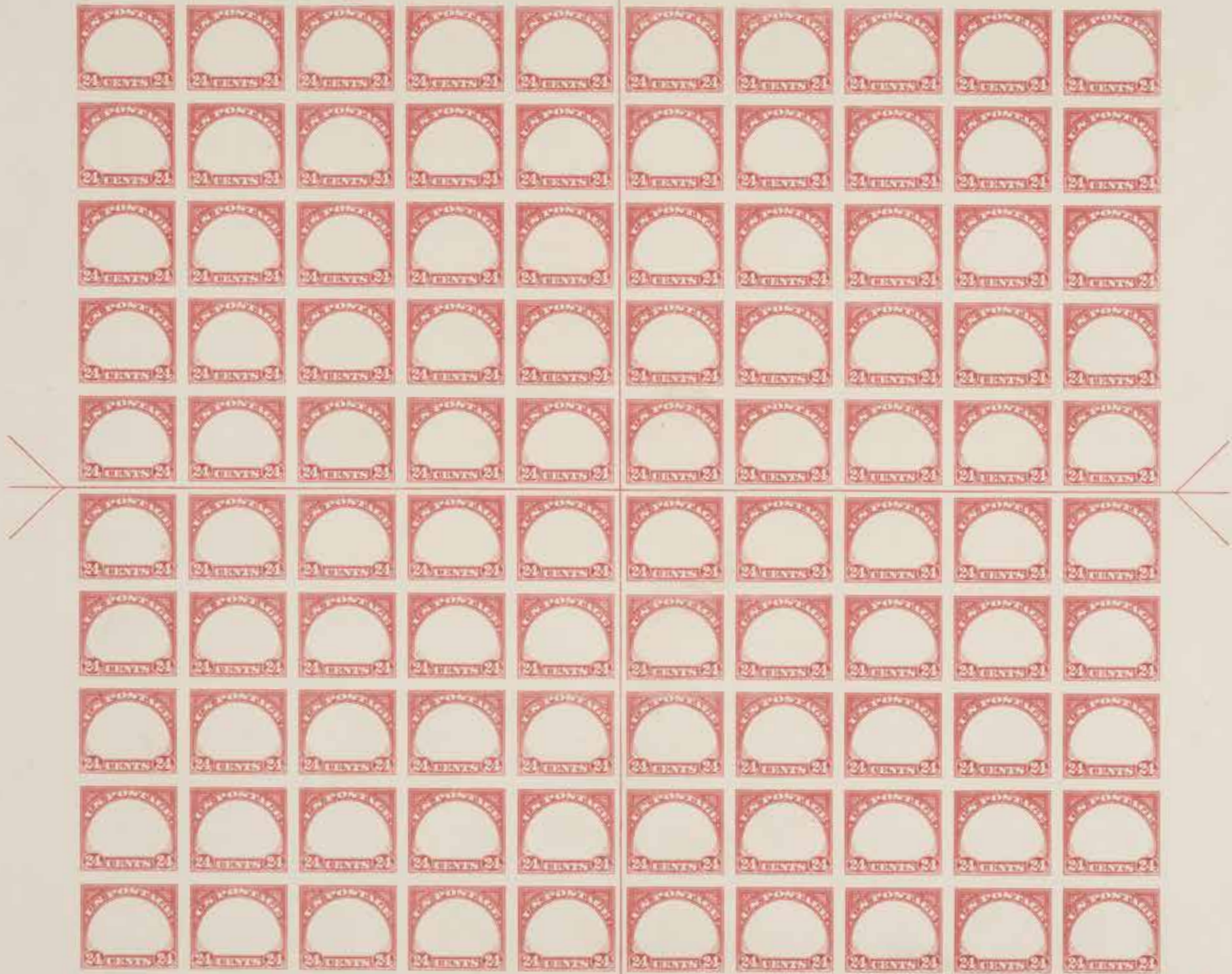




THEN AND NOW

8492



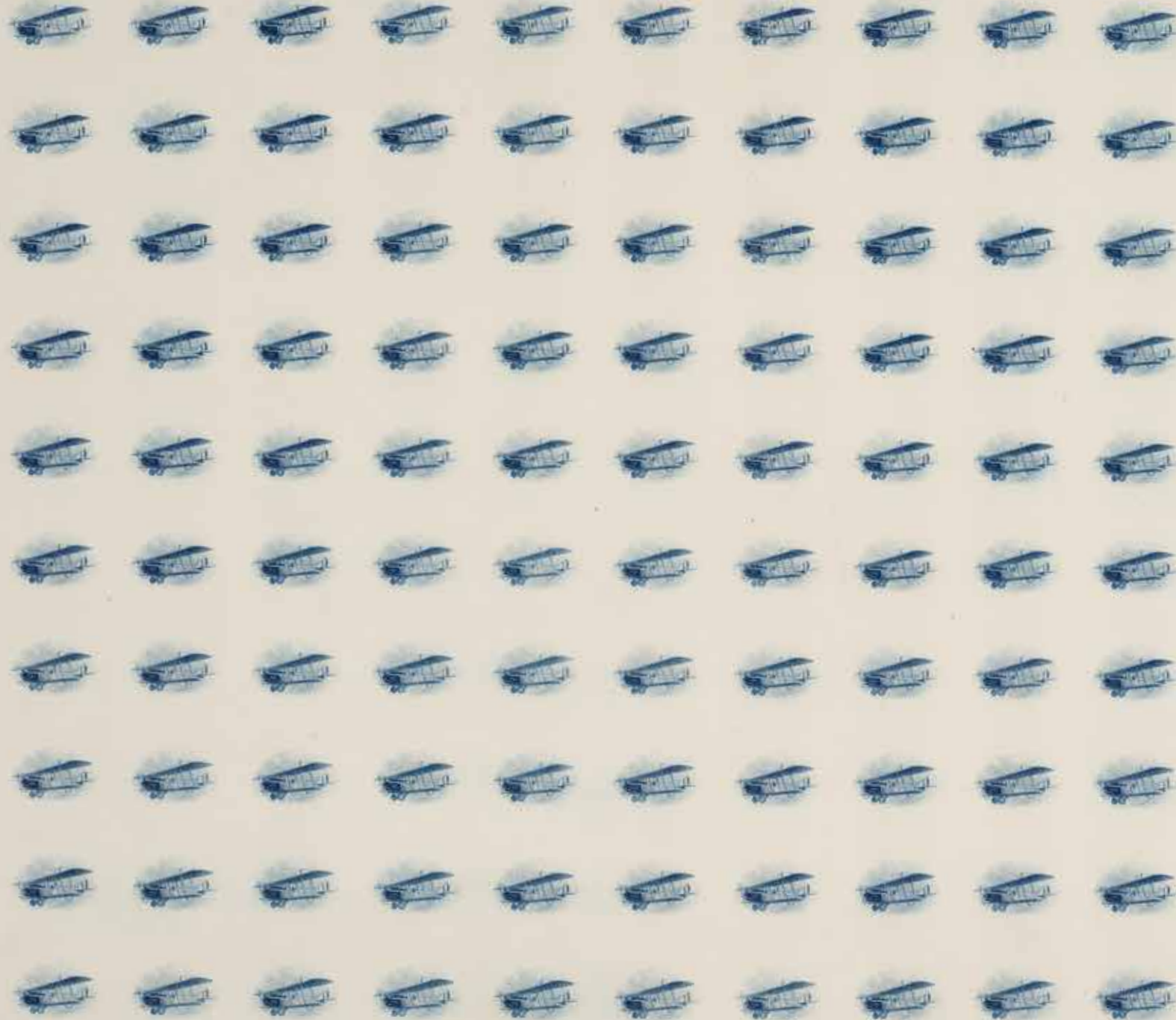
S. D. B

S.D.B.

James L. Wilmeth

» Issued to accompany the start of airmail service, the 1918 24-cent Curtiss Jenny stamps are composed of two parts: a red frame surrounding a blue biplane. Bureau of Engraving and Printing Director James L. Wilmeth approved the plate proof for the red frames on May 10 that year, just five days before service began.

