

An aerial photograph of Leviathan at full speed; a view that the Adams Pick-Up pilots would have had as they approached the ship.

THE ADAMS PICK-UP SERVICE

Mike Dovey recalls the pioneering equipment developed by the part-time inventor Dr Lytle S. Adams in the 1920s to transfer mail to and from a ship when it was at sea, with experiments conducted on the famous liner Leviathan.

In the 1920s a race began between Germany, France and, eventually, the United States to develop a method of flying mail from ships at sea, allowing it to be transferred to land far ahead of the ship's arrival. The Germans and French favoured a catapult system,

which allowed planes to take off from ships, but this method had a significant drawback: the aircraft could only take off once, as there was no way for it to return.

In contrast, the Americans began testing their own innovative ideas. This concept of accelerating mail movement had already been pioneered by

the P&O Line, which used a rail service to speed up mail delivery between Brindisi and London. Similarly, the English Mails TPO (Travelling Post Office) in Australia had introduced fast mail delivery by rail.

On 31 July 1927 an important milestone in this race occurred. The passenger liner *Leviathan* was approximately 70

miles off the coast of New York when an aircraft was launched from her deck. The plane, a fragile bi-plane, had been loaded onto the ship before her departure from Europe. The aircraft was equipped with enough fuel for a two-hour flight and had a limited payload of around 200 pounds. Clarence Chamberlin, an American





aviator, piloted the plane.

With *Leviathan* steaming ahead at a speed of 22 knots, Chamberlin successfully performed a daring crosswind takeoff at sea. He then flew about 100 miles to Long Island, and the following day, continued to New Jersey to deliver the mail.

The payload of this pioneering flight consisted of a single mail bag containing 900 letters, including around 600 envelopes specially stamped with "FIRST AIRMAIL STEAMER TO SHORE" to commemorate the event. Some of these stamped letters have survived and exist as rare artefacts of early airmail history.

Three weeks later, another experimental flight was attempted, this time by a US Navy pilot flying an open-cockpit aircraft. The plan was to drop mail onto *Leviathan's* deck as the ship continued her journey. Unfortunately, thick fog made it impossible for the

▼ The German liner Vaterland in her prime, prior to being turned over to America to become USS *Leviathan*. THIRD REICH COLLECTION. COURTESY OF THE LIBRARY OF CONGRESS. (2016/07/08)



▲ A company postcard of SS Vaterland, of Hamburg-American Line.

pilot to locate the ship, and he was forced to abandon the mission. The mail was returned to its senders, with each envelope stamped with "AIR MAIL FLIGHT FAILED TO S.S. LEVIATHAN" and "RETURNED TO SENDER AUG 24, 1927."

THE ADAMS SYSTEM

Dr Lytle S. Adams, a dentist and part-time inventor, devised an innovative method for delivering and retrieving mail using a small airplane without the need for landing and taking off. This system was designed to serve remote locations in the United States and was inspired by the mail pickup techniques used by railway travelling post offices (TPOs). The process involved a plane lowering a hook to

engage with a large loop suspended between two tall posts on the ground. The loop, attached to a mailbag, allowed the plane to fly low, snag the loop, and haul the mailbag onboard.

In 1929 Adams tested his system aboard *Leviathan*. A steel tubing platform was installed on the ship to support his apparatus. Departing Cherbourg, France, on 2 June 1929, *Leviathan* headed for New York Harbor. Adams arranged for a US Navy aeroplane to demonstrate mail delivery and retrieval. However, the trial faced multiple setbacks.

On 5 June the designated aircraft crashed during a test flight, though the pilot, Lt Commander George Pond, USN, escaped unharmed. The

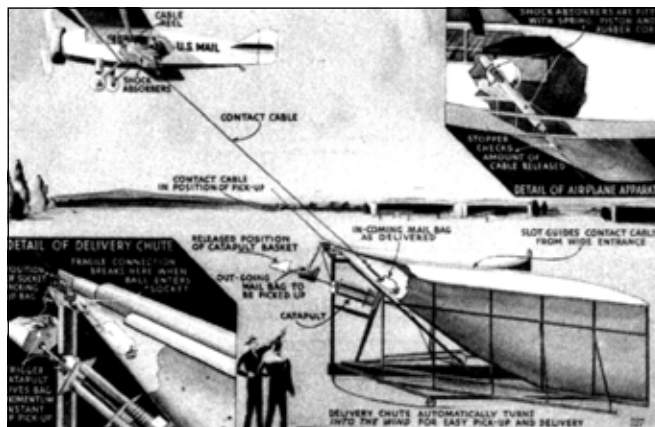




following day, a replacement plane carrying mail to *Leviathan* was struck by lightning en route. Although the aircraft sustained no damage, the shaken pilot returned to base without completing the mission. On 7 June heavy fog thwarted the airplane's efforts to locate the ship. The souvenir envelopes intended for the demonstration were eventually returned to their senders, stamped with the message: "DELIVERY AND PICK-UP POSTPONED."

