## SPANNING

A monumental feat of engineering, the Brooklyn Bridge earned its place on commemoratives—from the serious to the satirical. On the 125th anniversary of its opening, this enduring, world-renowned landmark still manages to impress.

> HE CITY OF BROOKLYN was barely 30 years old in 1867 when John A. Roebling began design work on his monumental engineering feat: the Brooklyn Bridge. Nineteenth-century Brooklyn was a growing composite of six towns and villages that gradually combined to form the modern-day borough. Although overshadowed by the far-larger New York City across the East River, Brooklyn saw great economic growth

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## THE AGES

by Max Spiegel ANA1174724

OF CONGRESS

in tandem with a massive influx of people. Its manufacturing was crucial during the Civil War, with its shipyards producing vessels such as the famed U.S.S. *Monitor*. The rapid urbanization following the war brought Roebling to the most ambitious project of his lifetime: building the world's longest suspension bridge over one of the country's busiest rivers. Roebling's spectacular bridge has been honored on numerous tokens and medals, and the 125th anniversary of its official opening was celebrated on May 24.

▲ Construction of the Brooklyn Bridge took 13 years and cost an estimated 27 workers their lives, among them its designer, John A. Roebling. The bridge was opened with much fanfare on May 24, 1883. This view dates to 1915. ON

The bridge's twin caissons, which spelled death or sickness for so many workers, were crucial to this massive undertaking's success.

FRANK LESLIE'S

Noted historian and author David McCullough was spot-on when he titled his 1972 work on the subject The Great Bridge. Others have called the Brooklyn Bridge the "Eighth Wonder of the World." Stretching 5,989 feet from beginning to end, with a 1,595-foot span between its two stone towers, the Brooklyn Bridge is nothing short of great.

Construction began on January 3, 1870, and it took more than 13 years before it was completed and opened to the public. The project cost \$15.1 million and 27 lives (an approximate count because no official tally was kept), including that of John Roebling, who died in 1869 from tetanus after being hit by a ferry while surveying. Washington A. Roebling took the role of chief engineer following his father's death, but he would be removed from most of the construction after he developed caisson disease (the bends).

The bridge's twin caissons, which spelled death or sickness for so many workers, were crucial to this massive undertaking's success. A caisson is a watertight structure that creates underwater workspace for construction.

The Brooklyn Bridge needed two support towers and, in order for them to be structurally sound, workers inside the caissons had to dig down to bedrock. It was anticipated that these caissons would have to be much larger and far deeper than any built previously. The first submerged was the Brooklyn caisson, which measured 168 by 102 feet, with 9.5 feet of headroom. The roof was 15 feet of solid timber. A complex system of air locks and supply and water shafts allowed workers to toil underneath many feet of water in a pressurized environment. Amid great fanfare, the Brooklyn caisson was drifted down the river to its resting place on May 3, 1870.

At first, construction went relatively smoothly inside the Brooklyn caisson,

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TOKEN AND MEDAL PHOTOS: MAX SPIEGEL UARY RD 1870. PLETED Actual Size: 31mm Actual Size: 35mm Actual Size: 35mm

► Frank Leslie's Illustrated Newspaper featured this illustration of workers lashing the Brooklyn Bridge's stays on the cover of the April 28, 1883, edition. ▼ Three 1883 medals commemorated the opening of the bridge, which was called the New York and Brooklyn Bridge until 1915.

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save for a few cases of the bends or minor setbacks and scares. Little was known about caisson disease. Other bridge project workers devised cures, such as rubbing oneself with "Abolition Oil" or wearing zinc-and-silver bands around the extremities, but none was successful. Workdays were shortened, and workers were given raises to keep them from quitting. Slowly, construction continued until December 2, 1870, when fire ripped though the caisson, causing immense damage and many delays. After repairs, the caisson was filled with cement, and in March 1871 work was completed on the Brooklyn side.

Many lessons were learned from the Brooklyn caisson, and the Manhattan caisson was submerged several months later. Things proceeded relatively on schedule and largely without incident until January 1872, when the Manhattan caisson reached a 51-foot depth and workmen experienced serious cases of the bends. Dr. Andrew H. Smith, a pioneer in the study of caisson disease, was hired, and shifts were further shortened. As instances of the bends increased, Washington Roebling made the remarkable decision on May 18, 1872, to halt digging 30 feet short of bedrock. At the depth of 78 feet, 6 inches, the foundation would rest on sand.