8493



» The blue biplane that hovers in the center of the airmail stamps is an engraving of the Curtiss JN-4H (or "Jenny"), a military plane retrofitted to carry mail. Bureau of Engraving and Printing Director James L. Wilmeth gave his mark of approval to the proof on May 11, 1918.



Approved
James L. Wilmeth
J.L.W.

MAY 13 1918

2 21 0

THEN

08 THE JENNY

16 THE ERROR

24 THE FIND

NOW

32 THE DESIGN

40 THE PRINTING

Intro



FEW STORIES *celebrate* imperfection.

Yet the 1918 Inverted Jenny stamps are beloved because of the striking flaw they share. Take a look at the planes on the stamps and you'll find that something went wrong.

But delve deeper into the story, and you'll discover that so much about these oddities — and the details surrounding their origin — seems *right*.

The stamps commemorated a romantic moment in history: the beginning of a revolutionary postal delivery service called airmail. When the sheet of 100 inverts was mistakenly sold at a Washington, D.C., post office, the buyer was a stamp collector who knew the fortune he'd found. And for nearly a century following that event, the surprising image of an upside-down biplane has wooed not just philatelists, but also the public at large.

Having embraced the Inverted Jenny as part of its heritage, the U.S. Postal Service decided to create a new version of the stamp. The 2013 issuance is deeply rooted in history, its design based upon impressions pulled from the original 1918 printing dies.

And so a new chapter is written in this enduring story, one of purposefully celebrating the past not *despite* imperfection, but precisely because of it.

the Jenny

IN 1909, Thomas Edison spoke a few words of prophecy: “In 10 years, flying machines will be used to carry the mails.”

The American inventor’s prediction proved true only nine years later, when the United States Post Office Department sent biplanes into the skies on May 15, 1918, their cockpits rigged to carry mail.

It was a large moment in history, in an era swirling with change: Five years earlier, Henry Ford had pumped life into industry with the pulse of the modern assembly line. Two years later, women would claim the right to vote. And World War I was cresting, in its fourth and final year.

The wartime demand for defense had sparked a burst in technology, including the first mass production of airplanes. The Post Office Department had already flirted with airmail through demonstration stunts, and it was ready to commit: Postmaster General Albert S. Burleson announced in February that a new, hopefully regular service would begin on April 15 that year.

» Aviation pioneer Reuben H. Fleet, chief of flight training for the U.S. Army, gears up on a makeshift airfield near the Potomac River in Washington, D.C.





The inaugural route would carry mail both ways between Washington, D.C., and New York, with a stop in Philadelphia. The Army would furnish the men and machinery.

To further exalt the event, the Post Office Department would issue a special postage stamp — a patriotic, red-and-blue design that sported the future icon of airmail: a Curtiss JN-4H biplane, dubbed “the Jenny.”

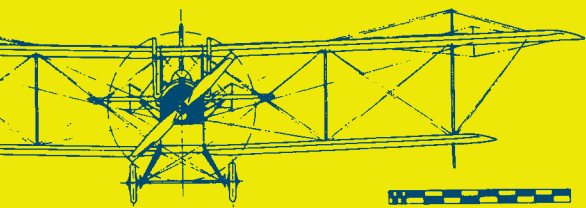
Despite the pomp, the beginning of winged mail delivery turned out to be mostly experimental. The launch date had to be delayed a month to allow time to find suitable landing fields. One of the pilots flew the wrong way and landed upside down in a Maryland field. And it wasn’t until a few years later that airmail actually proved faster than the rails.

But the service eventually *did* get off the ground. On that first day of delivery, a colorful crew of dignitaries and officials, including President Woodrow Wilson and Assistant Secretary of the Navy Franklin D. Roosevelt, gathered in Washington, D.C.’s Potomac Park to see the planes sent skyward. Even a letter from Postmaster Burleson to New York City Postmaster Thomas B. Patten — tucked inside an envelope autographed by the president himself — was aboard one aircraft and bound for New York, where it would be auctioned off to benefit the Red Cross.

With no precedent for pricing mail sent by air, the Post Office Department set the stamp denomination at 24 cents, which covered a 10-cent special-delivery fee. That somewhat-arbitrary denomination turned out to be too pricey, however, especially when compared to the typical 3-cent cost of mailing a letter during the war. So just two months later, once some of the fanfare died down, the rate was reduced to 16 cents, then to 6 cents after that. The design stayed the same, and the lower-value iterations were printed in single shades of green and orange, respectively. ■

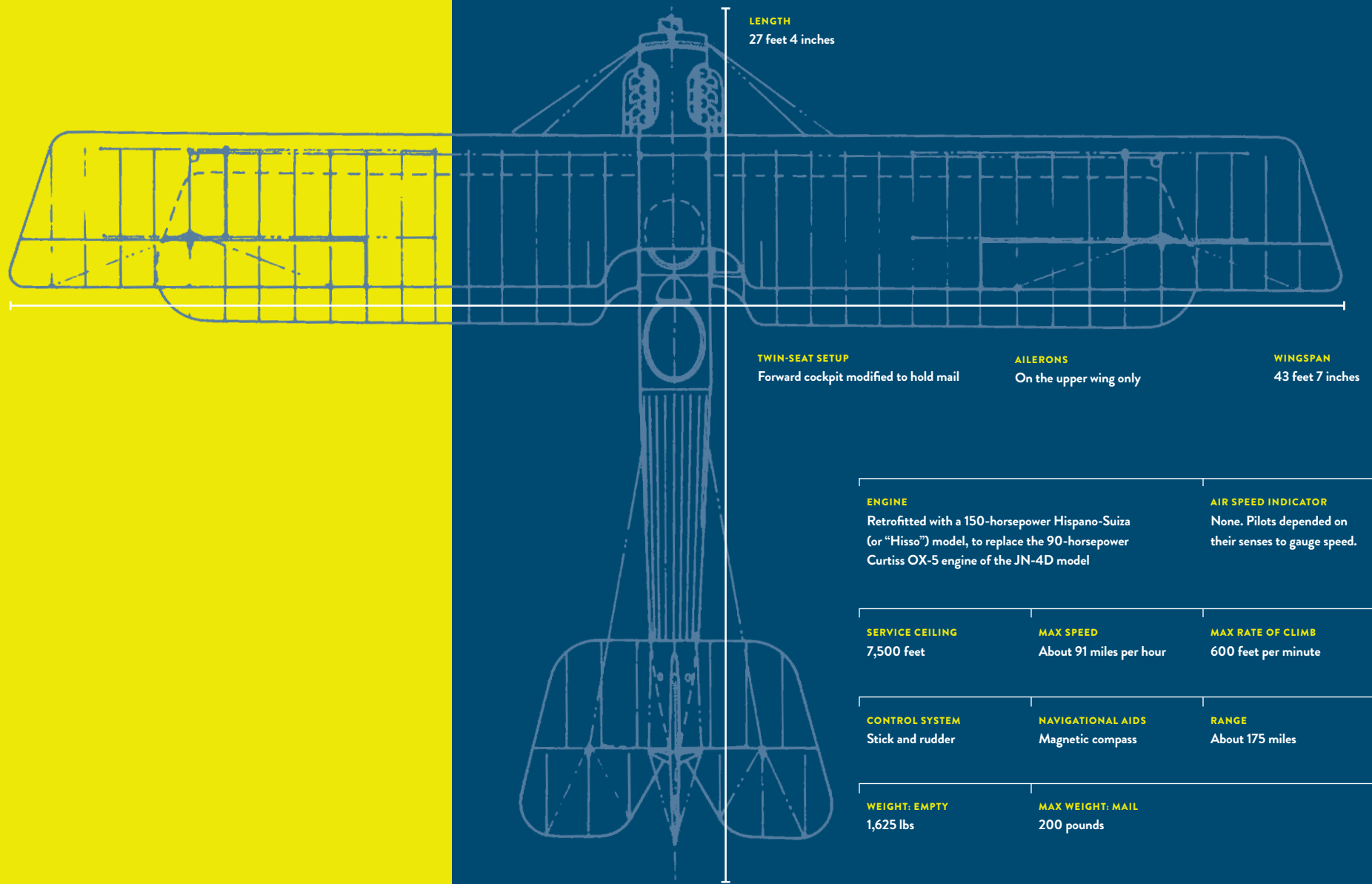
“You just had to
be good or you
didn’t get there.”

