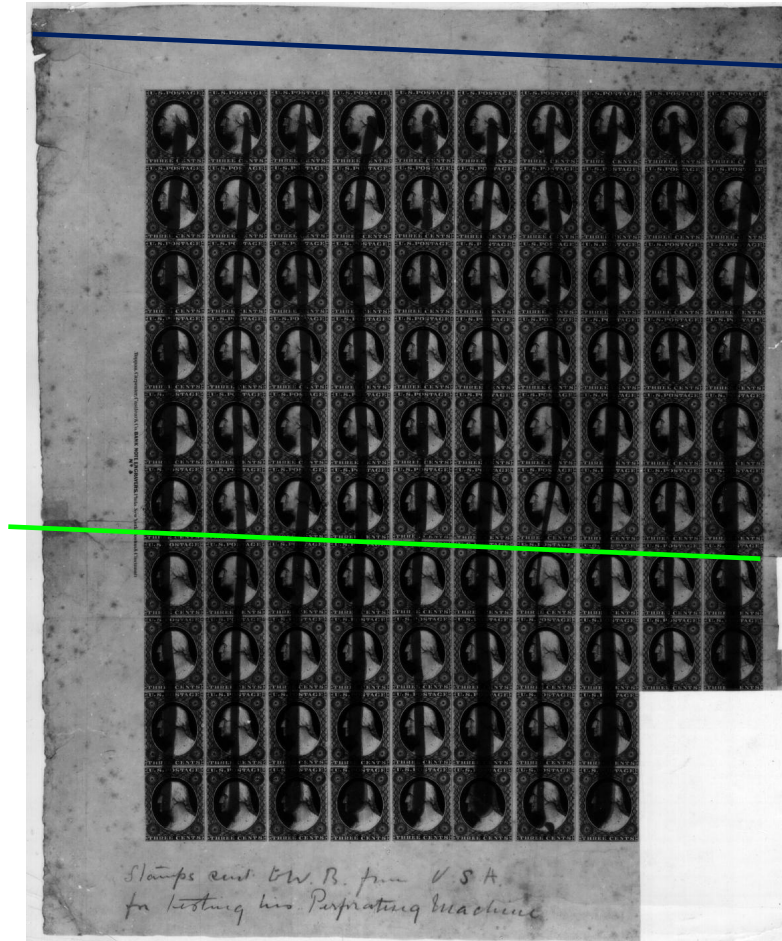


*“Stamps sent to W.B. from U.S.A.
for testing his Perforating Machine”*

The Left Bemrose Pane: Lines of Rouletting

Wilson Hulme discovered a second line across middle of pane.