On 12 June 1929 *Leviathan* was en route to Europe, and Dr Adams had arranged for another airplane to be equipped with the cable necessary for his mail retrieval system. On the designated day, Lt Commander George Pond made several low-level approaches to the ship before successfully snagging the shipboard apparatus with his trailing cable and attached mailbag.

For the occasion, Dr. Adams and a colleague printed and numbered 2,000 cachets, with half addressed to Adams himself. These commemorative envelopes, marked with a special cachet reading, "FIRST AIR MAIL TO



SS LEVIATHAN OF THE UNITED STATES LINES INC. BY ADAMS AIR MAIL PICK UP", celebrated this pioneering event. Adams was on board *Leviathan* to witness the first successful airmail pickup, which took place on 25 June 1929.

A second mail delivery was attempted while *Leviathan* was inbound to New York. However, no pickup occurred during this flight. The reasons remain unclear, but any onboard-postmarked envelopes for that attempt were returned to senders with the stamp "WEST BOUND/PICKUP DEFERRED".

The use of the "Adams Pick

Up' on *Leviathan* was not quite the success that had been hoped for. Although, following the first pick-up flight in 1928, the service on the US mainland had steadily expanded, by 1939 Dr Adams had used all of his own wealth in maintaining the company. He then sold a major part of it to another investor, and they managed to keep the company going throughout the war with the help of government contracts. The demise of the company finally came with the advent of the HPO (Highway Post Office) routes, where mail was sorted as a bus travelled by road.

Throughout the pickup

▲ Some of the envelopes posted from the early airmail flights involving *Leviathan*.

◀ A diagrammatic representation of the pick-up service for mail devised by Dr Lytle S. Adams in the 1920s.

service's time, it never turned any profit, and the company was eventually split up. The engineering side, using the technology gained in building the pick-ups, was made into a new company. The arrester technology was adapted on aircraft carriers to catch landing planes, and the system is still in use to the present day, albeit much modernised. So when a plane lands on an American aircraft carrier and is caught on the 'string' with a hook below the plane, the system was the same as that first devised by Dr Adams first to obtain bags of mail. Instead of catching bags of mail, the system catches airplanes.

The other half of the company was sold repeatedly over the years and is now part of US Airways. So, while the pick-up apparatus for collecting mail is long gone, the company Dr Adams founded is still in existence, albeit now used for something totally different.



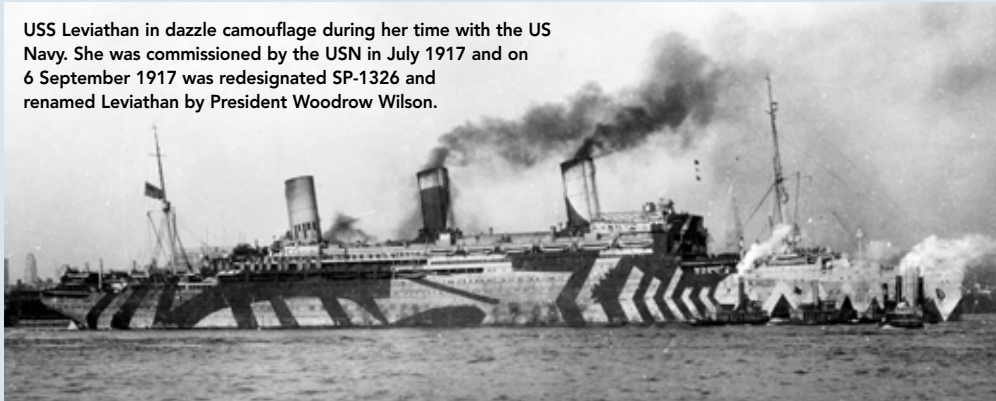
▲ The famous liner *Leviathan* as operated by United States Lines, after her reconversion to an ocean liner, circa 1930s.