MAJOR REUBEN H. FLEET,
ON THE FEAT OF FLYING AN EARLY AIRMAIL PLANE.



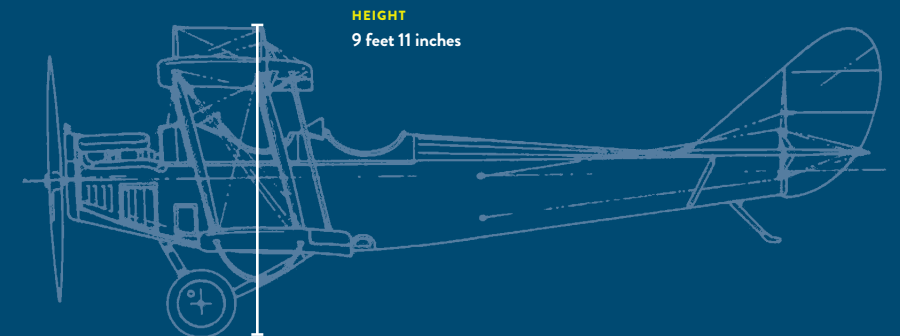
ANATOMY OF THE AIRCRAFT

Reportedly clunky, underpowered, and temperamental during landings, the first vessel commissioned for the airmail service was the Curtiss JN-4H. This biplane was a slightly more muscular version of the Curtiss JN-4D model, which was used to train nearly all American military pilots at the time (and designed by bicycle-maker-turned-aircraft-builder Glenn H. Curtiss).



TRACTOR CONFIGURATION

Forward-facing propeller that pulls the aircraft through the air (as opposed to the "pusher configuration," in which a backward-facing propeller pushes the plane)





A FALSE START ON THE FIRST DAY

One of the men assigned to pilot the first airmail flight from Washington, D.C., to Philadelphia was Lieutenant George Boyle, a recent flight-school graduate who was engaged to the daughter of the chairman of the Interstate Commerce Commission. Chosen, perhaps, for political reasons rather than his flying aptitude, the rookie is remembered for committing a series of bloopers along the way.



First, Boyle's plane doesn't start. Meanwhile, President Woodrow Wilson, the Postmaster General, and crowds of spectators look on, waiting. Further inspection reveals no mechanical breakdown; the aircraft is simply **out of gas**.



Once off the ground, Boyle flies in the **wrong direction**, reportedly confused by the vibration and spinning of his compass.



Lost and out of luck, the airman **crashes down in a Maryland field** about 25 miles away from D.C., his propeller breaking in the landing.



Armed with a **new propeller** and a second chance, Boyle seizes the skies two days later. This time, he touches down at Cape Charles, Virginia, about 125 miles south of D.C. Reports say he claims cloudy weather obscured his view of the ground.



Three days since his first attempt, Boyle finally **makes it to Philadelphia**, where, according to press reports at the time, he crash-lands on the grounds of a country club.

“Major Reuben H. Fleet and Lieutenant George Boyle admire a watch given to each airmail pilot.”

the Error

WHILE AIRMAIL ORGANIZERS rallied to get ready for flight, the Bureau of Engraving and Printing was facing a flurry of its own: wartime demands for documents and currency that overwhelmed its crew, plus a push to create the distinctive airmail stamp in just around a week's time.

To fuel the frenzy, the postage design called for not one but *two* colors — a detail that was high on artistry but costly in time, since the BEP hadn't yet employed technology to print more than one color at once. Each sheet had to be placed on the press by hand, two separate times. Collectors knew what this meant: The additional handling increased the chance of human error, which boosted the likelihood of printing irregularities.

In fact, the man who would soon uncover the inverted stamps himself had a hunch. In a letter dated May 10, 1918, William T. Robey of Washington, D.C., wrote to a friend:

» The Bureau of Engraving and Printing, photographed in 1918 from the air.



“It might interest you to know that there are two parts to the design, one an insert into the other, like the Pan-American issues. I think it would pay to be on the lookout for inverts on account of this.”

These two parts — one red, the other blue — first formed their marriage in the mind of Clair Aubrey Huston, who designed the airmail stamp based on a photograph furnished by the War Department. Huston, who had designed most stamps since 1903, even had a short history of putting planes on stamps: In 1913, he’d conceived the 20-cent Parcel Post, the first government-issued stamp to bear an airplane.

To execute his patriotic vision, Huston worked with a pair of master engravers, who created the plates used to print the stamps. At the top of the trade was the Bureau’s own Marcus W. Baldwin, who rendered the plane. Twenty years earlier, Baldwin had engraved the ornate line work of the \$1.00 Trans-Mississippi stamp, esteemed by many as the most handsome commemorative stamp ever issued in the United States. Four days before Baldwin got to work, Edward M. Weeks had already begun engraving the stamp’s detailed frame.

And on May 10, less than one week after tool first hit metal, printing began.

At the time, the Bureau’s Stickney rotary presses, which employed a cylindrical plate, were working overtime for the war. So the airmail stamps were coaxed to life using their predecessor, the spider press — a hand-operated, critter-like machine that used a flat plate. The instrument required two attendants, multiple steps per impression, and plenty of patience.

For every mark the spider made, its two operators had to steward a series of rather tedious steps: First, heat the plate to keep the ink fluid. Then, ink the plate and tenderly wipe away the excess. Next, replace the plate, lay the paper, and crank the spindly arms, which impressed the paper into the plate. Finally, remove and stack the paper. Repeat.

During this intricate process, did one of the operators inadvertently rotate the plate 180 degrees between passes? Or, with one color already printed on the sheet, did the assistant stack it 180 degrees in the wrong direction?

Whatever the details, an error *did* occur. And one collector found himself at a life-changing intersection of time and place when the stamps went on sale at Washington, D.C., post offices. ■

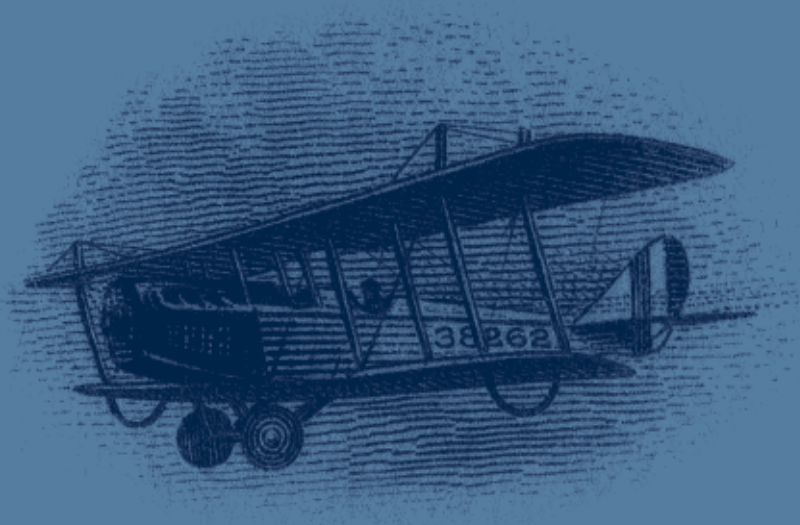


“...how was I to know the thing was upside down? I never saw an airplane before.”

NOW-UNKNOWN POST OFFICE CLERK
WHO LET THE INVERTED STAMPS SLIP INTO CIRCULATION.



* Army Major Reuben H. Fleet (left) and Lieutenant George Boyle lean against a Curtiss JN-4H biplane in Washington, D.C.'s Potomac Park on May 15, 1918, the first day of airmail service.



THE CURSE OF THE SERIAL NUMBER

To render the aircraft that appears in the center of the airmail stamps – a biplane with the serial number 38262 on its fuselage – Clair Aubrey Huston took cues from a photo furnished by the War Department. It's uncertain whether the serial number was borrowed directly from the photograph or added later, but that five-digit number did, somehow, make it into the final design.