32



**Previously
Reported**



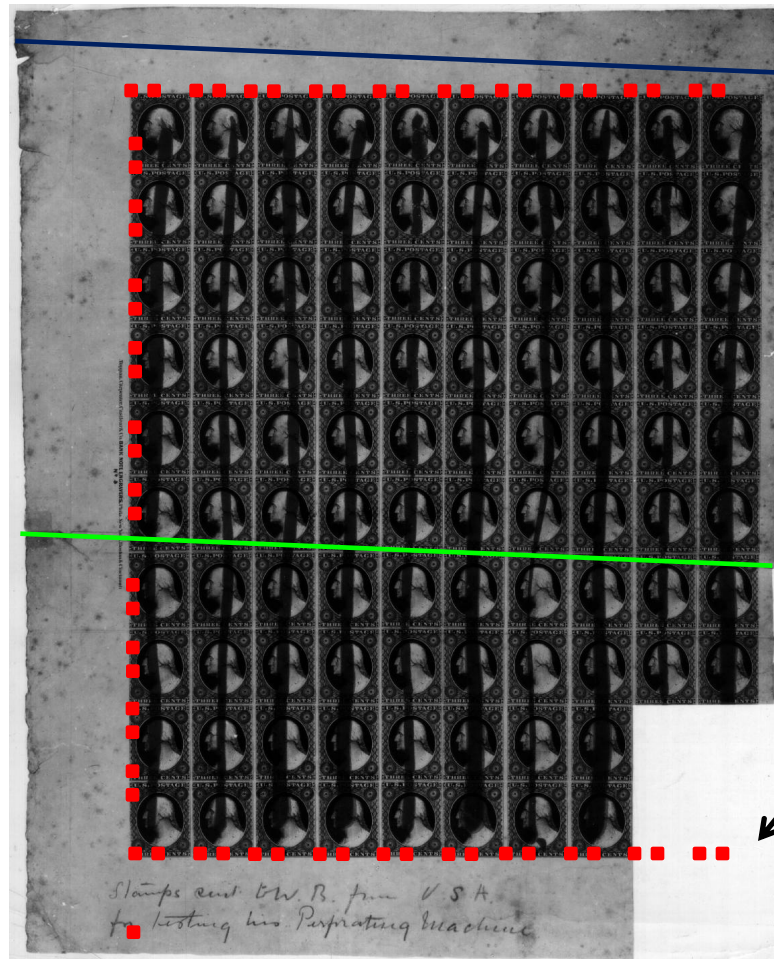
**Previously
Unreported**



The Left Bemrose Pane: Pin Holes

Hulme discovered previously unreported pin holes on outer edge stamps.

33



**Previously
unreported
pin-holes on
outer edge
stamps
(depicted as
red squares)**

Summary

34

- Two sheets of 200 stamps (400 in total) were folded separately to ~3x4 inches, placed in same letter, and mailed 3 Oct. 1855 to Perkins Bacon in England.
- Arrived in London on 15 Oct. 1855. One sheet forwarded to Bemrose in Derby, England, where they ensured proper adjustment of cylinder & rouletting wheels to fit stamp layout.
- Two horizontal lines of rouletting were produced on the Bemrose Panes, as well as pin holes on outer edge stamps.
- Subsequent testing shows rouletting will not work. The machine is converted into a perforator.

REDISCOVERY OF “BRUSH STROKE” PAIR

67-68L4 FROM BEMROSE LEFT PANE

Rediscovered Pair from the Left Bemrose Pane: *Plated as 67-68L4 with horizontal roulette line across top*

36

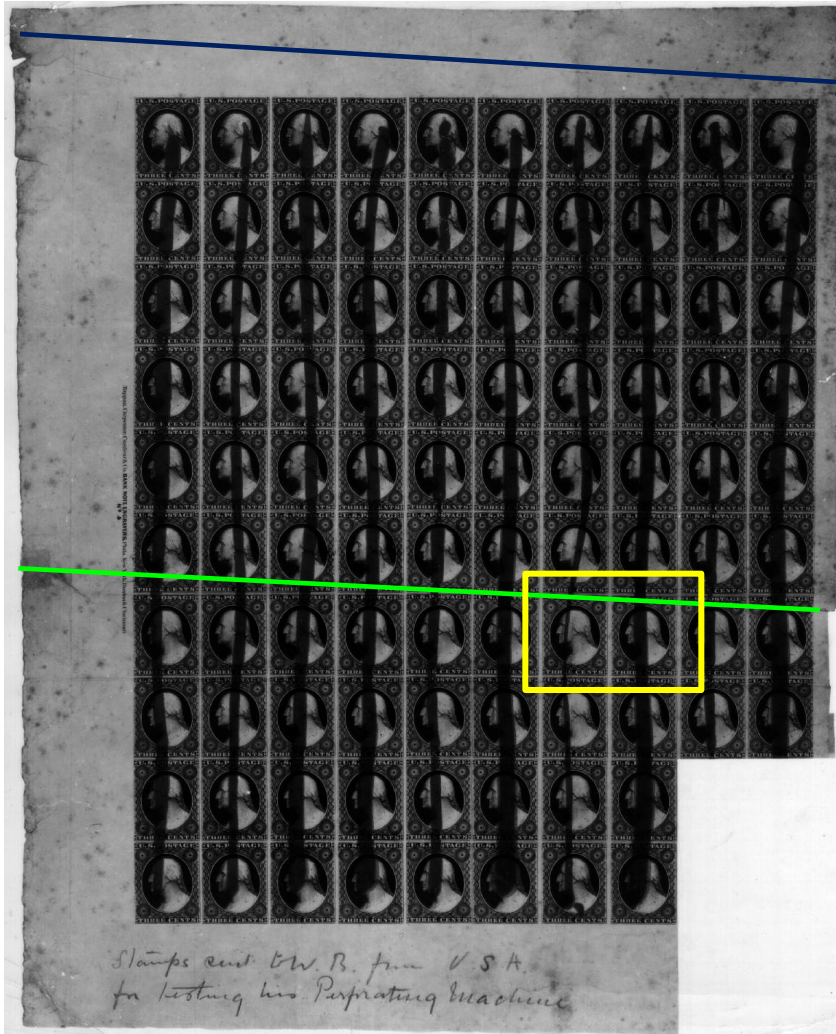


#11P3, 67-68L4, brush stroke pair, rouletted across top of both stamps.
Discovered & plated by C. DiComo | 2018-07

The Left Bemrose Pane: Lines of Rouletting

Wilson Hulme discovered a second line across middle of pane.