▲ The former German liner *Imperator* became Cunard's *Berengaria* and was well known for her Great Depression booze cruises from New York.

BUILT AS VATERLAND ... SERVED AS LEVIATHAN

USS Leviathan in dazzle camouflage during her time with the US Navy. She was commissioned by the USN in July 1917 and on 6 September 1917 was redesignated SP-1326 and renamed Leviathan by President Woodrow Wilson.



The steamship Vaterland, a 54,282gt passenger liner, was constructed by Blohm & Voss in Hamburg, was the second of three massive Imperator class ships for the Hamburg-America Line's transatlantic service. Launched on 3 April 1913, she became the world's largest passenger ship at the time, surpassing her sistership, Imperator. However, she was later eclipsed by the final ship in the class, Bismarck.

Vaterland made only a few voyages before arriving in New York City in late July 1914, coinciding with the outbreak of World War I. British naval dominance made her return to Germany impossible, and she remained laid up at her Hoboken terminal for nearly three years.

All three Imperator class ships were ultimately seized by the Allies as war prizes: Vaterland became Leviathan for the US, Bismarck became White Star Line's Majestic, and Imperator became Cunard Line's Berengaria. These ships were redistributed to compensate for wartime shipping losses.

The United States Shipping Board seized Vaterland when the US entered World War I on 6 April 1917. In June 1917 she was transferred to the US Navy and commissioned as USS Vaterland in July, under the command of Captain Joseph Wallace Oman. On 6 September 1917 she was officially renamed Leviathan by President Woodrow Wilson and redesignated SP-1326.

By 1919 the US Shipping Board was burdened with a surplus of tonnage and government-backed

shipping ventures. On 17 December 1919 the International Mercantile Marine (IMM) signed an agreement to maintain control of Leviathan while awaiting a final decision.

Gibbs Brothers (Gibbs & Cox), who managed the ship on behalf of the Shipping Board, faced the challenge of creating a complete set of blueprints. Since none had been acquired from Germany under the Treaty of Versailles, and the cost of obtaining them was deemed excessive, a team of workers meticulously measured every part of the ship to produce a new set of plans.

Leviathan languished in limbo at her Hoboken pier until April 1922, when a decision was finally made to allocate \$8,000,000 in funds to sail the vessel to Newport News, Virginia, for her 14-month reconditioning and refurbishment. By this time, United States Lines had been sold, but was contractually

obligated to run Leviathan for a minimum of five return voyages on the Atlantic run per year.

Gibbs Brothers initially managed her and trained the crew until her ownership officially changed. Her economic problems lay primarily in high labour and fuel costs, compounded by Prohibition. From 1920, all US-registered ships counted as an extension of US territory, making them 'dry ships' according to the National Prohibition Act.

With Atlantic shipping capacity oversaturated, especially after the Immigration Act of 1924, alcohol-seeking passengers readily chose other liners. But Leviathan was an American symbol of power and prestige, which, despite her economic failings, made her a popular ship with loyal travellers. She attracted attention as the largest and fastest ship in the American merchant marine and featured in countless

advertisements.

In 1929 Leviathan was finally allowed to serve 'medicinal alcohol' outside US territorial waters to make her more competitive with foreign lines, and was quickly sent on 'booze cruises' to make money. But the Great Depression was the final nail in the coffin for the vessel, and US Lines actively lobbied for the Shipping Board to either take Leviathan back or give them a subsidy for her operation.

She was laid up at her pier in Hoboken, New Jersey in June 1933, having lost \$75,000 per round trip since 1929. US Lines had been acquired at auction by the IMM in 1931, who were just as eager to be rid of their white elephant. But the government steadfastly stipulated that Leviathan should sail, and so, after a refurbishment costing \$150,000, she completed another five round trips, the first of which departed on 9 June 1934.

In 1937 she was finally sold to the British Metal Industries Ltd. On 26 January 1938 Leviathan set out on her 301st and last voyage, under the command of Captain John Binks, retired master of RMS Olympic, who had been hired to deliver her to the breakers. She arrived at Rosyth on 14 February 1938. In the 13 years that she served United States Lines, she carried more than a quarter of a million passengers but never made a profit.



Leviathan steaming out of New York Harbor on 21 July 1934. FRANKLIN MORAN 1967/US NAVAL HISTORY AND HERITAGE COMMAND PHOTOGRAPH