Meanwhile, the Army offered to outfit the new airmail route with both pilots and planes, appointing Major Reuben H. Fleet as officer-in-charge. Fleet assembled the machines in New York, then flew them south to Washington, D.C., in stages for the launch of service. One of the planes dispatched from D.C. was piloted by Lieutenant George Boyle, in a famously dysfunctional voyage involving two crash landings and a broken propeller. Boyle's plane happened to be the exact aircraft shown on the stamp; the one marked 38262.

Was it just coincidence, then, that the plane appearing on the erroneous stamp also starred in the unfortunate flight? Or was there something ill-fated about the digits 3-8-2-6-2?

THE PICK OF THE PRESS SHEET

Of the 2,198,600 airmail stamps printed, 2,134,988 were circulated. Among those, 100 were the perfectly imperfect inverts.

And of those 100 inverts, *four stamps* are particularly prized.

These gems join corners to form the block of four attached to the plate number, a detail that survives because of the error itself: If the stamps had been printed properly, the plate number would have been trimmed away with the top margin of the sheet.

Not only does the so-called plate block bear this birthmark, but its colorful lineage — and climb in value over the years — makes its story an intriguing subplot in the Jenny narrative.

1918-1936

Colonel Edward H.R. Green buys the sheet for **\$20,000** from Eugene Klein (who bought it from William T. Robey, the man who discovered it). Green reportedly keeps one block of eight (including the plate block) and three blocks of four until his death, but has Klein sell the others on his behalf.

1944

The group of eight — now broken up, leaving the plate block intact — is sold for **\$27,000** to New York City dealer Y. Souren on behalf of his client, Amos Enos.

1954

Dealers Raymond and Roger Weill buy the plate block for **\$18,250** on behalf of B.D. Phillips, whose identity at the time was a closely guarded secret.

1968

The Weills buy the entire Phillips collection, including the plate block, for **\$4.07 million**.

1989

In a sale of the Weill brothers' collection, Christie's auction house sells the plate block for **\$1.1 million**.

2005

Robert A. Siegel Auction Galleries sells the plate block for **\$2.97 million**.

» The block of four attached to the printing plate number contains the most valuable Inverted Jenny stamps today.



Find *the* End

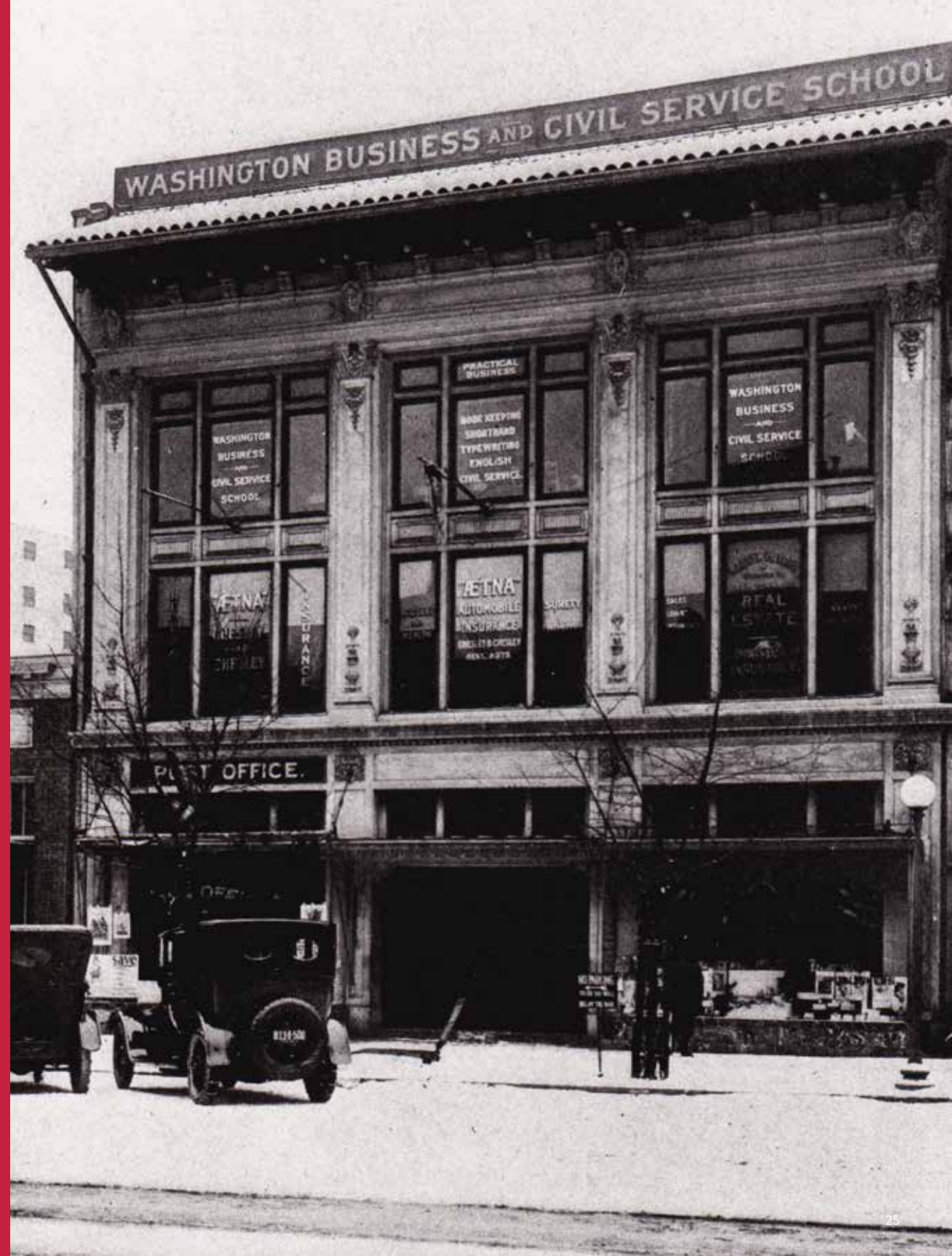
TWENTY-NINE-YEAR-OLD cashier William T. Robey couldn't have known what lingered in the shadow of the morning hours on May 14, 1918. But he *did* have a sense of anticipation when he went to work at the banking firm W.B. Hibbs and Company in Washington, D.C., that day.

The small-scale ("vest pocket") stamp dealer had withdrawn \$30 from his bank account, intent upon buying a sheet of the new 24-cent airmail stamps. Having heard the stamp was a bicolor design, he knew that errors might have escaped.

Around 9:00 that morning, he walked a couple blocks from his office to the New York Avenue Post Office to claim his copy of the sheet. Yet for whatever reason, he decided to return later in the day.

That delay brought a fortuitous twist in timing. When he returned to the post office around noon and bought his copy of the sheet, he famously said his "heart stood still": Each of the biplanes depicted in the center of the stamps was *upside down*.

» The New York Avenue Post Office in Washington, D.C., where William T. Robey purchased the sheet of inverted stamps.



Over the years, Robey wrote three accounts of that fateful event, each slightly different. In one telling, he mentions buying a sheet of normal stamps during his first visit. He also reports asking the postal clerk to show him additional sheets after he found his fortune.

But one fact remained consistent: After word of the renegade inverts got out, the postal inspectors sprang to reclaim the sheet.

Supposedly tipped by the clerk who sold the inverts, the officials showed up at W.B. Hibbs and Company, where they questioned Robey. They also appeared at his house early evening, where they found his wife, likely nonplussed, who hadn't seen or spoken to her husband. Yet fortunately for philately, the inspectors were never able to recover the sheet.

Robey reportedly rode the streetcars for several hours after work that day, pondering his next steps, and slept with the stamps tucked under his mattress in the days to come.

Meanwhile, the Post Office Department made other moves to cover its mistake. Since the stamp signaled an important event, the printing fumble couldn't be shrugged off so easily. At the Bureau of Engraving and Printing, where thousands of airmail stamps were yet to be inked, postal officials tightened quality control: The word *top* was added to the printing plates, confirming proper alignment of parts for all operators. That margin would remain intact, not trimmed away, like it had been before.

Post offices that had received batches of the airmail stamps were even ordered to close down and search their stock.

But there would be no hiding the slipup. On the following day, word of Robey's discovery splashed onto the pages of the *Washington Post*, just after the cover story about the launch of airmail.