37



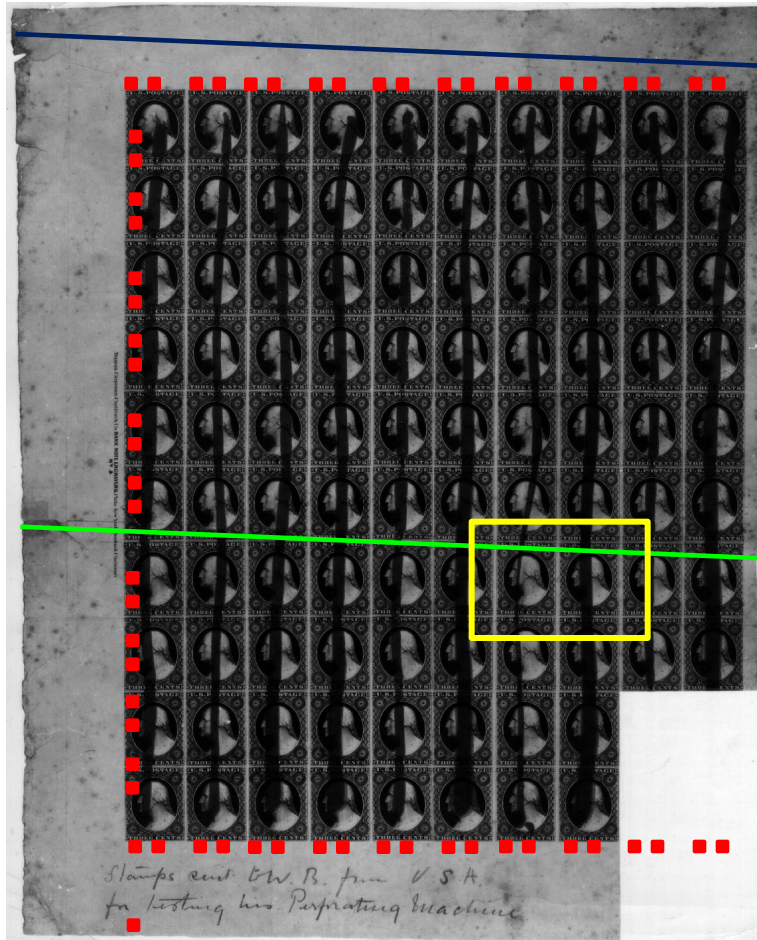
67-68L4 pair has horizontal line of rouletting across top of both stamps.
Clearly seen on reverse below.



The Left Bemrose Pane: Pin Holes

Hulme discovered previously unreported pin holes on outer edge stamps.