The many hours spent supervising construction inside the caissons took their toll on the chief engineer. He began suffering repeated collapses associated with the bends, and soon was completely incapacitated. Roebling was bedridden for the rest of construction. His wife, Emily, played a major role throughout the duration, often serving in her husband's place.

Work continued on the bridge for nearly a decade. The two brick towers, soaring to a height of 276.5 feet above high water, were completed in time for the U.S. Centennial celebrations. That same year, amid throngs of spectators, a cable was towed between the two towers. Master Mechanic E.F. Farrington made the first crossing in a special boatswain's chair on August 25, 1876. Others followed, and eventually a small, wooden bridge was built for people to walk between the towers while the cable-spinning continued. In April 1883, all major work was completed, and the bridge was set to open a month later.

Roebling's condition precluded him from attending the opening ceremonies, but he and Emily planned a reception for important dignitaries at their Brooklyn home after the event. With tens of thousands of people in attendance—it was estimated that at least 50,000 out-of-towners came into the city by train that morning the opening celebration on May 24, 1883, was a grand affair. A parade traveled down New York's Fifth Avenue—25 carriages accompanied ⊕



PHOTO: LIBRARY OF CONGRESS



▲ The opening of the Brooklyn Bridge was recorded and celebrated in many ways, including posters (above) and a 23mm token (top) struck in white metal by an unknown engraver.

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Chester A. Arthur and Grover Cleveland . . . began the walk across the bridge to Brooklyn to the tune of "Hail to the Chief."



▲ Engraver George B. Soley used a Brooklyn Bridge motif to varying effects: the token at the top is a satirical critique of a corrupt politician, most likely Boss Tweed; the bottom token features the Lord's Prayer. by the Seventh Regiment and its band-with President Chester A. Arthur riding in front of New York Governor Grover Cleveland. The two descended from their carriages and began the walk across the bridge to Brooklyn to the tune of "Hail to the Chief." Thousands of ticket-holders lined the bridge, and the entire Atlantic Squadron, with its flagship, the U.S.S. Tennessee, was anchored in the river below. When Brooklyn Mayor Seth Low greeted Arthur and Cleveland, a signal was made to the Tennessee, which commenced firing its guns. Instantly, the rest of the Atlantic Squadron joined in; they were accompanied by steam whistles from nearby private ships.

Several souvenir medals and tokens were struck to mark the occasion. An account from the era states that some medals were sold for 15 cents by street vendors who were peddling other mementos, such as flags, pamphlets and buttons. Most referred to the bridge as the New York and Brooklyn Bridge.

In his book Standard Catalog of United States Tokens, Russell Rulau lists two pieces struck for the opening ceremonies: NY-Bk3 and NY-NY A62, both in white metal. The obverse of NY-Bk3 depicts the bridge with the legend: A MONUMENT TO/ AMERICAN GENIUS/FINIS CORONAT OPUS ("The End Crowns the Work"). The reverse reads simply: A/SOU-VENIR/ TO/COMMEMORATE THE/ OPENING OF THE/BROOKLYN/AND/ NEW YORK/BRIDGE/MAY 24TH 1883/ COPYRIGHT SECURED. The engraver is unknown.

NY-NY A62 also is white metal. The legend "TWO CITIES AS ONE"/NEW YORK/& BROOKLYN appears above the bridge on the obverse. On the reverse is SOUVENIR/OF THE/OPEN-ING/OF THE/EAST RIVER/BRIDGE/ MAY 24TH/1883/1867-1883 within a wreath. A die-sinker with the initials "C.E.D." signed the piece in tiny letters on the obverse.

A third medal made in white metal is unlisted and was crafted by an unknown engraver. The obverse shows the bridge surrounded by N.Y. & BROOKLYN/SUSPENSION BRIDGE. The reverse reads: COMMENCED/ JANUARY/3RD 1870./COMPLETED/ MAY 24TH 1883./RIVER SPAN/1595 FT 6 IN/HEIGHT OF TOWERS 277 FT.

In addition, a token measuring 23mm was struck in white metal. The obverse depicts the bridge with N.Y. & B. BRIDGE above. The façade of a warehouse in the foreground is marked FORCE N.Y. Whether this is the name of a Brooklyn factory, the person who commissioned the token or the engraver is unclear. The reverse gives important facts surrounding the bridge: COMMENCED JAN. 1870./MAIN SPAN 1,595 FT./ TOTAL LENGTH 5,988 FT./TOTAL COST 15,000,000./WIDTH 85 FT./ COMPLETED MAY 1883.