Then, Act 2 of the drama began: Robey decided to sell the sheet of inverted stamps — and swiftly.

At the time, stamp collecting was not unlike a spectator sport, with several well-known players with deep pockets making strong, athletic moves. Auction results were akin to the scores of the matches; big newspapers had stamp columns to keep enthusiasts apprised; and plenty of hobby publications covered the rivalries too.

So, not surprisingly, several of philately's biggest game-changers became wrapped up in the selling of the sheet. Within the stretch of just seven days, the offers jumped in value from \$24 (no small amount of money at the time) to \$500, to \$10,000, and then to a soaring \$15,000, the offer by venerable stamp dealer Eugene Klein. The funds that Robey accepted from Klein allowed him to purchase a car, as well as move out of his apartment and buy a house.

Today, *inverted* Jennies aren't the only errors among airmail stamps. While they're the most valuable of the aberrations, they have a host of quirky siblings in which the plane is misaligned: the high-flying plane, the grounded plane, the fast plane, the slow plane.

But it's the upside-down plane that's remained so bewitching. ■



“...and my heart stood still. It was the sheet of inverts.”

WILLIAM T. ROBEY,
AFTER MAKING THE DISCOVERY OF A LIFETIME.

AN EPIC DAY IN WASHINGTON

The day the inverts were discovered contained all the elements of a real thriller: surprise and suspense, the promise of fortune, a brush with the authorities. And all of the intrigue played out against the backdrop of the nation's capital, amid some of its most historic sites. All but one of those sites that Robey and the postal inspectors visited still stand today — a boon for philatelists wanting to retrace the action.

1

BUREAU OF ENGRAVING AND PRINTING (14th St. SW) /// Airmail stamps are printed and inverts born.

2

NEW YORK AVENUE POST OFFICE (1319 New York Ave. NW — building no longer standing) /// Robey buys the inverts.

3

W.B. HIBBS AND COMPANY (725 15th St. NW — Robey's place of employment) /// After purchasing the sheet, Robey returns to work.

4

ROBEY'S APARTMENT (1420 Harvard St. NW) /// Postal inspectors stop by, hoping to find Robey and the stamps. Later, Robey sleeps with the sheet under his mattress.

5

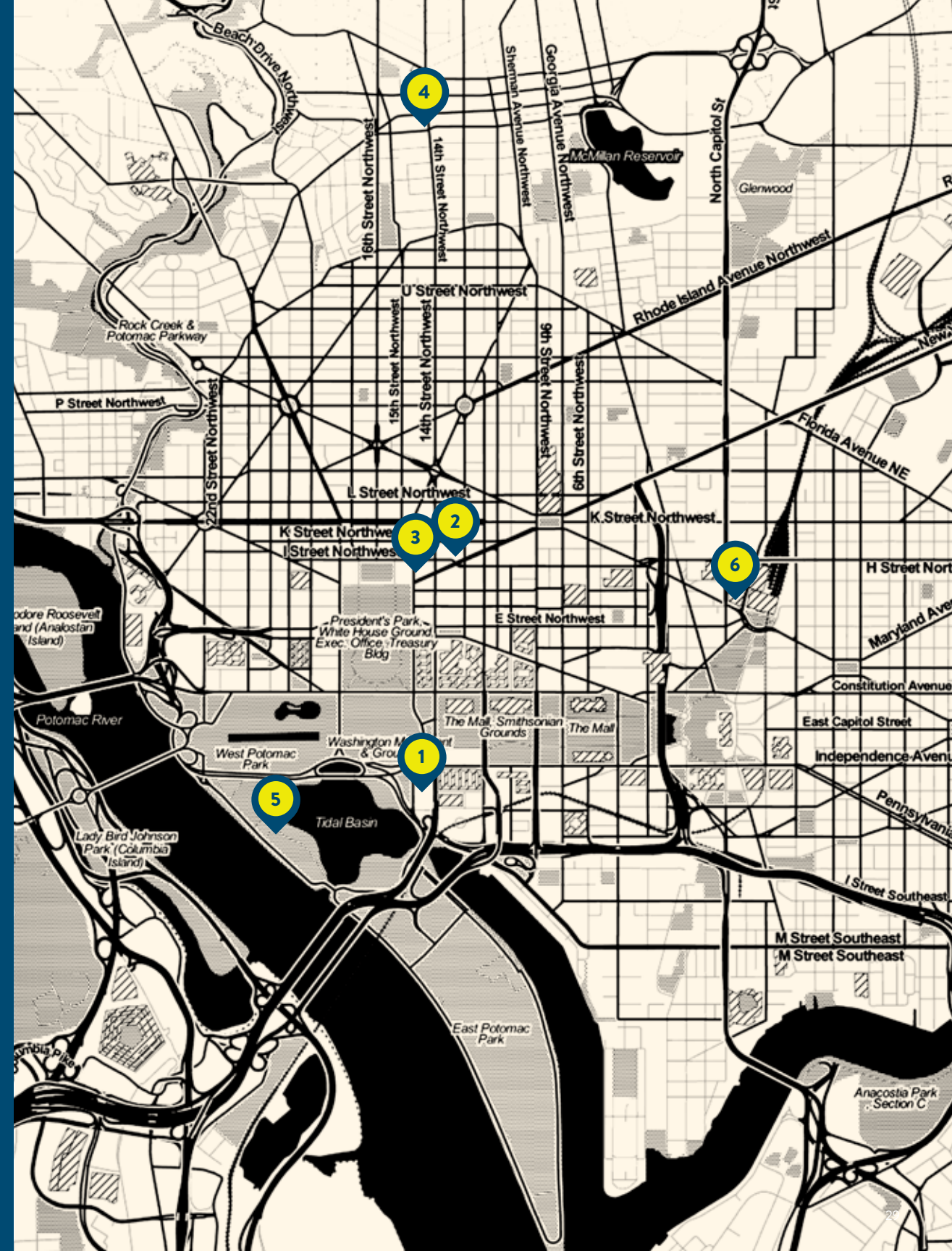
POTOMAC PARK (Now Ohio Dr. near West Basin Dr. SW) /// Airmail flights depart.

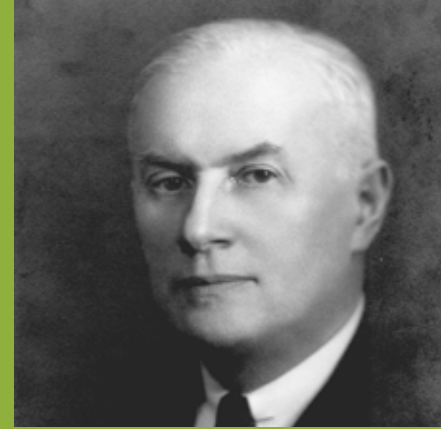
6

NATIONAL POSTAL MUSEUM (2 Massachusetts Ave. NE — location of the original City Post Office) /// Inverted Jenny stamps are currently on display in the William H. Gross Stamp Gallery.



STREETCARS /// Unsure of what to do with his prize, Robey rides the streetcars after work for several hours.





» Respected stamp dealer Eugene Klein, who bought the inverted sheet from William Robey for \$15,000.

A RISING RATE OF RETURN

For their size and weight, the Inverted Jenny stamps boast one of history's greatest returns on investment. During the week after its discovery, the 100-stamp sheet inspired bidding wars among some of the nation's top stamp dealers.

\$24*

Price William Robey pays for the stamp sheet.

\$500[▲]

Lowball offer from prominent stamp dealer Hamilton Colman.

\$10,000

Offer made by Percy Mann, after he sees the sheet in person.

\$15,000[†]

The sum Robey finally accepts from respected dealer Eugene Klein. Robey's profit: \$14,976.

\$20,000[°]

The price for which Klein immediately agrees to turn over the sheet to the wildly wealthy Colonel Edward H.R. Green.

* While it was the best money Robey ever spent, \$24 was no pocket change in 1918. The average annual family income in the U.S. was \$1,518.

▲ Colman changed his mind, later calling Robey to offer him \$18,000. Payment from Klein was pending, so Robey had to decline.

† A chunk of change that had about the same buying power as \$231,000 today.

° Before selling the sheet to Klein, Robey had traveled to New York to meet with Green (among other dealers), only to find him away from his office.

