

The Offset Lithographed Washington-Franklin Heads

THIS IS a traditional exhibit of the United States Washington-Franklin heads printed by offset lithography (Scott 525–535).

Treatment and Organization

The exhibit is organized chronologically by the date of production. It begins with the lithographed test stamps, the only archival material for these issues. Then it includes a small illustrative sample of the offset lithographed revenue stamps that preceded the postage stamps.

For each stamp issue, the presentation begins with the basic varieties (including private perforations) and an early use (often the earliest known use) to provide chronological context. The sections continue in the sequence of production: design types and plate-making, printing varieties, perforation varieties, and uses.

The Shanghai local overprint on the two cent offset is included, but not the varieties of the overprint. It is relevant that the two cent offset was used in Shanghai. But the minor varieties of the overprint—print freaks made by a private printer in Shanghai, not the Bureau of Engraving and Printing—do not advance the story.

The exhibit concludes with the postal forgery of the two cent offset, including examples of the “Toledo” and “Brooklyn” forgeries. (My published research demonstrates that the same forger made both using the same plates.) Due in part to ease of forgery, the Bureau never again printed stamps entirely by lithography.

The balance of material in the exhibit mirrors the volume of material available. For example, there are many more “plate” varieties of

the two cent than the other issues, so the exhibit includes proportionally more two cent varieties.

Why Include (a few) Revenues?

The lithographed revenue stamps are a critical part of the story about how and why the Bureau printed lithographed postage stamps.

The lithographed revenues, along with the lithographed test stamps, demonstrated that lithographed stamps were feasible. And, the Bureau produced the revenues with the same equipment and personnel as the later postage stamps.

Archival Material

The exhibit includes all of the available archival material for these issues. Given the nature of the lithographic process, there are no dies or die proofs. All known plate proofs are in the Smithsonian National Postal Museum.

Non-Obvious Highlights

Important individual items are highlighted in the exhibit with a blue border. I mention the following additional material because its importance is cumulative or otherwise less obvious:

Comprehensive collection of private perforation material with many rarities. The exhibit includes all known major varieties of private perforation on the offsets.

All known examples of freaks created by a foreign object on the plate, offset roller, or paper. One of the two cent examples is my discovery copy of a foreign object on offset roller, featured in my published research.

Every catalog-listed “plate” flaw/retouch. There are hundreds of “plate” varieties caused by damage to the photographic materials used to make these stamps. The most prominent are listed in the Scott *Specialized Catalogue*. (The *Catalogue* listings appear to rest on Lybarger’s scholarship; see bibliography.) The exhibit includes all of the Scott-listed varieties and many unlisted ones.

Importance

The title page explains the philatelic importance of the offsets. The exhibit is important to the subject for two reasons: (1) It cannot be duplicated—it contains the only known examples of many significant items, including the triple impressions of Scott 530 and the only reported examples of the all-color missing error on Scott 527, to name just a few. (2) The exhibit is comprehensive and the only exhibit of this material I am aware of.

What is New?

I’ve added several significant items since the exhibit was last shown in the United States. Perhaps the most significant is the cover at the end of the exhibit with a block of four of the two-cent and four-cent Shanghai local overprints. There are only ten uses of the four cent known, and this is one of two covers known with multiples of both the two-cent and four-cent.

I’ve also added the newly-discovered earliest documented use of Scott 531, the one-cent imperforate offset.

I have also reformatted and remounted the exhibit and changed the structure of some sections.

What is Missing

529b (the three cent Type III) printed on both sides. The exhibit includes two examples of 530b (the Type IV three cent stamp) printed on both sides. 529b and 530b were produced by the same method, so the omission of 529b does not materially impact the story.

Certain two cent perforation errors. The exhibit includes one of four certified examples of Scott 528g, but not 527b, 527c, 528Af, or 528Ah. All were produced by the same mechanism (paper fold or tear during perforation) so the 528g is representative.

Easy Information Download

You may download the materials cited in this synopsis using this link:

<https://tinyurl.com/OffsetSrcs>

Knowledge, Study & Research

Research for this exhibit is reflected in two additions the *Scott Specialized Catalogue*, a story on the cover of *Linn's Stamp News*, and in seven peer-reviewed articles I authored, one of which was recognized as the best article published in the *United States Specialist* in 2023:

"New Variety Reported on Scott 528A – Foreign Object on Offset Roller." *The United States Specialist*, 91, no. 11 (Nov. 2020): 515-18.

"Untangling the Postal Forgery of the 2¢ Washington-Franklin Head—Scott 528A(CF1)." *The United States Specialist* 93, no. 10 (Oct. 2022): 461-78.

"Nine New Hand-Altered Plate Number Varieties—On Scott 525, 526, 528, 528B, 529 and 530, and a New Census of Hand-Alterations."

The United States Specialist 93, no. 12 (Dec. 2022): 558-71.

"Authenticating Scott 530c—Triple Impression on the Three Cent Offset." *The United States Specialist* 94, no. 5 (May 2023): 218-25. Winner of the 2023 Walter W. Hopkinson Memorial Award for the best article published in *The United States Specialist* in 2023.

"'Accounted For' Markings on the Washington-Franklin Heads" *The United States Specialist* 94, no. 6 (June 2023): 277-85.