38



**Previously
unreported
pin-holes on
outer edge
stamps
(depicted as
red squares)**

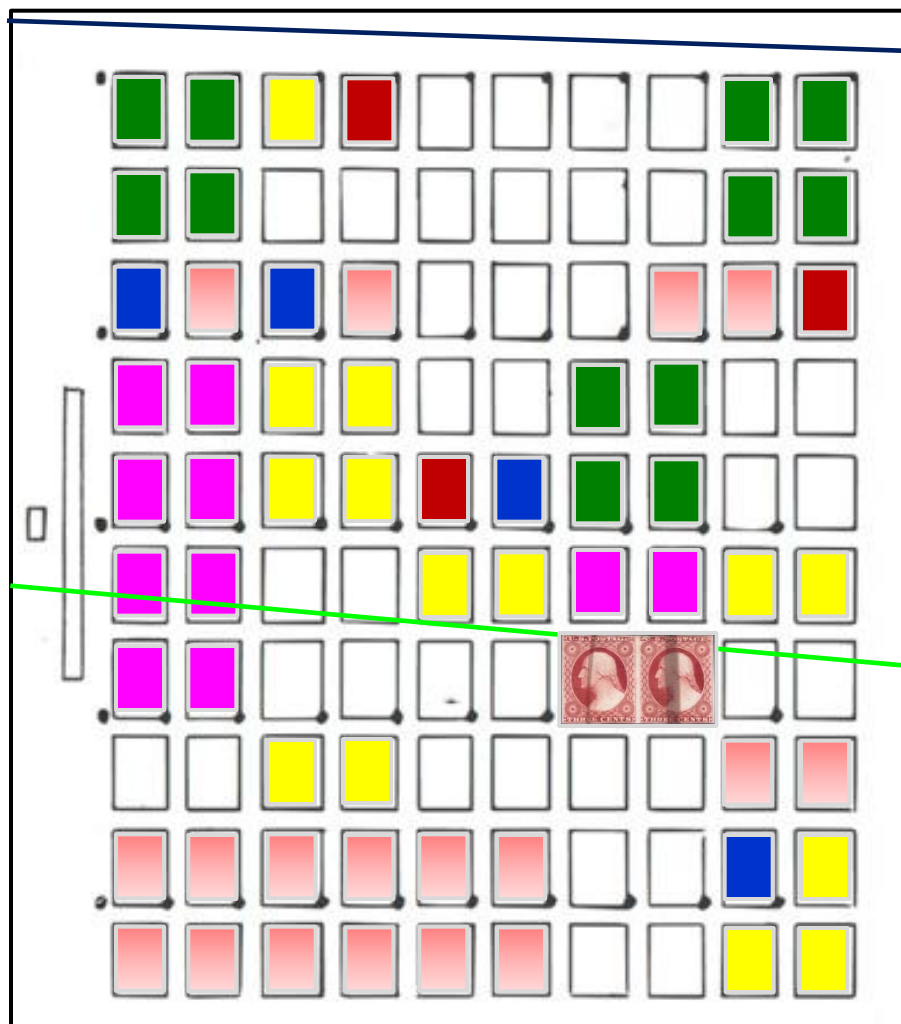
CURRENT STATE OF “BRUSH STROKE” PANES

AS BEST AS CAN BE DETERMINED - 2019

The Left Bemrose Pane:

As of 2008, W. Wilson Hulme's Reconstruction

40



**#11P3 – 3¢ Brownish Carmine
Brush Stroke on Proof paper,
Reconstructed left pane.**

Hulme Inventory in 2007:

- Bemrose Left Pane = 34
- Bemrose Right Pane = 9
- Perkins Left Pane = 100
- Perkins Right Pane = 29 (+2)