Another two tokens were issued contemporary to the Brooklyn Bridge's opening. In 1889 George B. Soley, an engraver with a shop at 1205 Chestnut Street in Philadelphia, struck two tokens depicting the bridge. A Lord's Prayer token dated 1883, with the Brooklyn Bridge on the obverse, is unsigned, but probably a Soley product.

Soley had purchased the first steam press installed at the U.S. Mint (1836) in 1875 and exhibited it and struck souvenirs like this over the next 30 years at places such as the U.S. Centennial Exposition, the World's Columbian Exposition and the Panama-Pacific Exposition. Thus, it stands to reason that Soley struck the brass Lord's Prayer token of the Brooklyn Bridge, dated 1883. The bridge depiction is remarkably similar to that of the signed 1889 tokens.

Six years after the Brooklyn Bridge

Not Actual Size

One medal struck for Washington's inaugural centennial also depicted the Brooklyn Bridge on the reverse.

opened, New York celebrated again, this time for the centennial of George Washington's Presidential inauguration in New York City. Susan H. Douglas' two-part article George Washington Medals of 1889 (The Numismatist, May-June 1949) states that Soley struck a token (Rulau NY-Bk18, Douglas NY-9) for the occasion and used the Brooklyn Bridge on the reverse. The obverse is based on the popular, Jean-Antoine Houdon bust of Washington, with the legend INAU-GURATED NEW YORK APRIL 30/1789 around the perimeter. The reverse shows the Brooklyn Bridge with the text NEW YORK & BROOKLYN/PRO-GRESS OF/100 YEARS/THE EIGHTH/ WONDER. Rulau lists only a bronze composition, but examples also were struck in white metal (Douglas NY B-9B). The reverse bears the inscription G.B. SOLEY/PHILA.

An undated token struck by Soley shares a nearly identical bridge reverse. On the obverse is a rather strange figure: a rotund man with wings, a bottle of oil in his back pocket, standing on a pedestal imitating the Statue of Liberty, except instead of a torch, he holds an ear of corn. The figure is surrounded by SEE OUR/BRIDGE. The exact subject of this caricature is unknown, but it likely is one of the corrupt politicians who benefited from the construction—perhaps Boss Tweed, a stockholder in the bridge company.

Another variety of this token depicts the same caricature, surrounded by WE TAKE THE LIBERTY OF EN-LIGHTENING THE WORLD. The legend on the token no doubt is a play on the title of Statue of Liberty, *Liberty Enlightening the World*. The reverse essentially is the same as the tokens Soley struck for Washington's inauguration, except it omits PROGRESS OF 100 YEARS.

There are several other minute dif-

ferences between the two. Soley struck this nearly identical reverse design from at least two dies. As the Statue of Liberty was not presented to the United States until 1886, this token certainly dates from after that, but it is not known when.

One medal struck for Washington's inaugural centennial also depicted the Brooklyn Bridge on the reverse (Douglas NY-7A). The prooflike piece by famous die-sinker George H. Lovett of New York City was produced in white metal. The obverse features Washington's bust in bas-relief, with the legend FIRST PRESIDENT OF THE UNITED STATES OF AMERICA/DEO PATRIAEQUE FIDELIS ("Faithful to God and Country") around the perimeter. The reverse depicts the Brooklyn Bridge, with the sun above and the Latin text HAEC OLIM MEMINISSE JUVABIT ("In the Future It Will Be Pleasing to Remember These Things"). The border reads TO COM-MEMORATE THE WASHINGTON IN-AUGURAL CENTENNIAL/NEW YORK CITY 1789-APRIL 30-1889.

Since it opened on May 24, 1883, the Brooklyn Bridge has left visitors in awe of its incredible size, beauty and achievement. For the past 125 years, it has stood as a symbol of New York City and a monument to human accomplishment. Although it has been depicted on several 20th-century tokens and medals, the ones struck within a few years of its opening are the most interesting. New York had no towering skyscrapers, no subway system and no other bridges across the East or Hudson Rivers. Not only was the Brooklyn Bridge 50-percent longer than any suspension bridge built previously, but its towers were the Western Hemisphere's tallest structures. The undertaking's enormity and the celebration that followed the bridge's opening are captured by the tokens and medals struck in its honor. Θ



▲ Brooklyn Bridge motifs were used on the reverses of 1889 George Washington inauguration centennial commemoratives, including a token by George B. Soley (top) and a medal by George H. Lovett. Not Actual Size