» Eccentric multimillionaire coin and stamp collector Colonel Edward H.R. Green, who bought the inverted sheet from Eugene Klein for \$20,000.

the Design

FOUR TIMES A YEAR, a wide-ranging group of professionals gathers at the request of the Postmaster General, its unifying goal to develop — and shepherd — the stamp program. The members of the Citizens' Stamp Advisory Committee sift through tens of thousands of suggestions from the public in order to curate an interesting and relevant mix of stamp subjects annually. The final lineup must perform a balancing act: appeal to philatelists and the public; entertain and inform; cover topics ranging from history to pop culture.

During discussions about the 2013 stamp program, one idea emerged that had the power to transcend all categories. The proposal to create a new version of what is arguably the most beloved stamp in American philately — the Jenny herself — promised to captivate both casual and seasoned stamp lovers.

Better still, the stamp release could coincide with an important philatelic event: the September 2013 opening of the National Postal

» Washington, D.C.'s original City Post Office, now home to the Smithsonian Institution's National Postal Museum.



Museum's William H. Gross Stamp Gallery, the largest philatelic gallery in the world, where several Inverted Jenny stamps would show their faces.

CSAC approved the idea, and then the Postal Service's stamp development team moved to appoint an art director. In some cases, these visionaries are chosen because of their affinity for the subject itself — military history or sports figures, for example. For Antonio Alcalá, the stars aligned to pair him with the new Jenny stamp: Not only is the designer a stamp collector, but his Washington, D.C.-area design studio specializes in print design for museums and had worked for the National Postal Museum.

From the beginning of the assignment, Alcalá followed a clear vision: Stay as true to the original as possible. And have a little fun.

To create the design for the stamps themselves, Alcalá worked with scanned copies of the Jenny stamp, so its successors would look like facsimiles of the parent stamp. Then for the selvage, he merged past with present.

To recall the engraved look of the original Jenny, Alcalá recruited Steven Noble, an illustrator with a flair for line art and engravings. Much as the early engravers executed Clair Aubrey Huston's vision in 1918, Noble got to work rendering Alcalá's design for the selvage — an illustration that tells the story of the Inverted Jenny stamp over the course of its life.

On the right side of the pane, a map of the East Coast depicts the three cities that hosted early airmail; in the bottom left corner, an illustration of Major Reuben H. Fleet, the first officer-in-charge of airmail, anchors the design. Then, at the upper left, Alcalá gestures toward the present day with an image of the National Postal Museum's façade.

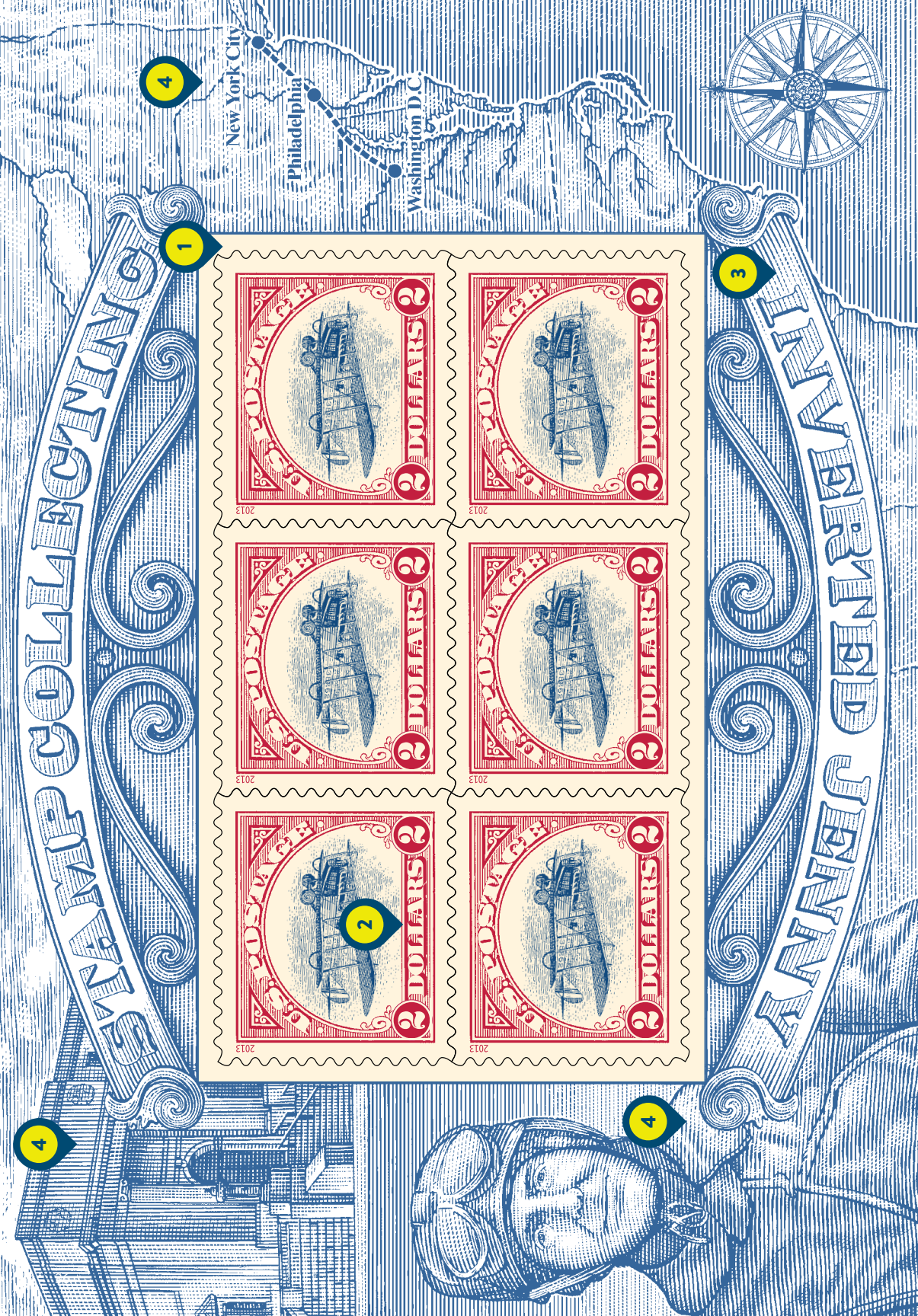
Alcalá worked with an original (non-inverted) airmail stamp to find colors that felt historically accurate. He also chose to insert a cream-colored background behind just the stamps (not the selvage) to mimic the yellowed look that stamp collectors associate with the 95-year-old gems.

And since the Inverted Jenny is famous as a mistake, Alcalá didn't refrain from introducing a little humor: Viewers have to spin the pane 180 degrees to see some of the elements right-side-up, a gesture they might make if they were holding the original 1918 error in their hands. ■



“We wanted to make it as true to the original as possible.”

—ANTONIO ALCALÁ,
ON CREATING A NEW VERSION OF A
CENTURY-OLD PHILATELIC FAVORITE.



» A concept sketch shows art director Antonio Alcalá's preliminary ideas for the selva design.

EMPHASIZING THE INVERT

How do you design a modern stamp that takes its cues from a great piece of philatelic history? For art director Antonio Alcalá, the answer was simple: By playing up its best features and gently poking fun at its imperfections.

For the selva art, Alcalá commissioned Steven Noble, an illustrator with a knack for line art, a style that stays faithful to the engraved look of the original stamp.

1 Alcalá recreated the original Jenny's aged and yellowed appearance — so familiar to collectors today — by applying a cream-colored background behind just the stamps. Crisp white would have felt false.

2 To update the stamp denomination from 24 cents to 2 dollars, the art director scanned and borrowed the “2” from the original stamp and found a typeface — called United States — to recreate the word “dollars.”

3 Alcalá introduced a little humor by inverting some of the words both in the selva and on the reverse side of the sheet — playing up the upside-down quality that makes the Inverted Jenny famous.

4 References to the history surrounding the stamp — including an illustration of pilot Reuben H. Fleet and the cities that dotted the early airmail route — pair with a visual of the National Postal Museum, where Inverted Jennies are on display at the William H. Gross Stamp Gallery.