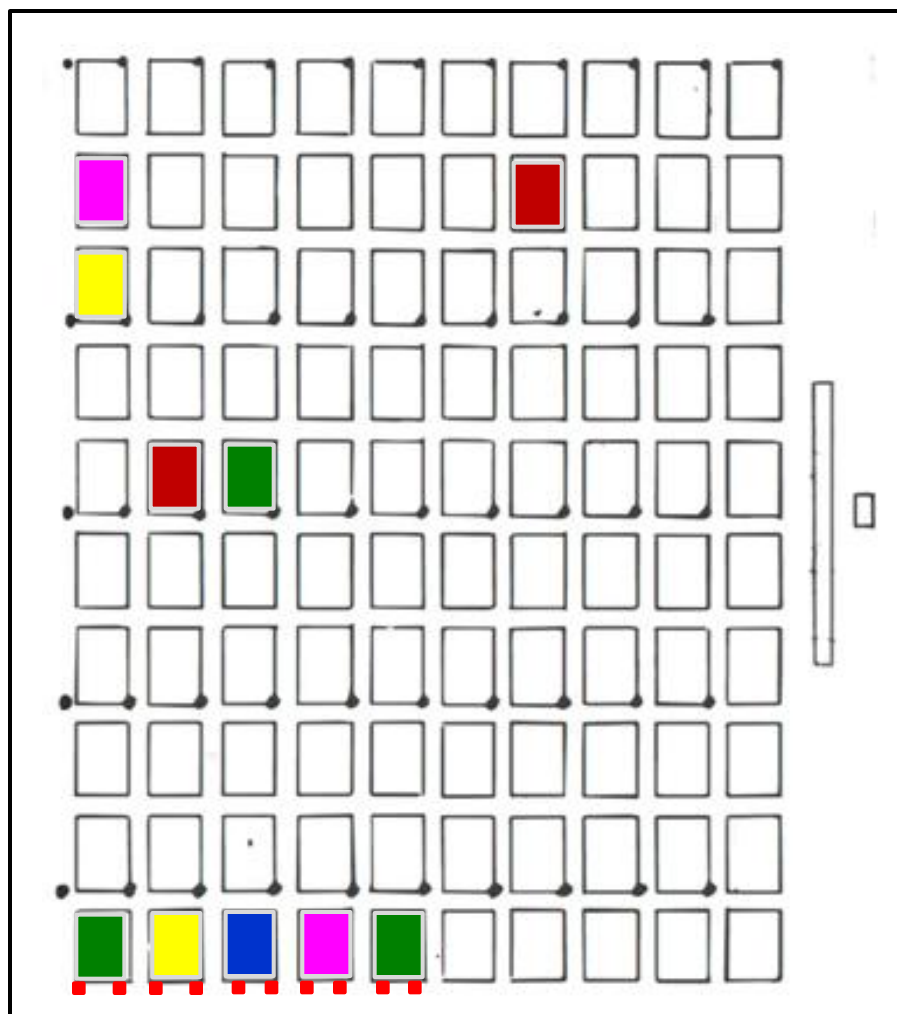
New Find Added: 67-68L4

*Siegel Sale 965, Lot 213, 2008
Ex. W. Wilson Hulme*

The Right Bemrose Pane:

As of 2008, W. Wilson Hulme's Reconstruction

41



Pin-holes on all outer edges stamps (denoted by ■)

**#11P3 – 3¢ Brownish Carmine
Brush Stroke on Proof paper,
Reconstructed right pane.**

Hulme Inventory in 2007:

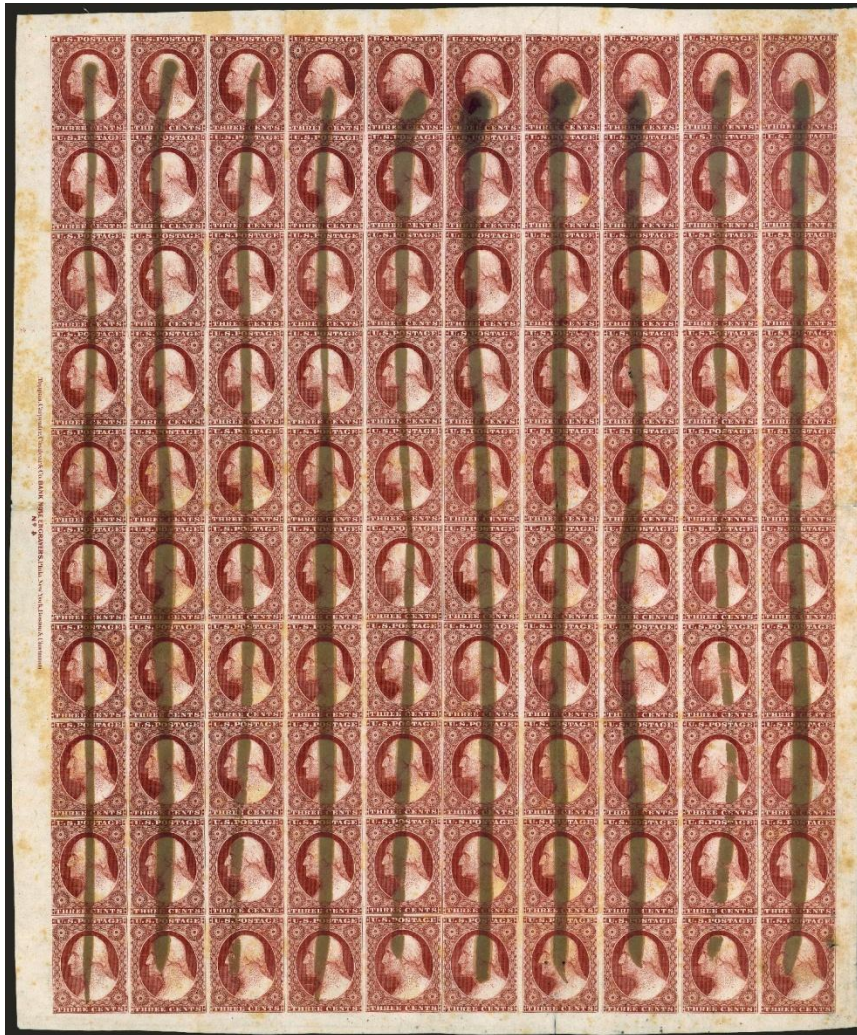
- Bemrose Left Pane = 34
- Bemrose Right Pane = 9
- Perkins Left Pane = 100
- Perkins Right Pane = 29 (+2)

**Siegel Sale 965, Lot 213, 2008
Ex. W. Wilson Hulme**

The Left Perkins, Bacon Pane:

As of 2008, Sold Intact, ex. W. Wilson Hulme

42



**#11P3 – 3¢ Brownish Carmine
Brush Stroke on Proof paper,
complete left pane of 100 with
full Imprint and Plate No. 4
(reversed numeral).**

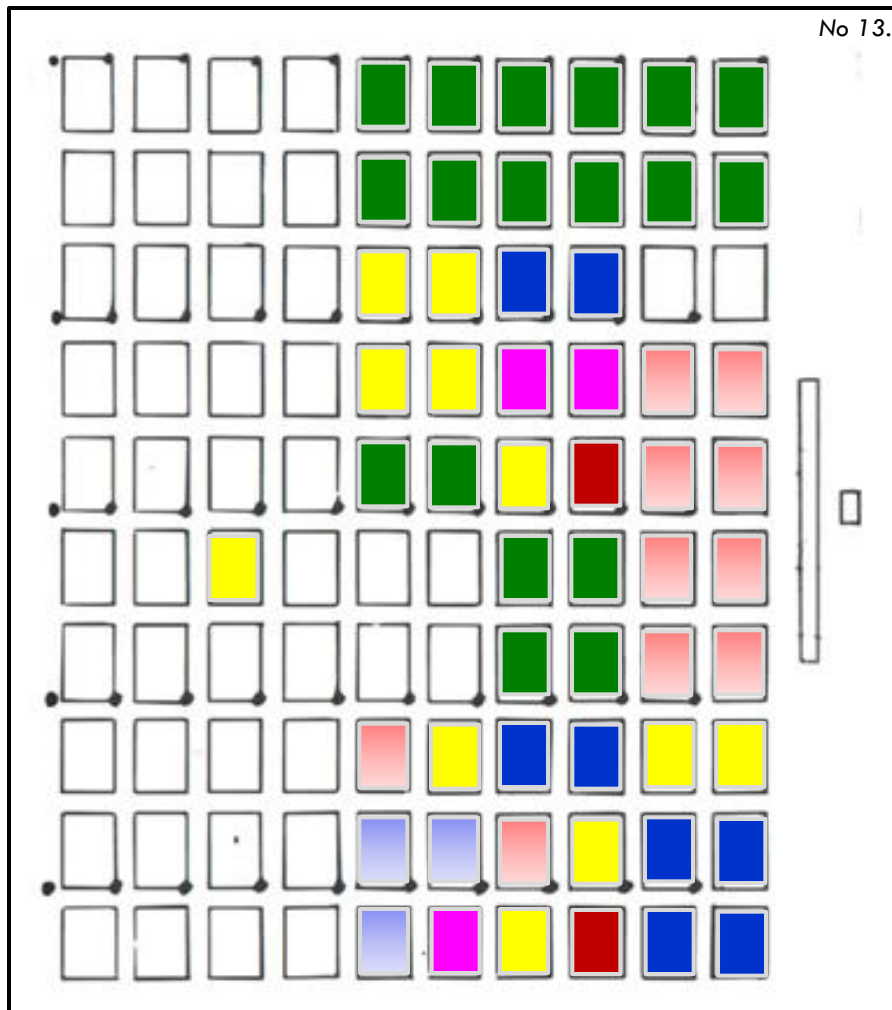
**Toppan Carpenter & Co. mailed
two sheets of 200 stamps to
Perkins, Bacon in 1854.**

***Siegel Sale 964, Lot 212, 2008
Ex. Earl of Crawford, Keightley & W.
Wilson Hulme***

The Right Perkins, Bacon Pane:

As of 2008, W. Wilson Hulme's Reconstruction

43



**#11P3 – 3¢ Brownish Carmine
Brush Stroke on Proof paper,
Reconstructed right pane.**

Hulme Inventory in 2007:

- Bemrose Left Pane = 34
- Bemrose Right Pane = 9
- Perkins Left Pane = 100
- Perkins Right Pane = 29 (+2)

Siegel Sale 965, Lot 213, 2008
Ex. W. Wilson Hulme

THANK YOU / QUESTIONS?

** DEDICATED TO W. WILSON HULME, WHOSE SEMINAL RESEARCH ON THE BRUSH STROKES THIS PRESENTATION IS BASED ON; AS WELL AS THE DISCOVERY OF SEMINAL USPOD AND TCC DOCUMENTS; AND WHO MENTORED ME ON THE 3¢ 1851-57 ISSUE UP UNTIL HIS UNTIMELY PASSING IN 2007.*

** ANY ERROR AND/OR OMISSION IS THE PRESENTERS RESPONSIBILITY.*