"A New Type of the Retouched on Cheek Variety on Scott 528B." *The United States Specialist* 95, no. 4 (April 2024): 160-66.

"The 'Earliest Documented Use' of Scott 535 Was Certified in Error." *The United States Specialist* 96, no. 2 (Feb. 2025): 90-92.

My discovery of the all-color missing error on Scott 527 was featured on the cover of the November 14, 2020, *Linn's Stamp News* and is the basis for a new listing in the 2022 *Scott Specialized Catalogue* as 527d.

The *Scott Specialized Catalogue* is being updated to reflect my research concerning the postal forgery in the exhibit.

I am finalizing a treatise on the offsets. Although that work is not yet complete, I have read nearly everything that has been written about these stamps. This research is reflected throughout the exhibit, e.g. in reporting on details of varieties (number extant, place of discovery, origin of variety, etc.).

Selected Bibliography

Donald F. Lybarger, *The United States Issues of 1918-20* (Federalburg, MD: The American Philatelist, 1937). This relatively short monograph is

the most important reference for these issues and the best starting place to learn about them.

Max G. Johl, *United States Postage Stamps 1902-1935* (1937; repr., Lawrence, MA: Quarterman Publications, Inc., 1976): 130-32, 174-84, 199-203. There are three editions. The relevant parts of the 1937 and 1976 editions are the same. (The downloadable file contains excerpts from the 1937 edition.) This is a good, short, and mostly accurate introduction to the offsets.

Steven R. Belasco, *Guide to United States Vending and Affixing Machine Perforations, 1907-1927* (Katy, TX: United States Stamp Society, 2009), 35-37, 196-97. An important information source for the exhibit but less essential than Lybarger and Johl. Note that Belasco lists an incorrect earliest documented use for Scott 532 with Schermack private perforations. His date is before the stamps were printed. The exhibit includes the actual EDU.

"Certified" Statements

The exhibit occasionally refers to the number of items certified by expertizing services. These statements encompass certificates in the online certificate archives of the American Philatelic Society's Expertizing Service, the Philatelic Foundation, and Professional Stamp Experts. A few smaller services do not offer searchable certificate archives and are therefore excluded. Certificate counts are an important tool for assessing the population of certain Washington-Franklin rarities that have not been the subject of a formal census.

The Offset Lithographed Washington-Franklin Heads

THIS EXHIBIT studies the origin, production, varieties, and uses of the United States Washington-Franklin Heads printed by offset lithography, produced between 1918 and 1922. It includes the lithographed test stamps and a brief sampling of the lithographed revenue stamps that preceded the offset issues. It also includes the private perforations and postal forgeries of the offsets.

Context

These are war issues. Before these “offsets,” the Bureau of Engraving and Printing used lithography only for revenue stamps and non-stamp documents. Due to World War I, however, high-quality (mostly German) ink components were unavailable. On three occasions, poor-quality replacements destroyed the Bureau’s intaglio plates, forcing it to resort to lithography to meet demand prompted by the War and the war tax imposed by the 1917 War Revenue Act:

- **Three-cent stamp shortage, March 1918.** After the war tax increased the letter rate to three cents, the Post Office consumed 25 million three-cent stamps per day. But gritty ink wore out engraved plates faster than the Bureau could replace them; it could produce less than half the demand by intaglio.
- **One-cent stamp shortage, late September 1918.** One-cent stamps were in demand to uprate items for the war tax. But gritty ink again rapidly destroyed intaglio plates and the Bureau could not meet demand using intaglio presses.
- **Two-cent stamp shortage, March 1920.** When the war tax expired and the first class rate returned to two cents, the Bureau thought it had stockpiled sufficient intaglio plates to meet demand. But poor-quality ink destroyed many of them, forcing the Bureau to use lithography for a third time.

Importance

- The offsets are the United States’ first departure from intaglio-printed postage stamps and are the only Bureau-issued postage stamps printed entirely by lithography.
- The offsets were the United States’ workhorse stamps for five years, including during much of World War I. Indeed,

the Bureau produced the stamps in huge quantities: 1.5 billion one-cent, 9.3 billion two-cent, and 5.1 billion three-cent stamps.

- The offsets feature varieties and errors that are unique in U.S. philately.
- The adoption of lithography was a pivotal step in the progression toward modern production techniques. Today, lithography is commonly used (often in conjunction with other printing methods) to print stamps.

Development and Organization

The exhibit is organized chronologically (see timeline below). The Bureau confronted different challenges with each issue, and each has distinct varieties, so a chronological presentation best tells the story. Within each issue, the exhibit considers plate making, printing, and perforation varieties, then rates and uses.

Important items are [matted in blue](#). Contextual information is [shaded blue](#). Certificate numbers are noted for expertized material. Counts of “certified” items refer to expert certificates from the APS, the Philatelic Foundation, and PSE. Original research and discoveries are denoted with a magnifier icon: 🔍

Exhibit Plan

1. Antecedents
 - Offset lithographed test stamps
 - Sample of offset lithographed revenue stamps
2. The Three Cent Issues
3. The One Cent Issues
 - Regular issues
 - Experimental 12½ gauge perforation
4. The Two Cent Issues
5. The End of the Offset Era
 - Shanghai local overprint
 - Toledo and Brooklyn postal forgeries