« The final design for the souvenir sheet visually tells the story of the stamp, from past to present.

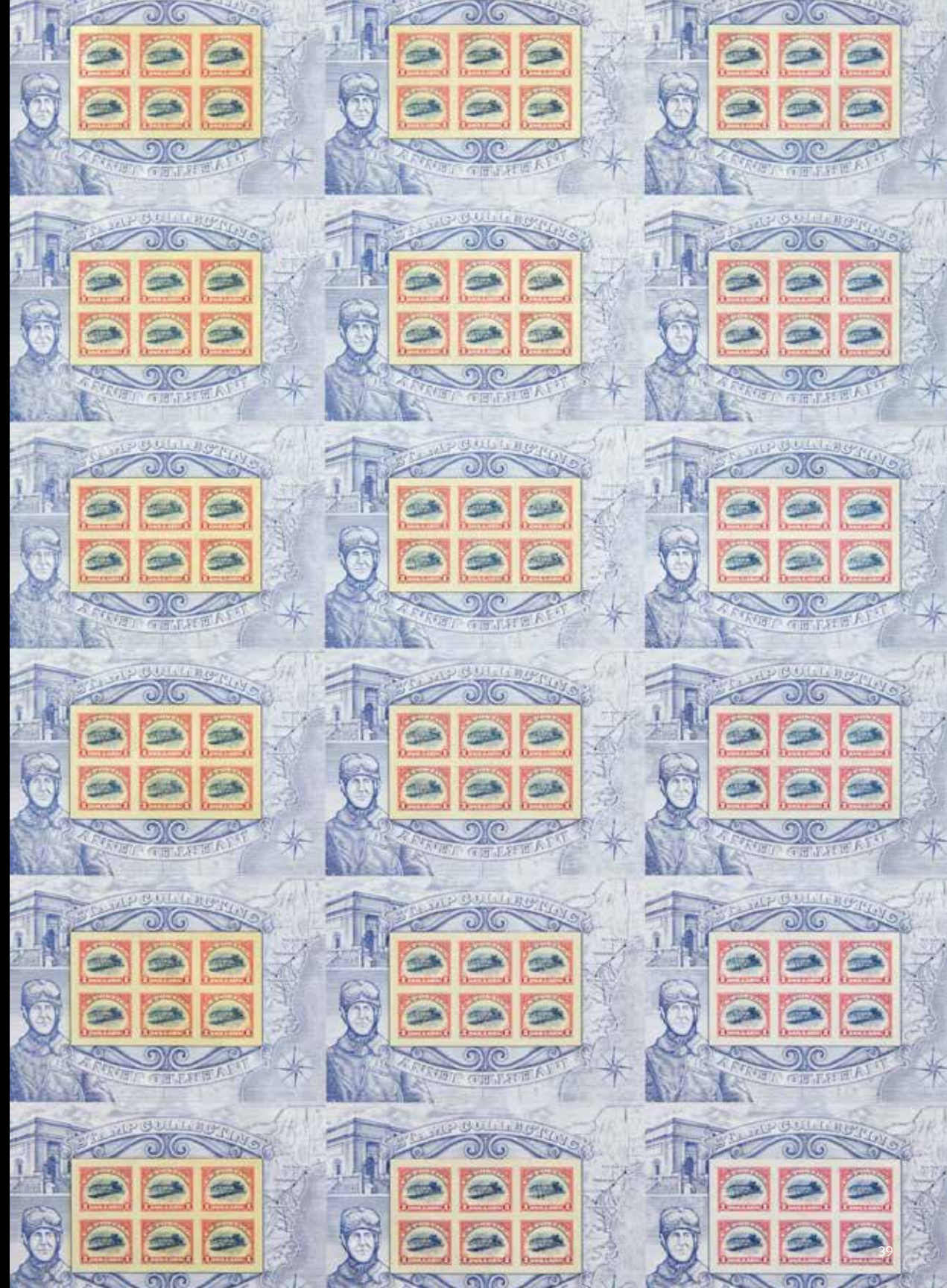
THE TRUEST SHADES

To find colors that hew closely to the original stamp's palette, art director Antonio Alcalá referenced a surviving non-inverted copy of the airmail stamp, which led him to present-day Pantone lookalikes to use in his design.

Then, to find the right ink to manufacture the stamps, printing vendor Sennett Security Products took a similar Jenny to its ink vendor, SICPA. There, they used LED technology to measure and match the pigments. But once printed, the colors fell flat: The blue was too gray, and the red was too pink. So Sennett custom-mixed the inks by eye with batches they had in-house and, amazingly, arrived at the right shades.

To find the right background hue to make the stamps look aged, Sennett used offset technology to print one sheet with 18 different yellow tints. But it wasn't until they ran the sheet through the intaglio printer and applied the other three colors that they got a *real* sense of which tint would create the most accurate look.

» An early proof shows various options for the yellow tint that gives the stamps their aged appearance.



the Printing

IN THE SPRING OF 2013, printing experts from Sennett Security Products joined officials from the United States Postal Service to begin production of the new Inverted Jenny stamp. But the way forward, it turns out, was to go back — to the very process that gave birth to the 1918 error.

The team's time-travel tools included a spider press and the original 1918 dies used to print the airmail stamp, retrieved from the National Postal Museum's vault.

When used together, these instruments gave way to impressions that would act as the DNA for the new generation of stamps. Traceable to the same parent die, they would look nearly identical to their ancestors. But their story would take a modern twist.

Instead of using ink and paper to make the impressions that day, Sennett representatives used a special pressure-activated film that measured the depth of the indentation carved into the die.

Later, back at their high-security printing facility in North Carolina,

» To create the engraved plate used to print the new Inverted Jenny stamps, Sennett Security Products used impressions pulled from the original 1918 printing dies.



they used the film, a tank of acid, and a proprietary method to “engrave” the image onto a nickel sheet, which would serve as the master plate for the printing job.

Inside the plant, a group of long, sleek, tunnel-like machines reveal the company’s position as a pioneer of printing technology. For this particular job, however, the team decided to sacrifice speed for the sake of authenticity and detail, rendering three of the new Inverted Jenny stamp’s four colors via intaglio printing. While the centuries-old intaglio method has become highly mechanized, the process demanded an uncommon level of focus and agility from the Sennett team.

Experience told them the sweat would be worthwhile. To print a stamp primarily in intaglio (a rare practice these days) yields a set of luscious qualities: a subtle, raised feel to the lines and the *slightest* irregularities where lines converge, from the way the ink gathers on the plate. It’s because of these traits that intaglio is a trusted method for printing currency and official documents. It just can’t be faked.

Yet while Sennett was confident in its plans, the process was not without complications.

First, the rolls of stamp paper cycled through an offset press, receiving the pale yellow background that gives the stamps their aged appearance. Then, they swam through the belly of the intaglio press, gaining the three remaining colors — two shades of blue for the plane and selvage, plus a shade of red for the frame — in just one pass.

Inside the massive press, a series of intricate steps went like this: First, a row of vertical inking stations coated clusters of chablons — raised surfaces that conformed to each color area in the stamp design. These forms then kissed the printing plate with precision, applying color to just the right parts of the design and forcing ink down into the engraved areas. A paper die wipe removed excess ink from the non-printing areas of the plate, and the plate and stamp paper rolled into each other, creating the final impression.

Strong execution of each step was vital to creating clear lines and honest colors, and it took rounds of troubleshooting to get crisp results. The quantity of ink the team called for at the outset was leading to too much “contamination” — when colors merge and get muddied — so they had to fine-tune the amount. Later, when contamination occurred occasionally, sections of the roll were flagged and cut out by hand.

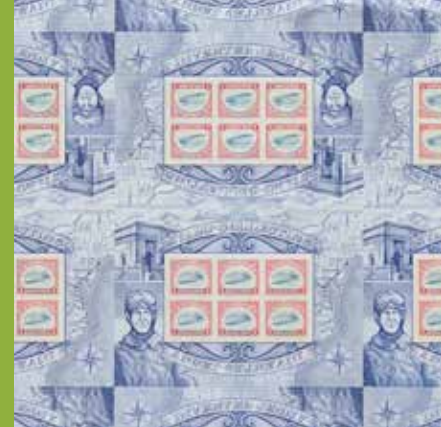
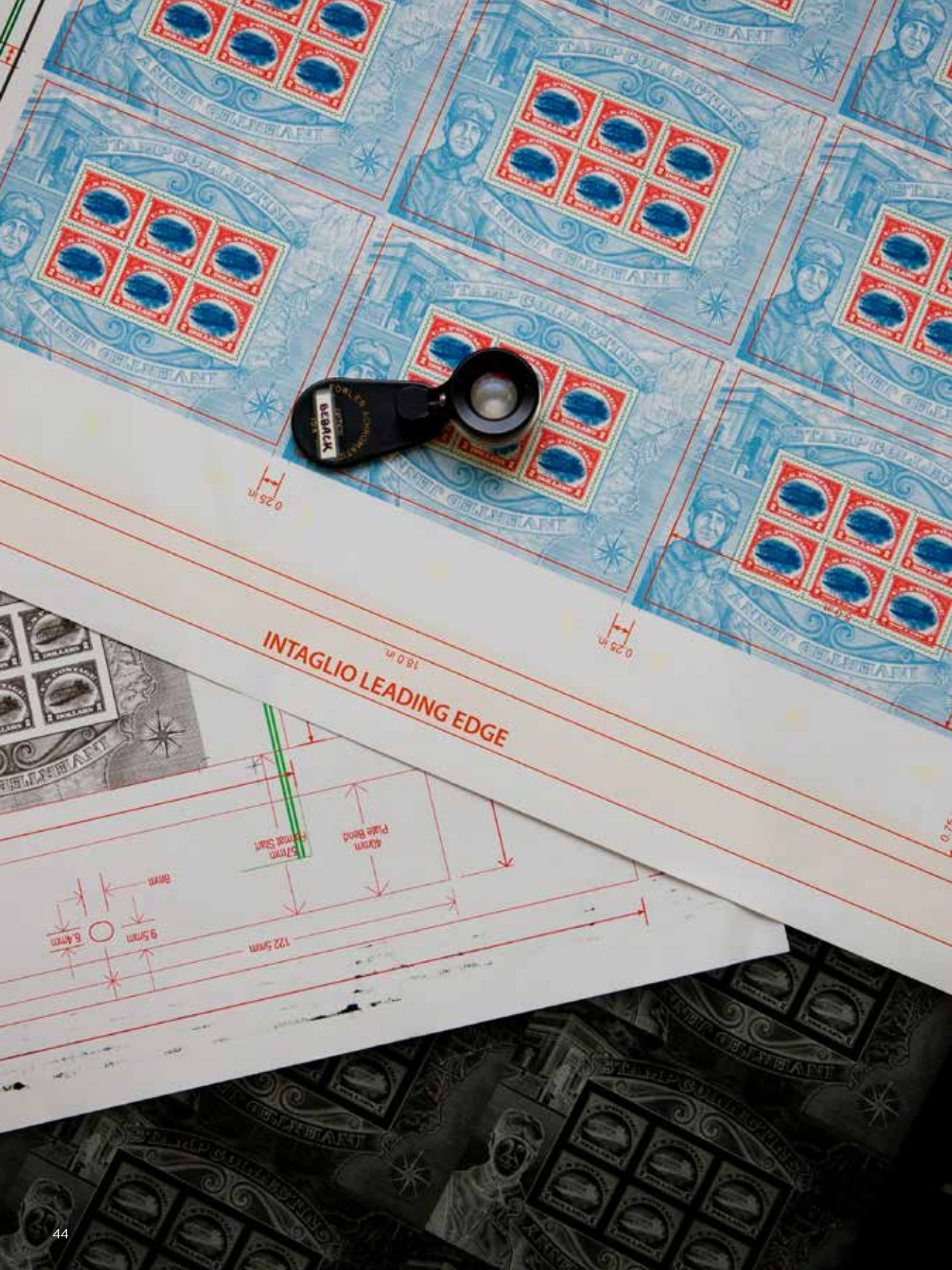
Another dilemma involved pressure: Due to the intense force applied to the paper inside the press, the sheets were becoming distorted, which caused registration problems. Sennett tweaked the parameters of the offset yellow plate — an easier phase to manipulate — so that all elements were in sync.

In the end, this level of care and craftsmanship honors the story of the stamp. And the satisfaction a collector might find holding the perfectly textured souvenir sheet will point back to yet another moment in philatelic history: when a fortunate collector also found *himself* full of wonder. ■



“Every one is unique.
That’s the beauty of it.”

SANDRA LANE,
PRESIDENT OF SENNETT SECURITY PRODUCTS,
ON THE BARELY-THERE ABERRATIONS THAT MAKE
THE INTAGLIO PRINTING PROCESS INIMITABLE.



» The stamp sheet layout first called for inverted rows of panes, but the design proved too complicated to print clearly.

« Arriving at clear lines during the intaglio printing process involved several rounds of proofing and troubleshooting.

THE BEAUTY OF IMPERFECTION

A slight pooling of ink where lines converge. The subtle overlap of hues where colors come together. It's these delicious incongruities inherent to intaglio printing that give the method its appeal.

Though too many noticeable blemishes are, of course, unwanted. So Sennett Security Products kept a careful watch for irregularities — and had to adjust its process to curb “contamination.”

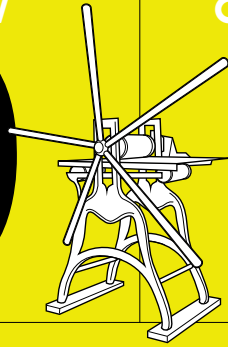
At first, the press sheet layout called for yet another inversion, so that each row of panes alternated directions, but the colors got muddled. Picture why: When the paper wipe brushed the plate moving from the top of the stamp to the bottom, the blue and red inks bled into each other near the word “dollars.” But when the paper wiped the plate in the opposite direction — moving from the bottom of the stamp up — the white area in the “sky” of the vignette provided room for the colors to stay separate.

So the rows of stamp sheets were realigned in one direction — all the panes upside down again.

THE SPIDER PRESS

DAILY PRESS RUNS ///

350



OPERATORS ///

2

COLOR CAPACITY ///

at a **1** time

INK APPLICATION ///

by **hand**

REGISTRATION ///

By hand and eye, aided by registration marks on plate

APPROXIMATE PRESSURE BETWEEN PLATE & PAPER ///

1 ton

PLATE WIPING METHOD ///

by hand & cloth

FOUR-COLOR WEB PAPER-WIPE INTAGLIO

DAILY PRESS RUN ///

36k

OPERATORS ///

2

COLOR CAPACITY ///

at a **4** time

INK APPLICATION ///

Vertical inking trains

REGISTRATION ///

Manual, aided by camera and computer

APPROXIMATE PRESSURE BETWEEN PLATE & PAPER ///

2 tons

PLATE WIPING METHOD ///

brown paper

WRITING, DESIGN, AND PRODUCTION

Journey Group, Inc.

PRINTING

Worth Higgins and Associates

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SPECIAL THANKS

Sennett Security Products

Daniel Piazza, Curator of Philately, Smithsonian Institution's National Postal Museum

SOURCES

The Inverted Jenny: Money, Mystery, Mania by George Amick, Amos Press, Inc., Sidney, Ohio, 1986.

"The Inverted Jenny" by Edwards Park, *Smithsonian Magazine*, July 1996, smithsonianmag.com.

A Jenny Class Reunion and the Story of the 24-cent Airmail Stamp of 1918, National Postal Museum, Smithsonian Institution, 1996.

National Air and Space Museum, Smithsonian Institution; airandspace.si.edu, airspacemag.com.

National Postal Museum, Smithsonian Institution; arago.si.edu, postalmuseum.si.edu.

The Glenn H. Curtiss Museum, glennhcurtissmuseum.org.

Siegel Auction Catalogue, Sale 901: *The 1918 24¢ Inverted "Jenny" Plate Number Block*, Robert A. Siegel Auction Galleries, Inc., October 19, 2005, siegelauctions.com.

COLOPHON

Chronicle Text, Jonathan Hoefler and Tobias Frere-Jones

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